
The general subject which I have been invited to discuss with you today is such a fascinating one that it is hard to decide where to begin and where to end in making the best use of the allotted time. The problem is not one of material, but of selection among the wide variety of themes which can be used to depict the American conservation movement in this decade.

We could, for example, devote several such sessions to the historical development of conservation consciousness in this country and to the colorful personalities -- like Wesley Powell, John Muir, Gifford Pinchot and Harold Ickes -- who left their intellectual imprint on it. But this has been done
so well and so recently by Secretary Udall in his book, *The Quiet Crisis*, that we should pass up that temptation, except as historical reference can illuminate one or another aspect of the subject for us.

Likewise, I could run through the great laundry list of the resources which are essential to the continued growth and prosperity of our modern society. We could talk in statistical terms of petroleum and coal, of metalliferous minerals and timber, of potable water and animal forage. We could cite known supplies, rates of use and needed reserves. But these are, to a large extent, ephemeral aspects of the national resource picture. The critical resources of one generation tend to be outrun by technology, so that the following generation faces a whole new pattern of resource issues.
Let me cite only a couple of illustrations to make this point. The uranium boom of the 1940's gave new life to the romantic and almost forgotten hard-rock prospector. But within a decade, our known requirements had been so completely met that the great bubble burst. Now our technology has leap-frogged forward to the point where we look to far more simple and direct ways of harnessing the energy sources of the universe.

At the opposite end of the resource scale, for over a quarter of a century the nation's silver mining and extraction industry has been in the doldrums of decline. Mines have closed as costs increased. Boom towns became ghost towns. Now industrial demand for silver makes it difficult to meet the coinage requirements of a vastly expanded market-place. So we are now embarked on a multi-
million dollar effort of government-industry cooperation
to explore for new reserves, reopen and modernize old
mines, and install new capacity to reclaim ore that
could not be processed economically under the methods
of silver's hey-day.

Over the last four years I have been almost
exclusively concerned, on a day-to-day basis, with
the resource issues of our own generation. One
impression is dominant over all others in this
experience. That is the need to leap-frog ahead in
our national thinking on conservation in the same
fashion as science has propelled the basic problems
of conservation into a new context.

For these reasons I chose not to consume our
valuable time with either historical review or statisti-
cal evaluation of our present resource situation.
Rather, as senior career persons concerned with the
methods of public policy formulation, I think you might find it more profitable to examine for a few minutes into the ways that resource conservation issues are posed in this complicated decade.

For this purpose, let me state a fairly simple thesis -- one that may seem grossly over-simplified until you have pondered it awhile. I am persuaded that national conservation emphasis, now and for the future, must be concentrated on two basic, fundamental subjects: land to live on and potable water for survival. All other resource problems can, in the long haul, be met and overcome through wise use of science, more effective utilization of known reserves and greater knowledge of world supplies.

Our land economists point out that the process of urbanization alone -- for housing, commercial
and industrial development -- is consuming the
countryside of this nation at the rate of one
million acres per year. This has obvious implications
for the long-range future -- the prospect of simply
running out of living space. But we needn't look
that far ahead to see its impact. There is already
ample evidence that real estate values -- raw land
values -- have increased more than any other
commodity since the end of World War II. This is
most evident in metropolitan areas, but its effect
is being felt even in relatively stable rural commu-
nities. We have seen numerous instances where semi-
arid public domain lands were a drug on the market
at $5 or $10 an acre in 1945. Now there is avid
competition to acquire the same lands at prices
ranging from $100 to $500 an acre.
The literature of our youth used the expansive words -- boundless, inexhaustible, endless, numberless, unlimited -- to describe our prairies, forests, flight of birds, runs of fish, herds of buffalo. The land which was beyond the Blue Ridge was the jump off for the land beyond the Cumberland Gap, up the Missouri, beyond the Rockies, and finally the arid desert itself.

At the end of a couple of diverting World Wars, however, came the realization that the supply was finite. Its inelasticity showed most plainly when returning veterans found that even a veteran's preference for homesteading opportunity had become largely worthless.

Science and technology can stretch the limits of resources from the land necessary to man's existence. Chemical fertilizers have multiplied our
food and fiber potentials. Energy can be captured from the fundamental atom, and soon from the sun itself. Someday science may even transport some of us off to more spacious planets, but technology cannot tamper with the land dimensions of this one. The supply is a closed vessel.

As land managers, our realization of the finiteness of our land base has been hastened in recent years by the geometric acceleration of demand for outdoor recreation. By definition, outdoor recreation requires land and water areas. Some types are modest in their requirements; others, such as wilderness opportunities, involve big areas.

In earlier years, worry about limited land reserves was muted, but the concern was there and although accommodation has not been too difficult, the Government has had to step in to referee range wars,
enacting the Taylor Grazing Act; miners have fought over claims; and the homesteaders and the livestockmen have had their disagreements. By and large, the Forest Reservations, the National Parks, the wildlife refuges, and even the military withdrawals have seemed not unduly to encroach upon the continued use of the public land both by the "enjoyment conservationists and the consumptive conservationists."

Conservation, as an attitude or pattern of thinking, is an umbrella big enough to accommodate both groups, and thus the use of these terms -- enjoyment or recreation conservationists, and consumptive conservationists -- simply as a descriptive convenience.

The intellectuals among the land managers and conservation minded land users, seeing the handwriting on the wall, long ago began to look for ways and means
to provide the equivalent of elasticity in the inelastic land area. One answer was multiple use, both as a management concept, and as substantive legislation.

Multiple use would stretch available land in the same way that a skyscraper or a highrise apartment stretches it. In a given area, say a national forest of a million acres, you have a multiple of that million acres as your management is for both forest products and watershed protection, wildlife habitat and grazing, mining and camping, and even wilderness.

If you visualize each use as a level or story of our highrise apartment analogy, you can imagine that some of the floors would be coextensive, while others would be of lesser size. And you can picture encroachments which would block the base areas and all floors above it, while others would affect less than all of
them. Wildlife habitat and grazing could well be coextensive with the area managed for forest products; wilderness might match wildlife areas and grazing, but delimit commercial logging; camp sites might be available only for their recreation use.

In public lands not in forest reservations, the same analogy might be drawn. Lands within grazing districts are used in common with wildlife, and hunting is permitted under State regulations; but private owners of surrounding lands often control egress and ingress, blocking the public use of the area.

Multiple use is good public policy. It is good sense. But it doesn't wipe out the necessity for making hard choices. As competition for land use increases, moreover, the feasibility of multiple uses will be reduced, rather than increased. The hard choices will become more and more frequent -- and more and more difficult.
When we turn from the national land base to the question of water, the situation is not much different. The fastest growing areas of the United States are to be found on either side of the Lower Colorado River—south-central Arizona and Southern California. Neither of these areas is self-sufficient in water resources. Both have looked to the Colorado as the key to their growth for nearly sixty years. For thirty years, they resorted to both litigation and legislation to assure adequate water for agriculture and for municipal uses.

Through the whole history of the Boulder Canyon legislation and judicial consideration of the issues in Arizona v. California, it was taken as fact that the Lower Colorado would furnish 7.5 million acre feet of water to the southwest annually. Now we are reasonably certain that this is not so. After almost three
generations of controversy, finally resolved by the Supreme Court in 1963, we face the unpleasant prospect of having to allocate a net shortage. Unless, that is, our conservation statesmanship is bold enough and imaginative enough to save water now being wasted and augment supplies from other sources. This may mean more dams on the Colorado, diversion of water from other streams, and a big investment in desalinization. It may also mean a rather sharp retreat from support of irrigated agriculture which has been the keystone of our national reclamation policy for over 60 years.

These, you say, are relatively simple decisions to make. It takes only the application of basic economic and engineering principles to determine whether and how much we can afford to do. True, except that this view ignores the simple fact that the very issues at stake will undoubtedly constitute one of the principal
political battlegrounds of our generation and the next. And the resulting contest will be heavily colored by the slogans and epithets of past conservation crusades.

Even experienced and sophisticated veterans of public resource management react in a conditioned way to verbal stimuli which are a part of our political tradition. Take the word "exploit" in reference to economic development needs. This is ordinarily a bad word in the conservation lexicon -- not for any etymological or philological reason, for words are neutral. But this one exudes the colorful symbolism of our political environment. "Exploit" means "spoil"; "conserve" means "save". In this context, one doesn't even need to write down the moral propositions that create the differences. Generations of holy crusade have produced the glandular reaction -- "exploiter," evil; "conservationist," virtuous.

This Pavlovian reference illustrates how deeply conservation issues have cut into national thinking.
Some will say: "Isn't this good? Shouldn't people react righteously without having to ponder? Let's not equivocate with evil!" This begs the question, for it assumes that the labels and catch-phrases, the campaign slogans, have been correctly assigned; that there is some divine guidance, some intuitive gift, that permits ready identification of an infidel or heathen cause. For the purist, there are no gradations of virtue -- no compromises between ideal and reality.

Recently, an experienced and seemingly sophisticated government servant said to me, "Why doesn't the Department create a special board for the sole purpose of identifying the public interest?"

A good question. Yet in the four years I've been in the Department, I can't recall any one of the innumerable controversies where each side of the issue wasn't framed plausibly in terms of the public interest. I've known no
decision made by Secretary Udall which hasn't been made in the public interest. Yet the controversies have been deep and vigorous, and many have reverberated in the halls of Congress or the columns of the press long after they were made. In all of them both sides of the controversy are stated in terms of the public interest, and in most of them both sides are in the public interest, in greater or lesser degree. But choices have to be made and the job of making choices cannot be delegated by the Secretary to a Board.

Conservation issues are public issues. Success in the task of conservation requires mastery of the workings of politics, both internal and external. Conservation presents elemental conflicts of values.

If the politics of conservation are to be worthy, if it is to be recognized that resource managers must communicate to the public and to the legislatures a sense of ethical urgency rooted in a felt philosophy, then history
must be studied, our society comprehended, our governmental system mastered.

Professional resource managers have their own sophisticated phrases. The appeal of "sustained yield" has been sufficient to turn many a tide. And "multiple use" comes close to being the universal solution to all demands, even though it has its own inner conflicts and limitations as I noted earlier. The mere suggestion of "giveaway" is enough to stop any resource transaction in its tracks -- at least temporarily. Such slogans are high-powered weapons of the political arsenal.

It helps to recognize that these are the current manifestations of a long tradition. Resource issues have been political issues since the earliest days of the republic. Jefferson and Hamilton's ideological struggle had as one of its ingredients the policies which should govern in settling western lands. The "Mississippi Bubble" was the major political issue of its decade. John Wesley Powell
made the settlement of arid lands a bloody battleground long before those lands had any real value. In the last decade, Al Sarena held center stage while the pressures for more open space, better recreation facilities, more and purer water piled up. This accumulation is our political inheritance, the unfinished agenda of our generation.

The techniques of achieving political goals for conservation were never more effectively exhibited than they were at the hands of the first Roosevelt and his chief lieutenant, Gifford Pinchot. Roosevelt made his name synonymous with conservation, as he met both the "interests" and their legislative spokesmen head-on.

By a pen's stroke, he set aside public lands for forest purposes while enrolled enactments of Congress prohibiting such executive action sat out the constitutional waiting period on his desk. Forestry, reclamation and
...ime protection became main functions of the federal government under his tutelage.

Teddy Roosevelt took the conservation movement out of the polite conversation of drawing rooms and off the platforms of the lecture circuit. An ideal, clothed with Victorian respectability, became an objective of public policy -- of government activity. Conservation was made an object of political contest -- where it has been ever since, not only at the federal level but in the states as well.

Pinchot presents an even more interesting case study in the development of political conservation and conservation politics, which is equally significant. Pinchot is something of a rarity among all public figures; a pioneer in an emerging profession and respected for that in itself; masterful politician, good enough to quarterback many of Roosevelt's most daring forays, and to be elected governor of Pennsylvania twice; but above all, superlative bureaucrat. With a singleness of purpose that would have been
disastrous in one of lesser ideals, Pinchot used a small and ineffectual office in the Department of Agriculture as the nucleus for concentrating most of the Federal forestry activities into one of the largest and most powerful of all Federal bureaus--one that could dominate Cabinet officers and challenge a President of the United States, as Pinchot did Taft in precipitating the famous Ballinger investigation.

The politics of the conservation movement itself, including both the internal manipulation of organizations and the interplay of powerful forces among those who have a rightful claim to be called conservationists, took shape in Roosevelt's time, too.

Theodore Roosevelt's task in establishing the conservation ideal ran across the grain of traditional thinking. He had to first establish waste as something close to immoral--and then work on the public
conscience to see that it reacted accordingly. The substantive issues of his day were, however, relatively uncomplicated. Techniques of forest protection were direct, elementary and easily comprehended; power generation and transmission had potential for the future, but comparatively little current relevance; demands upon land and water resources were confined to single uses, uncomplicated by competing needs incompatible with each other.

Now our population has almost doubled and its mobility multiplied five—or tenfold. A disturbing percentage of our land area must be devoted to concrete ribbons strung with the beads of metropolis, suburb and town. Technology has made possible and created forms of land use which were impossible a half century or even a decade ago. The protective barriers to the wilderness have been breached.
Roosevelt had not faded from the national scene before there erupted the first, and probably the classic, example of conflict among conservation issues. This was the famous Hetch Hetchy case in which the city of San Francisco sought to bolster its dwindling water and power supply by constructing a multiple purpose dam on the Tuolomne River. Strong opposition from private power interests was as natural as it was prompt. But opposition also came from another, and unanticipated, source. The dam site was deep in Yosemite National Park, hallowed ground to the parks purist.

The ensuing free-for-all saw labels mixed and the identity of friend and foe confused. John Muir, for example, emerged as a mouth piece of Pacific Gas and Electric in the eyes and literature of the public power conservationists. High-minded men, dedicated to the
social values of Roosevelt and Pinchot's conservation ideals, became despoilers of America's natural beauty. Hetch Hetchy was the ancestor of today's truism: that one man's conservation ideal can be another's desecration, that recriminations among allies under stress can draw as much blood as contests between ideological enemies.

Any number of parallel situations may be cited to demonstrate the increasing conflict between and among interests within the conservation family in its broad expanse. The Steamboat Springs project, dear to the hearts of the reclamation branch of the family, foundered upon the unavoidable consequence of flooding a part of Dinosaur National Monument. The filling of Glen Canyon reservoir is already under way, but the bitterness over failure to protect Rainbow Bridge against water intrusion will not be easily forgotten. Issues such as these find their outlet in the exercise of highly developed techniques of political pressure.
The issues upon which the conservation community finds itself divided will increase as demands for scarce land increase. The political dimension of conservation has expanded in ever-widening circles as our society and our technology have become increasingly complex. The simple "for" or "against" issue of 1900 now assumes overtones of the bureaucratic contest for policy supremacy. "Multiple use" becomes a slogan to block the preservation of critically needed recreation values; freedom to locate mineral claims argues against inclusion of a public domain tract in either a forest or a park. Parks supporters are accused of "locking up" resources because they regard public hunting incompatible with park objectives. The pluralism of modern life makes extremely complicated the simple faith which motivated Thoreau, Muir, Powell and the other prophets of the good life.
I have spent perhaps more time than I should on the general nature of modern conservation issues and the environmental context in which they must be decided. But I think it is more important that these concepts be understood than that we compile a catalog of specific problems and the programs designed to meet them.

Yet I do not wish to leave any impression that the problems are insurmountable -- or that they are not being attacked most vigorously. Neither is the case.

The 88th Congress has justly deserved the title of "Conservation Congress." In its short two year span, more basic conservation laws were passed than in any comparable period -- even the Roosevelt years were less productive. In 1964 alone the following expressions of national policy were enacted into law:

-- A Land and Water Conservation Act sets aside certain Federal revenues for a program of land
acquisition and assistance to the states in meeting our burgeoning outdoor recreation demands.

-- A Public Land Law Review Commission was created to study and recommend a comprehensive overhaul of the laws and policies governing the management and disposal of the public domain.

-- The Wilderness Act established a system of primitive areas to be preserved for future enjoyment and study, but with appropriate recognition of the need to develop certain resources, principally minerals, within such areas.

-- Fourteen new units were added to the National Park System, including Fire Island National Seashore and Canyonlands National Park.

-- Appropriations were made to start construction on a giant intertice of power systems in the Far West, designed to balance the power resources, public and
private, of a region spreading from Canada to the lower Colorado.

- A Water Resources Research Act provides authority for an expanded and coordinated program of water research, with emphasis on Federal-State cooperation and use of land-grant college facilities.

- "New starts" were authorized for Federal reclamation projects in Utah, Idaho, Colorado, Wyoming and Washington State.

Now all of you are experienced enough in the ways of government to know that this kind of legislative production did not spring into being, full-blown, in the course of one year. Most of it is the culmination of long deliberation and hard bargaining going back over a two-four-or eight-year period. It represents, however, a high-water mark in Executive-Legislative cooperation, because Federal land and water policies are uniquely within the Congressional prerogative.
In looking to the immediate future, undoubtedly our attention must be focused on water problems -- and more especially on those of the critical southwest region. Secretary Udall has already forwarded to the Congress a comprehensive Pacific Southwest Water Plan. This Plan contemplates vastly increased storage capacity for Colorado River waters, hydro-electric power development to assure the economic feasibility of the program and intensive efforts to conserve water through waterproofing of existing canals, reducing evaporation, and eradicating water-wasting vegetation.

No harder complex of decisions will face the Congress or the conservation movement than the many ramifications of this proposal. All of the elements of conservation in politics and conservation politics are presented. It is symbolic of the crucial position which our generation occupies with regard to the resource base for a Great Society.