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Dedicated to the Protection, Preservation and Management  
of Cultural and Natural Parks and Reserves  
Through Research and Education

# The George Wright Society

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*Cover art  
by Michael Keranen,  
Hubbell, Michigan*

# Society News, Notes & Mail

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## Albuquerque Conference Wrap-up

Final figures are in for the Albuquerque conference. Attendance was 570, the highest since the GWS started organizing these conferences back in 1983. By comparison, we had 410 in Portland (1995) and 528 in Jacksonville (1992). Sixty percent of the attendees were from the National Park Service, 12% were academics, and 8% were from the USGS Biological Resources Division. Financially, the conference was a success: we realized enough income to help pay for GWS operations in non-conference years. The biennial conferences have become an absolutely vital source of income for the continued viability of the GWS.

As is our practice, we distributed evaluation questionnaires to all attendees, and got about 100 back. In general, respondents were pleased with the conference, and with the core functions of the GWS. They expressed continued support for the GWS organizing these conferences, as well as for us publishing the FORUM and acting as a support network for better research, resource management, and education in and about parks. The GWS conference Web site was also well-received. Many people had criticisms, too:

- Far and away the biggest complaint was that the meeting rooms were too small for the crowds, which made it hard for people to easily jump between sessions. This is no small matter, since an overcrowded room lessens the learning experience for both audience and speakers. We at the GWS were taken by surprise by the large number of people who attended—we had planned for something like 425. For the next conference (Asheville, North Carolina, March 22-26, 1999) we will try to make sure breakout rooms are bigger.
- Another common complaint was that some sessions did not run on time, and that late cancellations in the program threw the schedule off so people would jump to a session and miss hearing an expected paper. Here too we will try to do a better job in making sure session chairpersons keep things on track.
- We will also make sure the program reaches potential attendees well before the conference. We did this time via the Web, but there needs to be other delivery options and better publicity of the program.

There were many other individual suggestions, which we have synthesized and passed on to the GWS Board. All this will be thoroughly discussed by the next Conference Committee. Our thanks go to all of you who filled out the questionnaire.

All that remains is to put together the proceedings; work on that has already



begun. Our aim is to have the book ready for shipping in September. In the next issue we will have details on the contents and price for those who'd like to buy a copy (conference attendees get one as part of the registration fee). Finally, there are still some copies of the conference participants' list, free for the asking. It's an easy way to update your rolodex! Just get in touch with the Hancock office.

### **Ideas, Guest Editors Sought for FORUM Theme Issues**

We are always on the lookout for themes for future issues of the FORUM. Anyone can propose a theme, and we encourage the proposer to go ahead and be the guest editor for that issue, though this is not required; in lieu of being the guest editor you can suggest a theme and possible authors for us to contact. We are looking for 3-5 articles on the theme, preferably with a brief stage-setting introduction. The topic can be on anything in the world of protected areas. As part of the Albuquerque conference questionnaire (see story above), we solicited suggestions for FORUM themes issues. Here is a sampling of what we got:

- ecosystem management
- trails & greenways
- greenline parks & cultural landscapes
- World Heritage
- restoration ecology
- small park research & issues
- mission advocacy
- education
- animal rights movement's effect on park management
- effects & implications of natural disasters on parks
- management of "misunderstood" animals (e.g., non-charismatic microfauna)
- inculcating the Land Ethic in visitors and the public
- law enforcement issues (e.g., economic impacts of poaching, unintentional violations of Lacey Act by NPS employees, ethics in collecting for personal use)
- networks of protected areas
- improving cooperation between agencies and the private sector
- How can management avoid funding pseudo-science or bad science?
- Are we really managing wilderness properly (e.g., with "minimum tools" rather than mechanized ones)?
- Do park superintendents really support resource management, or is it just rhetoric?
- Are we trying to save too many historic structures at the expense of really preserving the most significant ones?
- maintaining resource health
- ecotourism
- reaching out to children
- the pros and cons of adopting business principles for park managers

Quite a range! It's indicative of the breadth of our Society. Since the questionnaires are submitted anonymously, if you recognize one of these themes as your suggestion and would like to make it a reality, please call us. Likewise, if you have another idea, get in touch with Dave Harmon at the GWS office. We want the FORUM to reflect the interests of you, the members—so please give us a hand!

### **Sellers' History of NPS Natural Resource Management on Yale's Fall List**

This autumn Yale University Press will publish GWS vice president Richard West Sellers' in-depth history of natural resource management in the U.S. National Park System. *Preserving Nature in the National Parks: A History* is the product of many years of work, being based largely on original documents never before researched. The book focuses on the clash of traditional scenery-and-tourism management with emerging ecological concepts, and the agency's response—or lack thereof. Sellers' book promises to be a landmark work in environmental history. This 416-page hardbound book is \$35 plus \$3.50 shipping. Order Department, Yale University Press, P.O. Box 209040, New Haven, CT 06520-9040 USA; or by phone at 1-800-987-7323; fax 1-800-777-9253.

### **Membership Directory Soon Available by Request**

Beginning this year, we will be updating our membership directory so that the new edition becomes available in September. To save resources and avoid burdening people with paper they may not want, starting immediately we will send the directory only to those members who request it. It will be issued both on paper and electronically—take your pick, both are free to members. The paper edition will be an inexpensive letter-sized production suitable for inserting in a three-ring binder. The electronic edition will be issued as an e-mail attachment file. The contents of both will be identical. To request a copy, write, fax, call, or e-mail the Hancock office (addresses are on the inside front cover). We'll hold your request until the new edition is ready in September. After that, you can request a copy anytime.

### **GWS Represented at SAMPA III Conference**

Dave Harmon represented the GWS at the Third International Conference on Science and the Management of Protected Areas (SAMPa III), held May 12-17 in Calgary, Alberta. Dave was asked by the organizers to chair a session on international protected areas, and he also presented a paper in a session on indigenous peoples and protected areas. Former GWS president Gary Davis gave an outstanding plenary address titled "What Good is Marine Wilderness?" The conference was very well-attended. Neil Munro of the GWS Board

and his colleagues in Parks Canada (especially Bernie Lief and Patricia Benson, to single out two) did an excellent job in organizing the event. Proceedings will be available, with details to come.

### ***Parks Magazine Focuses on Post-Soviet Protected Areas***

The October 1996 issue of *Parks* magazine has as its theme the effect of the post-Communist transition on protected areas, primarily in the former states of the Soviet Union. This is an important part of the world that those of us here in the North American parks community seem to get very little news about, so this is a most welcome compilation of articles. The contents run like this:

- Opportunities from chaos: A new era for protected areas of the former Soviet Union / Margaret Williams
- Zapovedniks of Russia and the modern state / V. P. Stepanitsky
- Protected areas in conditions of democratic change in Russian society / Natalia Danilina
- Problems of zapovednik development and sustainable land use in Ukraine / T. L. Andrienko and N. F. Stetsenko
- Zapovedniks of Turkmenistan and biodiversity conservation / Kh. I. Atamuradov
- Ecotourism in Russia / Vera P. Chizhova
- Clean air and drinking water: Protected areas contributing to human health in Kazakhstan / Manuel Cesario, Andrey Verkhovod, and Vladimir Uvarov
- Protecting the protected: Buffer zone planning in Poland and Australia / Jerzy Kozlowski and Ann Peterson

("Zapovedniks" are strict nature areas.) In addition, there is a legal brief on the Declaration on the Protection of the Arctic Environment by Jan-Petter Huberth Hansen and Finn Kateras. Single issues are £8.80 postpaid to addresses outside the United Kingdom. Orders to: PARKS, 36 Kingfisher Court, Hambridge Road, Newbury RG14 5SJ United Kingdom.

### ***Considering a charitable donation? Consider the GWS!***

If your financial plans for this year include making donations to charitable nonprofit causes, please consider giving to the George Wright Society. We operate on a very small, low-overhead budget, so your dollars will make a big difference. As a 501(c)(3) organization, your entire contribution to the GWS is tax deductible. For more information, or to make a donation, please contact the Society's office (the address is on the inside cover). Thank you!



## Box 65: Commentary from the GWS Office and Our Members

## Biosphere Reserves and the “American Land Sovereignty Protection Act”

### Biosphere Reserves

**B**iosphere reserves are under serious threat of termination by congressional action. This is the result of a well-organized, sensationalized campaign which alleges that the United Nations is using biosphere reserves and World Heritage Sites to take control of public and private lands in the United States. The allegation is false, as members of Congress could easily determine if they consulted any competent authority. In fact, in its report for Congress titled “Biosphere Reserves: Fact Sheet” (June 1996), the Congressional Research Service states: “full sovereignty and control over these areas [biosphere reserves] continues as it was before recognition.”

Biosphere reserves are areas given special recognition by the International Coordinating Council of the UNESCO Man and the Biosphere (MAB) Program because of their significance in conserving important ecosystems and biodiversity; providing logistical support for research, monitoring, training, and education; and fostering sustainable economic development. Biosphere reserves form an international network for exchanges of information and experience in these areas. As of 1996, there were 337 biosphere reserves in 85 countries. The United States has 47 public and private lands recognized as biosphere reserves. These areas have:

- Fostered numerous cooperative programs among U.S. government agencies, states, local authorities, academic institutions, non-governmental organizations, and other countries; and
- Developed model integrated approaches to conservation and ecologically sustainable development. Similar approaches are now being used in other parts of the world with assistance from the U.S. Agency for International Development (AID), the World Bank, and other multi-lateral development banks.

The United States has had a leading role in developing the biosphere reserve criteria, standards, and program. The network of biosphere reserves developed over the past 23 years is the only international network of protected areas

dedicated to developing scientific solutions to the complex problems of conservation and sustainable use of natural resources. It is a valuable information-sharing network, and continuing participation by the U.S. is vital. In spite of this, the movement to terminate biosphere reserves in the United States is growing.

### **The American Land Sovereignty Protection Act**

The American Land Sovereignty Protection Act, H.R. 901, introduced and sponsored by Representative Don Young (R-Alaska), Chairperson of the House Committee on Resources, will require special approval of the Congress before any area in the United States is subject to an international land-use nomination, classification, or designation. The Act would terminate and prohibit all of the currently designated United States biosphere reserves.

A similar bill, H.R. 3752, failed in 1996 to receive the necessary two-thirds majority (under a suspension of House rules), but the vote was 246 in favor to 178 against.

Representative Young's letter of June 25, 1996, to colleagues read:

#### *Is Boutros Boutros-Ghali Zoning Land In Your District?*

Dear Colleague:

Our military personnel are giving up their uniforms for the baby blue berets of the United Nations. This, we are told by *the Administration*, is the New World Order.

Now we find out that an area *on U.S. soil* the size of the State of Colorado has been designated as part of the "United Nations Biosphere Reserve" program? Doesn't this make you feel all warm and fuzzy? At one with the world? This program operates without any legislative direction and no authorization from Congress. A "Biosphere Reserve" is a United Nations experiment within sovereign U.S. borders.

If you are wondering what this is all about, stay tuned. The lid is about to come off this One World Zoning enterprise run by those champions of U.S. sovereignty at the White House and the United Nations.

### **Congressional Action—To be Based on Truth or Propaganda?**

Representative Young's letter sets the tone of a well-organized movement by supporters of the American Land Sovereignty Protection Act. Another tactic in Congress is to terminate funding for MAB and biosphere reserve activities. For example, the authorization bill for the National Science Foundation now contains a prohibition against NSF using any of its funds to support the MAB program. NASA's authorization bill for FY98 and FY99 contains a

similar restriction on that agency supporting MAB. This movement is growing even though the allegations against biosphere reserves are false and inflammatory, and in spite of the fact that the values of the biosphere reserve program have been recognized by both Republican and Democratic Administrations, and the Congress. For example:

- President Richard M. Nixon of the U.S. and Leonid I. Brezhnev of the USSR issued a joint communiqué at their Summit Conference in 1974 calling for expanded cooperation in environmental protection by “designating in each country ... certain natural areas as biosphere reserves for protecting valuable plant and animal genetic strains and ecosystems, and for conducting scientific research needed for more effective actions concerned with global environmental protection.” The U.S. Department of State also urged other countries to join the U.S. in support of the MAB program by designating outstanding natural areas as biosphere reserves.
- In March 1979, the Executive Office of the President, the Office of Science and Technology, and the Office of Management and Budget issued a “Memorandum for Heads of Certain Departments and Agencies” which stated that the Man and the Biosphere program “provides an excellent opportunity for international cooperation and a focus for the coordination of related domestic programs aimed at improving the management of natural resources and of the environment.” The memorandum also requested that these heads of departments and agencies “take appropriate steps to participate fully in the program and to cooperate with other agencies in the development and management of the program.”
- In March 1987, Congress’ Office of Technology Assessment issued the report *Technologies to Maintain Biological Diversity*. The report called attention to the Foreign Assistance Act of 1983, which authorized the president to furnish assistance to countries in protecting and maintaining wildlife habitats and in developing sound conservation programs. The report found that the U.S. had begun to abdicate leadership in international conservation and recommended renewed U.S. commitment to accelerate the pace of international achievements in conservation. The report referred to the MAB program as an effective international program. In regard to biosphere reserves it stated the following:

Notwithstanding the program’s practical problems, the planning and management principles in the biosphere reserves concept reflect what an international conservation program needs to endorse—conservation as an open system, where areas of undisturbed natural ecosystems can be surrounded by areas of synthetic and compatible use, and where people are considered part of the system.

## Rallying Support for These Valuable Programs

A well-organized effort is urgently needed to defend biosphere reserves and World Heritage Sites. If the American Land Sovereignty Protection Act is passed in its present form, United State leadership and more than twenty years of valuable work in these programs will be lost. It will result in an embarrassment and loss of respect for the United States. It will also mean a loss of these well-established mechanisms for cooperative work within the U.S. and with other countries in the future.

Members of Congress should oppose the tactics of sensationalism and unfounded accusations now being used and help turn the focus to positive actions and the opportunities that biosphere reserves and World Heritage Sites provide.

Increased oversight by Congress would be welcomed if the oversight were conducted in ways such that the needs, merits, and disadvantages of the programs could be fairly reviewed. The entire process under which the United States designates and operates these programs could be improved through such congressional oversight.

Members of Congress should adopt this positive approach rather than support a campaign of misinformation which inflames and divides people. The situation is serious now, but it will grow worse if members of Congress do not stand against their colleagues who use this divisive propaganda.

V. C. "Tommy" Gilbert is retired from the National Park Service. He was instrumental in getting the biosphere reserve program established in the United States. Tommy was also the first president of the George Wright Society, serving in that capacity from 1980-1982.

*Reminder: this column is open to all GWS members. We welcome lively, provocative, informed opinion on anything in the world of parks and protected areas. The submission guidelines are the same as for other GEORGE WRIGHT FORUM articles—please refer to the inside back cover of any issue. The views in "Box 65" are those of the author and do not necessarily reflect the official position of the George Wright Society.*



# Statement of the George Wright Society on H.R. 901, the "American Land Sovereignty Protection Act"

*Submitted for Inclusion in the Hearing Record  
to the House Committee on Resources, June 10, 1997*

[Ed. note: For the second year in a row, the GWS has offered written testimony to Congress on legislation proposed in the U.S. House of Representatives that would gut American participation in the World Heritage Convention and the UNESCO's biosphere reserve program. This year's incarnation, the "American Land Sovereignty Protection Act" (H.R. 901), came up for a hearing on June 10. This legislation, as drafted, would erect cumbersome roadblocks and add layers of Congressional approvals to any future World Heritage nomination, would retroactively dismantle the existing biosphere reserve designations in the United States, would require "economic impact statements" for new World Heritage nominations, and so forth. The following statement was drafted by the GWS in response. *For more on H.R. 901, see Tommy Gilbert's "Box 65" essay in this issue.* In addition, we note here that GWS member Tom Cobb, wearing his hat as president of the Association for the Protection of the Adirondacks, testified against H.R. 901 at a field hearing on the bill held in early May in upstate New York. Our thanks go to Tom for standing up for these important programs.]



The George Wright Society (GWS) is a nonprofit, nonpartisan professional association of researchers, resource managers, and administrators who work in natural and cultural parks, reserves, and other protected areas. Our purpose is to promote better protection and management of protected areas through research and education. The GWS would like to submit, for the hearing record, the following statement on H.R. 901.

Our central comment on the proposed legislation is that it would needlessly and severely hinder U.S. participation in the two pre-eminent international protected area programs: the biosphere reserve component of UNESCO's Man and the Biosphere (MAB) Program, and the World Heritage Convention, whose secretariat is also hosted by UNESCO. Because the two programs are fundamentally different—the World Heritage Convention is an international treaty to which the U.S. is a State Party, while the MAB's biosphere reserve program is entirely voluntary—we would like to divide our comments into four sections: comments specific to the World Heritage Convention, comments



specific to biosphere reserves, comments on Section 5 of the proposed legislation, and general comments on the proposed legislation.

### **Comments Specific to the World Heritage Convention**

The Convention for the Protection of the World Cultural and Natural Heritage, popularly known as the “World Heritage Convention,” was completed on November 16, 1972. The United States ratified the Convention on December 7, 1973—one of the first countries to do so. The Convention is intended to recognize, and give sovereign States additional means to protect, the world’s most outstanding protected natural areas and cultural sites and monuments. As the Convention preamble states: “Parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole.” Sites inscribed on the World Heritage List must, therefore, meet the highest standards of significance so as to be of “outstanding universal value.”

*Obligations Imposed by the Convention.* The fundamental commitment of State Parties is given in Article 4: “Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that State. It will do all it can to this end....” Note that this does *not* imply the abrogation of any existing laws within the sovereign States; rather, it commits the State Parties to seek the maximum protection for these sites under their respective legal systems. Certainly the Convention encourages State Parties to augment protective legislation where needed, but it does not dictate legal mechanisms for protection. Thus the basic thrust of the Convention is to commit State Parties to maximum protection of their World Heritage Sites. How they achieve that protection is a sovereign matter. Significantly, nothing in H.R. 901 is aimed at increasing the U.S. government’s ability to protect our World Heritage Sites. Rather, the bill seeks to impose roadblocks to our effective participation in the treaty.

*Sovereignty and World Heritage Designations.* Article 3 of the Convention states that “it is for each State party to this Convention to identify and delineate the different properties situated on its territory” to be considered for inclusion on the World Heritage List. Thus, all World Heritage properties in the United States were proposed by the U.S. government, not by the United Nations or any other body. (It should be noted that World Heritage nominations have originated under both Democratic and Republican administrations.)

Furthermore, Article 6 of the Convention states: “Whilst fully respecting the sovereignty of the States on whose territory the cultural and natural heritage mentioned in Articles 1 and 2 is situated, and without prejudice to property rights provided by national legislation, the States Parties to this Convention

recognize that such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate.” This statement deserves careful analysis. First, it reiterates the primacy of national sovereignty with respect to the Convention. Second, it explicitly states that each State Party’s system of property rights will be respected, regardless of the obligations signatory countries undertake when they ratify the Convention. Third, it states the international context of cooperation under which the Convention is carried out. When the United States ratified the Convention, it obligated our nation to cooperate with the other State Parties, the Convention Secretariat, ICOMOS, IUCN, and other qualified international bodies to protect World Heritage properties within the United States. Of course places such as Yellowstone are first and foremost the heritage of the United States and its people. But when we assent to their recognition as being part of the world’s heritage as well, this surely does not diminish their value to the American people; rather, it augments and enhances it. Through the ratification of the Convention, and subsequent nominations of properties for consideration—all of which were freely undertaken—our nation has recognized that we can only protect this heritage by actively cooperating with the international community (just as other countries recognize that they must cooperate with the United States to protect their World Heritage Sites.)

This gets to the philosophical heart of the Convention: namely, that protection of the world’s most outstanding natural and cultural sites must occur within an international cooperative framework. Every professional organization concerned with the management of natural parks and cultural sites agrees with this. It is simply impossible to achieve lasting protection in isolation from extranational events. Obviously, many environmental impacts are international in scope. Additionally, the increasing integration of the global economy and the rise of international tourism are changing the socioeconomic conditions under which all natural and cultural protected areas, wherever situated, operate.

What does international cooperation under the terms of the Convention mean? Article 7 reads: “For the purpose of this Convention, international protection of the world cultural and natural heritage shall be understood to mean the establishment of a system of international co-operation and assistance designed to support States Parties to the Convention in their efforts to conserve and identify that heritage.” The system is designed not to usurp States Parties’ efforts to conserve natural and cultural heritage, but to *assist* them. The functions of the Convention are not at all coercive. In fact, the Convention is an outstanding example of constructive international cooperation.

*List of World Heritage in Danger.* It is apparent that the proposed legislation has been drafted partly as a response to the New World Mine–Yellowstone controversy, so the GWS would like to specifically address some of the issues

surrounding this. Article 11, Paragraph 4 of the Convention establishes a "List of World Heritage in Danger," which is defined as "a list of the property appearing in the World Heritage List for the conservation of which major operations are necessary and for which assistance has been requested under this Convention." The list may include only those World Heritage Sites "threatened by serious and specific dangers," including the threat of "large-scale public or private projects." The New World Mine project clearly fell into this category of potential threat. Therefore, the United States was not only right to bring the mine project to the attention of the World Heritage Committee for possible inclusion on the List of World Heritage in Danger: we were legally obligated to.

The fact that Yellowstone was eventually included on the Danger List is, in our opinion, a sign that the Convention is working properly. The process has been caricatured as an exercise of outside self-appointed experts coming in and dictating a course of action to the U.S. government. In fact, the listing of Yellowstone was the result of a careful deliberative process and represents the best judgment of a distinguished international panel of professionals as to the risk posed by the mine project. The GWS believes that the listing of Yellowstone was entirely justified on the basis of sound information. This is precisely the role objective science and scholarship should play under the terms of the Convention (and in the analysis of threats to protected areas in general). The Convention's peer-review process is a source of valuable *additional* information. It should be emphasized that this information is *not* intended to be *determinative*; it is up to the State Party to decide on how it will respond to uphold its obligations under the Convention.

Furthermore, under Article 27, Paragraph 2, it is incumbent upon the U.S. government as a State Party "to keep the public broadly informed of the dangers threatening this heritage and of the activities carried on in pursuance of this Convention." Thus the Convention's workings are not secretive, but transparent.

*Economic Impact Requirements.* Section 3 of H.R. 901, which would require the Secretary of the Interior to certify that a proposed World Heritage listing has no adverse impact on commercial uses of any lands within ten miles of the designated area, sets a standard that is virtually impossible to meet. As this section is worded, "commercial use" is not limited to *existing* uses. No new land-use designation, however benign, can be guaranteed to have absolutely no adverse impact on every *conceivable* commercial use that currently exists or may one day exist nearby. Even if this section were worded so as to include only existing commercial use, the entire concept of economic impact assessment is, as the current state of the art stands, highly dubious. For example, are the considerable positive economic impacts of World Heritage listing to be

given weight in the assessment? Who would make the assessment? Using what criteria and methods?

*Congressional Oversight.* The layer upon layer of Congressional approvals laid out in this section is little more than a cumbersome mechanism for micro-managing the nominations process. It is apparent that such a mechanism, if enacted, would cause the process to grind to a halt. There is no need for separate laws to signify World Heritage listings when the U.S. government has already committed to World Heritage Convention. Congress has more than adequate oversight capabilities already: the relevant committees can hold hearings at any time on any aspect of the implementation of the Convention. Furthermore, Article 35 gives State Parties the power to denounce (withdraw from) the Convention.

### **Comments Specific to Biosphere Reserves**

*Purpose of Biosphere Reserves.* The purpose of biosphere reserves is explained in the Statutory Framework for Biosphere Reserves, the document MAB uses to define the relationship of this voluntary program to the statutes of the States participating in the program. According to Article 3, “biosphere reserves should strive to be sites of excellence to explore and demonstrate approaches to conservation and sustainable development on a regional scale.” They do this through:

- Conserving landscapes, ecosystems, species and genetic variation;
- Fostering economic and human development which is socio-culturally and ecologically sustainable;
- Supporting demonstration projects, environmental education and training, research, and monitoring related to local, regional, national, and global issues of conservation and sustainable development.

The George Wright Society unequivocally supports these goals and believes their achievement would be tremendously beneficial to the people of the United States. In our view, biosphere reserves are therefore an important component in the overall protected area system (running from the national to the local level) in the United States. The biosphere reserve is the only protected area designation that explicitly promotes the *voluntary* attainment of these goals. As such, it is an irreplaceable complement to other designations such as national and state parks.

*Sovereignty and Biosphere Reserves.* The fundamental characteristic of the biosphere reserve program is that it is voluntary. Thus, it is impossible for a biosphere reserve designation to usurp the sovereignty of any participating country. The introduction to the Statutory Framework for Biosphere Reserves makes this unmistakably clear: “Biosphere reserves are designated by the Inter-

national Co-ordinating Council of the MAB Programme, *at the request of the State concerned*. Biosphere reserves, *each of which remains under the sole sovereignty of the State where it is situated and thereby submitted to State legislation only*, form a World Network in which *participation by the States is voluntary*" (emphases added). This is reiterated in Article 2 of the Framework: "Individual biosphere reserves *remain under the sovereign jurisdiction of the States* where they are situated. Under the present Statutory Framework, *States take the measures which they deem necessary according to their national legislation*" (emphases added). Like all other participants in the MAB biosphere reserve program, the United States, through our national MAB Committee, initiates nominations for new biosphere reserves. The U.S. MAB Committee, as a wholly voluntary body, operates under the laws governing the agencies which are represented on the Committee (e.g., the National Park Service, U.S. Forest Service), as well as codified interagency agreements, Executive Office memoranda, and other statutes.

*Private Property and Biosphere Reserves.* Biosphere reserves simply do not impinge on private property. In the U.S., this designation is overlaid on existing protected areas. Even cluster biosphere reserves, which encompass non-federal lands, do not override any land protection or zoning status which may (or may not) exist. Zoning authority continues to reside with local governments. The U.S. MAB Committee tries to ensure that local governments and a wide range of interest groups not only are consulted during the nomination process, but actually participate in it. There is no mechanism within the MAB program—and certainly no desire—to "take over" any one's property. And there are no reputable studies showing any devaluation in private property as a result of biosphere reserve designation.

These findings were confirmed by the Congressional Research Service in its analysis of biosphere reserves. That report, "Biosphere Reserves: Fact Sheet," (95-517, June 1996) found that "Biosphere Reserve recognition does not convey any control or jurisdiction over such sites to the United Nations or to any other entity. The United States and/or state and local communities where biosphere reserves are located continue to exercise the same jurisdiction as that in place before designation. Areas are listed only at the request of the country in which they are located, and can be removed from the biosphere reserve list at any time by a request from that country." The report went on to affirm that "there are no legally binding requirements on countries or communities regarding the management of biosphere reserves. Full sovereignty and control over the area continues as it was before recognition. The main effect of recognition is to publicize the inclusion of an area in the Biosphere Reserve Network, thus making it known that research on the area's ecosystem type and impacts of adjacent human development on the area is appropriate as part of an international network of such research."

*Section 4 in General.* The effect of this section is to destroy the MAB Biosphere Reserve program in the United States. Federal officials would be prohibited from making any biosphere reserve nominations. Existing biosphere reserve designations would be voided unless legislation is passed in the next three years (a totally arbitrary sunset date) specifically authorizing them.

The proposed legislation fails to understand the distinguishing characteristic of biosphere reserves: they are a graduated combination of land uses, ranging from strictly protected natural areas to intensely managed multiple-use areas, voluntarily working with each other under the biosphere reserve designation. There is absolutely nothing coercive or dictatorial about a biosphere reserve; in fact, the entire literature on biosphere reserves is emphatic in stating that they can be successful only if there is local support. Far from being "social engineering," biosphere reserves are one of the most flexible, participatory protected-area designations available today.

*The Effect of Biosphere Reserve Designation on Existing Management Practices.* A 1995 survey of U.S. biosphere reserve managers revealed that some explicitly identified at least a portion of their management activities with the biosphere reserve designation, while some other managers did not. Those managers who did identify with the designation reported that they cooperated with more parties at the local level than those managers who were not as involved with the biosphere reserve program. Furthermore, those managers who reported a stronger identification with the biosphere reserve concept reported significant benefits from participating in the program. These included public recognition of resource significance, better nature and cultural resource protection, increased environmental awareness, and more public consultation and participation. This strongly suggests that biosphere reserves are, in practical terms, "value-added" designations: that is, they are an effective tool to enhance the base management activities of the protected areas participating in the program.

*Congressional Oversight.* Our objections to the Congressional oversight proposed in this section are the same as for World Heritage designations.

### **Comments on Section 5 of H.R. 901**

This section, by erecting general roadblocks of the same type as proposed above specifically for World Heritage listings and biosphere reserves, would effectively end U.S. participation in any international protected area designation program (other than Ramsar). The requirement that each individual designation be enacted by a separate law might have some merit if these international designations superseded the sovereign management policies of U.S. federal agencies, but, as was discussed above, they do not. The exceptions admitted into this section for Ramsar sites and other wetland areas important as waterfowl habitat seem to suggest that the authors of the legislation are willing

to accept international designations when a direct benefit to fish and game interests would be forthcoming.

### **General Comments on H.R. 901**

H.R. 901 would devastate U.S. participation in the World Heritage Convention and the MAB Biosphere Reserve program. The George Wright Society believes this would be a grievous mistake. Over the long run, the effect of H.R. 901 would be to prevent the United States from fully protecting the cultural and natural attributes in our World Heritage Sites and biosphere reserves, thus contravening the very laws Congress has passed to establish the underlying protected areas in perpetuity. Biosphere reserve and World Heritage designations are a source of national pride around the world, and they should be here as well. The effect of World Heritage and biosphere reserve designation is salutary, not detrimental. In fact, far from infringing on U.S. sovereignty, participation in these international programs actually offers opportunities to *enhance* our sovereignty by giving us ready access to different approaches and solutions to managing our natural and cultural heritage: approaches and solutions that we may then adapt to the uniquely American situation, or reject—as we see fit.

One aim of the bill which the GWS does support is the desirability for open and accurate communication between the federal land-managing agencies with authority over World Heritage Sites and biosphere reserves and the Congress, and between these agencies and the general public. We believe that improved communication about the purposes of World Heritage sites and biosphere reserves would help defuse some of the misconceptions that have taken hold among certain segments of the public. These distortions have thus far served to poison any chance to achieve a badly needed rational discussion of the issues involved. Unfortunately, H.R. 901 does nothing to move such a discussion forward.

As an organization devoted to promoting the scientific, heritage, and educational values of protected areas, the GWS strongly supports the Convention and biosphere reserve programs precisely because they specifically recognize and advance these values. The fact that the programs operate in a cooperative manner makes them entirely consonant with American sovereignty.

Thank you for allowing the George Wright Society to include our comments in the hearing record.



## Planning to Expand Systems of Protected Areas in North America:

### Comparing Practice in Three Countries and Assessing its Importance

**S**ystems of protected areas<sup>1</sup> have been expanding during the closing years of the 20th century in North America. As public demand has grown, the systems have grown, and with that planning efforts have become more elaborate in the United States and Canada.

The systems themselves have grown not only in these two countries, but in Mexico too. However, the growth in Mexico occurred without any visible systems planning effort. How important, then, are these systems planning efforts? Since systems can expand without them on an ad hoc basis, what value do they add? What purposes do they serve? Do they follow a standard model or do they represent varying, ad hoc responses to circumstances? Do they produce better results? Is any one approach preferable?

This paper is designed to stimulate a discussion of these issues. It begins by reviewing the situation in the three countries with regard to protected areas and then attempts to find answers to the questions just posed by drawing upon a review of a number of systems planning exercises in these countries.

Those exercises examined include the following:

- Parks Canada: *National Parks System Plan* (1990)
- Parks Canada: *Sea to Sea to Sea—Canada's National Marine Con-*

*servation Areas Systems Plan* (1995)

- Nova Scotia Department of Natural Resources: *A Proposed Systems Plan for Parks and Protected Areas in Nova Scotia* (1994)
- British Columbia: *A Protected Areas Strategy for British Columbia* (1993)
- Arctic Environmental Protection Strategy/CAFF: *A Program for the Conservation of Arctic Flora and Fauna—Circumpolar Protected Area Network (CPAN)* (November 1995)
- U.S. National Park Service: *National Park System Plan—Natural History* (1972)
- U.S. National Park Service: planning for new parks in Alaska (1974)
- U.S. Forest Service: RARE II Planning for Wilderness (1979)
- Bureau of Land Management (BLM) (U.S. Department of the Interior): wilderness plans for various states (e.g., Oregon) (1989)

Information about the situation in Mexico has been largely drawn from



a paper by Ramón Pérez Gil Salcido (1995) entitled "Natural Protected Areas in Mexico."

### Situation

Clearly, Canada is the country in North America with the greatest commitment to protected area systems planning. Use of the process there now is practically routine, and it is treated as if it were consequential.

In the United States, land management agencies periodically prepare systems plans for protected areas of various sorts. However, such planning is not a regular feature of broader land management planning, nor is as much deference paid to it by political leaders as in Canada.

In Mexico, there is nothing resembling explicit systems planning. However, ideas for establishing more protected areas do regularly emerge from the government, and the protected area system grows. Some of that growth reflects recent interest in conserving biodiversity.

As of the early 1990s, IUCN figures (11) show the following data on protected areas in the three nations: Canada's system covered 76.9 million ha (7.73%) of the country's area; USA, 97.7 million ha (10.42%); Mexico 10.1 million ha (5.1%).<sup>2</sup> The figures today may be somewhat greater. These figures include areas falling into CNPPA categories I-V.<sup>3</sup> It should be noted that some systems plans take into account areas protected under various cate-

gories and by different agencies, and some do not.

These systems of protected areas are designed to respond to interests of varied sorts:

- Recreation, aesthetics, and tourism;
- Wilderness and remoteness;
- Wildlife and biodiversity;
- Heritage and historical values; and
- The aiding of various branches of science (e.g., ecology, conservation biology, geology, etc.)—for use as benchmarks or for research.

The combinations and emphasis on these interests varies from place to place, between agencies, and over time. Some focus on representing typical examples of phenomena, while others look more for either unique features or features embodying clusters of values.

### Characteristics

What, then, characterizes systems planning for protected areas? Such plans vary from booklets to multi-volume studies. Some have been done by a few staff; others by hundreds. Some of them are stage-setting, framework studies, while others constitute detailed analyses and proposals.

To some extent, they are all exercises in idealism and visioning: i.e., imagining an ideal situation and looking for the best embodiments of these ideals. In practical terms, most

of them seem to have these characteristics. They:

1. Are prepared by agencies administering protected areas;
2. Reflect standards of professionalism and expertise;
3. Embody an effort to be systematic in reviewing and analyzing material;
4. Set forth, in varying ways, goals for expanding or refining the systems;
5. Reflect a desire to make essentially subjective matter (dealing with preferences and values) seem less so and more objective;
6. Address competing claims;
7. Are broad in scope (with an effort to be comprehensive); and
8. Publish the findings, with supporting data and maps.

### **Purposes**

The various plans respond to a variety of impulses, or driving forces, which explain why they have been prepared. Almost none of them seem to have been prepared as part of a recurring process to update plans. Among the impulses giving rise to these plans are:

1. An interest in locating opportunities to set aside qualified areas (e.g., in planning in Canada for marine parks);
2. Providing a way to focus or direct interests in setting aside new areas, including setting priorities (e.g., in the work of Parks Canada);

3. Providing the means to expand protected area systems to meet target goals—usually expressed in terms of the percentage of territory protected (e.g., as is now happening in British Columbia);
4. Filling gaps in representation of various bioregions (based on fine- or coarse-grained mapping), or types of landscape or phenomena (e.g., the focus in Nova Scotia);
5. Providing backup representations for existing units that may not be viable (to achieve redundancy), or obtaining more varied examples of themes (e.g., as in the USNPS plan of 1972);
6. Gaining a balance between land allocated to development and to nature protection (e.g., as is the motivation now in British Columbia and earlier in Alaska);
7. Settling controversy over which areas to set aside and how much, or at least limiting conflict (e.g., with the Forest Service in the U.S. under RARE II);
8. Either providing leadership, or asserting control by the agency over the process of setting areas aside (e.g., as with the Forest Service in its wilderness studies); and
9. Responding to criticism of inactivity or lack of leadership on the part of the agency (e.g., as with the BLM in the U.S.).

## Selection Criteria

The planning process usually involves defining the qualities being sought, inventorying the list of possibilities (with the search often focused on ecozones or physiographic provinces) and then recommending given areas to be set aside. It also involves suggesting what the size, shape, and boundaries ought to be for recommended areas. Sometimes minimum size criteria are set.

Special features appear in some plans. For instance, in the U.S. the National Park Service did its planning in Alaska for individual units within "areas of ecological concern."

Most plans provide some criteria for making selections. Usually these criteria are more explicit with regard to the inventory process than for the processes of selecting recommended units. Usually they are even less explicit about the basis for making decisions about size, shape, and boundaries for selected units.

In some plans, the criteria for selecting recommended units are explicit and more objective. In other cases, they are vague and general. Decisions on what to recommend may simply reflect professional judgment. To some extent, this may reflect a desire to customize judgment for given cases rather than set rules of choice that are rigorously adhered to across the board. Where rules are applied across the board, it is never clear whether they have been "gamed" after the fact by adjusting point scores in weighting systems.

Moreover, in some cases decisional criteria get more attention in dealing with aggregate sets of possibilities. In the cases of wilderness planning in the U.S. by the Forest Service and BLM, primary emphasis was placed on alternative sets of aggregations of units and choosing among them (9). Usually, the BLM considered five to nine alternative sets for each western state. These were constructed to emphasize extremes and near-extremes (viz.: "all wilderness" or "nearly all wilderness" as opposed to "no wilderness" or "nearly no wilderness") (10). Then a few centrist alternatives were offered.

In its planning in Alaska, the U.S. National Park Service dealt with alternatives largely in the context of designing individual unit proposals, with only perfunctory attention to alternative management options (8).

The Forest Service selected its proposed wilderness areas in RARE II largely on the basis of its Wilderness Attribute Rating System (WARS)—a process of awarding numerical scores reflecting desired attributes (9). A separate system was also developed to assess opportunity costs—the Development Opportunity Rating System (DORS) (9). The Forest Service made its overall recommendations so as to maintain high resource outputs while recommending wilderness for areas with the highest scores that presented the fewest conflicts.

In its counterpart process, the BLM did this judgmentally, trying to

pick areas and boundaries having high wilderness values and eliminating areas and zones with high competing values (10). Little is offered to explain its conclusions.

In the case of the Forest Service and the BLM, complaints were heard that alternatives actually being advanced by protagonists were usually not considered, nor alternatives dealing with possibilities in between the extremes and the center. However, in Alaska the National Park Service actually did analyze proposals put forth by interested parties.

Moreover, emphasis on the orders of magnitude of the set-asides also tended to obscure attention to questions of design. Should the new areas be concentrated in certain places and connected, or should they be dispersed?<sup>24</sup> Should their average size be large or small? These questions of design can be addressed within various assumptions about how much total acreage can be set aside. They are questions that are at the heart of the new field of conservation biology.

In British Columbia, B.C. Parks has tended to make areas having a representative quality larger in size, feeling at the same time that unique or exceptional areas can be smaller-sized, on average (5).

British Columbia also seems to be turning its target of putting 12% of its territory into protected areas into a ceiling or cap on how much will ever be protected. Parks Canada also is talking about completing its system, which seems to imply a cap on future

growth (2). Such an idea does not seem to have been broached seriously by agencies in the United States (though it has arisen in Congress).

### Adjusting Differences

The central challenge in deciding what to recommend is how to deal with competing land uses and claims. To some extent, nearly all planning efforts grapple with this challenge. However, two different patterns manifest themselves.

In the United States, the planning agencies tend to follow a very formal and legalistic process. Their public planning documents follow the format of an Environmental Impact Statement (EIS) under the National Environment Policy Act. Under this type of an environmental assessment, a prescribed series of questions must be addressed. Alternatives are framed, impacts analyzed, and proposals made.

Then the public is asked to review the document in draft form. This review often involves both extensive public hearings on the record and written comments. Both are analyzed, and the main points offered by the public must be responded to. Then the agencies may modify their proposals in light of public review, and a final document is issued. Usually changes are modest (often on the order of 5-10% in magnitude).

Both in their initial proposals and in modifying their proposals, the U.S. agencies tend to adhere to the political middle. They avoid the extremes in the orders of magnitude of

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Both in their initial proposals and in modifying their proposals, the U.S. agencies tend to adhere to the political middle. They avoid the extremes in the orders of magnitude of

what they recommend. Moreover, they go to pains to identify competing claims and to analyze the weight of these claims. They tend to eliminate areas and components that are most heavily burdened with competing claims. However, these decisions arise more out of analysis and the formal process than out of oral dialogue and negotiation.

This formal process reflects the political culture of the United States. It is designed to assure all parties in a very diverse and contentious culture that everyone has been heard and dealt with on an equal footing. The small and the powerful get equal time and evaluation. It is also designed to lay down a defense against possible litigation which may look for procedural flaws.

In Canada, the planning agencies seem to focus more energy on face-to-face dialogue with parties who represent key interests and competing interests. Parks Canada must negotiate agreements with provincial governments and tribal authorities (where relevant). Dialogue with them seems to lead to conclusions about which proposals are viable and which are not. Provincial park agencies must determine whether existing commitments to commodity production can be broken. Moreover, these discussions help them shape the design of the given proposals. The public documents, however, provide little insight into the process by which their proposals have been shaped.

The Canadian process seems to reflect realities of devolution of power to provinces and patterns of Native land ownership and claims. And the process reflects the way decisions are made in a parliamentary system, as well as the political culture of Canada. Since the party in control usually has enough votes to work its will in Parliament, the political process of reconciling competing interests must be addressed before proposals are taken to ministers. Thus, agencies try to refine proposals to reduce conflict before ministers are asked to seek parliamentary approval. However, in provinces such as British Columbia the process seems to contemplate heavy involvement of the Cabinet before parliamentary action will be sought.

In the United States, in contrast, much more of the process of reducing conflict occurs later in the legislative process. Moreover, much less power has been devolved upon states; less land also is involved with Native claims (except in Alaska).

Moreover, it may be that Canadians attach more importance to avoiding or reducing conflict. As a society, Canada may value harmony more. Thus, early in the planning process stress is put on finding proposals that will generate little controversy and on which the problems can be worked out. This may also be viewed as good staff work in the tradition of the British civil service.

How much emphasis is placed on reducing conflict in the planning process may also vary among agen-

cies, especially in the United States. Land management agencies such as the Forest Service and the BLM, which have broad multiple-use mandates, seem more anxious to pursue centrist strategies and to avoid antagonizing commodity constituencies.

The U.S. National Park Service, on the other hand, puts less emphasis on reducing conflict both because it does not have commodity constituencies and because conflict is an unavoidable corollary of expanding its system. It can only acquire new units through conflict with other agencies or with private owners. Nonetheless, in its extensive planning efforts in Alaska in the mid-1970s it carefully analyzed competing interests and sought to avoid the most extreme conflicts where it could (8).

### **Time Horizons**

Agencies plan for very different periods of time. Some plans are open-ended and look far into the future. When the U.S. National Park Service issued its National Park System Plan in the early 1970s, it made recommendations that might take decades to achieve (7). It was not under any pressure to tailor its recommendations to the immediate political climate (nor did it identify specific areas).

On the other hand, some plans are designed to meet deadlines. At one time in the late 1970s, the U.S. National Park Service was under a mandate to recommend one new

park unit to Congress every month. In its plan in the early 1990s, Parks Canada was trying to meet a pledge in Canada's Green Plan to complete its parks system by the year 2000 (aiming at moving national park representation in Canada from 1.9% to 2.8% of the land) (2). The New Democratic Party government in British Columbia is pushing to get its percentage of protected land to 12% as soon as possible. The government in power there wants to try to reduce discontent among its constituency by better balancing land allocations between development and protection.

Time constraints, then, also limit the art-of-the-possible. The shorter the time horizons, the less is feasible. More good ideas must be dropped if the question is what can be done to increase protected area acreage in the near future. Longer time horizons rule less out. Some commodity conflicts may go away, or become less important, with the passage of time, and support may grow. On the other hand, new conflicts may also arise.

Time also is a factor in terms of whether the resource is under threat. Where it is, plans may be scaled down to facilitate faster action. Where no threats are apparent, more time may be available, and more ambitious ideas may be broached.

### **Public Participation**

Styles of public participation also seem to differ among the countries. In the U.S. the process is very structured and formal. Tens to hundreds

of thousands of communications may be received; hundreds of hearings may be held. The input process tends to be formal, with little immediate feedback provided. The Forest Service in the U.S. actually used a decisional rule that only permitted it to recommend wilderness proposals that were supported by over 70% of those commenting specifically for the record on that proposal.

In Canada, the process seems to be less formal, even casual. Agencies there want to sense public support or demand at the outset—rather than to stir up an issue. Public discussion is assumed and welcomed, but proposals in planning documents are presented as if they are not controversial. In the U.S., the emphasis in the documents on alternatives (under the EIS process) invites disagreement and contention. The public acts as if it is voting on which way to go. The Canadians seem to assume work is proceeding, and the government just wants the public to be informed and to have a chance to offer its thoughts.

The U.S. planning process, then, really initiates a period of controversy and sets its terms. It tacitly invites politicians to assume control of the controversy and settle it. The Canadian approach, in contrast, is all about a process of continuous decision-making by the government. The publication of a document advises the public that the government is at work on the matter and is moving in certain directions. Public input can tilt the direction slightly but is not

seen as offering an opportunity to vote “yes” or “no.”

### **Connection to the Decision-Making Process**

In Canada, thus, the planning process by park agencies really is a part of the decision-making process. This reflects the nature of a parliamentary system of government. What the agency recommends to its minister is highly likely to be approved and move ultimately into accomplished fact by Act of Parliament. Its work is rarely frustrated.

However, in the United States the separation of powers at the federal level produces a very different result. Planning by agencies is merely input to political officials. Agency proposals must be approved by political appointees in departments and then by the president. And that is only the first step. Then both houses of Congress must approve and that can take years—if ever. Constituencies must be mobilized to generate demand that action be taken. Opposition must be overcome by shows of support.

This extended process reflects a system of “checks and balances.” It also is the result of a system that requires statutory enactments to permanently designate most protected areas (there are a few exceptions, such as National Monuments).

The upshot of these differences is that agency recommendations in the U.S. carry far less weight. They can be easily ignored and easily overcome. Many protected areas are



designated against agency wishes—and in the absence of formal studies by them. The U.S. wilderness movement in the 1980s worked successfully during an unsympathetic presidency to get Congress to vastly increase formally designated wilderness acreage in the national forests, and most of this involved acreage for which the Forest Service recommended non-wilderness status.

Agency studies in the U.S. may carry weight under certain circumstances, especially if they catch the public mood. They may carry weight too if they break new ground or introduce new ideas. They may carry weight if they organize data and make it accessible—data that otherwise would be difficult to obtain. They carry weight if they are thorough, readable, and persuasive. They tend not to carry weight if they are viewed as flawed, incomplete, biased, defensive, or steeped in jargon.

Also, studies are not persuasive if they attempt to pretend that judgmental matters are technical matters. Approaches that turn every judgment call into numerical scores risk loss of credibility. However, criteria and rough weighting systems can help to explain and justify judgment calls. Candid recognition that judgment calls are involved—reflecting values and preferences—builds confidence that the report is straightforward. However, hiding the basis for exercising judgment does not build credibility.

## Mexican Practice

The Mexican system of protected areas has grown rapidly in the last 25 years. Eight-seven per cent of its protected areas have been established since 1982. Pérez Gil seems to think this has happened largely in response to pressures exerted by foreign environmental groups, with the government desiring to placate international opinion and to appear modern (12). This desire may be related to Mexico's efforts to join NAFTA, the North American Free Trade Agreement.

Two-thirds of the land in the system is in biosphere reserves; there are 35 of them (12). There are 34 units over 25,000 hectares in size. In 1987, a group of scientists identified 87 priority sites for future acquisition (12). Apparently systematic inventories were done to identify opportunities to establish these new biosphere reserves.

In some states, such as Baja California, a high percentage (69%) of the land has been put in protected status (13). Of the 25 physiographic provinces in Mexico, protected areas appear to exist in all but seven (13). Thus, Mexico appears to have wider representation of its natural zones than has been the case in Canada (28% unrepresented vs. 46% in Canada).

Clearly the Mexican government has an agenda to increase acreage accorded protected area status. It also has a focus (on biosphere reserves), and its progress reflects the input of scientists and external advisers. It

must have some sort of systematic internal process that allows it to make this kind of progress. This may represent a kind of systems planning that is not available to the public—i.e., is not transparent.

Lack of transparency may simply reflect differences in political systems and culture. The Mexican government has not chosen to consult the public at large, nor to publish reports that document the basis for its decisions. But the results suggest progress can be made without making the process public and apparent. While this lack of transparency makes it impossible to assess the process in Mexico, progress there does demonstrate that formal, public systems planning is not indispensable.

### Conclusions

The importance of systems planning for protected areas by agencies seems to vary according to the kind of political system that a country has.

It seems to be most important in jurisdictions which value transparency and have parliamentary systems (e.g., Canada). There, systems planning originates and refines ideas that ministers and the parliament intend to embrace, while building public acceptance.

In jurisdictions which value transparency but have a government of separated powers (e.g., the United States), such planning plays a less-critical role. There, proposals for protected areas can move to fruition without agency studies to identify candidates, though such studies un-

doubtedly improve the menu of options and help winnow them. A very open political system allows initiatives to come from other quarters, with the legislative process playing the leading role in adjusting conflict.

In countries that place less emphasis on transparency, and concentrate power (e.g., Mexico), such plans may not be needed to justify government action, but they might improve and systemize action. There may, though, be some sort of systems planning going on behind the scenes.

None of the planning efforts reviewed seemed to represent a regular, institutionalized process. All of them seemed to arise out special circumstances and respond to varied impetuses.

While systems planning seems to have certain generic characteristics, it varies a great deal in practice. However, it invariably improves the basis for choice and creates momentum toward doing more. It enlarges horizons. It also tends to legitimate ideas that previously may have been marginalized. Proposals for new protected areas gain weight and respectability.

Because of these factors, a conclusion is justified that systems plans do add value and help produce better results. When they are done well, their value increases accordingly.

However, more analysis is needed to define the attributes of the best approach to systems planning. This may vary among jurisdictions according to their characteristics. It may also vary according to whether

the plan is intended to serve as a framework or as a definitive plan.

One thing, though, is very clear. It is that systems of protected areas may

command less national support and be seen as atrophying if no attention is given to planning for their expansion and revitalization.

*Note: This draft was prepared for submission at the October 1996 meeting of the North American branch of the IUCN's Commission on National Parks and Protected Areas.*

### Endnotes

<sup>1</sup> "Protected areas" are reserves set aside by governments to protect nature. They are discussed in this paper in the framework developed by the World Commission on Protected Areas of the IUCN. [Ed. note: for an explanation of the system, see the paper by Phillips and Harrison in this issue.] "Systems" refers to systems such as the U.S. National Park System or the National Wilderness Preservation System (USA).

<sup>2</sup> This figure has been increased from 4.72% as the total area protected grew to 10.1 mm ha.

<sup>3</sup> Little has been done yet to identify areas that fall into new Category VI.

<sup>4</sup> In the early 1970s, the NPS favored distribution of units among regions of the country.

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## International Standards in Establishing National Parks and Other Protected Areas

Virtually every country in the world has legal or customary measures for conserving or protecting biodiversity through management control over defined areas of land or sea. However, the objectives for establishing and managing these areas range widely, and responsibility for management may rest with organisations as diverse as statutory authorities or non-governmental organisations. These protected areas are found in countries of every political, cultural, social, and economic background and with a vast range of physical circumstances, ranging from small and crowded to large and relatively unpopulated.

The database on protected areas managed by the World Conservation Monitoring Centre (WCMC) includes tens of thousands of sites varying in size from a few hectares to millions of hectares. There are more than 200 different designations used to describe these areas, ranging from the familiar terms *National Park* and *Wildlife Sanctuary* to the less familiar *Muttonbird Reserve* and *Zapovednik*. To add to this confusion, even familiar terms like "national park" mean different things in different countries.

Some 20 years ago, protected area professionals working with the International Union for Conservation of Nature and Natural Resources (IUCN) developed a series of protected area categories defined by management objective (IUCN 1978). However, over the years since, the role of protected areas in both biodiversity conservation and sustainable develop-

ment has been widely appreciated (McNeely and Miller 1984; McNeely 1993), leading to some significant changes in protected area management. This resulted in a need to review the ways in which protected areas are categorised.

During the late 1980s and early 1990s protected area professionals working with the IUCN Commission on National Parks and Protected Areas (CNPPA) thoroughly reviewed the issue, and at the IVth World Congress on National Parks and Protected Areas, held in Caracas, Venezuela (1992) confirmed a number of changes to the system previously developed by IUCN. The results of the discussions in Caracas are reported on by McNeely (1993), in particular Recommendation 17 and the report of Workshop IV.1, "Talking the same language: an international review system for protected areas."

The revised system was approved

by the IUCN General Assembly at Buenos Aires in 1994, and details of revised categories were then published in the *IUCN Guidelines for Protected Area Management Categories* (IUCN 1994). This paper describes the new categories and their application.

### **Definition of a Protected Area**

In order to be able to categorise protected areas, one must first define what constitutes a protected area. The IUCN Protected Areas Management Category system is based on the following definition, agreed at the IVth World Congress on National Parks and Protected Areas (IUCN 1993). A protected area is:

An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.

Conceptually, this definition encompasses *all* protected areas and there should be no protected areas *outside* this definition. All protected areas within this definition should fall within one of the six categories defined. On the other hand, there may be sites that meet the criteria for a particular category, but which do not qualify as a protected area because they do not fall within the definition given above.

### **Categorisation by Management Objective**

Definitions of protected area management categories represent a

compromise between the needs and situations of countries around the world. Understandably, they are not a perfect fit for all areas, but serve as a guide for interpretation and application at the regional and national levels. Protected areas are categorised according to their management objectives. This type of classification system serves a number of valuable purposes in the international context as it:

- Emphasises the importance of protected areas;
- Demonstrates the range of purposes protected areas serve;
- Promotes the idea of protected areas as systems rather than units in isolation;
- Reduces confusion of terminology;
- Provides an agreed set of international standards;
- Facilitates international comparison and accounting; and
- Improves communication and understanding.

The revised IUCN protected area management categories are listed below. The first five categories are similar to those used in the 1978 classification, although the definitions differ to varying degrees as a result of experience in using the previous classification system. The addition of Category VI arose particularly as a result of advice from some developing countries, which saw value in giving specific recognition to those largely natural areas which

were protected in order to ensure the supply of a sustainable flow of goods and services (e.g., forest production)

to local communities.

The categories are summarized in Table 1.

Table 1. IUCN protected area categories

Ia. Protected area managed mainly for science ( <i>Strict Nature Reserve</i> )
Ib. Protected area managed mainly for wilderness protection ( <i>Wilderness Area</i> )
II. Protected area managed mainly for ecosystem protection and recreation ( <i>National Park</i> )
III. Protected area managed mainly for conservation of specific natural features ( <i>Natural Monument</i> )
IV. Protected area managed mainly for conservation through management intervention ( <i>Habitat/Species Management Area</i> )
V. Protected area managed mainly for landscape/seascape conservation and recreation ( <i>Protected Landscape or Seascape</i> )
VI. Protected area managed mainly for sustainable use of natural ecosystems ( <i>Managed Resource Protected Area</i> )

Application of the IUCN protected areas management category system is guided by six principles.

1. **The basis of categorisation is by primary management objective.** This principle is the most important of all. There are, in fact, a wide variety of potential primary management objectives for protected areas, and many areas have multiple objectives. Categorisation is made according to the priority assigned to relevant objectives, as demonstrated in the following matrix (Table 2). At least three-quarters of the area should be managed for the primary purpose.

2. **Assignment to a category is not a comment on management effectiveness.** The distinction between the primary management objective and the effectiveness of man-

agement is often overlooked. For instance, where Category II areas are poorly managed, there is a temptation to re-classify them as Category V areas. This is not the intent of the IUCN guidelines, which categorise by management objective. There are, in fact, two separate questions involved: firstly, "What is the aim of management?", which leads to assignment of a category, and secondly, "How well is the area managed?", which leads to an assessment of management effectiveness.

3. **The categories system is international.** The IUCN categories system has been designed for global use. The guidance is therefore broad and general rather than being prescriptive and specific. The system is intended to be interpreted flexibly.

**Table 2. Potential primary management objectives, by category**

Objectives	Ia	Ib	II	III	IV	V	VI
Scientific research	1	3	2	2	2	2	3
Wilderness protection	2	1	2	3	3	NA	2
Preserve species & genetic diversity	1	2	1	1	1	2	1
Maintain environmental services	2	1	1	NA	1	2	1
Protection of natural / cultural features	NA	NA	2	1	3	1	3
Tourism & recreation	NA	2	1	1	3	1	3
Education	NA	NA	2	2	2	2	3
Sustainable use of natural ecosystems	NA	3	3	NA	2	2	1
Maintain cultural / traditional attributes	NA	NA	NA	NA	NA	1	2

1 = Primary Objective; 2 = Secondary Objective; 3 = Acceptable Objective;  
NA = Objective Not Applicable

Because the IUCN classification system is based on broad guidelines, it is right that regions or countries should interpret them for their own applications. This flexibility allows national relevance to be built into the system through processes such as national and regional workshops, and the development of “rules of thumb” for application in different areas.

**4. National (or state) names may vary.** Throughout the world there are hundreds of different national names for protected areas. The IUCN guidelines are not intended to result in the re-naming of these reserves. National names will therefore continue to mean different things in

different countries. It also follows that national names and titles of international categories will often differ.

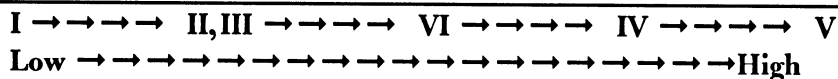
**5. All categories are important.** All categories are equally important and equally relevant to conservation. The categories indicate the necessity of developing *systems* of protected areas which use *all* the relevant categories. It should be noted, however, that some countries may not contain the potential for using all categories; for example, England does not contain wilderness.

**6. The categories imply a gradient of human intervention.** The IUCN categories imply a gradation of human intervention (Figure 1),

ranging from effectively none at all in the case of some Category I areas, to quite high levels of intervention in Category V areas. Since Category VI

was added to the system later it does not fit neatly into the general pattern, but lies conceptually between III and IV.

**Figure 1. Human intervention, by category**



### Categories of Protected Areas

The following sections describe each of the categories defined by IUCN (1994), providing the definition, key guidance on application of the category, and some examples of sites which demonstrate the principal aspects of each category.

**Category Ia—Protected Areas Managed Mainly for Science.** *Definition:* Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features, and/or species, available primarily for scientific research and/or environmental monitoring. *Guidance for selection:*

- The area should be large enough to ensure the integrity of its ecosystems and to accomplish the management objectives for which it is protected.
- The area should be significantly free of direct human intervention and capable of remaining so.
- The conservation of the area's biodiversity should be achievable

through protection and not require substantial active management or habitat manipulation.

Sites might vary widely in size. For example, the Bempton Cliffs reserve located on the north-east coast of England shelters a small and inaccessible area where sea birds breed. The only access allowed is for observation and scientific research. The protected area is large enough to ensure integrity of the breeding and roosting area but does not encompass feeding areas beyond. It is significantly free of direct human intervention and does not require direct human management.

The Sunderbans National Park in India is strictly protected from human access, acting as the core zone of the Sunderbans Tiger Reserve. Most Indian national parks are oriented to tourism, but the Sunderbans National Park, and the Nanda Devi National Park in the Himalaya, have strict protection. The Svalbard Islands in the far north of Norway also demonstrate this cat-



egory, being large and significantly free of human intervention, and having scientific research as the main use of the reserved areas.

**Category Ib—Protected areas managed mainly for wilderness protection.** *Definition:* Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

*Guidance for selection:*

- The area should possess high natural quality, be governed primarily by the forces of nature, with human disturbance substantially absent, and be likely to continue to display these attributes if managed as proposed.
- The area should contain significant ecological, geological, physiogeographic, or other features of scientific, educational, scenic or historic value.
- The area should offer outstanding opportunities for solitude, to be enjoyed, once the area has been reached, by simple, quiet, non-polluting, and non-intrusive means of travel.
- The area should be of sufficient size to make practical such preservation and use.

The wilderness concept originated in the United States and is demonstrated by the chain of wilderness areas located along the

Rocky Mountains. These have high natural quality, are significantly free of human intervention, and offer outstanding opportunities for solitude.

**Category II—Protected areas managed mainly for ecosystem protection and recreation.**

*Definition:* Natural area of land and/or sea designated to: (a) protect the ecological integrity of one or more ecosystems for present and future generations; (b) exclude exploitation and occupation inimical to the purposes of designation of the area; and (c) provide a foundation for spiritual, scientific, educational, recreational, and visitor opportunities, all of which must be environmentally and culturally compatible. *Guidance for selection:*

- The area should contain a representative sample of major natural regions, features, or scenery, where plant and animal species, habitats, and geomorphological sites are of special spiritual, scientific, educational, recreational, and tourist significance.
- The area should be large enough to contain one or more entire ecosystems not materially altered by current human occupation or exploitation.

The national park concept originated in the United States with the declaration of the Yellowstone National Park, and national parks are now found in all parts of the world.

For example, the Nahuel Huapi National Park in Argentina is declared for the protection of large ecosystems and provision of recreation. The Grand Canyon National Park in the United States is established for the same reasons, as well as for the spectacular canyon scenery. Rocky Mountain National Park, also in the United States, is large enough to protect natural regions and is oriented to visitor use with an extensive system of roads and interpretation.

The provision of public access for recreation may be a key factor in the development of Category II areas. For example, Canada's Banff and Waterton Lakes national parks were established last century to attract customers to the newly installed railways. Wildlife viewing may also be a key aspect of national parks, as in the Nairobi and Zambezi national parks in Africa, Corbett National Park in India, and Royal Chitwan National Park in Nepal. In Chitwan National Park villagers are also allowed seasonal access to retrieve thatching grass. This access is in keeping with the provision for subsistence resource use where it does not affect the primary management objective for a Category II area.

**Category III—Protected areas managed mainly for conservation of specific natural features.**

*Definition:* Area containing one, or more, specific natural or natural/cultural features which are of outstanding or unique value because

of their inherent rarity, representative or aesthetic qualities, or cultural significance. *Guidance for selection:*

- The area should contain one or more features of outstanding significance (appropriate natural features include spectacular waterfalls, caves, craters, fossil beds, sand dunes, and marine features, along with unique or representative fauna and flora; associated cultural features might include cave dwellings, cliff-top forts, archaeological sites, or natural sites which have heritage significance to indigenous peoples).
- The area should be large enough to protect the integrity of the feature and its immediately related surroundings.

The Victoria Falls National Monument in Zimbabwe protects the area of the falls, and is clearly a national monument. There might be concern, however, that the area protected is not, and could not be, adequate to ensure the integrity of the feature—probably a common problem with water features. Dinosaur National Monument in the United States protects a palaeontological site, and interpretation for public education is provided as well as protection of the fossil record of the site.

**Category IV—Protected areas managed mainly for conservation through management intervention.**

**Definition:** Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species. *Guidance for selection:*

- The area should play an important role in the protection of nature and the survival of species.
- The area should be one where the protection of habitat is essential to the well-being of nationally or locally important fauna, or to resident or migratory fauna.
- Conservation of these habitats and species should depend upon active intervention by the management authority, if necessary through habitat manipulation.
- The size of the area should depend on the habitat requirements of the species to be protected and may range from relatively small to very extensive.

Active intervention may be required in otherwise natural areas to encourage particular species. Examples of areas in Category IV include Luneburger Heide Nature Reserve in Germany, which was established to protect heathlands which are currently maintained through grazing, and the North Norfolk coast bird reserves in England, which contain human-made ponds in salt marsh areas, specifically designed to attract birds. Outside Europe, the Halegi Lake in Pakistan is an example of a Category IV site, with

waterways cleared for waterfowl.

**Category V—Protected areas managed mainly for landscape/seascape conservation and recreation.** *Definition:* Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological, and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance, and evolution of such an area. *Guidance for selection:*

- The area should possess a landscape and/or coastal and island seascape of high scenic quality, with diverse associated habitats, flora, and fauna, along with manifestations of unique or traditional land-use patterns and social organisations as evidenced by human settlements and local customs, livelihoods, and beliefs.
- The area should provide opportunities for public enjoyment through recreation and tourism within its normal lifestyle and economic activities.

The Category V protected landscape concept was developed in Europe, where long occupation of the land has resulted in distinctive landscape patterns. Protected areas that include such landscapes have humans living as an integral part of the landscape. Examples include the landscapes of the Pembroke Coast

and North York Moors national parks of the United Kingdom, areas with high scenic quality, diverse habitats, and traditional land-use patterns.

**Category VI—Protected area managed mainly for sustainable use of natural ecosystems.** *Definition:* Area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs. *Guidance for selection:*

- The area should be at least two-thirds in a natural condition, although it may also contain limited areas of modified ecosystems; large commercial plantations would not be appropriate for inclusion.
- The area should be large enough to absorb sustainable resource uses without detriment to its overall long-term natural values.

As this is a “new” category, examples selected are indicative of the potential of the category—it is possible that some of these sites may not, on reflection, be classified as Category VI. Likewise, it is also important to stress that Category VI areas must fall within the definition of a protected area.

Examples might include the safari areas surrounding the Mana Pools National Park in Zimbabwe, which are managed to maintain the natural

habitat and allow sustainable hunting, or the areas outside the core zones of the Sunderbans National Park in India, where quota-operated fishing allows sustained use by locals. Watershed areas such as the Matopos Hills in Zimbabwe, the Flathead National Forest in the United States, and Sinharaja in Sri Lanka may also qualify in the future if management is adapted to maximise the conservation potential of these areas. Other examples include mangrove areas along the Central American coast and the Caribbean such as the Kuña Yala area in Panama, where Kuña Indians approached the government to establish a protected area which allows local traditional use but excludes outside exploitation. All of these are large, substantially natural areas which can absorb sustainable resource use.

### Conclusions

No classification system is perfect, and its value really depends not so much on whether each protected area can be “allocated” to one of the six categories without doubt or difficulty, but on whether the objectives of categorisation are met. Experience since the publication of the new guidelines (IUCN 1994) suggests that this process has certainly led to increased assessment of the roles of protected areas, and how protected areas with different roles and objects relate one to another.

For example, following publication of the guidelines, the Australian

Nature Conservation Authority worked with state authorities in Australia to convene a workshop on application of the categories. This led to the development of guidelines and "rules of thumb" for application of the categories in Australia (ANCA 1996). Perhaps more importantly it brought together the various state and federal authorities to review how the roles and objectives of protected areas varied throughout the country. There have also been reviews in other countries (for example the United Kingdom), and a European regional meeting on the application of categories is planned for later this year.

There is particular interest in Cat-

egories V and VI, the former because it is probably under-used as a management category, and the latter because it is a new category and as such is resulting in increased controversy and debate. Some of the issues were discussed at a Global Biodiversity Forum in Montreal last year, and an attempt to focus attention on how these relate to forest conservation has been drafted by Dudley and Stolton (1997). However these debates resolve themselves, the primary purpose of categorisation will have been achieved, as increased attention is given to the role of protected areas in helping to achieve conservation and development goals.

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# Estimated Economic Impacts of the 1995-96 U.S. National Park Shutdowns

## Introduction

**T**he 374 units of the U.S. National Park System preserve America's most beautiful and beloved places, its cultural heritage, and its natural wonders. They are storehouses of priceless treasures. They are, in addition, the economic lifeblood of park gateway communities across the country. With over 269 million visits in 1995 alone (National Park Service 1996a), national parks play a key role in the massive U.S. travel and tourism industry. In 1995, this industry generated an estimated \$440 billion worth of business receipts, 6.6 million jobs, and a \$19.5 billion trade surplus with foreign markets (Tourism Works for America Council 1996).

According to in-flight surveys conducted by U.S. Travel and Tourism Administration (1996), 23.5% of all visitors to the United States in 1995 (approximately 10.2 million people) planned to visit one or more national parks. Indeed, many business owners in park gateway communities viewed the loss of foreign visitors as one of the most devastating impacts of the 1995-96 U.S. national park shutdowns (National Parks and Conservation Association 1996).

Visitors to U.S. national parks are particularly important to certain regional and state economies. Foreign and out-of-state visitors to Utah, for instance, generated an estimated \$3.5 billion in state-wide sales in 1995 (10% of the gross state product), supporting roughly 73,000 jobs (Utah Tourism Commission 1996). Of this, out-of-state visitors to Utah's

thirteen national parks were responsible for an estimated \$684 million in state-wide sales, supporting over 17,000 jobs (see Appendix A).

However, such figures reveal little about the role that U.S. national parks play locally, within their surrounding economies. Soden (1995) identified a widespread perception shared among park managers and neighboring business interests that national parks provide significant economic benefits to their gateway communities. Any doubts that local residents may have had regarding these contributions were likely dispelled when the U.S. National Park System was shut down twice between November 14, 1995, and January 6, 1996. Brought about by an extended budget impasse between Congress and the president, the two shutdowns lasted a total of 26 days and exacted a heavy economic toll.

## Scope

This paper represents a follow-up to the investigation conducted by the National Parks and Conservation Association into the effects of the 1995-96 U.S. national park shutdowns (NPCA 1996). The NPCA study was made possible by a grant from Ambassador L.W. "Bill" Lane, Jr. It focused primarily on the personal accounts of business owners, employees, and civic leaders in gateway communities surrounding nine national parks, which are also covered here: California's Yosemite, Joshua Tree, and Death Valley national parks; Florida's Everglades and Dry Tortugas national parks; Arizona's Grand Canyon National Park; Nevada's Lake Mead National Recreation Area; and Utah's Zion and Bryce Canyon national parks (see Figure 1). Here, a greater emphasis has been placed on the estimated direct sales impacts of the shutdowns, rather than on personal accounts. Impact estimates have also been re-calculated using previously unavailable visitation data and visitor expenditure data from an alternative source (see Appendix B).

## Methodology

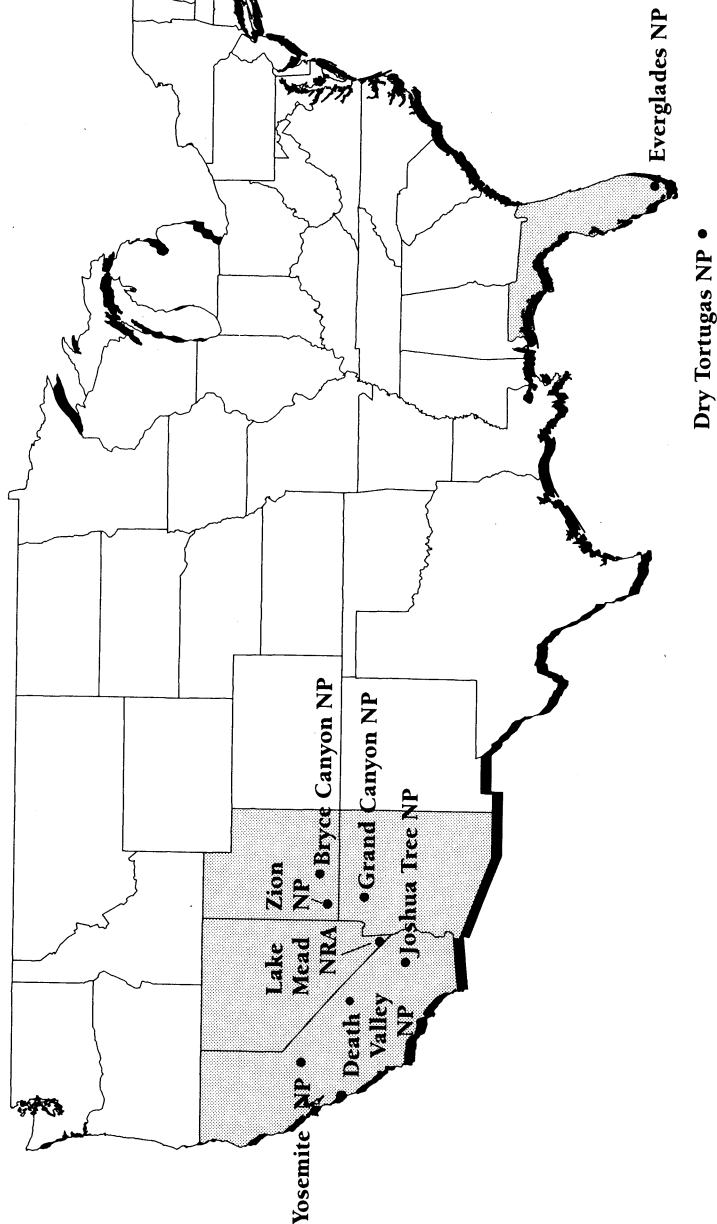
In order to estimate the direct sales impacts of the shutdowns, a methodology was devised based on the National Park Service's Money Generation Model, or "MGM." Since 1982, the MGM has provided a basic means for estimating the regional economic impact of national parks, including impacts on sales,

employment, and tax revenues (National Park Service 1996b; Hornback 1996). Normally, direct sales impacts are estimated by multiplying a park's total non-local recreation-visitor-days by the average daily expenditure of its individual visitors. A *recreation-visitor-day* is defined as the presence of one or more visitors in a park for continuous, intermittent, or simultaneous periods aggregating 12 hours (National Park Service 1996a).

For this investigation, impact estimates were calculated using the recreation-visitor-days and average daily expenditures of people who *would have* visited the parks were it not for the shutdowns. Visitation shortfalls were determined using monthly visitation data provided by the National Park Service Public Use Statistics Program Center. At certain parks, recorded visitation increased from the previous year for one or more of the months in which the shutdowns occurred. Where this was the case, monthly visitation totals were not included in the study (see Table 1).

Non-local visitor-days were determined by multiplying monthly visitation shortfalls by the estimated percentage of non-local use, as it appears in the 1996 MGM (see Table 1). These percentages were determined on a park-by-park basis, using staff estimates, license plate surveys, visitor interviews, and information provided by local travel and tourism groups (National Park Service 1996b).

# Study Areas





**Table 1. Study Results**

Study Area <sub>1</sub>	State	Est. Percent Non-Local Visitation	Period	Visitor Days	Visits	Avg. Visitor Expenditure	Est. Direct Sales Impacts
Yosemite NP	California	0.95	Dec./Jan.	-139,201	-74,684	\$ 56.00/day	-\$ 7,405,493
Joshua Tree NP	California	0.74	Nov.-Jan.	-38,113	-69,551	\$ 25.17/visit	-\$ 1,295,443
Death Valley NP	California	1.00	Nov.	-12,957	6,479	\$ 56.00/day	-\$ 725,592
Everglades NP	Florida	0.90	Nov.-Jan.	-21,034	-68,319	\$ 54.25/day	-\$ 1,026,985
Dry Tortugas NP	Florida	1.00	Nov.-Jan.	-3,739	-274	\$ 54.25/day	-\$ 202,841
Grand Canyon NP	Arizona	1.00	Nov./Dec.	-51,765	-37,442	\$ 52.75/day	-\$ 2,730,604
Lake Mead NRA	Nevada	0.50	Dec.	-69,755	-76,782	\$ 52.00/day	-\$ 1,813,630
Zion NP	Utah	0.68	Jan.	-4,452	-1,938	\$ 53.66/visit	-\$ 70,715
Bryce Canyon NP	Utah	0.68	Nov./Dec.	-750	-6,744	\$ 36.03/visit	-\$ 165,230

1. "NP" refers to national parks. "NRA" refers to national recreation areas.

Finally, total non-local visitor-days were multiplied by average daily visitor expenditures to give the direct sales impacts. In the absence of park-specific data, daily expenditures were derived from the results of statewide surveys conducted by the American Automobile Association (AAA 1996). These figures represent the average daily cost of food and lodging for car vacationers within each of the five states included in this study (see Table 1). These figures do not account for money spent on outdoor equipment, souvenirs, or fuel.

While no formal attempt was made to define economic impact areas, we can reasonably assume that the direct sales impacts estimated here extend beyond the parks' boundaries into their gateway communities. This is due to the fact that recreation-visitor-days represent 12 hours spent in a park, while average daily expenditures account for money spent during full 24-hour days. Presumably, this includes money spent in gateway communities on the way to and from the parks.

A slightly different method was used for Joshua Tree, Zion, and Bryce Canyon national parks. Average daily expenditures were replaced with estimates for average expenditures *per visit*. These were obtained from surveys conducted by the National Park Service Visitor Services Project (Machlis 1992; 1993; 1994). Average per-group expenditures for food, lodging, travel, and "other" were totaled, adjusted for inflation,

and divided by average group size. The resulting expenditure figures allowed for impact estimation based on recreation visits, rather than recreation-visitor-days (see Table 1).

**Yosemite National Park, California.** Ground zero for the economic impact of the shutdowns was Mariposa County, California, home of Yosemite National Park. One in four adults temporarily lost their jobs, while the county lost up to \$10,000 a day in sales tax revenue (U.S. Department of the Interior 1995). Due to the shutdowns, December visitation to the park was down 28% from 1994 (over 74,000 fewer visits). Visitor-days were down 42%, leading to an estimated loss of \$7.4 million in direct sales in and around the park (see Table 1).

NPCA visited four gateway communities outside of Yosemite for its 1996 study: El Portal (population 630), Fish Camp (100), Mariposa (1,500), and Oakhurst (13,000). Located just outside of Yosemite's two southern entrances, El Portal and Fish Camp rely almost exclusively on park visitors. Twenty miles southwest of the park, Mariposa claims one hotel room for every two residents. Oakhurst is located twenty-nine miles southeast of Mariposa, in neighboring Madera County (see Figure 2).

- *Jim Houtz, owner, Cedar Lodge and Parkline Restaurants, El Portal, California. Estimated loss: \$40,000-50,000. "We put about 50 people on unemployment. It*

# California

## ABBREVIATIONS

NHP	National Historical Park
NHS	National Historic Site
NM	National Monument
N PRES	National Preserve
NP	National Park
NRA	National Recreation Area
NS	National Seashore

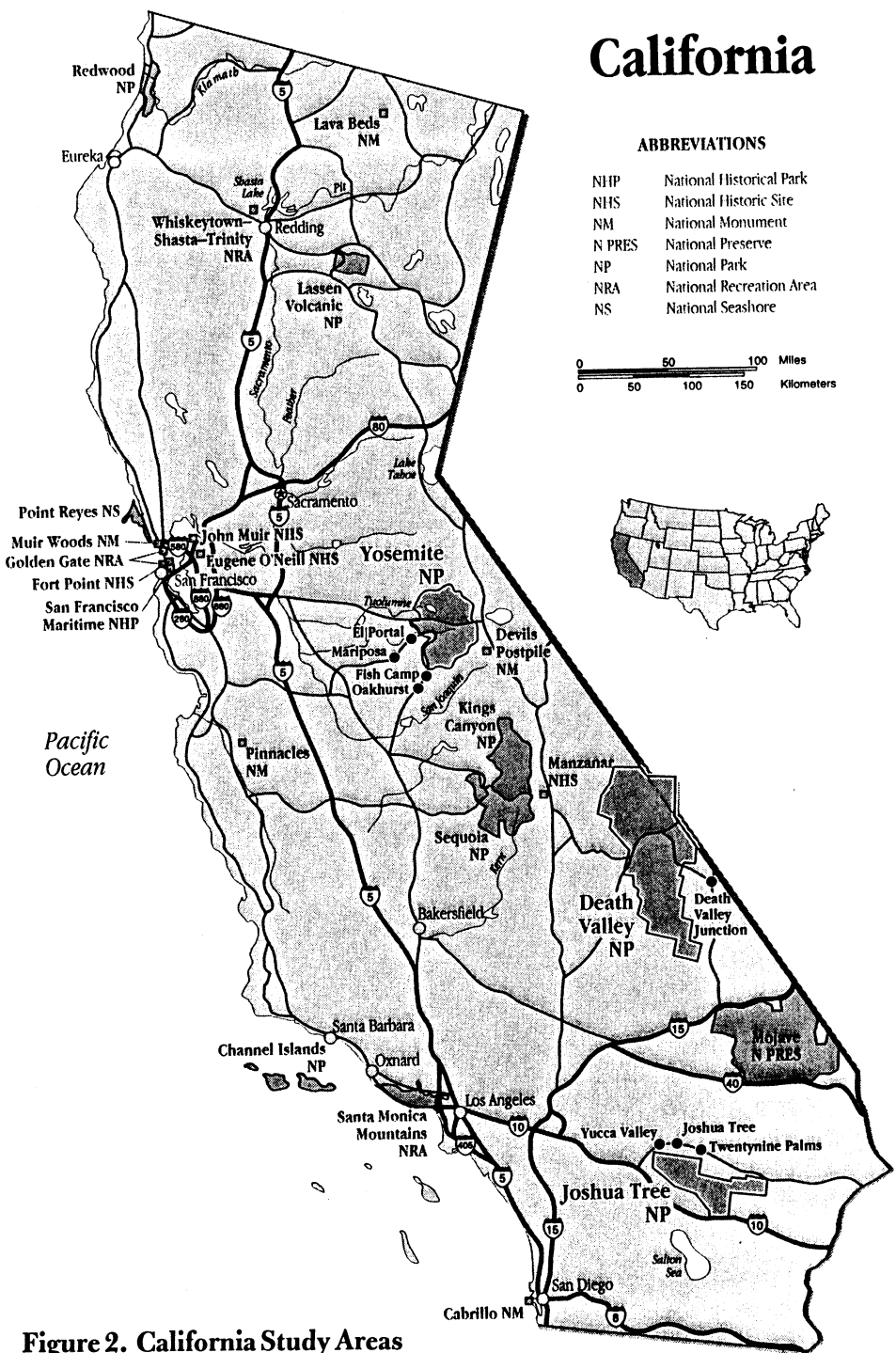
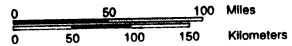


Figure 2. California Study Areas

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was pretty rough. The part that hurt us the worst was putting those people on unemployment when they were trying to put away for the winter...."

- *Gilbert Ghyselinck, owner, Yosemite Gateway Inn, Oakhurst, California. Estimated loss: \$45,000.* "That Christmas and New Year's shutdown was the toughest on us. We're close to full that time of year—90% occupancy. I think we barely made 50%..." (NPCA 1996).

**Joshua Tree National Park, California.** Joshua Tree was in the midst of a year-long visitation boom when the first shutdown hit in November. Due to area's re-designation from National Monument to National Park in late 1994, visitation was up by nearly 10%. However, the shutdowns caused November-through-January visitation to drop by 27% (69,551 fewer visits), leading to an estimated loss of nearly \$1.3 million in direct sales (see Table 1).

NPCA visited three communities outside of Joshua Tree for its 1996 study: Yucca Valley (population 13,700), Joshua Tree (4,000), and Twentynine Palms (11,800). These three communities provide virtually all of the area's visitor accommodations, as there are no private concessionaires within the park itself (see Figure 2).

- *Cheryl Tyler, manager, Oasis of Eden Inn, Yucca Valley, California. Estimated loss: \$30,000.* "It

really killed us. They were canceling as fast as they could get on the phone. People booked for five days. They stayed one night and left. We lost half our business" (NPCA 1996).

**Death Valley National Park, California.** Hardest hit during the closure of Death Valley National Park were private concessionaires within the park. Some local motels actually experienced a one-day boom when the park's 1,500 campsites emptied out. However, a 10% decrease in November recreation-visitor-days led to an overall estimated loss of \$725,000 in direct sales both in and around the park (see Table 1).

- *Lora Novak, manager, Amargosa Opera House, Death Valley Junction, California.* "We had a bunch of very unhappy campers out here the first time. We were right on their escape trajectory. They just left the area. It was a mass exodus..." (NPCA 1996).

**Everglades National Park, Florida.** Everglades National Park normally receives over 200,000 visits between November 1 and January 31. Thus, the shutdowns coincided with one of the park's busiest periods, resulting in a loss of over 68,000 visits. Recreation-visitor-days fell by 17% from November through January, leading to an estimated loss of \$1.03 million in direct sales in and around the park.

NPCA visited four communities just outside of Everglades National Park for its 1996 study: Florida City (population 5,800), Homestead (26,800), Everglades City (500 year-round), and Islamorada (1,220). Together, Florida City and Homestead serve as the Everglades' eastern gateway, while Everglades City is the park's western water entrance. Islamorada, on the park's southeastern boundary, is home to roughly seventy-five professional fishing guides (see Figure 3).

- *Captain Bob Reineman, fishing guide, Bud 'n' Mary's Fishing Marina, Islamorada, Florida. Estimated loss: \$3,250-3,900.* "It hurt the hell out of us. It stopped backcountry fishing almost completely—80 percent. I lost 10 to 12 trips at \$325 a day. Multiply that by 50 to 60 guides. Plus they buy bait and gas. It had an effect on everyone" (NPCA 1996).

**Dry Tortugas National Park, Florida.** Seventy miles to the east of Dry Tortugas National Park lies Key West (population 25,000) (see Figure 3). For the majority of the park's visitors, Key West's professional boat and seaplane operators provide the only means of access to Dry Tortugas. Thus, boat and seaplane operations felt the brunt of the shutdowns' impacts. November through January saw recreation-visitor-days drop by 53%, leading to an estimated loss of over \$200,000 in direct sales (see Table 1).

- *Capt. Alan G. "Jerry" Hill, owner, The Yankee Fleet, Key West, Florida. Estimated minimum loss: \$68,250.* "There are five people on the ship and three others on land. Several went on unemployment. Others would have but it was so day to day. Everybody was hanging by their teeth" (NPCA 1996).

**Grand Canyon National Park, Arizona.** Even though its peak visitation occurs in the summer, Grand Canyon National Park continues to receive upwards of 150,000 visits per month during the winter. Despite an agreement between Arizona and the federal government to keep a portion of the Canyon's South Rim open, the park received 37,000 fewer visits in November and December. Visitor-days dropped by 11%, leading to an estimated loss of \$2.7 million in direct sales in and around the park (see Table 1).

NPCA visited three communities outside of Grand Canyon National Park for its 1996 study: Tusayan (population 350), Williams (2,700), and Flagstaff (55,000). Tusayan is located just one mile outside of the park's busy south entrance. Williams lies nearly 60 miles to the south., yet its main streets are lined with hotels and restaurants catering to park visitors. Flagstaff is located twenty miles east of Williams (see Figure 4).

- *Thomas Kelley, executive director, Williams-Grand Canyon Cham-*

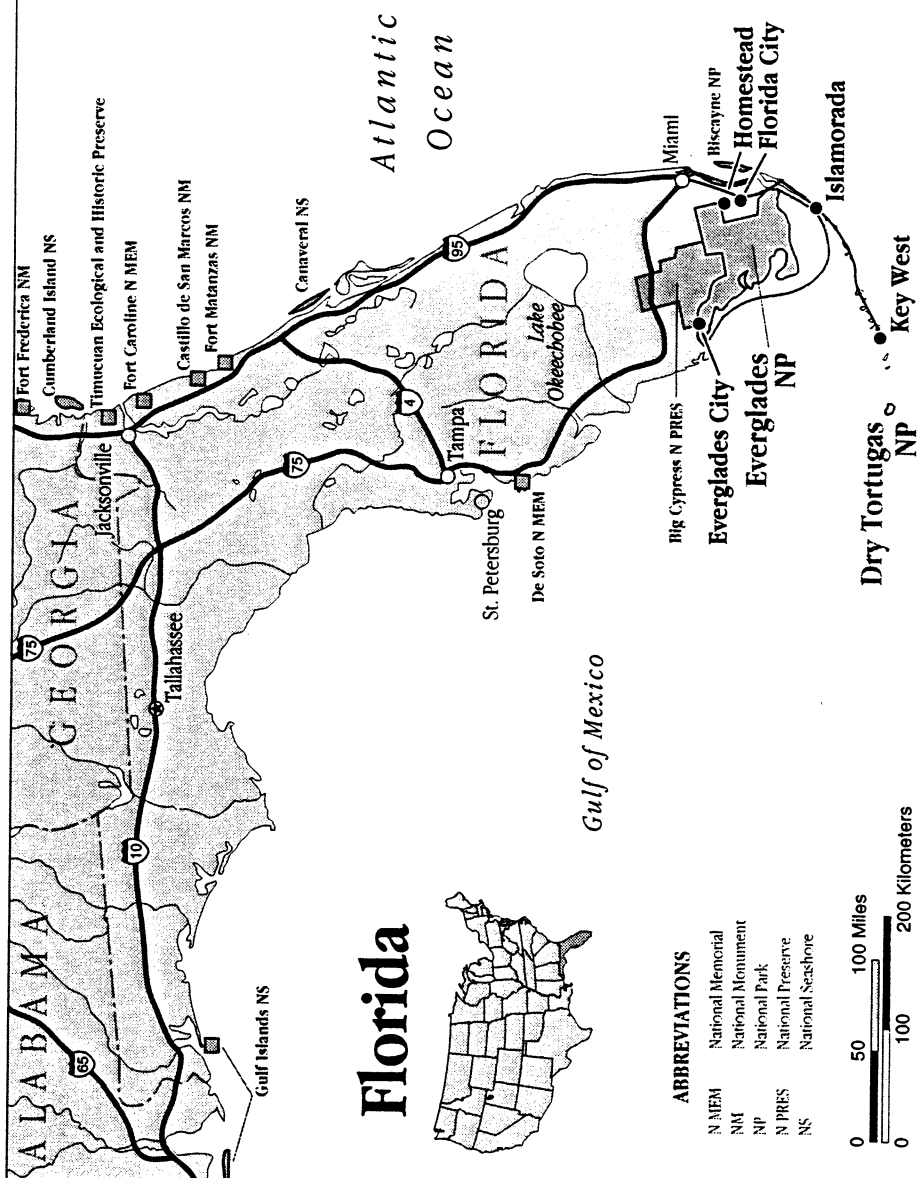


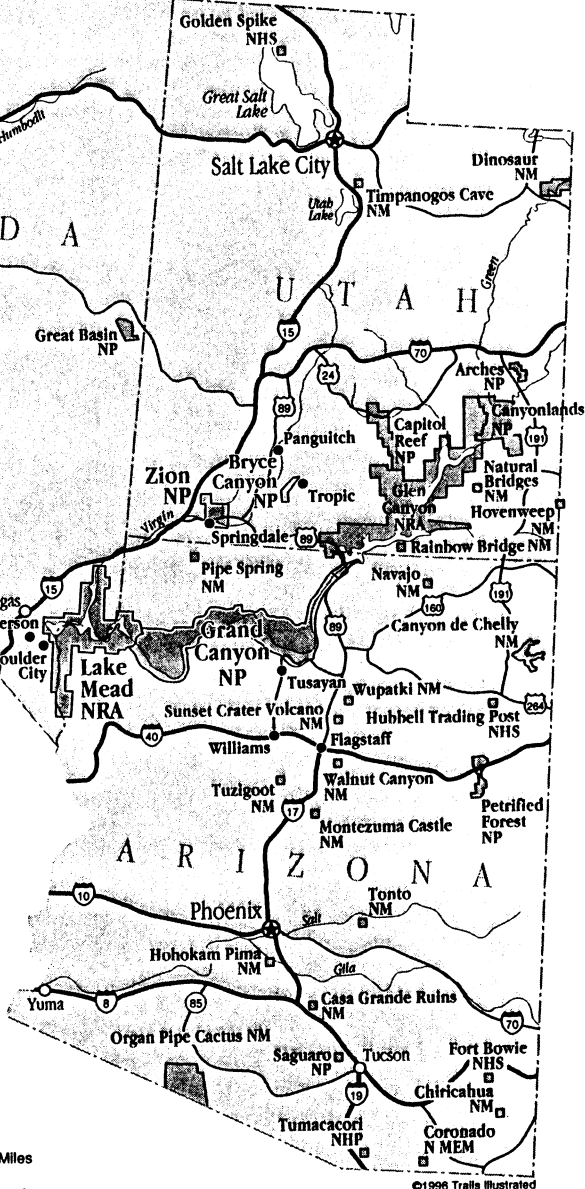
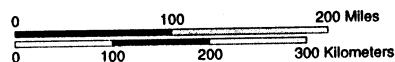
Figure 3. Florida Study Areas

# Nevada Utah Arizona



## ABBREVIATIONS

NHS	National Historic Site
NM	National Monument
N MEM	National Memorial
NP	National Park



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**Figure 4. Southwest Study Areas**

ber of Commerce, Williams, Arizona. "This town is about 90 some percent dependent on the Grand Canyon. Williams has 1,300 hotel rooms and a dozen restaurants. At the time of the closure, business dropped 75 percent...."

- *Tim Kennedy, general manager, Woodlands Plaza Hotel, Flagstaff, Arizona.* "We got \$42,000 worth of cancellations in the first five days: five or six bus tours. It caused the whole area to be soft for the rest of the year..." (NPCA 1996).

**Lake Mead National Recreation Area, Nevada.** Due to the shutdowns, December visitation to Lake Mead was down 16% from 1994 (76,700 fewer visits). Visitor-days fell by 21%, leading to an estimated loss of \$1.8 million dollars in direct sales in and around the park (see Table 1), including the gateway communities of Henderson (population 65,000) and Boulder City (12,500). Located directly between Las Vegas and Lake Mead, both communities are home to a number of professional fishing guides and supply shops (see Figure 4).

- *Jim Goff, fishing guide, Henderson, Nevada.* Estimated loss: \$3,000. "The first week they closed down, I had charters booked every day—I lost \$1,200. It was right in the heart of our best season" (NPCA 1996).

**Zion National Park, Utah.** Due to an unusually mild autumn, Zion National Park experienced heavier-than-normal visitation towards the end of 1995. However, the shutdowns all but eliminated visitation during the busy holiday season. The park received 4,400 fewer visits in January. This led to an estimated loss of \$70,000 in direct sales in and around the park (see Table 1), including Zion's sole gateway community, Springdale (population 350) (see Figure 4).

- *Chris Holmstead, owner, Oscar's Cafe & Deli, Springdale, Utah.* Estimated loss: \$10,000. "That's the time of year people are trying to get money to get through the winter.... Thanksgiving through Christmas and New Year's. It wiped out their whole winter base" (NPCA 1996).

**Bryce Canyon National Park, Utah.** As a result of the shutdowns, combined November-December visitation to Bryce Canyon National Park fell by 20% from the previous year (6,744 fewer visits). This led to an estimated direct sales loss of over \$165,000 in and around the park (see Table 1), including the communities of Tropic (population 1,500) and Panguitch (500) (see Figure 4).

- *Brian Foy, Foy's Country Corner Restaurant, Panguitch, Utah.* "You could see a dramatic change right then. A 40% drop in busi-



ness. After that, business just didn't get started. It's a big deal to us—the park. It's really about the only thing that we've got going" (NPCA 1996).

### Conclusion

As presented here and in a report in progress by Duffield et al. (1997), the impacts of the 1995-96 U.S. national park shutdowns provide a useful glimpse of the economic importance of national parks. Under normal circumstances, federal dollars spent on parks are matched and multiplied in value countless times by the tens of millions of people from around the world who visit them for

recreation, education, and wonderment. These visitors stop in communities outside of the parks to hire guides, purchase fuel and supplies, dine, and spend the night. Thus, when national parks are open and providing visitors with the opportunity to explore the natural and cultural resources preserved therein, they produce considerable economic benefits for their surrounding communities. If parks are expected to continue providing these benefits, it is imperative that they be well-maintained, adequately staffed, and administered to further the conservation purposes for which they are established.

*The appendices to this article are on pp. 52-53.*

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# Appendix A. State-Wide Economic Impact of Visitors to Utah's National Parks in 1995,

Out-of-State Visits,	Average Expenditure Per Visit,	Direct Sales Impact	Sales Multiplier,	Employment Multiplier,	Total Sales Impact,	Employment Impact,
6,694,148	\$47.95	\$320,984,408	2.13	54.2	\$683,696,788	17,397 jobs

1. Includes technical corrections to the study conducted by the National Parks and Conservation Association (1996).
2. Out-of-state visits were determined, on a park-by-park basis, by multiplying 1995 total visits by the estimated percentage of visitors originating out of state. Percentages were obtained from park visitor surveys and staff estimates. Where neither was available, two-thirds of the percent non-local figures used in the 1996 MGM were substituted in.
3. Average expenditure per visit was estimated using data from visitor surveys of Canyonlands, Zion, and Bryce Canyon National Parks, conducted by the National Park Service Visitor Service Project (Machlis 1991; 1993; 1994). Average group expenditures on food, lodging, travel, and other expenses were adjusted for annual inflation, divided by respective average group size, and combined into a single weighted average.
4. The sales multiplier was derived from total final-demand sales multipliers for Utah's eating and drinking, and lodging and amusement industries. These multipliers were estimated by the Bureau of Economic Analysis (1992) using its Regional Input-Output Modeling System (RIMS II). The figure used here is an average of the multipliers for the above-listed industries.
5. The employment multiplier was derived from total final-demand employment multipliers for Utah's eating and drinking, and lodging and amusement industries. These multipliers were estimated by the Bureau of Economic Analysis (1992) using RIMS II. The figure used here is an average of the multipliers for the above-listed industries. It represents the number of employees necessary for the industries to produce \$1 million in output (sales).

6. The total sales impact is the product of out-of-state visits, average expenditure per visit, and the state-wide sales multiplier:

$$6,694,148 \times \$47.95 \times 2.13 = \$683,696,788$$

7. The employment impact is the product of direct sales and the employment multiplier, divided by \$1,000,000:

$$\$320,984,408 \times 54.2 / \$1,000,000 = 17,397 \text{ jobs}$$

## Appendix B. Initial Study Results<sub>1</sub>

Study Area <sub>2</sub>	State	Est. Percent Non-Local Visitation	Period <sub>3</sub>	Visitor Days	Visits	Avg. Visitor Expenditure <sub>4</sub>	Est. Direct Sales Impacts
Yosemite NP	California	0.95	Dec.	-93,714	-54,926	\$ 99.48/day	-\$ 8,856,535
Joshua Tree NP	California	0.74	Nov./Dec.	-29,810	-46,333	\$ 17.90/visit	-\$ 613,727
Death Valley NP	CA/NV	1.00	Nov./Dec.	-12,558	21,427	\$ 65.00/day	-\$ 816,270
Everglades NP	Florida	1.00	Nov./Dec.	-16,640	-40,220	\$ 85.96/day	-\$ 1,430,374
Dry Tortugas NP	Florida	0.90	Nov./Dec.	-3,361	316	\$ 85.96/day	-\$ 260,020
Grand Canyon NP	Arizona	1.00	Nov./Dec.	-51,765	-37,442	\$ 109.13/day	-\$ 5,649,114
Lake Mead NRA	Nevada	0.50	Dec.	-69,755	-76,782	\$ 86.00/day	-\$ 2,999,465
Zion NP	Utah	0.68	-	-	-	-	-
Bryce Canyon NP	Utah	0.68	Nov./Dec.	-750	-6,744	\$ 26.05/visit	-\$ 119,463

1. Original economic impact estimates included in the study conducted by the National Parks and Conservation Association (1996).

2. "NP" refers to national parks. "NRA" refers to national recreation areas.

3. Study periods within the investigation did not include the month of January, since 1996 visitation data were not available at the time of the study.

4. Average daily expenditures were estimated based on state-wide surveys conducted by Runzheimer International for *per diem* corporate travel costs (National Park Service 1996b, Appendix A). Average *per-visit* expenditures account only for food and lodging expenses as identified in surveys conducted by the National Park Service Visitor Services Project (Machlis 1991, 1993, 1994).

## The Cave Creek Tragedy: Of Cutbacks, Budgets, and Management

**O**n April 28th, 1995, twenty students from an Outdoor Recreation Course at Tai Poutini Polytechnic at Greymouth, New Zealand, were on an interpretative walk to a Department of Conservation (DoC) site known as Cave Creek. They were accompanied by the Field Centre Manager and a DoC interpreter. Eighteen people—seventeen students and the manager—crowded onto a platform that overlooked a gorge. The newly built platform collapsed, falling thirty metres, killing fourteen, and injuring four others.

This paper will examine the tragedy and its aftermath. The focus will be on the concept of managerialism and how changes brought about by this management system contributed to the failure.

There will be few readers who are not familiar with jargon such as “restructuring,” “downsizing,” “empowerment” and “doing more with less.” Much of this bureaucratese is part of what has become known as “managerialism.” Managerialism can be defined as “the reform process by which public policy adopts marketing and business management concepts and techniques” (Duncan 1995). Proponents believe that by applying this ideology to the public service, government can attain that highest of all goals—a balanced budget and a happy electorate. Whether or not this form of public service management can lead to these results is moot. Pollitt (1993) one of the main critics as well as formulators of the idea, argues that all is not well with such a business-oriented sys-

tem. New Zealand has been one of the foremost practitioners of the theories and concepts embodied in this ideology. Its success or failure is not yet clear. Some history has already been written; Cave Creek and the events surrounding it are one chapter. It is hoped that by reviewing this tragedy and the management environment which helped create it, we can better understand what can happen when inappropriate methods are applied to not-for-profit institutions.

The paradigm shift from the concept of government operating as a non-profit agency for the “public good” has been a major preoccupation of many western democracies as governments attempt to control ever-increasing financial demands on a finite public purse. The most recognisable aspects of this new paradigm include transferring the financial burden to individual customers (users), divesting of responsibilities through the process of privatisation, weakening of unions through legisla-

tion, and reducing staff under the guise of "restructuring." These changes are supported by business and the public who see government agencies as managerially inept and over-staffed. Hence politicians and senior managers have rushed to adopt business practices that are seen as more efficient, financially sound, and politically correct. There is no real evidence that this is the case, and there is growing concern that the opposite may be true.

For example, following the Cave Creek Inquiry an internal response document pointed out that:

It is our view that it is unlikely that the private sector model could ever apply in the same manner in the Public Service where the funding decisions and the management arrangements are more complex and where the requirements of public administration place different demands on the Chief Executive (State Service Commission 1995:24 -25).

Further, there is mounting evidence that quality of service provided by public agencies is suffering considerably. Rees and Rodley (1995) provide a number of examples from the social welfare and health fields in Australia and New Zealand. Their views are supported by others (Mintzberg 1989; Pollitt 1992, 1993; Self 1993). Less work has been done in the area of heritage than in social welfare, but the effects are similar.

The case of Cave Creek is an extreme example of how managerialism has affected the public service and illustrates more generally the problems it has created for heritage managers.

### **Heritage Management in New Zealand**

It is against this background that the way heritage is managed at the national level in New Zealand must be examined. The DoC is the major player, controlling about 28% of the total land surface as well as some marine areas. DoC came into being in 1987. It was an amalgam of a number of departments, all with heritage management responsibilities but with very different corporate histories. The new Department has struggled ever since to create a new work ethos and strategic direction. Managers have been forced to react to continual change and budget tightening. Reacting to these changes has left managers little time to create appropriate communication channels and actually manage the resource.

The consolidation efforts during the first three years of operation resulted in 352 full-time positions being cut from an initial total of 2,300 (Noble 1995:33). Cuts continued and by 1995/96 the number of full-time positions was pegged at about 1,350, plus 250 casual employees. Interestingly, this is 125 lower than recommendations in a 1987 report prepared by the Coopers and Lybrand firm (Noble 1995:33). Within

the West Coast Conservancy, where the tragedy occurred, the number of full-time positions stood at 112.5 in 1994, 24.5 less than the level originally considered necessary. By 1996 this number had dropped to 106.

At the same time the number of properties has increased, as has visitation and legislative responsibilities. Personnel have been stretched to meet these new demands with little by way of new staff. This in turn has lead to a general deterioration of services and capital plant.

Financially, there was a 5% cut in Crown revenue in 1993/94 and a 1.5% decrease for each of the following years (inflation not included). The present budget for DoC is somewhere between NZ\$122 and 130 million, depending on which reports are believed; the figure is certainly closer to the former than the latter. Whichever figure one accepts, it is a liberal one since government charges its departments a 12.5% tax on all goods and services. Furthermore, the Treasury claws back between 10 and 15% as depreciation on resources. Interestingly, none is returned for appreciation on historical buildings and artifacts or on changes in land prices. In real terms DoC has lost 16% of its spending power in the past five years.

The Royal Forest and Bird Society, the major NGO supporting the Department, has for some time pointed out that DoC is grossly underfunded and recently proposed that the budget should be doubled (Hutchings 1996). Others have also

pointed out that there are serious problems with the funding of the Department (Dewar and Thorn, 1994). Considering that foreign tourism alone brings in NZ\$3.4 billion in foreign exchange, of which at least NZ\$600 million is in some form of government taxation, and that the government has run at a net surplus for the past two years, it is interesting to note that none of this money has gone to DoC—something that would not happen in a business.

These issues have led to the recognised symptoms of managerialism-based systems. Dedicated staff are not allowing workloads tied to vacated positions to disappear but are continuing to pick up and redistribute the work leading to stress and burn out. This fact is noted by Judge G.S. Noble in the official Inquiry into the accident (Noble 1995:28-29) and is supported by Hutchings (1996:17), who suggests that Government has consistently played on this loyalty factor. Such a situation gives the impression to the public, senior officials in DoC, Treasury, and Cabinet, that over-staffing is real and their cutbacks were justified. This false impression is a result of poor monitoring and little understanding of work hours, volunteer overtime, and staff turnover rates.

These symptoms were apparent before Cave Creek and appear to have accelerated since. Cave Creek itself is the symptom of a disease that is infecting many publicly run heritage agencies worldwide. In both Canada and the United States similar

managerialism philosophies are being introduced and ironically, in some cases, are modeled on the apparent successes in New Zealand. Below is a brief case study of what happened at Cave Creek and how it fits into the pattern set by misdirected managerialistic ideology.

### **Cave Creek**

History is a great teacher and it is to be hoped that some understanding of what happened will point to the dangers of an over-reliance on managerialism.

The Commission of Inquiry set up by the Government to investigate found a number of reasons for the collapse. The primary cause was the failure of the structure to support the weight of the people on it. The secondary causes were:

- "Failure to provide qualified engineering input into the design and approval of the project." Only one DoC engineer was available on the South Island, and was not consulted.
- "Failure to adequately manage the construction, no one seems to have been in charge of the project." There was no qualified carpenter on site during construction, nor had the Conservancy employed such a person for several years.
- "Failure to comply with statutory requirements," hence no proper inspections by statutory authorities before, during, or after construction. Recent regulatory

changes were not clearly communicated to field personnel. New regulations under the Building Act and a new Occupational Health and Safety Act had recently been put in place, but no training had occurred due to budget constraints.

- "Lack of inspections by qualified DoC personnel."
- "Lack of warning signs indicating that the platform had a maximum loading of 10 people."

This "maximum of ten" is unusual in that the limit was set not for safety reasons but because a staff member could not see "why more than ten people would want to crowd on to it." Signs were produced, but they stated that five was the maximum number of people allowed on the platform at once. No one knows why the number was changed. Regardless, the finished signs never left the workshop.

The inquiry also discussed several indirect factors that played a part in the accident.

**Systems failure.** The West Coast Conservancy of DoC failed to use existing checks to ensure proper procedures were followed. As well there was a general lack of communications between overworked managers at various levels and field staff. In plain language, the management structure was inadequate to cope with expected duties.

**Cost-cutting measures, including staff reductions.** Since 1987, the West Coast Conservancy had lost



112 person-years of staffing, while at the same time visitation increased by at least 25%. Paperwork had also increased, particularly since the introduction of a new Resource Management Act. This, along with continuous changes to the administrative structures, made it very difficult for the staff to cope.

**Continued restructuring.** The DoC personnel are not only responsible for national parks and equivalent areas but have many other duties. They are responsible for 78 acts and sets of regulations plus have input into many more. This, in addition to the constant changing and restructuring, made it impossible for staff to keep up with all that was happening. Key personnel having to cover several job descriptions was common. Some of the roles and responsibilities they were assuming were positions for which they were not qualified. Some staff were working almost double the expected hours. This not-uncommon practice was motivated by professionalism, high interest in the job, and a feeling of moral obligation. This government dependency on the "loyalty factory" is not an isolated one and is well-documented in other public service organisations both in New Zealand and abroad (Rees 1995).

Although the commissioner states that budget cuts were not a reason for the deaths, about 20% of the inquiry deals with the problem of lack of qualified staff, overwork, and lack of training of managers in new regulations and procedures—all largely be-

cause of financial restraints and the resultant overworking of staff.

**Poor work planning practices.** There was, in essence, no work schedule or work planning attached to the construction of the platform or the accompanying trail. The platform was eventually installed by a "volunteer" work party of five employees. From the time of its inception until the platform was in place took over two years, a project that should have taken, at most, three to four months. This discontinuity of time was a direct result of too few people with too many jobs to do. The time span meant that important parts of the structure, such as a steel beam and appropriate bolts, were either mislaid or not at the site during the construction. Nor, surprisingly, was a set of plans.

Two additional points from the Inquiry. First, a member of staff did point out that he felt the railing on the platform was unsafe, particularly for children. Perhaps most sadly, the interpreter accompanying the group had, on a visit the day before, noticed something "wrong" with the platform. She admitted she did not think that the platform would collapse but was concerned enough to bring the problem to the Field Centre Manager. He accompanied the Tai Pou-tini students to check out the situation, and died in the fall.

Judge Noble in his summary says:

I conclude that it would be quite inappropriate to point the finger of blame at any one of the individ-

uals. It is uniquely an institutional failure. The striking feature of the inquiry is that not one of the individuals concerned was ever aware of the appropriate standards to be met, simply because no such set of standards was in place. It was this lack of an proper system that caused the Cave Creek platform to fall, with such tragic consequences (Noble 1995:86).

Not everyone agrees with this finding. At least one author has written a scathing attack on the Department and forwards names of individuals who should be charged (Hunt 1996).

It is the contention of this paper that one of the major problems was the existing system of management, which was basically an zealous application of business practices that may not have been suitable for such a public organisation. In an attempt to become more like businesses, and following models established by business, DoC has systematically changed its operating systems. Authority has been decentralised. This in itself is not necessarily bad but in decentralising it is essential that those who are accepting the devolved authorities are trained for the task. Essentially, empowerment does not only mean the devolution of authority and responsibility, but the transfer of authority and responsibility to an individual who has the training and knowledge to carry out the functions required of them. Moreover, an appropriate support network by way of

a recognised standard operating system is required. None of this was done in the case of DoC operations. According to a response document: "There is a significant backlog of identified training requirements. The Review Team is concerned over the extent of training required in the Department, and in particular, the Department's ability to release staff from their output work to undertake training" (State Service Commission 1995:4).

This lack of training in new regulations such as the Occupational Health and Safety Act (1993) and the Building Act (1991) was particularly lacking and had a large part to play in the tragedy (Noble 1995:53, 66).

The State Service Commission comments further on the problems faced by senior managers in a government department (State Service Commission 1995:23-25). Unlike private enterprise, where a company's Chief Executive Officer (CEO) has a direct means of influencing and advising on issues concerning changes in a company, a senior public servant does not. In the Public Service the situation is much more complex. While the minister responsible for a department acting on the behalf of Parliament may issue a CEO with new functions, the CEO may have little input and must simply accept the new duties. Further, under the government system, the departments are required to establish a liaison with Treasury on any financial issues before they are discussed by Cabinet. Because Treasury acts to

enforce Cabinet decisions on annual budgets (generally to limit government spending), there can be little doubt that Treasury recommendations carry considerable weight in government and decisions made by Cabinet. The difficulty occurs in that often Treasury officials have little or no understanding of the requirements of a heritage organisation or its management. Hence there is often a failure to present reports to Cabinet that reflect the needs of the heritage department. Where conflicts occur between heritage officials and Treasury there is little doubt which view will prevail in Cabinet. Such situations are by no means unique to New Zealand. It is this situation that is a major shortfall of applying managerialism principles in the public service. There is no business-type CEO with the power or credibility to intercede successfully on behalf of the department. Without considerably more CEO control and influence with the funding body (Cabinet), such problems as underfunding or misfunding will continue.

Government CEOs often find themselves in a situation where the Departmental Minister may expect more from their department, while the necessary financial support is often not forthcoming from Cabinet as a result of Treasury's submissions. This is basically what happened in New Zealand when the much-touted and politically correct Resource Management Act was passed. There were more duties but little or no funding to support the new legisla-

tion. Funding was to be found by "restructuring." This situation ripples through the organisation and various levels of management adjust already-heavy workloads and tight budgets to provide the required output. Such situations are not uncommon and are well-recognised by managers within the public sector but apparently not by politicians, those short-term guardians of a country's purse. It is problems such as these that led to the inability of the West Coast Conservancy staff to meet the required levels of responsibility at Cave Creek.

### Conclusion

The reasons for the collapse are many but one is overriding: managerialism. In an attempt to be more "business-like," the New Zealand government, and, accordingly, the DoC, embraced the concepts and philosophies of business management rather than management for the public good. The State Service Commission makes it clear that the use of private business methods may not be appropriate to government organisations.

Downsizing did help provide government surpluses, but also led to the overworking and demoralisation of the civil service responsible for heritage management, not to mention the deterioration of resources. Senior administrators struggled under an ever-increasing set of imposed requirements to perform existing and new tasks to the satisfaction of their Minister and the "budget"—a budget

set in part by Treasury officials with little or no understanding of heritage management. At some point the added weight of responsibility and time pressures were bound to have serious effects on the heritage system of New Zealand. It is sad that the most noticeable effect was the death of fourteen people.

What are the lessons for park managers?

It is apparent from this case study that many of the managers at various levels knew that they were working long hours and not everything was getting done. They recognised the pressure but seemed powerless to do anything about it. This is one of the basic dilemmas of managerialism: although many of the problems are recognised, the power to change the situation is decided at a level and in ways the park manager has little or no control over.

It is important that senior managers and politicians be confronted with the limits of doing more with less, preferably without destroying a heritage resource or killing a visitor. Fundamentally, public service work should not be seen as a business like those in the private sector, but as a much more complex structure requiring its own strategies and methods. This short essay is not the place to discuss these in detail, but there are other management systems, such as the Public-Service Orientation Model discussed by Pollitt (1993).

Managers have a responsibility to ensure that staff are not overworked. It is essential that they recognise work

limits and deal effectively with individuals who work beyond normal working hours. If people are working longer hours, then it is important to understand why. The answer comes with observation and communication with the people involved. This can often be accomplished informally as well as through competently managed performance appraisals.

Further, senior managers must realise that training and upgrading in the modern, fast-changing work environment must remain a part of the system regardless of financial restraint. This is particularly so when the issues relate to staff and public safety. It is fundamental that managers realise that changes in the duties and requirements of an individual job has a cost attached. It is foolish, if not criminal, to change an individual's responsibilities without ensuring that proper training and upgrading is provided.

It is also important for individual staff members to not take on projects for which they are not qualified. The management structure must support such decisions when they are legitimate. A mistake has already been made by directing work to the unqualified; compounding it with acceptance can only lead to disaster. In such places as New Zealand where managerialism practices have resulted in the weakening of unions, the responsibility must fall back on managers and government officials, as well as on regulations such as the Occupational Health and Safety Act.

Finally, managers should realise

that, in hiring, it is important not to underestimate the value of qualified staff. One of the major errors occurring in New Zealand and other countries is the filling of vacant positions with the lowest skill level possible. It is one way of dealing with a tight budget, but is obviously a false economy when one considers the cost of training individuals and the learning curve required to establish the newcomer in the system. The effect on heritage resources and visitor safety that may be placed under that person's control are also at higher

risk—a risk that may come back to the government is costly remedial action, litigation, or loss of the resource. The old adage “you get what you pay for” is so true.

These are easy recommendations to suggest but much harder to put into practice. If, however, heritage managers do not succeed in applying these recommendations, they will continue to see the deterioration of vital natural and cultural heritage, not to mention the possible risk to individuals, both visitors and workers.

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The George Wright Society was founded in 1980 to serve as a professional association for people who work in or on behalf of parks and other kinds of protected areas and public lands. Unlike other organizations, the GWS is not limited to a single discipline or one type of protected area. Our integrative approach cuts across academic fields, agency jurisdictions, and political boundaries.

The GWS organizes and co-sponsors a major U.S. conference on research and management of protected areas, held every two years. We offer the FORUM, a quarterly publication, as a venue for discussion of timely issues related to protected areas, including think-pieces that have a hard time finding a home in subject-oriented, peer-reviewed journals. The GWS also helps sponsor outside symposia and takes part in international initiatives, such as IUCN's World Commission on Protected Areas.

## Who was George Wright?

George Melendez Wright (1904-1936) was one of the first protected area professionals to argue for a holistic approach to solving research and management problems. In 1929 he founded (and funded out of his own pocket) the Wildlife Division of the U.S. National Park Service—the precursor to today's science and resource management programs in the agency. Although just a young man, he quickly became associated with the conservation luminaries of the day and, along with them, influenced planning for public parks and recreation areas nationwide. Even then, Wright realized that protected areas cannot be managed as if they are untouched by events outside their boundaries.

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Following the spirit of George Wright, members of the GWS come from all kinds of professional backgrounds. Our ranks include terrestrial and marine scientists, historians, archaeologists, sociologists, geographers, natural and cultural resource managers, planners, data analysts, and more. Some work in agencies, some for private groups, some in academia. And some are simply supporters of better research and management in protected areas.

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