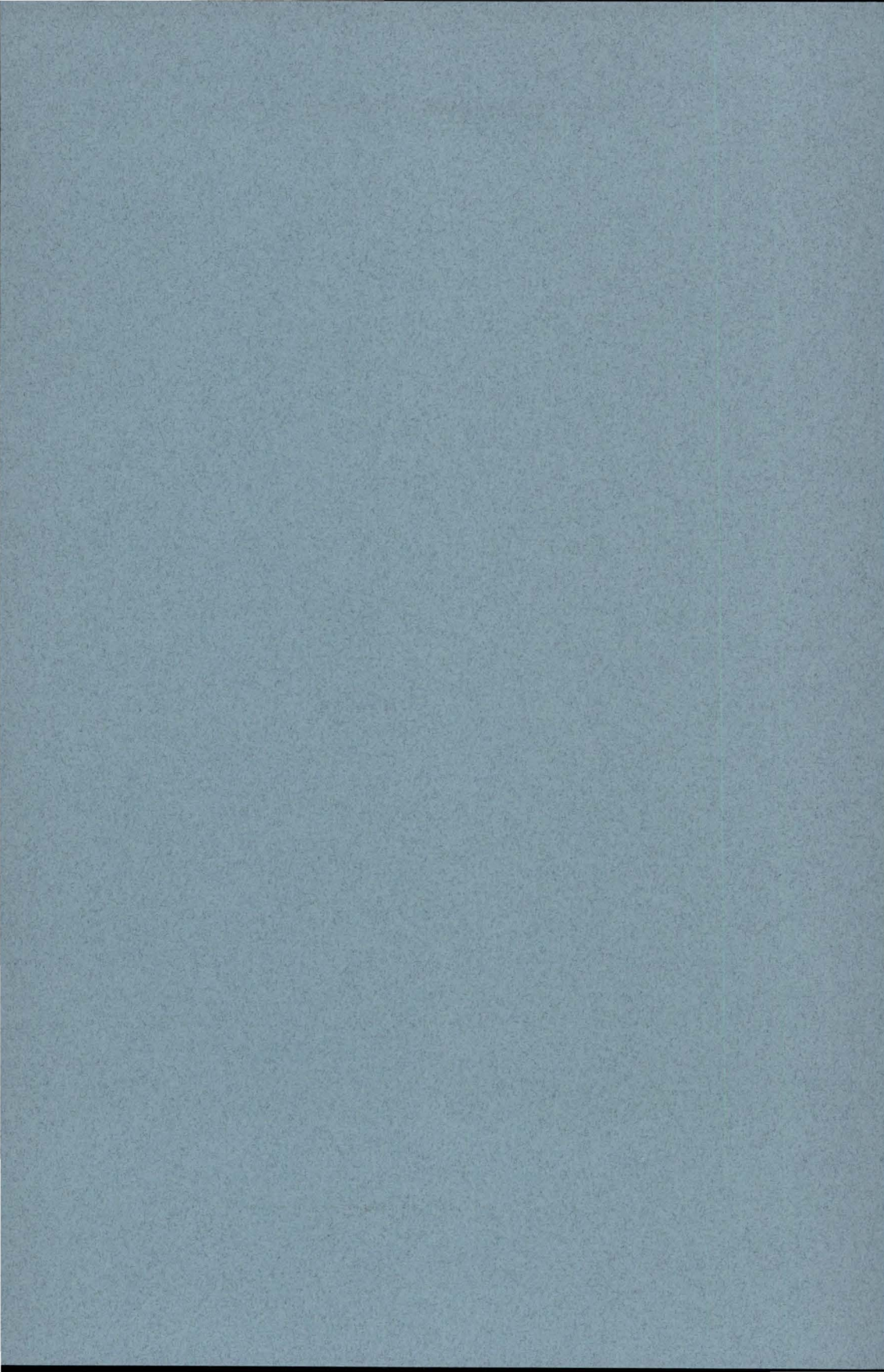


JON ROUSH



*WILDERNESS RESOURCE
DISTINGUISHED LECTURESHIP*







Wilderness Resource
Distinguished Lectureship

15

*A VISION FOR WILDERNESS
IN THE NATION*

*Jon Roush
President,
The Wilderness Society*

UNIVERSITY OF IDAHO WILDERNESS RESEARCH CENTER

February 27, 1995

Published as Contribution No. 792 of the Idaho Forest, Wildlife and
Range Experiment Station.

Illustrations by Lorraine Ashland.

Foreward

James R. Fazio

Good evening ladies and gentlemen and welcome to the fifteenth Distinguished Wilderness Lectureship. My name is Jim Fazio and in an earlier age I was head of the Department of what we called then "Wildland Recreation Management," now known as Resource Recreation and Tourism. And with that duty—at least for a few years—came the directorship of the Wilderness Research Center.

I am glad to be here tonight (and to see such a nice turnout). Some of us can remember launching this Distinguished Wilderness Lecture Series back in 1977. And very appropriately that first speaker was Senator Frank Church, and we held it over at the Student Union, in the ballroom. There were over 800 people there—standing room only—live TV coverage, and phone hookups so people from around Idaho could call in questions.

And following that in this series of lectures we have had author Roderick Nash exploring the concept and future of wilderness, and then Secretary of the Interior Cecil Andrus, asking rhetorically, "Why not combine the USFS and BLM into a single agency, the Department of Natural Resources?" Not sure Mr. Andrus found out *why not*, but we certainly *did not*, and still have the two agencies managing wilderness and other resources with pretty much the same methods and goals. And there was Patrick Noonan, executive director of The Nature Conservancy, suggesting that contrary to what Aldo Leopold said about wilderness having to be large enough to absorb a two-week trip by pack animal, maybe we need small areas too.

Marshes and woodlands that may harbor rare plants or animals... little islands of roadless areas near where people live... maybe places like Grandmother Mountain. And there was Oren Lyons presenting the Native American perspective, and reminding us that wilderness is really the invention of white man because to the Indian there was no wilderness—it was all home. And there were many more. Jon Roush will continue that tradition tonight.

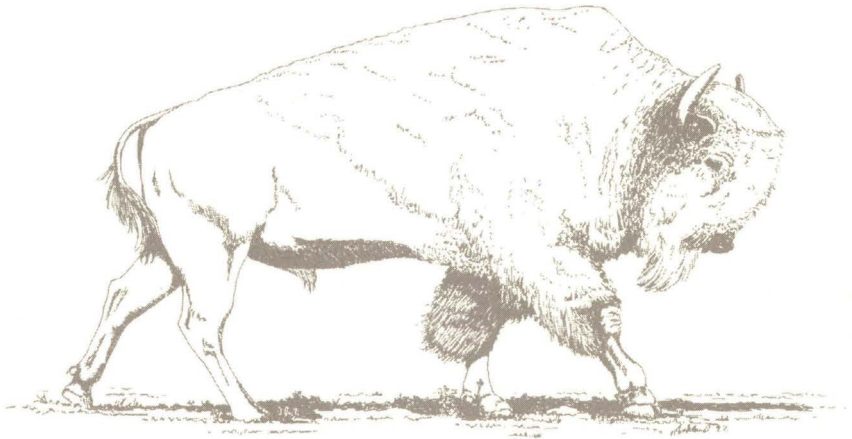
Now of course the Wilderness Research Center does other things besides sponsor this lecture series. The Center's mission is to promote research and educational activities to further our understanding of wilderness and natural ecosystems and human relationships to them. The goal is to gain knowledge that can be applied to better manage our designated wilderness areas so that the public can enjoy sustained use and benefits from wilderness. Since its inception in 1972, the Center has supported research in Idaho and throughout the Northwest, with over 30 studies completed and many more in progress.

The Center helps sponsor university courses, internships, workshops—it has hosted a national conference on wilderness, and has been deeply involved in several international conferences. Today it is helping launch an exciting new international journal on wilderness issues.

But I personally believe that this lectures series is the jewel in the crown of the Wilderness Research Center. Most recently, the lectures have focused on "visions for wilderness" from the perspectives of the national forests presented by our friend Bill Worf; the national parks, with Roger Contor; refuges of the U.S. Fish and Wildlife Service, presented by Bill Reffalt; and earlier this month, BLM's perspective, presented by Acting Director Mike Dombeck.

Now, one thing I didn't tell you about that very first lecture by Senator Church: there was a young fellow there who worked for the Forest Service but was serving as a

congressional fellow on Senator Church's staff. He helped write that presentation and was running around the SUB making sure everything was just right and that nothing would go wrong to create any embarrassments. That young fellow was John Hendee, now the Director of the University of Idaho Wilderness Research Center. Dr. Hendee will now introduce our speaker for tonight.



James R. Fazio is professor in the Department of Resource Recreation and Tourism, College of Forestry, Wildlife and Range Sciences. He has been associate dean of academics and continuing education in the college and has served as editor for two newsletters of The National Arbor Day Foundation.

Introduction

John C. Hendee

I'm very pleased to introduce Dr. G. Jon Roush, the fifteenth speaker in the Distinguished Wilderness Resource Lectureship series. Dr. Roush is leader of the largest wilderness advocacy organization in the world. We are honored to have him at our university, in our college, and in Idaho today. Jon is a scholar, a planner, a rancher, and a seasoned conservationist.

Dr. Roush was appointed President of The Wilderness Society in January 1994. After receiving his Ph.D. in English from the University of California at Berkeley, he was an assistant professor of Literature and Humanities at Reed College and a program officer of the Carnegie Corporation of New York. Jon has worked for The Nature Conservancy, first in the west and then as Executive Vice President. He has served on several nonprofit boards, including The Nature Conservancy (where he served two terms as chair), The Conservation Fund, the Northern Rockies Action Group, the Northern Lights Institute, and the Montana Land Reliance. Jon has published numerous articles and book chapters in the fields of management, conservation, education, literature, and the arts.

I've walked in the wilderness with Jon, I've watched him dialogue with wilderness managers, and I've listened to his provocative ideas. He thinks big thoughts and his vision is far-reaching and thoughtful. Ladies and gentlemen, please welcome our distinguished wilderness lecturer, Dr. Jon Roush, who will present "A Vision for Wilderness in the Nation."

John C. Hendee is director of the University of Idaho Wilderness Research Center, managing editor of the International Journal of Wilderness, and former dean of the College of Forestry, Wildlife and Range Sciences.





A VISION FOR WILDERNESS IN THE NATION

Jon Roush

Collectively, the preceding lectures in this "vision for wilderness" series have presented an inspiring picture of one of our nation's greatest successes. Thirty years ago, Congress passed the 1964 Wilderness Act in order to "secure for American people of present and future generations the benefits of an enduring resource of wilderness." If you attended the previous lectures, you heard leaders of the four federal agencies that administer the National Wilderness Preservation System speak with justifiable pride of the past successes and future visions.

Rather than repeat what you already have heard about the present wilderness system, I want to provide a capstone for future thinking. The managers of our public wilderness lands already have a formidable task. Threats to our wilderness system are ecological, economic, political, and social, but one overriding force will drive all the other threats. That force is *population growth*, and it could lead to tragedy. Luckily, we can take steps to avert the tragedy. In this lecture, I will describe the threats and what I think must be done.

Threats to Wilderness

To understand the threats, we need to understand what is at stake. When we protect wilderness, we are protecting more than land; we are protecting certain values that land embodies. The federal wilderness system is more than land. It is a complex set of relationships between people and the land. Through those relationships, we express what we value in wild land. A threat to wilderness is a threat to our wilderness values.

What are these values that have led our nation to invest in wilderness? We have legally designated over one hundred million acres of public land as wilderness under the Wilderness Act, more than half of it in Alaska. In the aggregate, the wilderness system is as large as the state of California. On all that land, we allow no roads, nothing motorized like trail bikes or chainsaws, no logging or mining, no cabins, dams, or other structures. We have decreed that on this land, this wilderness, nothing mechanized will interfere with natural communities and natural processes. Why would we do that, and why are wilderness advocates calling for even more land to be added to the system?

Why Save Wilderness?

People have advanced many reasons for saving wilderness, but they boil down to four arguments. The *first* is the value of diversity. Wilderness is essential for the preservation of biological diversity and rare and endangered species. The most common reason for loss of diversity is loss of habitat. The complexity of wild land ecosystems makes it impossible to predict all the consequences of manipulating, fragmenting, or diminishing habitat critical for biological diversity. Therefore, the prudent approach is to leave it alone as much as possible.

The *second* argument for protecting wilderness is its immediate utility. Wilderness provides unique and essential products or services essential for human well-being. Wild

lands are essential parts of larger systems. For example, because it stores and purifies water, wild land is an essential part of many of our largest municipal water systems and rural irrigation systems.

...the four values that lead us to protect wilderness [are] diversity, utility, quality of life, and responsible ethics.

The *third* argument is the value of spirituality and spiritual healing. Wild land improves the quality of human life. Our species has spent virtually all its existence in diverse natural habitats, from our earliest beginnings in African forests and savannahs.

The *fourth* argument is the value of ethical behavior. This argument was developed elegantly by Aldo Leopold in his essay "The Land Ethic." Leopold argued that we have an ethical responsibility to the land, by which he meant not just soil and water but the living community of species that inhabits the land. In the land ethic, he said, a human being becomes not conqueror of the land community but plain citizen of it. An ethical citizen, Leopold argues, treats other members of the land community with humility and respect. So the land ethic acknowledges that all species have a right to exist and, at least in some places, to exist in their natural state. As I understand it, those are the four values that lead us to protect wilderness: diversity, utility, quality of life, and responsible ethics.

Expanding Global Populations

Population growth is a direct threat to these values and to wild land itself. Now listen to the following numbers and ask yourself whether the aforementioned values are not in jeopardy: the global population is expanding at a rate approaching one billion people per decade. Let me put that

number in perspective. After millions of years of human history on the Earth, the population of the whole planet finally reached one billion people around the year 1850. In the next 80 years, by 1930, we had added another billion. We needed only 45 years to double again, adding two billion by 1975. In only 45 years from then, 2020, we will have doubled once again, adding not one billion, not two billion, but four billion people. Some people alive in 2020 will have seen the world's population increase by an astounding 300 percent during their lifetimes. As the United States struggles to manage its own exploding population, it also will face new problems responding to global demands for our resources.

People who downplay the threats of population growth offer several arguments. Some still say that new, unspecified technologies will save us. Others say that human labor is the source of wealth and innovation, and so the more human beings we have, the more wealth and creativity we will enjoy. The days for such wishful thinking are over. We have increasing evidence that we already are approaching, or have surpassed, the earth's carrying capacity. Neither technological ingenuity nor human productivity can overcome the fact that the earth's resources are finite.

A Finite Resource Base

The limits to the earth's resources are most evident in our food supplies.¹ For example, in the past we have counted on increasing the production of two sources of protein: fish and grain. In the past few years, the per capita production of both world fisheries and world cereal supplies has leveled off, and may have begun to decline. In the 1970s, the UN Food and Agriculture Organization (FAO) estimated that ocean fisheries could not sustain a yield over 100 million tons per year. In 1989, the total fish catch, including fish farms and inland water ways, reached that number, and it has fluctuated between 97 and 99 million tons in the four years since then. Because the world's population keeps

growing, the fish catch per person actually declined eight percent in those four years. Recent FAO reports indicate no excess capacity in any of the world's seventeen oceanic fisheries.

The prospects are no better for grain. In the past, we have gained productivity by using chemical fertilizers, irrigation, and new genetic varieties of crops. It seems we now have reached the point at which the marginal gains from using more fertilizer do not justify the costs. Although it increased steadily from 1950 to 1989, global fertilizer use has been declining since 1989. In the U.S. it peaked early in the 1980s and has declined about ten percent in the past decade. Nor is increased irrigation much of a promise. Most of the world's best irrigable land already is in production. More importantly, our supply of irrigation water is decreasing. In the U.S. we are drawing down our aquifers at a rate 25 percent faster than they are recharging. Some, such as the Ogallala aquifer, are going much faster. Meanwhile, every year our spreading population converts about one million acres of U.S. farmland to urbanization and roads. And our demand continues to grow.

Standard of Living Expectations

By the year 2050, we can expect 11 billion people on the earth. I know of no ecologist who believes we can support that many people at our current standard of living. But is that the right standard to use? Should we expect that we, let alone the whole world, should continue to enjoy our current standard of living? Another, perhaps more enlightened reason offered for ignoring population growth is the idea that we really have a consumption problem, not a population problem. The U.S., this argument goes, consumes much more than its share of the world's resources. If the U.S., Japan, and western Europe lived more rationally, spending less money on luxury items, eating less meat and processed foods, more resources would be available for a growing population. We could still enjoy a high quality of life while

consuming less. The argument has merit. Surely, we could reduce our consumption and stretch the world's resources. Still, in the long run, that would only lessen the pain and slightly postpone the day of reckoning. The problem finally is numbers. The number of people is increasing, while the number of resources is decreasing.

For American wilderness, the problems posed by population growth are ecological, political, economic, social, and technological.

The fact is, a reduction of consumption rates in the U.S. is not a strategy. It is an inevitability. We could not sustain our current rates of consumption even if we wanted to. The questions are, how much will we reduce, and how fast, and how will we will determine the answers to these questions?

If everyone in the U.S. consumed no more than the average citizen of China, the strain on our resources certainly would be reduced. In China, on the average, 322 people occupy every square mile, while in the U.S. the average is only 69 people per square mile. If we followed the Chinese example, we would have room for 1.2 billion people, a 467-percent increase over our present population. But do we want to strive for the Chinese quality of life? We could learn many things from that ancient nation, but the art of cramming people into small spaces--at the expense of a low standard of living, ecological devastation, and political repression--probably is not something we want to emulate. On the other hand, maybe we should study China. At our present rate of population growth, the U.S. will reach China's current population of one billion by the year 2100. That is not so far away. Some of you here tonight may have children alive then.

I could say much more about population, but this lecture is about wilderness. The point I want to underscore is that, short of world-wide disease, or war, or unprecedented natural catastrophe, we cannot escape the numbers, at least not for the next two or three generations.

Wilderness on our public land? We have a population problem in the U.S., and it will get worse. Our population will increase exponentially, and the consequences will be equally dramatic. Living in the U.S. today are 260 million people. By the year 2050, that number could well be doubled, to 520 million people. If we want to maintain our present national standard of living, we will need to double our residential living space, double the capacity of our transportation systems, double our food supply. We will demand an accelerating flow of wood, paper, and petroleum; more gas stations and parking lots; more shopping malls; and more highways. That trend will be the most important force affecting wilderness in the U.S., and it will be the force that drives our policies for wilderness on public land.

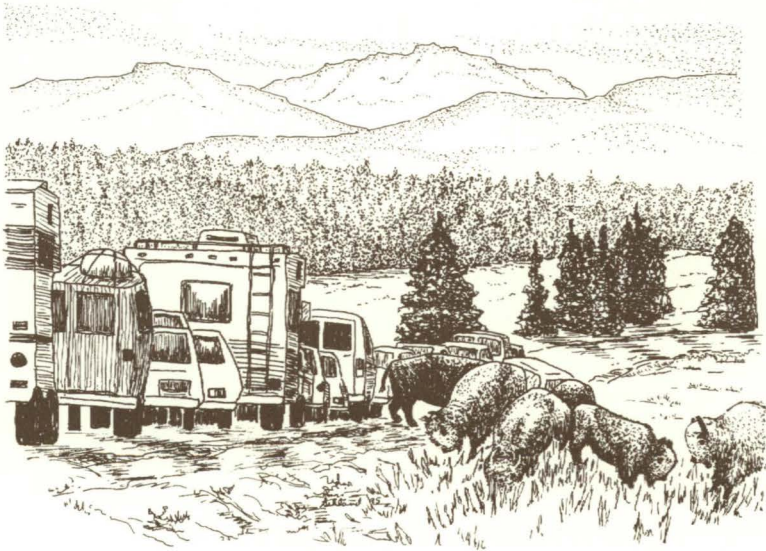
Humankind's Impact on the Wilderness Environment

Most of the implications of population growth for wilderness are fairly obvious. I will simply sketch them here, and then I want to spend the rest of my time discussing what should be done.

For American wilderness, the problems posed by population growth are ecological, political, economic, social, and technological. Ecologically, more people will mean a greater demand for wilderness resources, and a greater strain on the natural ecosystems surrounding them. Recreational use of federal wilderness areas has been growing at a rate even higher than our rate of population growth. Wilderness managers already worry about the growing human impact on popular areas. Increasingly, people are moving nearer to natural amenities and away from urban centers. As that

trend continues, so will the increase in demand for wilderness. Meanwhile, the land surrounding wilderness will feel the impact as well, with more opportunities for soil erosion, air and water pollution, and other ambient problems that can degrade wilderness.

This information, issued in 1980, was largely ignored by the Reagan and Bush presidential administrations. Meanwhile, both the ambient pressures and park visitation increased dramatically. For many reasons, including urbanization and increased mobility, park visitation has increased even more rapidly than our rate of population growth. Since 1940, U.S. population has doubled, but park visitation has increased 16 times. The previous 40-year ratio of park visitation to population growth of 16:1, might not continue. Let's say the ratio drops to only 4:1. Then, by 2050, our national parks still would endure over one billion visits per year. Unfortunately, while enjoying the great outdoors, these visitors cause traffic jams, erode hiking trails, drop tons of litter, dispose of human waste in streams and near trails, and kill trees by unintentionally damaging roots while hiking.



Meanwhile, crime is up in our national parks, and increasingly park rangers are diverted to basic police duties. In Yosemite National Park, annual visitation has exploded from 820,000 in the 1950s to more than 3.5 million.² Yosemite has been designated an International Biosphere Reserve and a World Heritage Site, but population pressure will threaten those values.

Our national forests also are experiencing increased visitor use. Nearly three times as many Americans visit national forests as national parks each year. In 1993 alone, 730 million people visited national forests. But visitation is not the only problem. The growing scarcity of resources will increase pressures for resource extraction such as mining, grazing, and logging. On land not designated wilderness, wilderness values will be hard pressed to compete with economic demands. Natural areas and semi-natural areas that now buffer wilderness areas from human incursion will themselves become populated and degraded, complicating the work of wilderness managers. We already have suburban subdivisions lapping up against wilderness areas. People living in log homes surrounded by trees, located at the end of dirt roads on ten or twenty acres, expect the same services they enjoyed back in San Mateo. Their demands for forest fire suppression and logging to remove fire fuels will gain results in our democratic society.

The Impacts of Population on Wilderness Traditions and Values

Socially, population growth will pose deep and disturbing challenges to our culture. It will challenge traditions and values that have created and sustained our unique wilderness system. This is the most important threat of all. Population growth will bring unpredictable cultural changes, including changes in the way we treat wilderness lands. For example, contemporary Americans experience a different wilderness from the one experienced by Lewis and Clark. The difference is not just that our wilderness is fragmented, biologically diminished, and surrounded by human settle-

ments. We see wilderness through the lens of a different culture, with different assumptions about the relationship between people and nature, different assumptions about time and space and matter and energy, even some different values of right and wrong.

At the time they are happening, shifts in perception are hard to predict. They grow organically, like a river, from meandering streams of philosophy, politics, religion, technology, geography and ecology. Predicting cultural change is risky. Still, we should ask, what will characterize American culture in the midst of population explosion and resource exhaustion? How will people perceive, and therefore treat, wilderness?

We have some clues from real life. They indicate that if land use is not sustainable, neither will our economy be sustainable, nor in the long run, will our society. History has many examples. Consider the fate of Mesopotamian and Mayan civilizations. Whatever else went wrong, those great cultures simply exhausted their resources and declined. But sadly, we do not have to look to ancient civilizations. In too many countries today, scarcity, caused largely by population growth, has weakened traditional customs and institutions. In Somalia, Rwanda, Kenya, and Uganda, families and communities necessarily organize to meet short-term needs. In some developing countries, families are using children for labor more than ever before. As resources grow more scarce, and as water and firewood supplies recede farther from home, families simply need more hands and feet. In parts of India now, some ten-year-old children work more hours than adult males do, tending livestock, fetching water and firewood, and watching younger siblings.³

I am not suggesting that the U.S. will soon decline to the level of Somalia, nor that a technologically developed society will have the same history as a developing, rural society. I am suggesting that these extreme examples show

the inevitable social disintegration that accompanies extreme scarcity. Our wilderness system depends above all else on people's willingness to take the long view, to act responsibly toward future generations, and to give up some personal gain for the common good. The danger is that under the duress of population pressures, our culture will unlearn the progress of the past hundred years. Then the perception of wilderness as a heritage to be preserved will fade away, as once again we see it chiefly as a resource to be used.

A Call for Action

Now, recall the four arguments for wilderness. You can see how population growth in the United States threatens wild land and all its values. From no other cause than the sheer number of us, we may lose habitat and the biological diversity it holds. We may overtax wild land's capacity to store water or purify water and air. We may degrade the spiritual and psychological experience of wilderness. And we may lose the cultural ethic that has sustained a national wilderness system unprecedented in history.

If population growth threatens wilderness, what can we do? Citizens and policy makers alike need to think and work in three arenas: 1) we must reform federal land management for ecosystem protection, 2) we must build informed, diverse constituencies for wilderness, and 3) we must confront population issues directly and openly. I am focusing on federal wilderness policy in these remarks, and so I will just touch on the latter two issues.

To build an informed, diverse constituency for wilderness we need to educate people explicitly about wilderness. Through formal education from the earliest years, we should expect our citizens to have at least a rudimentary understanding of ecosystem values and concepts. Those concepts are central to understanding how this world works, and they are integral to any citizen actions that might avert the com-

ing disaster. Informally, we also need to give people contact with nature. We need more urban parks with more natural features and less pavement; we need greenways connecting downtowns to natural areas; we need clean urban rivers.

We also need to build a constituency directly, through political and social action. This action can best be done at the local and regional level. People can understand their connection to their watershed, for example, and people in a watershed should have a shared vision for their ecosystem, what they want it to look like in fifty years, and what institutions will be necessary to realize that vision. They should understand the threats to that vision, and they should come together to deal with those threats. That requires academic work, political work, and communications. We need ecological and economic modeling at the level of large ecosystems or bioregions. We need community organizers and forums in which people of all interests can come together to work on problems. Included in those regional forums should be public land managers who represent the legitimate interest of those outside the region and those not yet born.

To work on population problems directly we need to begin with some very heavy lifting—lifting our heads out of the sand. We should acknowledge the problem and begin talking about solutions. Even if we are not immediately concerned about what happens elsewhere in the world, our concern for wilderness right here should move us to immediate action. Through schools and universities, through local, state, and federal government, we should take action to slow the growth of population. At each level, cultural norms will shape what we do. That is appropriate, as long as we acknowledge the problem and look for solutions. We cannot pretend that problems do not exist—problems of reproductive health, contraception, adolescent pregnancy, over-consumption promoted by subsidies and other public policies, and immigration. These are difficult and often sensitive problems. I do not have the answers, but as some-

one who cares about wilderness, I know that we need to address them. They will not go away, and the sooner we deal with them, the less stressful the solutions will be.

We must consider the world our grandchildren will inherit. We can give them hardship and conflict, or we can bequeath to them a world where quality of life is an appreciated norm.

A Mandate for Ecosystem Integrity

Now let us turn to public land policy. To prepare for the population onslaught, we need above all else productive, resilient, and diverse ecosystems. Federal policy should focus on maintaining the integrity of our remaining natural lands, especially those areas important for biological diversity. The first step is to complete the federal wilderness system while we still have the opportunity. The Wilderness Society estimates that federal lands include about a hundred million acres of roadless areas that qualify for wilderness designation. The largest portion of these lands are in Alaska, but the lower forty-eight states also have tens of millions. Much of it lies in Bureau of Land Management land, including crucial land in Idaho, Utah, and New Mexico. But lands managed by all the federal agencies include large areas of important undesignated wilderness.

In the present political climate, designating new wilderness areas will be difficult, although The Wilderness Society intends to go all-out as opportunities present themselves. Meanwhile, we have another important opportunity. Some significant wild lands already have been authorized but not added to the wilderness system. These are private inholdings within federal lands whose acquisition has been authorized but for which money has not been appropriated. The Land

and Water Conservation Fund (L&WCF) is the chief source of money for these acquisitions. The main source of the (L&WCF) is royalty income from off-shore oil drilling. The original justification for the fund was that resource depletion should pay for resource conservation. In many cases, the most cost-effective way to manage wilderness is to buy these inholdings rather than manage around them, but recent administrations and congresses have not seen it that way. About a billion dollars worth of authorized acquisitions are waiting for money to be released from the (L&WCF).

But of course, wilderness designation and land acquisition is just the beginning. We need to focus on wilderness management. For public land managers, that focus will require making the preservation of biological diversity the core of their agencies' missions. We need to revise the legislated mandates, the organic acts, of the Forest Service, the Bureau of Land Management, the U.S. Fish and Wildlife Service, and the National Park Service. Each of those agencies must embrace the goal of ecosystem integrity and sustainability as its driving mandate.

Some members of some interest groups--including loggers, livestock producers, hunters, and miners--oppose such a reorientation. They fear it will reduce their access to resources on public lands. In general, their fears are overblown, but that is not the point. The point is to remember why we value wild land. For example, to me it seems like common sense that our wildlife refuges should be refuges for wildlife. Yet the National Wildlife Refuge System has no law spelling out its mission. The closest is the 1966 National Wildlife Refuge System Administration Act. That act allows secondary uses in refuge areas as long as such uses are "compatible with the major purposes for which such areas were established." This provision has been interpreted to allow water skiing, jet-skiing, grazing, military air exercises, oil and gas drilling, mining, and off-road vehicle use. Studies done by the federal General Accounting Office and the U.S.

Fish and Wildlife Service in 1989 and 1990 concluded that such secondary activities occur on virtually every refuge and are harmful to wildlife and habitat on over 60 percent of refuges.⁴ The principle is simple. Whatever else they do, our wildlife refuges should assure high quality habitat for the full array of wildlife native to the area, and they should accord adequate protection to threatened or endangered species. In other words, they should focus on ecosystem integrity.

Conserving diversity is the best way to assure the resources will be here for future generations. Reduce an area's diversity, and you impoverish it biologically. Biologically impoverished systems require increased expenditures of human effort and money to keep them going. The investment may take the form of irrigation, or the cost of suppressing invading species, or the cost of soil loss and downstream erosion. One cost is always present, although hidden. It is the opportunity cost of reducing future options. A single-purpose monoculture can meet only the needs for which it is currently managed. A diverse ecosystem is a storehouse of resources to meet unexpected needs. We certainly cannot predict how an ecosystem might be useful to someone a hundred years from now. No one would have noticed, let alone mourned, the penicillium mold, if somehow it had been eradicated before its medicinal value was discovered in 1928. We reduce the odds of such benefits whenever we homogenize an ecosystem.

Coordinating Ecosystem Management

Public land managers should give priority to ecosystem integrity, for all the reasons I have given, and for one other reason. Doing so would be an essential step toward coordinating the actions of different agencies so that we can begin to manage whole ecosystems rather than arbitrary parts. The Forest Service and the Bureau of Land Management are making progress in coordinating management actions on adjacent units. Still, until the two agencies have a common goal, coordination will be uneven. The only goal that makes

sense as a long-term public good is the goal of maintaining the integrity of ecosystems over time.

We need to change our thinking about our public land. When Lewis and Clark came over Lolo Pass into present-day Idaho, they were intent on finding what was here to exploit. That was the attitude that settled the great public-land states of the American West. In those days, our economic goals drove our behavior on the land. Now we must reverse that priority. Ecological goals must drive our economy and all other aspects of public policy. The reason is not that the economy is unimportant. Exactly the reverse. If you care about our economic future, then you should understand that without sustainable ecosystems, we cannot have sustainable economies.

Most of the time, official wilderness managers do not really manage wilderness. They manage human beings so that they leave little or no trace of their passing through wilderness. When it comes to managing wilderness itself, wilderness managers take a back seat to *we the people*. We manage wilderness by influencing the larger system. We decide to build a dam upstream, or to fly helicopters over wild areas. We decide what level of particulate to allow from cars upwind from wild areas, and how to site subdivisions next to them. These and countless other decisions we make affect wild land decisively. All Americans are *de facto* wilderness managers.

Private Land and Wilderness Management

The problem does not end with public land. Ecosystems that contain wilderness also contain private land, and private land is where our burgeoning population will build houses, roads, and shopping centers, drill wells and irrigate, spread chemicals, clear forests, plant exotic plants that crowd out native vegetation, and do all the other mischief that our society lets property owners do. Increasingly, actions that affect wilderness will occur, not on public

property, but on private land. One likely result will be the promulgation of new land use regulations. I find it ironic that under the banner of personal freedom, some of our elected leaders want to relax environmental safeguards on private land. The irony is that they are defeating the cause of personal freedom. If you do not like regulations now, wait until twice as many people are vying for half the resources. If we relax protection of wild land ecosystems and permit the abuse of critical private land, that land will be less productive and less adaptable. It will be less fit to absorb the shocks of population later. Then to shore up our ecosystems in the midst of gathering social tensions, we will need rules and laws more stringent than ever.

Progressive national forest supervisors, refuge managers, and park supervisors already are reaching out to nearby communities to collaborate on ecosystem management, but they will need help. They will need new state and federal policies that encourage local planning to support ecosystem integrity. For example, we need incentives for good regional transportation planning, or we could use technical assistance for designing ecologically sound regional park and greenway systems. Authority and programs exist that could make both those examples a reality, but current policies do not recognize the primary importance of ecosystem integrity and sustainability.

America needs a diversity of kinds of land, ranging from natural to semi-natural land, and from managed agricultural and silviculture land to urban greenways and parks. Everything I have been proposing for public land management depends on good information and good science. Population growth will force us to make decisions about how we allocate land, and we need good science to make the right decisions. We must consider the world our grandchildren will inherit. We can give them hardship and conflict, or we can bequeath to them a world where quality of life is an appreciated norm.

Notes

1. The statistics for global scarcity in the following six paragraphs are from *State of the World 1995*, pages 5-10.
2. The Wilderness Society. 1992. *Yosemite Transportation Strategy* (June).
3. Dasgupta, P.S. 1995. Population, poverty, and the local environment. *Scientific American* (February).
4. The Wilderness Society. 1990. *Restoring Environmental Leadership: A Public Lands Agenda for the 90's*. Washington, D.C.

Wilderness Resource Distinguished Lectureships

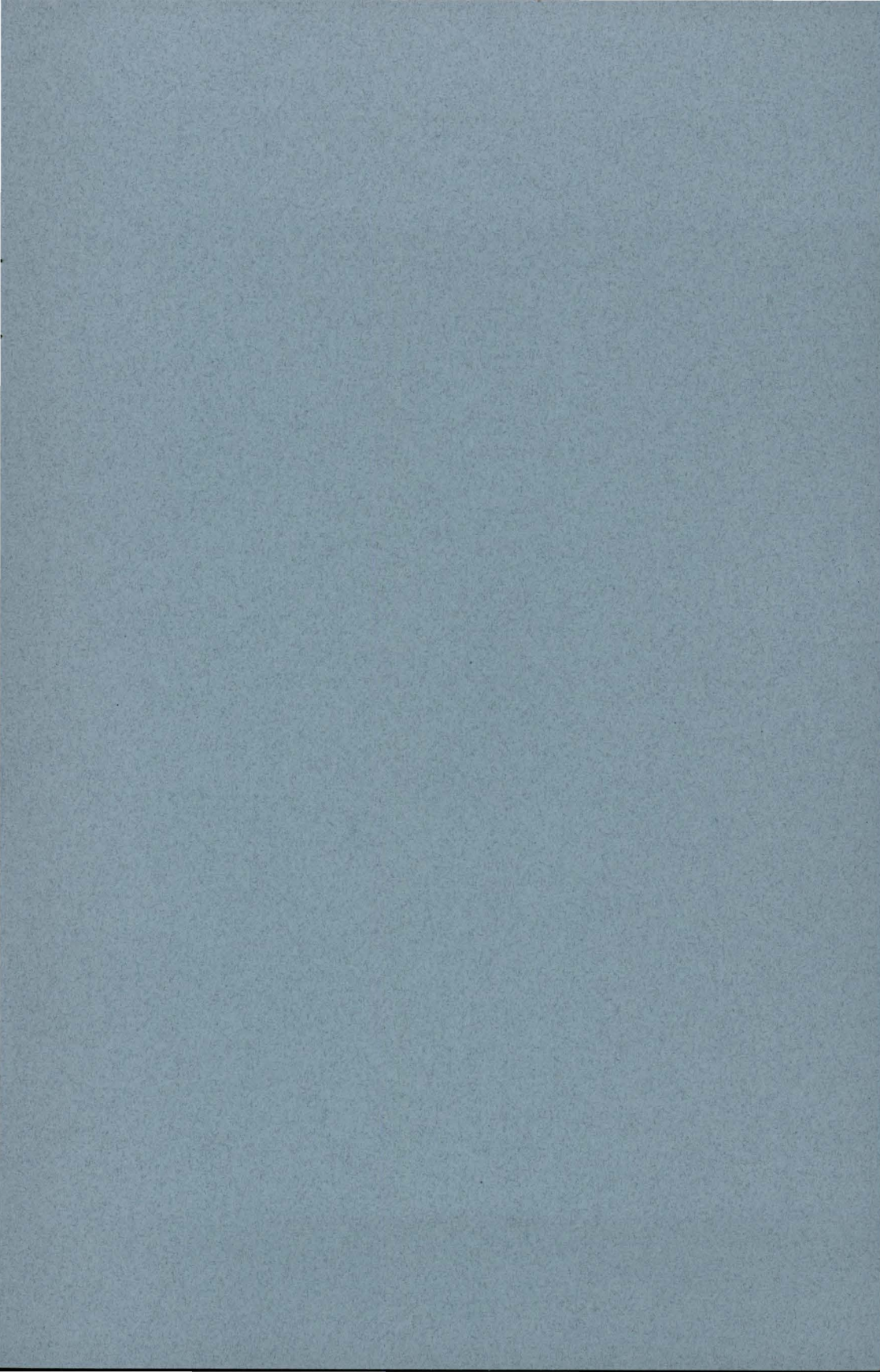


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| 1977 | Sen. Frank Church | Wilderness in a Balanced Land-Use Framework |
| 1978 | Roderick Nash | Wilderness Management: A Contradiction in Terms? |
| 1979 | Cecil D. Andrus | Reorganization and the Department of Natural Resources: Implications for Wilderness |
| 1980 | Patrick F. Noonan | Preserving America's Natural Heritage in the Decade of the Eighties |
| 1981 | Russell E. Dickenson | Wilderness Values in the National Parks |
| 1982 | Michael Frome | Battle for the Wilderness: Our Forever Conflict? |
| 1983 | Wilderness Confer. | Issues on Wilderness Management (not a pub.) |
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