WILDERNESS RIVERS: ENVIRONMENTALISM, THE WILDERNESS MOVEMENT, AND RIVER PRESERVATION DURING THE 1960S

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ABSTRACT

Wilderness Rivers explores America's treatment of rivers in the context of the social and political climate of the 1960s. The decades following the Second World War brought about significant changes in the way Americans perceived their environment. Higher levels of affluence and education, continued urbanization, and the popularization of ecology converged to promote an environmental awakening that increased steadily throughout the decade. The conservation movement broadened to include issues of quality of life and ecological protection. Rivers emerged as a central issue in relation to outdoor recreation, pollution, and freshwater shortages. As part of the general idea of wilderness preservation that came to fruition in the Wilderness Act of 1964, river advocates forwarded proposals to establish a protective federal system of wild rivers. To this end, the federal government experimented with a variety of river protection programs before arriving at the Wild and Scenic Rivers Act of 1968 which established a nationwide system of representative river preserves. Despite strong support for the idea, the resulting system secures only marginal protection for rivers based largely on recreational considerations. The Wild and Scenic Rivers Act is most significant for providing a symbolic acknowledgement of the need to restrain further development and prevent despoilation of America's rivers.

ACKNOWLEDGMENTS

The relative insignificance of a Master's thesis such as this can likely not be overstated. Once shelved in its final semblance, it will serve primarily as a personal memento from time spent in graduate school. Rather than capturing or expressing anything truly pivotal, this thesis largely records the halting progression of a student's ideas. I can only hope that future glances at what follows will not wholly embarrass me -- though certainly this will happen. Despite my oversights, simplifications, poor elocution, and factual mistakes, though, this exercise was beneficial both for exposing me to an academic discipline and for expanding my understanding of the world. Because of its shortcomings, however, this thesis cannot adequately reflect the generous assistance I received in producing it. Therefore, I want to acknowledge the important role of my friends and fellow students who read, commented on, and discussed parts of the project. I also want to thank Dr. Peter Wallenstein who assisted me at the onset as well as Dr. Burt Kaufman and Dr. Larry Shumsky for serving on my thesis committee. I am most indebted, however, to Dr. Mark Barrow who contributed immeasurable guidance, knowledge, and motivation from start to finish. I especially appreciate Dr. Barrow's diligent and empathetic approach to teaching. He was more attentive as my thesis director than any student could hope for.

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INTRODUCTION

Rivers saturated the nation's consciousness during the 1960s inspiring outdoor enthusiasts' passion while reaching the fore of American environmental concern. America's environmental awakening revealed simultaneously the splendor and despoilation of wild nature -- the ethereal value of wilderness rivers and the myriad threats to freshwater. Like converging tributary branches, the public's concern for water-related issues in the early-1960s created an ever-broadening current of support for river protection. Seeking this, the nation's social and political agendas branched out into tentative river programs that rejoined eventually in the Wild and Scenic Rivers Act of 1968.

The Second World War and the decades immediately following it are widely recognized by historians and environmentalists as a watershed of environmentalism in the United States. The period also serves to demarcate between traditional and contemporary conceptions of rivers. In the purely modern industrial society, rivers serve many convenient purposes. From flushing away chemical and municipal waste to providing hydroelectric power and desert irrigation water by damming, rivers carry the burden of a too-large human

population bent on material consumption. These burdens came under widespread scrutiny for the first time after the Second World War.

According to historian of philosophy Clarence Glacken, Western thought has been dominated by several base assumptions. One is that nature was divinely created and intended for human needs. Another is that humanity fulfills God's mission by imposing rational order onto nature, thus completing the divine creation.[1] These beliefs served to justify opportunistic exploitation of rivers and streams in the United States for industrial, agricultural, and municipal uses. Alternatives to this thinking emerged in the middle decades of the twentieth century and, by the 1960s, helped dispel the myth among Americans that, as human-beings, they were separate from nature. They were then prepared to reconceive of their natural world as an interdependent balance of life. Rivers and the water that flowed through them increasingly represented the foundation of life and Americans sought to balance their use of rivers.

Prior to this realization, rivers served largely utilitarian functions. Writing in 1953, ecologist Eugene Odum explained that rivers were

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[1]Clarence J. Glacken, *Traces on the Rhodian Shore* (Berkeley: University of California Press, 1967), vii.

typically "multiple use." They have shaped man's history by providing water, transportation, and waste disposal. Because of this, rivers "are among the most intensively used by man of natural ecosystems."[2] Environmental historian Donald Worster explains that, despite our reliance on rivers, we have not incorporated stewardship into their treatment:

> These great national treasures [rivers] are the most neglected, misused resources we have; everybody wants a piece of them, wants to siphon them off, dump wastes in them, drink from them, or move barges along them, but no one has ever been given overall charge of protecting their renewability.[3]

Rivers suffer from despoilation, dredging, and draining due to the fundamental modern assumption that, as part of nature, they are merely objects of commerce. Things were not always like this, though.

Before the industrial revolution, rivers held much more profound significance; they were sources of water and food, certainly, as well as transportation and community waste removal, but they were also inspirational. Whatever pre-industrial, utilitarian purpose rivers served was likely eclipsed by the non-rational presence they held in the spiritual

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[2]Eugene P. Odum, *Ecology* (New York: Holt, Rinehart, and Winston, 1963), 118-9.

[3]Donald Worster, *The Wealth of Nature: Environmental History and the Ecological Imagination* (New York: Oxford Univ. Press, 1993), 138.

lives of the people who lived along their banks. Even today, riverine metaphors and allusions suffuse our language granting us timeless conceptions of the physical and spiritual realms. This is so, in part, because of water's position at the absolute foundation of the natural world. The deeply symbolic, spiritual, and allegorical meaning of rivers was displaced by modern utilitarian notions.

Historian Theodore Steinberg points out that the 19th century, in particular, witnessed a transforming regard for rivers in the United States.[4] Before industrial factories came to demand immense amounts of energy from falling water, rivers held a much less defiled position. Nobody fought over water rights because there was enough water for everyone's limited needs. Nobody built canyon-plugging dams because there was no demand for public works, hydroelectric power, or enormous volumes of displaced water. With water-powered mills and the greatly increased demands for water and waste disposal that modern society required, rivers became redefined as a resource for production. Steinberg calls this the "commodification of nature."[5]

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[4]Theodore Steinberg, Nature Incorporated: Industrialization and the Waters of New England (Cambridge: Cambridge University Press, 1991), 14.

[5]Ibid., 13.

Recent environmental thinking questions this process of commodification. Donald Worster points out that environmentalism emerged in the 1960s with the simple goal of saving the living world. Before political compromise and entrenchment complicated things, saving nature from the pressures of technology and population seemed possible. All we needed to do was to limit growth of population, technology, and individual greed. This simple and clear insight resulted from a growing sense that fundamental beliefs of the modern western culture are "deeply flawed." This awareness, Worster says, lead many to challenge the philosophy which says we can have sustainable development and limitless consumption. Ideally, Worster hopes this philosophy will be replaced with one of material simplicity and spiritual richness.[6]

For several centuries prior to the post-war environmental awakening, however, the Western world contently lived in the "modern" age with the ideals of our modern economy based on unlimited growth. Westerners were content with their farming and manufacturing, explains intellectual historian Stephen Toulmin, because it was "modern."

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[6]Worster, *The Wealth of Nature*, 143.

"Modern medicine" and "modern science" served to justify Western culture's domination over the natural world. That the world could be measured, understood, altered, and brought under control for the benefit of man was a pleasing idea. "People tackled all their practical and intellectual problems in distinctive 'modern' ways," explains Toulmin, "and in a dozen fields, their life embodied rational ways of testing our procedures and institutions, not available to people in the tyrannous societies and superstitious cultures that existed before the age of 'modernity'."[7]

The Second World War, with its global turmoil and chaos, set in motion a fundamental reevaluation of modern precepts. By the 1960s, this philosophical revolution openly questioned the beliefs and institutions of modern society. "No one who lived through the 1960s," Toulmin points out, "...in New York or California, Britain or West Germany, could doubt the scale of the social and cultural changes they then saw."[8] Environmentalism, in its various expressions -- including concern for rivers -- is part of a widespread evolution (or revolution) in

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[7]Stephen Toulmin, *Cosmopolis: The Hidden Agenda of Modernity* (New York; The Free Press, 1990), 3.

[8]Ibid., 161.

thought occurring within Western society.

The 1960s receive so much popular and academic attention today because they represent such vivid expressions of this cultural change. Toulmin points to the environmentalism of the time as a precursor to the rapid changes to come:

> As late as 1960, the word 'ecosystem' had not yet won a place in the political vocabulary of industrial nations. John Muir and Aldo Leopold had crusaded for the environment, and for the threatened populations of endangered species. But Rachel Carson's book *Silent Spring* first spoke, in 1962, to the entire public audience -- that is, to an audience that was now ready to hear its message. From that time on, the political change was so rapid and profound that, within 20 years, no developed nation could feel self-respect unless its government had a 'department of the environment' or an 'environmental protection agency'.[9]

The process of political and social "greening" towards environmentalism continues today, despite the impatience and exasperation of many activists.

One of the most fascinating developments of post-World War II environmentalism is the gradual accommodation of non-human life. Environmental historian Roderick Nash identifies this as an extension of rights to nature. He explains this in terms of a schematic of rights where minorities are gradually incorporated into the group of rights-

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[9]Ibid., 165.

holders. This he characterizes as the "circle of ethical consideration." The most obvious example of this from United States history is the end of slavery and the subsequent slow accumulation of civil rights by Afro-Americans. Although the terminology of legal rights used by Nash is misleading, with some imagination one can see the parallel in America's regard for nature. Ethics are constantly expanding over time and for some people, "natural rights" have "indeed evolved into the rights of nature."[10] When Americans first recognized the threatened condition of the nation's rivers, they were taking the initial step towards extending ethical consideration to rivers.

Corresponding to the questioning of modernity in Western thought are new environmental ethics which say it is right to protect nature and wrong to abuse it. These bring an "unprecedented moral dimension" to the old utilitarian practices of conservation, according to Nash. The new ethical standing of nature also popularized the idea that elements of nature such as animals, trees, and rivers have a right to exist. This belief is known as "biocentrism" and more recently, "deep ecology." According to Nash, environmentalists of the 1960s relied on

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[10]Roderick Frazier Nash, *The Rights of Nature: A History of Environmental Ethics* (Madison: University of Wisconsin Press, 1989), 6-7.

the language and ideals of traditional American liberalism to propel the rights of nature. This liberal philosophy is based on the belief that intrinsic value yields rights such as freedom, political equality, toleration, and self-determination.[11]

Donald Worster characterizes the shift towards ethical consideration for rivers and other elements of nature as "egalitarian individualism." He believes this is an outgrowth of American protestantism which establishes that everyone, and by extension, everything, is equal. Initially this was rooted in the American ideal that, in the eye's of God, all men are created equal. It has entered the fiber of American thought to such a degree that now it can be applied more broadly to include nature. Worster says "the very core of our public political life has been committed to this social philosophy: the sovereignty of the individual, the natural right of self-determination."[12] As long as this ideal remains at the core of American political beliefs, it will continue to petition for broader political and ethical consideration. "Once set in motion, this teaching can prove exceedingly difficult to

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[11]Ibid., 9-10.

[12]Worster, *The Wealth of Nature*, 198.

control," Worster says, "[i]t may lead not only to elevating the poor and despised in society but also to investing whales, forests, and even rivers with new dignity -- to the discovery of the concept of rights of nature."[13] Rivers serve as an excellent example of the expanding ethical consideration; changing sentiment towards rivers during the 1960s, in particular, promoted a refreshing autonomy for nature. Americans began to understand that rivers exist not for rational, utilitarian purposes but rather as part of the interconnected natural world.

Prior to this time, rivers were overlooked even by conservationists who fixated instead on dramatic natural features such as canyon walls and water falls. Historian Alfred Runte identifies a tradition within American conservation which relies on "monuments of nature" such as awe-inspiring mountain peaks to arouse support for preservation.[14] This was the case when the father of American conservation, John Muir, led a struggle between 1906 and 1913 to oppose the construction of a dam in Yosemite National Park. However,

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[13]Ibid., 198.

[14]Alfred Runte, *National Parks: The American Experience* (Lincoln: University of Nebraska Press, 1979), ch. 2, *passim*.

Muir was primarily concerned with keeping the sublime valley Hetch Hetchy above water; the Tuolomne River was of secondary importance at the time. A similarly important struggle occurred decades later in the Echo Park controversy of Dinosaur National Monument. In 1954 and 1955, the Wilderness Society and the Sierra Club, led by David Brower, fought successfully to prevent a dam being built within the National Park Service's jurisdiction. This victory is widely acknowledged for sparking the wilderness movement and recent environmental activism, but even in this case, the Green and Yampa Rivers were auxiliary to a pristine desert canyon. Within the next decade, though, rivers themselves received significantly more attention.

The roots of wild river preservation are found in varied elements of 1960s American society. It is linked to outdoor recreation because Americans encountered natural rivers and appreciated their wildness. It is also tied to the environmentalism and popular understanding of ecology during the time as American concern for life on earth became fixated on the pollution of water and the degradation of streams. The political climate of the 1960s is important, as well, because President Johnson's vision for a Great Society and Congress's support, facilitated

innovative legislation for wilderness and wild river preservation.

Because it was receptive to innovative environmental programs, though, the federal government's policy for river protection lacked a cohesive direction. This resulted in a splintered, tentative, and meandering approach that included river basin planning, national river inventories, and individual river designations. Though incohesive, these and other programs led eventually to the Wild and Scenic Rivers Act.

The fundamental ideas of wild river preservation were well established by 1965. In that year, the first of several wild river proposals came before Congress. In a series of public hearings before the Senate Select Committee on Interior and Insular Affairs, issues regarding property and water rights, additions to the system, and jurisdiction created conflicts. While several rivers were removed from the legislation due to local opposition, many areas of the country petitioned in favor of local river segments. By and large, the basic idea of wild river preservation was widely accepted. Even those who opposed including specific rivers conceded that the overarching idea of wild rivers was desirable. The Senate held hearings on legislative proposals again in 1967 which further demonstrated a broad consensus

for establishing a national wild river system. Details such as which rivers to include, how to make the system accessible to the public, and how best to protect the natural values of rivers and the life they support are the subjects of these hearings.

Many of the ideas that served as a basis for wild river preservation remained constant throughout the legislative process. Recreation, environmental concern, and nostalgic expressions of river heritage provided the essential support to establish a national river system. Like the Wilderness Act, the idea departed from defensive strategies of preservation which relied on monuments of nature to rouse public opinion. The Wild and Scenic Rivers System was expected to represent a variety of riverine settings from many regions of the nation.

The Wild and Scenic Rivers System secures many improvements for the general treatment of rivers. It successfully represents many regions of the country and offers some degree of protection for rivers included in the system. The wild river movement was important for consolidating river advocates and marshalling sentiment in favor of clean, free-flowing rivers in the United States. The Wild and Scenic

Rivers Act of 1968 represents an important stage in America's evolution towards accommodating the ecological needs of rivers and river basins. This stage has perhaps not yet ended as the system continues to expand and gradually set higher standards for federal and state river protection.

In the final analysis, the Wild and Scenic Rivers System fails to accomplish many of its intended purposes. The problems of development and degradation of rivers have not diminished significantly as a result of the Wild and Scenic Rivers Act. This is due, in part, to weaknesses written into the legislation; the law sets out to offer only marginal protection and is further diminished by confusing management jurisdictions and unspecified national leadership. More fundamentally, the idea of establishing a national system of representative rivers was a hesitant first step towards treating all rivers, water, and nature in a sustainable manner. To this ultimate end, the Wild and Scenic Rivers System provides some important contributions, including a precedent for river preservation, a focal point for contemporary river issues, and a basis for expanding river protection in the future. However, rather than accomplishing sufficient

river preservation, Wild Rivers are most significant for symbolizing the need to improve the nationwide treatment of all rivers.

CHAPTER ONE

The Political Watershed

Generations to follow will judge us by our success in preserving in their natural state certain rivers having superior outdoor recreation values -- Stewart Udall

"Nothing is a greater source of wonder and amazement," Lyndon Johnson told the Congress in 1965, "than the power and majesty of American rivers." On February 8, President Johnson offered his Message on Natural Beauty in which he expressed concern for cities, pollution, the countryside, highways, and rivers. Explaining why rivers deserved consideration, Johnson pointed to the aesthetic importance of rivers and recalled the nation's river heritage stressing their place in history, myths, legends, folklore, and literature. Rivers remained important to society, he claimed, "[y]et even this seemingly indestructible natural resource is in danger." In response to this threat, he supported legislation to establish a National Wild Rivers System.[1]

Johnson's action was not an isolated act of sentimentality.

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[1]*Congressional Quarterly Almanac*, (Washington, D.C.: Congressional Quarterly, 1966), 21 (1965): 1380.

Rather, it was part of his "New Conservation" vision.[2] "Beauty is not an easy thing to measure," Johnson explained. Through aesthetics, he expressed a concern with the quality of life that was rooted in a holistic view of humankind.[3] As a political ideal, New Conservation was concerned with the total environment instead of defining it in terms of its parts. Efforts to attain this ideal included protection for wilderness and wild rivers during the 1960s. These innovative designations are particularly salient for illustrating a fundamental change in the way Americans understood their environment. Instead of regarding wild nature in purely utilitarian ways, they now recognized non-commodity values such as beauty.

By the 1960s, the environmental awareness which had grown steadily after the Second World War rose to the surface of the nation's political and social climate. Increasingly, Americans defined their world, their nation, and their communities in terms of their environment. Corresponding to this awareness were popular notions about the way

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[2]Martin V. Melosi, "Lyndon Johnson and Environmental Policy," *The Johnson Years, Volume Two: Vietnam, the Environment, and Science*, ed. Robert A. Devine (Lawrence: Univ. Press of Kansas, 1987), 113.

[3]*CQA*, 21 (1965): 1380.

nature "works" borrowed from the science of ecology. Acting on the New Conservation ideal, the branches of the federal government demonstrated a concerted effort to improve the quality of life in America. Legislation passed during this period exemplifies a marked shift from traditional methods of resource conservation to a more holistic conception of environmental policy. Probably the most famous federal initiative of the 1960s, in this respect, was the establishment of a Wilderness System, In principle at least, the Wilderness Act of 1964 reserves certain pristine natural areas from human development and degradation. The movement associated with wilderness legislation is central to any discussion of environmentalism, conservation, or river protection during the 1960s.

Post-War Environmentalism

The second half of the twentieth century constitutes a political watershed of environmentalism in the United States. Rising levels of affluence and education that accompanied the post-war economic growth prompted Americans to seek the out-of-doors in unprecedented numbers and generated a new awareness of the natural

environment. Growing urbanization also led many to question the detrimental effects of crowding, pollution, and resource depletion on the quality of life experienced by most Americans. At the same time, environmentalists championed quality of life issues through more, larger, and increasingly active conservation organizations.

According to environmental historian Samuel P. Hays, a transformation of values regarding nature and humanity's control of it occurred in the post-war years leading eventually to broadly defined concerns for health, the quality of life, and even the diversity of life on earth. Hays points to the initial growth in outdoor recreation during the 1950s as evidence of increased interest in nature. Hays explains that many of the environmental issues familiar to Americans of the 1950s and 1960s resulted from conflicts between developing material resources and cultivating aesthetic or amenity uses. These developments all resulted from America's rising standard of living and the corresponding rise in education levels.[4]

The post- war rise of environmentalism is reflected in a nationwide search for "get-aways" in the form of retreats, camps, and

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[4] Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (Cambridge: Cambridge Univ. Press, 1987), Intro., *passim.*

vacation homes.[5] The propensity for getting back to basics and into the country is associated with the urbanization of America. Historian Samuel P. Hays points out that urbanization created the strongest pockets of environmentalism, especially in demands for outdoor recreation. Officials, in order to address the need, established many urban and suburban parks; these typically were designed in relation to bodies of water such as lakes and rivers.[6] For the most part, however, according to Hays, public land for recreation received little attention in the years immediately following the Second World War. This led to a new era of acquisition for park land during the 1960s. Any new acquisition during this period, however, out of necessity, was smaller than traditional American parks. Hays explains that the increased popularity for outdoor recreation reflected a desire to interact with nature rather than to overcome and subdue it. People wanted to experience nature in increasingly interactive ways. Americans perceived wildlands to be sources of clean air and water and the demand for public access to wildlands led to more facilities and trails and to a

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[5]Ibid., ch. 1.

[6]Ibid., ch. 3.

multiple-use approach to public land management.[7]

Modern environmentalism is characterized as well by the emergence of more active conservation organizations. Throughout the post-war era, many of the fundamental issues of concern to these organizations remained consistent while the climate in which they operated vacillated greatly. For instance, the number of organizations, the variety of issues they represented, and public membership and activism expanded exponentially during the 1950s and 1960s. At the same time, the national political leadership changed with each national election and no clear direction in environmental policy emerged.[8]

The Rise of Popular Ecology

During the 1960s popular ecology first came to the fore of public awareness. Rachel Carson's *Silent Spring* (1962), a controversial exposé of the chemical industry, pesticides, and the dangers of their indiscriminate use, played an important role in bringing basic ecological concepts to a wide reading audience. According to Stephen Toulmin,

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[7]Ibid., ch. 4.

[8]Ibid., ch. 1.

Rachel Carson demonstrated to the public that nature and humanity are "ecologically interdependent."[9] Similarly, environmental historian Roderick Nash believes Carson was most important for showing that humans were at risk along with all their living companions.[10] Nash characterizes this as a perceptual shift from the "Gospel of Efficiency" to the "Gospel of Ecology."[11] The former is associated with America's early-twentieth century conservation movement typified by Gifford Pinchot, the nation's first director of the Forest Service who pioneered scientific resource management. In contrast to scientific management, Americans of the 1960s came to see elements of nature as one ecological whole instead of mere resources to be used efficiently. There was now more to be concerned with than the conventional fear of running out of renewable resources because Americans realized

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[9]Stephen Toulmin, *Cosmopolis: The Hidden Agenda of Modernity* (New York; The Free Press, 1990), 161.

[10]Roderick Frazier Nash, *The Rights of Nature: A History of Environmental Ethics* (Madison: University of Wisconsin Press, 1989), 81; see also Frank Graham, Jr., *Since Silent Spring* (Boston: Houghton Mifflin Co., 1970).

[11]Nash, *The Rights of Nature,* 9.

that humankind was vulnerable to its own excesses.[12] A philosophical blossoming occurred from the limited goals of traditional American conservation to an ever expanding "ecological consciousness" during the 1960s.[13] Nash calls it an "ecology-oriented environmentalism."[14]

As ecological concepts filtered out through the media, Americans began to realize that progress and consumer comforts represented a threat to having a healthy environment. Air and water pollution, tangible byproducts of industrial society, were clearly getting worse. But these were not the only environmental problems. Population growth, urban crowding, and other environmental problems began to be noticed for the first time in America during this period.[15] Before the environmental awakening of the 1960s, even Aldo Leopold was an obscure figure. Only

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[12]Roderick Nash, *Wilderness and the American Mind* (New Haven, Conn.: Yale University Press, 1967), 254.

[13]George Sessions, "Shallow and Deep Ecology: A Review of the Philosophical Literature," in Robert C. Schultz and Donald Hughes, eds., *Ecological Consciousness* (Washington, D.C.: University Press of America, 1981), 422; see also Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (Cambridge: Cambridge Univ. Press, 1987).

[14]Nash, *WAAM*, 255.

[15]*Americans and Environment: The Controversy Over Ecology*, ed. John Opie (Lexington: D.C. Heath and Co., 1971), vii.

a few thousand copies of *A Sand County Almanac* had been sold before then.[16] This is important because, although rivers were the subject of a great deal of concern during the time, they were subordinate to concern for the ecosystem as a whole.

Eugene Odum, the most famous and influential ecologist of the period, gained national attention as a result of the heightened public concern for the environment.[17] Odum explained that ecology had recently taken a significant shift. Where the discipline merely described animals and nature during the previous century, it now studied the function of all organisms within a system -- an *ecosystem.*[18] He helped sustain interest in ecosystems by making provocative statements like: "man's power and willingness to alter environments has increased at a

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[16]Nash, *The Rights of Nature*, 73; see also Curt Meine,"The Utility of Preservation and the Preservation of Utility: Leopold's Fine Line," *The Wilderness Condition: Essays on Environment and Civilization*, Max Oelschlaeger, ed., (San Francisco: Sierra Club Books, 1992), 138; John Tallmadge, "Anatomy of a Classic," *Companion to A Sand County Almanac*, J. Baird Callicott, ed., (Madison: University of Wisconsin Press, 1987), 110.

[17]Joel B. Hagen, *An Entangled Bank: The Origins of Ecosystem Ecology* (New Brunswick, NJ: Rutgers University Press, 1992).

[18]Eugene P. Odum, *Ecology* (New York: Holt, Rinehart, and Winston, 1963), 6.

greater rate than man's understanding of said environments."[19] Nobody understood what was happening to the natural world or how much worse the environment might become. All the while, the delicate stability of life on earth appeared to swing in the balance.

The concept of ecosystems was not new in the 1960s, however, or even in Odum's generation of scientists. The science of ecology had been around since at least the 1930s when it received some limited attention from the federal government as a result of the Dust Bowl disaster in the Southern Great Plains.[20] According to Donald Worster, *Oecologie* had been around a full century before it came into common usage in the mid-1960s.[21] At its debut, however, ecology "had no immediate effect on anybody or anything" and remained largely an obscure academic science until the environmental awakening of the 1950s and 1960s.[22] What Odum did at that time was to speak to

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[19]Ibid., 1.

[20]Donald Worster, *Dust Bowl* (New York: Oxford Univ. Press, 1979), ch. 13.

[21]Donald Worster, *Nature's Economy: A History of Ecological Ideas* (Cambridge: Cambridge University Press, 1977), 192.

[22]Ibid., 191, *passim.*

Americans when they were already becoming frightened about the condition of their natural world. The idea of ecosystems gave people a way to conceive of and explain their natural surroundings. It provided a model for returning balance to the natural world while it also allowed Americans to see that healthy rivers were a prerequisite for a healthy environment.

Ecology was able to do this in part by exposing Americans to the concept of the hydrological cycle. Instead of clouds, rain, rivers, and lakes all existing as distinct taxonomies of water, according to ecology, they were successive stages of a water cycle. Popular interpretations of ecology also placed humans, human industry, and modern agricultural practices within that cycle. "A tremendous volume of water is cycled between nature and highly industrialized society," Odum wrote, yet "only a small part of it is used for man's physiological needs."[23] Odum emphasized that the huge degree of material consumption characteristic of industrial society, and not individual consumption for physical needs was responsible for the current problem. Ecology made it clear *why* there was a crisis. If solutions were to be found for the

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[23]Odum, *Ecology*, 118-9.

environmental problems, then consumption would need to be reduced.

Ecology also explained *how* human pollution degraded the environment. Organic pollution of water from industry and domestic waste was of special concern.[24] The oxygen levels in rivers and streams are quite stable under normal conditions and the life forms that depend on flowing water rely on that stability. Based on knowledge of elementary biology, ecologists explained that many pollutants change these oxygen levels so that even when the polluting substance did not immediately kill plants and animals, its secondary effects did. Man-made and organic pollutants, therefore, had the potential to change the very structure of species and ecosystems.[25] (fig. 1.1) Odum claimed that no more important application of ecology existed than efforts to cope with the "ever-increasing volume of man-made wastes" including those wastes that were dumped into the nation's rivers and lakes.[26]

The lessons of ecology came at a time when the American audience was eager to learn about the causes -- the why and how -- of

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[24]Ibid., 75.

[25]Ibid., 31.

[26]Ibid., 75.

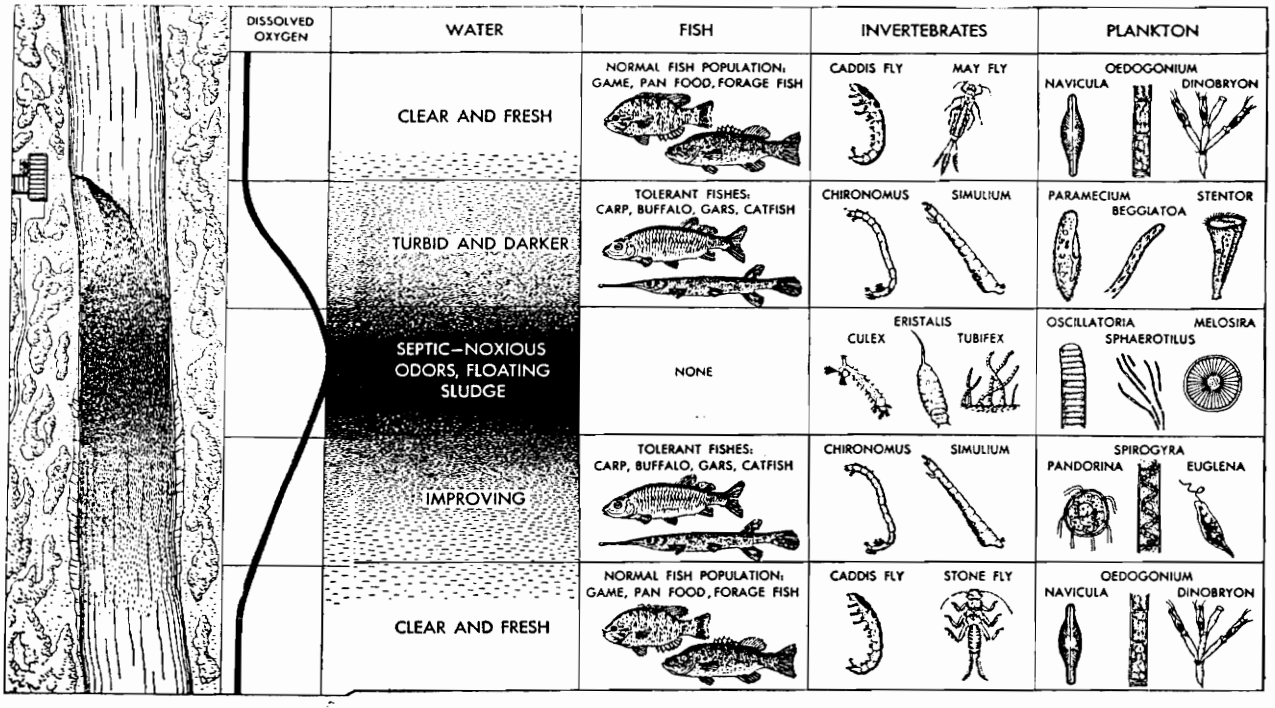

Figure 1.1 -- Odum's diagram of stream pollution and its effects on the biotic community.

environmental degradation. Odum's 1953 book *Fundamentals of Ecology* became famous, according to Donald Worster; in the five years between the first and second editions, by the author's own claims, interest in the science of ecology "increased considerably."[27] Odum's ideas entered the mainstream and are familiar to all Americans who read magazines and newspapers. These ideas form the main themes of popular ecological knowledge.[28]

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[27]Eugene P. Odum, *Fundamentals of Ecology, 2nd. ed.* (Philadelphia: W. B. Saunders Co., 1959), i.

[28]Worster, *The Wealth of Nature*, 159.

New Conservation

The rise of popular ecology was one manifestation of a growing concerned with quality-of-life issues during the 1960s. The decade constitutes a transition from traditional American conservation established during the Progressive era to sustain and replenish natural resources to a "New Conservation" emphasizing holistic treatment of the person and ecological protection for the environment. This trend is commonly associated with education, health, and welfare initiatives of the Johnson administration -- known collectively as the Great Society. But although most of the environmental legislation of the 1960s developed as part of this larger program, the Johnson administration represents only part of the New Conservation.

The movement toward a New Conservation started with President Kennedy earlier in the decade. "Our common goal," Kennedy advocated in 1961, was a society of "open spaces, of fresh water, of green country -- a place where wildlife and natural beauty cannot be despoiled." Historian James Sundquist feels that both democratic administrations of the 1960s share credit for establishing a receptive climate for

environmental improvements.[29]

Congress also played a role in fostering the New Conservation movement. The early-to-mid-1960s represent a period of unprecedented environmental legislation both in terms of volume and intent. Examples include greatly expanded federal holdings in new Park System categories such as national seashores, grasslands, wetlands, and historic sites. More significantly, innovative legislation addressed the natural environment on fronts as varied as clean air, water quality, highway beautification, and endangered species protection. Senator Edmund Muskie played a leadership role in Congress and earned the nick-name "Mr. Pollution Control" for his pursuit of unprecedented air and water controls.[30] Therefore, Congress must share some credit, for the federal government addressing the natural environment.

Because he served as Secretary of Interior under both Kennedy and Johnson, Stewart Udall provides a convenient bridge between the two administration's environmental policies. Speaking in 1968, Udall

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[29]*Public Papers of the Presidents, 1961*, 148, as cited in James L. Sundquist, *Politics and Policy: The Eisenhower, Kennedy, and Johnson Years* (Washington, D.C.: Brookings Inst., 1968), 346.

[30]Mark V. Barrow, "Clearing the Air and Water," lecture delivered to American Environmental History class, Virginia Polytechnic and State University, 25 April 1994.

claimed it was no longer acceptable to merely take "peripheral action" to protect forests, parks, or refuges outside of the mainstream of American society.[31] Although some federal environmental programs during the 1960s resembled the old-style Progressive resource management, most addressed quality-of-life issues. The most obvious of these are clean air and water quality regulations but there were also innovative approaches to protecting wildlife, wilderness, and wild rivers. The total environment is now the concern," Udall explained, "and the new conservation makes man, himself, its subject."[32]

According to Martin Melosi, nobody had more influence on the development of these programs than Stewart Udall. In 1963 Udall published *The Quiet Crisis* in which he presented an environmental manifesto for the Democratic administrations. Udall includes in this work a celebration of American landscape, an appreciation of Native-American traditions, a history of American conservation, and an outline of pressing environmental problems. These problems constituted the "quiet crisis." Udall is the quintessential conservationist-turning-

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[31]Melosi, 117.

[32]Ibid.

environmentalist. Although he associated the New Conservation movement with Native-American conceptions of man in the world of nature, he believed it would allow Americans to preserve the "best" parts of the continent.[33] Udall recognized ecological conceptions of the environment while he still espoused the traditional "monumentalist" approach to natural resource policy. Later this became significant when Udall served as the administration's point man for wild river legislation. Clearly, ecology and environmentalism had reached the highest level of political leadership in the United States.

The federal policy towards rivers during the 1960s is useful for understanding many of these central issues in relation to post-war environmentalism. "Generations to follow will judge us by our success in preserving in their natural state certain rivers having superior outdoor recreation values," Udall believed. He wanted some rivers to remain "clean" and "wild" and to represent America's "rich outdoor heritage." He cited a number of examples he felt were appropriate for such treatment including the Allagash in Maine, the Suwanee of Georgia and Florida, Oregon's Rogue, the Salmon River in Idaho, the Buffalo River of

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[33]Stewart L. Udall, *The Quiet Crisis* (New York: Holt, Rinehart, and Winston, 1963), 12.

Arkansas, and the "Ozark Mountain" rivers (the Current River and Jacks Fork River) in Missouri.[34] Many of these rivers eventually served as precedents to the Wild and Scenic Rivers System.

The Wilderness Movement

Another predecessor to establishing the Wild and Scenic River System was the wilderness movement that peaked during the period 1955 to 1964. Both wild rivers and wilderness are inextricably tied to the 1954 and 1955 struggle over Echo Park in Dinosaur National Monument on the Utah-Colorado border. As part of the Colorado River Storage Project, this dam would have inundated a canyon of the Green and Yampa Rivers. The proposal created a national controversy as conservationists focussed their opposition efforts on the Echo Park damsite. The ensuing battle between the Bureau of Reclamation and national conservation organizations such as the Sierra Club and the Wilderness Society was responsible for fueling the broad-based environmental movement of the 1960s and 1970s. It is even more clearly associated with popularizing the wilderness movement leading

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[34]Tim Palmer, *Endangered Rivers and the Conservation Movement* (Berkeley: University of California Press, 1986), 142.

to passage of the Wilderness Act of 1964. The two movements -- both for wilderness and for wild river preservation -- expanded greatly as a result of the publicity surrounding the dam controversy. Although several Colorado River Storage Project dams were eventually built, wilderness advocates successfully blocked the destruction of Echo Park in Dinosaur National Monument.[35]

According to Roderick Nash, conservationists demonstrated in the Echo Park controversy that the public wanted some of the nation's wilderness preserved.[36] This one struggle within American conservation is unparalleled in significance because it served as a test case.[37] At stake was the inviolability of National Parks as well as the national consensus regarding special, permanent protection of *wildness.* A secondary but increasingly important issue was river wildness and whether or not rivers had a higher value in their natural condition. These questions were all greatly amplified by the national publicity generated by the Echo Park controversy. Roderick Nash explains that

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[35]Nash, *WAAM*, 200; For a detailed discussion of the Echo Park controversy, see pages 209-19.

[36]Sundquist, 337.

[37]Nash, *WAAM*, 210.

the conservation victory was important for preserving wild nature as well as for expanding public support of wilderness. It improved conservationists advocacy skills and demanded the attention of politicians.[38] The battle also aroused public consciousness concerning federal preservation designations and highlighted glaring omissions, such as rivers, in the National Park System.

In large part due to the publicity generated by the Echo Park controversy, the wilderness movement picked up momentum. The real push for wilderness legislation, under the leadership of the Wilderness Society's Howard Zahniser and the Sierra Club's David Brower, began only in 1955.[39] Brower defined wilderness as a place where "the hand of man has not set foot," but what he and others really had in mind was an official designation that would prevent further human exploitation from diminishing the nation's remaining wild areas. The movement operated within a kind of crisis mentality as exemplified by Brower's repeated assertion that "[w]hat we save in the next few years is all that will ever

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[38]Nash, *WAAM*, 219.

[39]Sundquist, 337.

be saved."[40] Although the focus was on wilderness, there was more at stake. Estimating that only 10% of the earth remained wilderness Brower wrote: "We should touch nothing more in the lower forty-eight...whether it's an island, a river, a mountain wilderness -- nothing more. What has been left alone until now should be left alone permanently."[41]

The time was right for a broad-based wilderness movement to blossom. The movement of the late-1950s and early-1960s was comprised of noted conservationists, certainly, but also a much broader spectrum of wilderness advocates including artists, photographers, writers, scientists, foresters, officials from a variety of government agencies, politicians in the highest levels of government, and even a Supreme Court Justice, William O. Douglas.[42] According to Nash, a cult of wilderness consisting of "[t]housands of foresters and hundreds of common nature lovers" had gradually emerged in the

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[40]David Brower, "A New Decade and a Last Chance: How Bold Shall We Be?" *Sierra Club Bulletin,* 45 no. 1 (January, 1960), 3, 4.

[41]John McPhee, *Encounters with the Archdruid* (New York: Farrar, Straus, and Giroux, 1971), 74, 84-5.

[42]See David Brower, ed., *Wilderness: America's Living Heritage* (San Francisco: Sierra Club Books, 1961).

United States beginning in the early twentieth century.[43] A number of books published during the 1960s cultivated the idea of preserving wilderness areas in hopes that essentially wild things might continue to exist.[44] The growing environmental movement embraced the idea of wilderness preservation, despite its ambiguity, and incorporated it into mainstream American thinking.

The first wilderness bill was presented before Congress in 1949. It underwent sixty-six revisions before final passage.[45] The Wilderness Act of 1964 established a National Wilderness Preservation System and clearly was a piece of landmark legislation. The system initially included 9.1 million acres of Forest Service lands that were already designated as "roadless," "primitive," or "wilderness." These were mostly high elevation or otherwise remote areas.[46]

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[43]Frank A. Waugh, "Wilderness to Keep," *Review of Reviews*, 81 (1930), 146, quoted in Roderick Nash,*Wilderness and the American Mind* (New Haven, Conn.: Yale University Press, 1967), 191. For a detailed discussion of the evolution and characteristics of America's "wilderness cult," see Nash, ch. 9.

[44]See David Brower, ed., *Proceedings, Sixth Biennial Wilderness Conference* (San Francisco: Sierra Club, 1960); David Brower, ed., *Wilderness: America's Living Heritage.*

[45]Nash, *WAAM*, 222.

[46]*CQA*, 20 (1964): 485.

As support for wilderness legislation grew, the idea of wilderness preservation branched out to include wild rivers as well. Wilderness and river advocates were natural allies and worked closely to develop legislation for both systems. As an early advocate for both wilderness and wild rivers, wildlife biologist John Craighead worked to keep river preservation tied to the swelling wilderness movement. While working on the wilderness legislation, Craighead fostered interest in wild rivers among other wilderness leaders. He would leave "all this [river] material on my desk," recalled Stewart Brandborg, then director of the Wilderness Society. Even Howard Zahniser had talked about a system of "wilderness rivers," according to Stewart Brandborg. "The idea of wild rivers was deep in the hearts of the old Wilderness Society leaders," he reported.[47]

As the struggle for wilderness preservation came to fruition, attention shifted to additional forms of wilderness preservation that would address rivers. In the mid-1960s, a newly proposed Colorado River Basin Project, in particular, drew attention to rivers for threatening

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[47]Palmer, *Endangered Rivers*, 144.

to inundate parts of the Grand Canyon.[48] (fig. 1.2) The Colorado Plateau

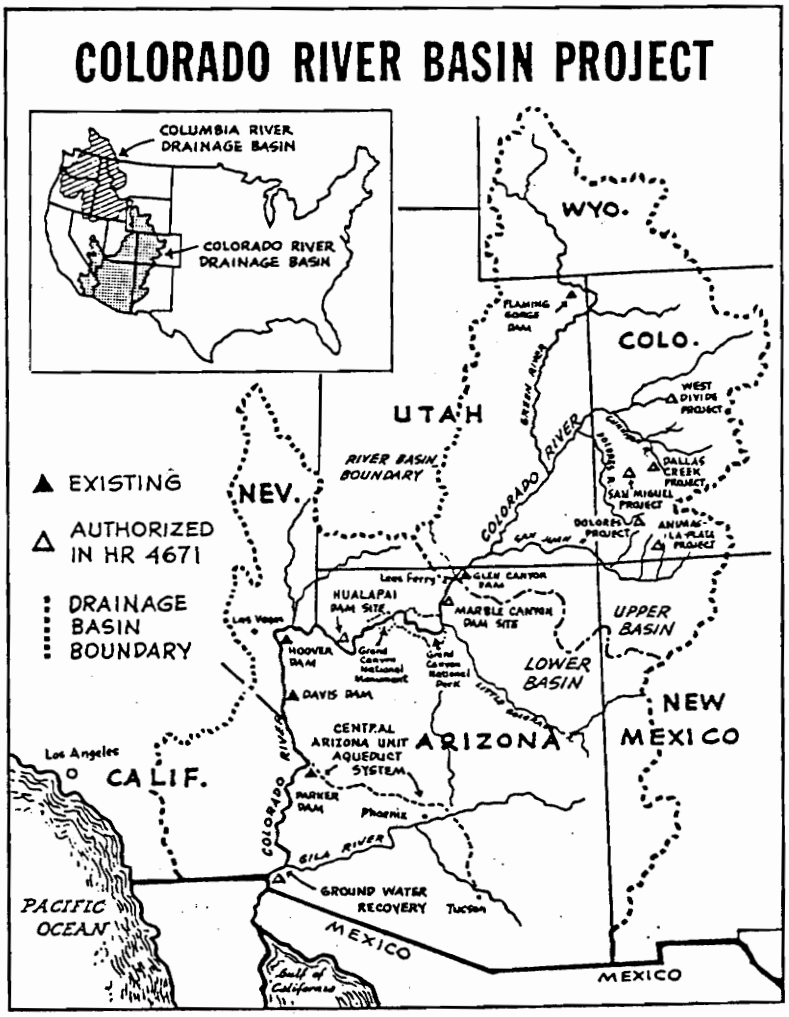

Figure 1.2 -- Map of Colorado River Basin Project Showing Major Dams.

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[48]*CQA*, 22 (1966): 669.

held special significance for conservationists of the 1960s because of their frustration over the loss of Glen Canyon to the Colorado River Storage Project. Although historian Mark W. T. Harvey points out that Glen Canyon was included in the Bureau of Reclamation's plans from the start, the common perception during the 1960s was that conservationists had struck a deal to preserve Echo Park at the cost of Glen Canyon. For this reason, the response to additional proposals for dams on the Colorado Plateau was strong. According to Harvey, the fight over the Colorado in 1964 resulted in the "most highly publicized wilderness campaign to date."[49]

Political Watershed

During the 1960s support for environmental issues had reached an unprecedented level. The New Conservation reflected an effort on the part of Congress and the presidential administrations to improve the quality of life in America. In pursuing this, the federal government demonstrated a marked shift from traditional conservation of resources to a more holistic environmental policy. Corresponding to

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[49]Mark W. T. Harvey, Echo Park, "Glen Canyon, and the Postwar Wilderness Movement," *Pacific Historical Review*, 60 (1991): 45, 66-7.

this shift in policy were spreading popular notions about natural ecosystems and the importance of protecting them. The most pristine ecosystems were to be found in essentially wild areas, and the Wilderness Act of 1964 provided a means to protect these. It serves as the most striking example, for many, of the sort of innovative federal program to emerge from the environmental watershed of the post-war era. Rivers, especially wild ones, received increasing attention through most of the decade as part of the wilderness preservation ideal.

CHAPTER TWO

Thinking Like a River

Perhaps our grandsons, having never seen a wild river, will never miss the chance to set a canoe in singing waters. -- Aldo Leopold

Wildlife biologist and ecologist Aldo Leopold became widely read during the 1960s and taught Americans of that generation to conceive of their world as an interdependent system of life. He is acknowledged for popularizing a new land ethic that supported the idea of wilderness preservation. But Leopold also influenced Americans to value their rivers as part of their natural heritage. In his magnum opus *A Sand County Almanac*, published in 1949, he scorned the threat to the Flambeau River and other wild rivers. He explained that settlement, logging, river-bank resorts, and damming had successively diluted the river's wildness. "Yet there remains the river," he observed, and with it still some wildlife, some wildness.[1] He pointed to Wisconsin's efforts to sustain and nurture this wildness as the sort of program needed to avoid the total humanization of America's wild rivers and streams. The Flambeau served as a prototype for Leopold's developing ideas for

[1]Aldo Leopold, *A Sand County Almanac* (Oxford: Oxford Univ. Press, 1949), 121-4.

preservation. He wanted to limit human influences on the river to maintain the "original wilderness" he valued so highly[2] Wild rivers were part of Leopold's general notion of wilderness preservation realized eventually in the Wilderness Act of 1964.

In 1936 Leopold experienced a revelation while on a trip to Chihuahua, Mexico. Part of what struck Leopold at the time about the robust nature surrounding him was the Rio Gavilan, a pristine river that drained the Sierra Madras Mountains. "The song of a river ordinarily means the tune that waters play on rock, root, and rapid," Leopold wrote, "[t]he Rio Gavilan has such a song."[3] This remote river served as a poetic metaphor and a symbol for nature as a singular organism. It helped Leopold to begin *thinking like a river* and to develop his ideas for a new relationship between humankind and nature.[4] The life of a river, he wrote, "is a pleasant music, bespeaking dancing riffles and fat

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[2]Ibid.

[3]Ibid., 158-9.

[4]One of Leopold's most famous essays from *A Sand County Almanac* is titled "Thinking Like a Mountain." In this selection, Leopold explains how he came to regard all organisms on earth as interconnected and interdependent. "Thinking like a river" is used here to emphasize the role of water and rivers in that interconnectedness. "Thinking like a river" is also useful for explaining American's elevated awareness during the 1960s of the hydrological cycle, the integrated nature of river basins, and the importance of protecting rivers.

rainbows laired under mossy roots of sycamore, oak, and pine."[5] Leopold saw wildness and life in the river and, like the American Transcendentalists of the previous century, knew intuitively that it was rejuvenating. This realization carried a lesson regarding other rivers with which he was more familiar. "The life of every river sings its own song," he wrote, "But in most the song is long since marred by the discords of misuse."[6] Leopold's reading audience of the 1960s recognized this misuse of rivers and incorporated his distaste for it into their growing environmentalism.

Rivers and streams increasingly entered the public consciousness during the 1960's.[7] The post-World War II era, in general, witnessed an expanding environmentalism in the United States due to unparalleled economic growth and the affluence and education that accompanied it. At the same time, the nation's demand for recreation areas grew as the population increased and became more urbanized. In response, federal agencies looked to rivers, lakes, and seashores for new outdoor

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[5]Leopold, *A Sand County Almanac*, 158-9.

[6]Ibid.

[7]Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (Cambridge: Cambridge Univ. Press, 1987), 139-40.

recreation outlets and Americans came to better appreciate their natural surroundings.[8] At the same time, municipal and industrial demands for freshwater pushed supplies to their limits while increased pollution threatened to contaminate them. The spread of ecological ideas in the 1960s drew attention to the water cycle -- the circulation of water from atmosphere to surface to subsurface -- and rivers increasingly gained recognition as essential sources of life. Americans no longer took their water for granted.

Because the public became aware of these transformations, the post-war period in general, and the 1960s in particular, represent a shift to non-utilitarian, aesthetic conceptions of nature. These new conceptions rejected modern definitions that objectified and commodified rivers. Ecology portrayed water as living as well as life-giving and Americans responded with heightened awareness and concern. Once rivers appeared to be threatened, they gained salience as an important element of the nation's heritage. Accordingly, Americans romanticized and celebrated the important role rivers had played in the nation's history. They also feared that irreversible damage

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[8]Ibid.

by pollution and development would eventually destroy even their small streams. The federal government, the national media, and the public gradually reached a consensus that something should be done to prevent the impending total destruction of rivers. Recreational needs, environmental concern, and notions of heritage combined to redefine America's regard for its rivers.

Happy Days are Here Again

After being preoccupied for years with the Depression and then with the Second World War, Americans had time, money, and an appetite for recreation. Unprecedented numbers of nature seekers inundated the national parks and forests beginning in the late 1940s. Between 1941 and 1957, for example, the number of Americans who visited the National Forests increased from 18 million to 61 million. During the same period, visitors to the National Parks increased three fold to reach 59 million.[9]

Through the 1940s and 1950s the federal government responded slowly to this increased demand. President Eisenhower, for instance, in

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[9]Frank C. Craighead, Jr., "Outdoor Recreation Research," *Naturalist*, Summer 1962, 23.

his effort to limit centralization in the federal government, opposed expansion of federal land holdings and only reluctantly agreed to improve existing recreation facilities.[10] By the late-1950s the pressure for more outdoor recreational space was hard to ignore. Congress responded in 1958 by establishing the Outdoor Recreation Resource Review Commission (ORRRC) to identify recreation needs and evaluate existing outlets in public land and water areas. Eisenhower appointed fifteen members to the ORRRC, with Laurence S. Rockefeller serving as chairman.[11] Even before the Commission finished its investigation, it warned that time was running out for acquiring and developing new recreation sites to meet public needs.[12] Senator John Kennedy, while campaigning for president in 1960, also urged the federal government to expand its national recreation facilities.[13] Shortly after the election, Kennedy and Secretary of Interior-designate Stewart Udall held a news conference in which they expressed a desire to create and improve

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[10]James L. Sundquist, *Politics and Policy: The Eisenhower, Kennedy, and Johnson Years* (Washington, D.C.: Brookings Inst., 1968), 233-4.

[11]*Congressional Quarterly Almanac*, (Washington, D.C.: Congressional Quarterly, 1959), 11 (1958): 327; *NYT*, Feb. 1, 1962.

[12]*NYT*, Aug. 3, 1960.

[13]*NYT*, Oct. 1, 1960.

outdoor recreation areas to meet the steadily increasing demand.[14]

Rivers held special significance for Americans interested in experiencing outdoor recreation opportunities. This is not surprising since rivers have served as ideal outlets for life-enriching experiences in nature and have been sources of inspiration for art, song, myth, and literature throughout human history. However, they were also in demand for the innumerable other uses by a densely populated, materialistic, modern industrial society. In 1960, the National Park Service responded to questions of the Select Committee on National Water Resources of the Senate saying:

> Particularly in areas of dense population and in arid regions, clear, natural running water is now a rarity and under the pressure of anticipated future requirements may become non-existent. However, there still remain in various sections of the country natural free-flowing streams whose integrity might be preserved in the face of the water-control onslaught if conscientious planning to this end were applied.[15]

The Park Service recommended that certain streams be preserved in their free-flowing condition because their natural, scientific, aesthetic, and recreational values surpassed their potential value for water

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[14]*NYT*, Dec. 8, 1960.

[15]*U.S. Code Congressional and Administration News: 90th Congress, 2nd Session, 1968*, vol. 3, (West Publishing Co.: St. Paul, 1969), 3802.

reservoirs.[16] The Park Service was obviously concerned with recreation needs but also identified environmental issues.

With the Democratic administrations of the 1960s came increased attention to recreation and the environment. On February 23, 1961 President Kennedy presented his Special Message on Natural Resources in which he emphasized the need to protect wilderness, improve recreation opportunities, and preserve fish and wildlife habitat such as seashores and wetlands. Kennedy believed outdoor recreation improvements were mutually beneficial with traditional resource conservation.[17] Representative John Dingell, a Democrat from Michigan, expressed similar sentiments on the House floor when he warned Fish and Wildlife Preserves were in danger of being destroyed by overuse.[18] Outdoor recreation and environmental concern were growing themes in American political culture; rivers gained attention because they provide both practical and symbolic opportunities for preservation.

After four years of deliberation, the ORRRC reported to Congress

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[16]Ibid.

[17]*CQA*, 18 (1962): 465.

[18]*CQA*, 17 (1961): 878.

in January, 1962. The Commission emphasized that over 90% of the nation's population participated in some form of outdoor recreation, which it estimated to be a $20 billion-a-year industry. The Commission not only highlighted the tremendous current demand for recreation areas but also predicted that demand would triple by the turn of the century. The report recommended that a Bureau of Outdoor Recreation be established to coordinate various government agencies and to carry out ongoing research for planning.[19] Rockefeller, when presenting the report, claimed humankind had a basic need for the outdoors.[20] The ORRRC confirmed, officially, that an increasingly urbanized America would require additional federal park land designations.

More significant for river advocates, the ORRRC report called water a "focal point" of recreation. Most Americans who sought the out-of-doors appreciated lakes and rivers, either for water-related activities or simply for aesthetic enjoyment. Swimming was very popular, along with boating and fishing. Rivers also enhanced hiking, camping, and picnicking experiences. The report called for immediate

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[19]*CQA*, 18 (1962): 464.

[20]*NYT*, Feb. 1, 1962.

action to acquire water, beach, and shoreline areas. It proposed flood-plain zoning to preserve attractive sections of rivers and streams. In summarizing public needs, the ORRRC suggested: "Certain rivers of unusual scientific, aesthetic, and recreational value should be allowed to remain in their free-flowing state and natural setting without man-made alterations."[21] This goal would be repeated with increasing frequency over the next several years.

Recreation was expanding on all fronts. Based on park and reserve attendance surveys, hunting and fishing licenses, and outdoor recreation equipment sales, a firm called Resources for the Future reported steady increases in all categories of recreation.[22] For example, during the post-World War II era river running first became a popular past-time in this country. Many of the earliest 'how-to" books written for novice river rafters, canoeists, and kayakers appeared during this time. Figures for the number of people who ran the Grand Canyon of the Colorado also demonstrate a marked increase in river rafting beginning in the 1950s. (see Table 2.1.) During the early-1940s no

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[21]*NYT*, Feb. 1, 1962.

[22]Marion Clawson, *Statistics on Outdoor Recreation* (Washington, D.C.: Resources For the Future, Inc., 1958).

runs were recorded. After the war, Americans exhibited a steadily increasing interest in rafting the river. By the mid-to-late-60s, the number of rafters in the Grand Canyon nearly doubled with each succeeding year.[23] Similar increases are recorded for the Salmon River (see Table 2.2.) and elsewhere throughout the country.[24]

Both the administration and Congress showed support for expanding recreation facilities. President Kennedy presented his Message on Conservation to Congress on March 1, 1962. In it, he expressed concern about the growing demand for recreation which he expected to double by 1970 and grow 500% by the turn of the century. Aggressive development of federally sponsored recreation outlets was necessary, according to Kennedy, to meet immediate and long-term needs. He called for approval of current proposals for new federal park designations including Ozark Rivers National Monument in Missouri. The President also called for a study of the nation's rivers. He wanted a complete inventory of rivers to inform recreation policy.

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[23]Robert O. Collins and Roderick Nash, *The Big Drops: Ten Legendary Rapids* (San Francisco: Sierra Club Books, 1978), 175.

[24]Cecil Kuhne, *Advanced River Rafting* (Mountain View, Cal.: Anderson World, Inc., 1980), 145. Kuhne cites a number of specific rivers including the Yampa, Rogue, Rio Grande, Stanislaus, Youghiogheny, and the New River.

Table 2.1: Travel on the Colorado River In the Grand Canyon

Year	Number of People	Year	Number of People
1867	1?	1961	255
1869-1946	85	1962	372
1947	4	1963-64	44
1948	6	1965	547
1949	12	1966	1,067
1950	7	1967	2,099
1951	29	1968	3,609
1952	19	1969	6,019
1953	31	1970	9,935
1954	21	1971	10,385
1955	70	1972	16,432
1956	55	1973	15,219
1957	135	1974	14,253
1958	80	1975	14,305
1959	120	1976	13,912
1960	205	1977	11,830

Source: Robert O. Collins and Roderick Nash, *The Big Drops: Ten Legendary Rapids* (San Francisco: Sierra Club Books, 1978), 175.

Table 2.2: Travel on the Middle Fork of the Salmon River

Year	Number of People	Year	Number of People
1962	625	1967	1,299
1963	580	1968	1,396
1964	735	1969	1,624
1965	1,260	1970	3,028
1966	1,260	1971	3,250

Source: Cecil Kuhne, *Advanced River Rafting* (Mountain View, Cal.: Anderson World, Inc., 1980), 145.

That same year Congress added thirteen additional areas to the National Park System -- the largest amount for any single year in the Park Service's history.[25]

On April 2, in a follow up to his Message on Conservation one month previously, Kennedy announced the establishment of the Bureau of Outdoor Recreation (BOR). Dr. Edward C. Crafts of the Forest Service became the bureau's director.[26] The BOR soon began work on a national plan that would research and promote recreation facilities.[27] Recreation-oriented bills, proposed in response to the ORRRC report and the urging of the Kennedy administration, received strong public and congressional support though, few survived the legislative process.[28] Recreation received a great deal of attention and Americans agreed that opportunities should be expanded, but there were also other, more pressing, environmental issues to consider.

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[25]*CQA*, 18 (1962): 915-6, 463.

[26]*NYT*, April 3, 1962.

[27]*CQA*, 18 (1962): 465.

[28]*CQA*, 19 (1963): 458.

Water Bankruptcy

Concern about freshwater supplies also grew steadily during the post-World War II years. A freshwater scare developed in the late 1950s and reached a feverish level by the early 1960s; the United States appeared to be running out of water. For example, a House of Representatives Public Works Committee report disclosed that in 1959, the nation's freshwater consumption surpassed its dependable supply by at least eight billion gallons per day. The federal government projected that there would be an even more pronounced national water shortage by 1970.[29] Projecting even further, The National Watershed Congress estimated in 1961 that the United States' demand for freshwater would double by 1980 requiring two-thirds of the nation's total stream flow to be harnessed.[30] Senator Robert Kerr of Oklahoma, the senior Democrat on the Senate Select Committee on Water Resources, believed the United States would need to dam *all* of its rivers and streams by the turn of the century to meet its water needs.[31]

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[29]*NYT*, Jan. 30, 1961.

[30]*NYT*, Jan. 17, 1961.

[31]*NYT*, Apr. 18, 1961.

These were dismal predictions, indeed -- both for public water supplies and for the few remaining undammed streams.

As early as 1961, Secretary of Interior Stewart Udall testified to the Senate's Interior and Insular Affairs and Public Works Committees that the nation faced a "water bankruptcy" if it did not plan for future water resource development. At the same time, the Senate's Select National Water Resources Committee reported that the nation's demand for water would require $12 billion for additional reservoirs by 1980. Other estimates of needed water projects reached as high as $180 billion over the next twenty years. The committee stressed that even this would not be enough, though. Other efforts such as pollution abatement, underground water development, and more efficient water use would become necessary. Officials proposed costly new saline water conversion methods and even weather modification techniques as possible responses to the predicted water shortages.[32] Americans still viewed rivers primarily as resources for municipal, industrial, and agricultural uses, but they also began to recognize that the resource was finite.

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[32]*CQA*, 17 (1961): 452-3; *NYT*, Feb. 20, 1960.

Scientists and politicians put forth ideas, some bordering on the ridiculous, to conserve existing water supplies and develop new sources. Among the proposals discussed was a plan to deepen snowdrifts to prolong the spring melt-off.[33] In New York City, the Water Supply Department made plans to build a roof over Central Park to shade municipal reservoirs.[34] Several suggested chemical sprays might be used to decrease evaporation in reservoirs and plant-life consumption in settled areas.[35] Likewise, chemical treatments could be developed to alter the molecular structure of H_2O, turning it into a gel and thus preventing seepage.[36] One researcher believed even the moon was a possible source of water.[37] For obvious reasons the majority of these proposals were never developed, but they highlight the pervasive belief that America was facing a water shortage crisis.

New sources of water were needed, even if they required

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[33]*NYT*, Mar. 30, 1960.

[34]*NYT*, Feb. 23, 1960; Oct. 27, 1961.

[35]*NYT*, Oct. 30, 1960; Oct. 8, 1961.

[36]*NYT*, June 12, 1960.

[37]*NYT*, Apr. 20, 1961.

extraordinary efforts to obtain them. The sources that received the most serious attention were deep underground reservoirs and the oceans. Developers tapped subterranean reserves of water with innovative equipment capable of drilling 3000ft or more.[38] Deep wells resulted in limited yields, though, in most parts of the country. The ocean, on the other hand, appeared limitless. The Eisenhower administration began developing desalinization techniques as early as the late 1950s. Soon after taking office, President Kennedy made saltwater purification a priority. He urged that development of a cheap conversion method was more important than any other scientific accomplishment.[39] Industry responded by racing to develop better, more efficient, and less expensive ways to make freshwater from the sea. New techniques used freezing, distillation, and nuclear radiation to remove water-borne minerals. The push for desalination resulted in construction of both sea water and coastal brackish water conversion plants.[40]

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[38]*NYT*, Apr. 21, 1961; Apr. 4, 1961.

[39]*NYT*, Apr. 13, 1961.

[40]*NYT*, Apr. 22, 1960.

Traditional dam-building projects continued to be the government's primary strategy for water development. In 1962, Congress allocated $2.3 billion for river, harbor, flood control and beach erosion control. This was the largest water projects bill enacted in the post-World War II era. The Bureau of Reclamation was founded to locate, construct, and operate waterworks for irrigation of agriculture in the American West. Over the course of six decades, the agency had grown in size and power as more and larger uses for water emerged. Water projects and technical innovation were not the entire solution to the water-shortage problem, though. Better planning was also needed.[41]

In 1965, the Water Resources Planning Act was passed establishing the Water Resources Council and regional river basin commissions. These agencies introduced national and regional interests to public works projects and implemented river basin studies and planning.[42] A growing concern over water resources heightened awareness of rivers both for their limitations as sources of water and

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[41]*CQA*, 18 (1962): 457; 17 (1961): 877.

[42]*CQA*, 21 (1965): 759.

for the increasing rarity with which they remained wild.

Pervasive Pollution

While federal officials examined ways to stretch their existing water resources, public concern regarding pollution grew. As with recreation and public works, Eisenhower opposed national action on pollution throughout his administration, and the problem was largely ignored on the federal level. "Water pollution is a uniquely local blight," he said in 1960. Pollution was a growing problem, though, and Americans recognized it as a major contributor to the impending water shortage. River pollution became a political issue during the 1960 presidential election when John Kennedy used it to emphasize the Republican administration's recent inaction. Pointing to the administration's veto of a bill to clean the nations' rivers of pollution, Kennedy drew attention to Eisenhower's opposition to federal pollution control.[43]

Although municipal sewage and industrial wastes were the main river despoilers, the former initially received the lion's share of

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[43]Sundquist, 323, 331.

attention. In 1961, raw sewage from an estimated 22 million persons entered public waters.[44] Synthetic detergents did not decompose and could not be filtered out in sewage treatment plants. Chemical industries scrambled to find "soft" detergents to avoid regulation, but detergent foam remained a highly visible pollutant.[45] (fig. 2.1) "So rapid is the turnover in many places," ecologist Eugene Odum explained, "that the resident time in nature is not long enough to allow detergents and other resistant wastes to decompose completely before the water

Figure 2.1 - Detergent Foam on a Virginia Stream.

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[44]*NYT*, June 23, 1961.

[45]*NYT*, Apr. 20, 1962; see also William McGucken, *Biodegradable: Detergents and the Environment* (College Station: Texas A&M University Press, 1991).

again reaches the faucet."[46] Odum also emphasized the magnitude of the freshwater degradation issue: "Stream pollution," he claimed, "is one of the most important problems facing mankind."[47] In 1962, a *New York Times* poll on suburban pollution found the public viewed detergents to be the main hazard not only in relation to water but in terms of all pollution.[48] Although pollution of all kinds was increasing, water pollution was highly visible and consequently most disturbing.

Pollution had reached a disturbing level. In 1960, the Surgeon General called the pollution problem a "crisis" and a "national disgrace."[49] That same year, Kennedy described the condition of the nation's rivers and streams as "alarming."[50] In 1961, the Natural Resources Advisory Committee task force urged Congress to pass a stream pollution control bill.[51] At the same time, Senator Kerr

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[46]Eugene P. Odum, *Ecology* (New York: Holt, Rinehart, and Winston, 1963), 119.

[47]Eugene P. Odum, *Fundamentals of Ecology, 2nd. ed.* (Philadelphia: W. B. Saunders Co., 1959), 320.

[48]*Business Week*, April 24, 1965.

[49]*NYT*, Aug. 11, 1960.

[50]*NYT*, 1960.

[51]*NYT*, Dec. 13, 1960.

requested that anti-pollution research be carried out before re-use of water became imperative.[52] In his 1961 Message on Natural Resources, and again in his 1962 Message on Conservation, Kennedy expressed concern about water pollution and proposed additional controls that might be applied.[53] At that time the federal government did not mandate or regulate pollution controls, it only encouraged them.

Also in 1962, the publication of Rachel Carson's *Silent Spring* dramatically increased public concern about all forms of environmental contamination and specifically about the dangers of pervasive chemicals. Surface waters, as well as underground sources, Carson argued convincingly, were contaminated with carcinogenic herbicides and pesticides.[54] Carson issued a clear indictment: "man has forgotten his origins and is blind even to his most essential needs for survival." Water as well as other life-sustaining resources had "become the victim of his indifference," she claimed.[55] No one more convincingly

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[52]*CQA*, 17 (1961): 877.

[53]*NYT*, Jan. 18, 1961; Apr. 18, 1961.

[54]Rachel Carson, *Silent Spring* (Cambridge: Riverside Press, 1962), chs. 4, 9, *passim*.

[55]Ibid., 39.

expressed the nature of the problem: "an appalling deluge of chemical pollution is daily poured into the nation's waterways."[56] What was more, these chemicals combined to form an unidentifiable "gunk" which scientists admitted would have unpredictable effects. The ultimate consequence, nonetheless, was that the nation's waters had become "almost universally contaminated."[57] Carson's book received unprecedented attention and, Americans who read or heard about it commonly perceived the nation's waters to contain invisible toxins.

Although *Silent Spring* enjoyed extensive sales, it was actually talked about more than it was read. The book created a heated nationwide controversy because Carson touched raw nerves with both household consumers and corporate producers of agricultural chemicals (e.g. fertilizers, pesticides, herbicides).[58] There were challenges to Carson's conclusions from the chemical industry and others, but her arguments retained a great deal of salience for the American public. Of course, the environmental impact of technology

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[56]Ibid., 40-1.

[57]Ibid.

[58]Nash, *The Rights of Nature*, 81; see also Paul Brooks, *The House of Life: Rachel Carson at Work* (Boston, Houghton Mifflin Co., 1972).

started long before chlorinated hydrocarbons and other toxic pesticides were introduced into freshwater.[59] These were Carson's subject though and received a disproportionate share of attention in the years following publication of *Silent Spring.*

The federal government made attempts to address the problem with enlarged pollution legislation. The Water Quality Act of 1965 was the first federal law mandating state control of water pollution. Previous measures, such as the Water Pollution Control Act of 1948 and 1956, had merely encouraged and facilitated pollution control from the federal level. The 1965 law went further by requiring all states to establish water quality standards and to implement controls on pollution. The specific controls were to be applied to individual polluters.[60] The 1965 law also provided $150 million in financial aid to states and funded new Research and Development grants for improved sewage systems.[61] It also aimed to improve the enforcement process.

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[59]Donald Worster, *The Wealth of Nature: Environmental History and the Ecological Imagination* (New York: Oxford Univ. Press, 1993), 23; see also Frank Graham, Jr., *Since Silent Spring* (Boston: Houghton Mifflin Co., 1970).

[60]Paul R. Portney, ed., *Public Policies for Environmental Protection* (Washington, D.C.: Resources for the Future, 1990), 99-103.

[61]J. Clarence Davies and Barbara S. Davies, *The Politics of Pollution, 2nd ed.* (Indianapolis: The Bobbs-Merrill Co., Inc., 1975), 30.

Enforcement remained ineffectual, though, because individual polluters' share of overall levels was difficult to determine, there was no implementation provision for enforcing federal authority, and states were slow to respond.[62]

By 1966, Kennedy's successor as president, Lyndon Johnson, concentrated on water pollution in his Natural Beauty Message. The president believed "every river system in America" suffered from human pollution. He emphasized that rivers and streams were being poisoned by industrial chemicals, mining acids, inorganic detergents and minerals, and the raw sewage of over 50 million people. These pollutants were not being broken down and were reentering the nation's municipal water supplies. The most immediate concern was that pollutants were killing fish and threatening humans and domestic animals. "We must combine all the means at our disposal" he declared,"...to reduce the pollution of our rivers."[63] The problem or water pollution did not go away; it only worsened.

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[62]Portney, 102.

[63]*CQA*, 22 (1966): 1265.

The Changing Value of Rivers

Within the context of 1960s environmentalism and the broadening circle of ethical consideration which accompanied it, the full-capacity use and subsequent abuse of the United States' waters lead many Americans to question federal water policy. The Rio Grand no longer flowed unimpeded all the way to the Gulf of Mexico; likewise, the Colorado rarely made it all the way to its primordial outlet in the Gulf of California. Instead, the water of these and other rivers was diverted into canals and reservoirs for human use. Conservationists warned that the nation's rivers were in danger of being completely drained. The situation seemed even more dismal when controlled water releases from man-made reservoirs were polluted with chemicals and sewage. These conditions were increasingly viewed as unacceptable because they disturbed ecological life systems and food chains. Even slight changes in river output disturbed the mix of fresh and salt water in estuarine areas.[64] Fish that had evolved in brackish water -- tarpon, channel bass, flounder, and croaker, for example -- teetered on the

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[64]Estuaries occur where ocean tides meet river mouths. These are usually inlets, bays, or wetland areas. The mixture of fresh and salt water creates brackish water on which specialized plant and animal species depend.

edge of extinction when the composition of water was altered. Atlantic salmon, whose runs had been blocked in the Susquehanna and Connecticut Rivers and were threatened in the rivers of Maine, had particular significance for fishermen.[65]

Because Americans became more aware of the perilous condition of the nation's waters they also became more interested in natural characteristics of streams. Articles concerning the variety of life present in natural water environments appeared with more frequency in the mid-1960s. Americans read about annual life-cycles of rivers, patterns of water flow and alluvial formations, and about wetland plants and animals.[66] Physical changes in river banks, stream beds, and flood plains came to be viewed as interesting and necessary rather than as solely destructive forces to be opposed with flood control. As a result, formations such as braided river channels and river meanders received detailed explanations in popular magazines like *Scientific American*.[67] People began to understand rivers' essential position in

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[65]Hart Stilwell, "What Happens When the Rivers Stop Flowing?" *Field and Stream*, February 1962, 29-30, 126.

[66]E. Laurance Palmer, "Stream Edges," *Natural History*, October 1968, 33-44.

[67]Luna B. Leopold and W. B. Langbein, "River Meanders," *Scientific American*, June 1966, 60; H. F. Garner, "Rivers in the Making," *Scientific American*, April 1967, 84.

natural life-cycles as well as in the processes of an ever-changing physical geography.

As public consciousness of rivers increased, so did appreciation for their central role in American history. Romantic notions appeared regarding Lewis and Clark, Mark Twain, the French *voyageurs* and their *bateaux*. Nostalgia for river exploration and paddle steamers grew, as well. Magazine articles portrayed rivers as America's first highways and as an important element of the national heritage.[68] Part of this heritage could also be found in river names from Native American, French Canadian, and Anglo-American folklore. For instance, descriptive translations of American Indian names such as "wedding of the waters," "water shooting and dropping," and "the water at the place where the buffalo chug" drew attention to rivers. Other examples of river names emphasized in the media of the 1960s include the French Trappers' *La Mandite Riviere Enragge* -- "the accursed mad river" -- for the upper Snake and quizzical English names like Powder River, Teapot, Whiskey

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[68]Grace Lee Nute, Ph.D., "Waterways...Natural Highways," *Naturalist*, Summer 1962, 26-30 *passim*; C. W. Buchheister, "On Saving Some Wild Rivers," *Audubon*, May-June 1965, 181; "The Rivers," *Changing Times*, June 1968, 30.

Gap, and Crazy Woman Creek.[69] For the first time, Americans recognized they had a river heritage to protect.

Magazine and newspaper articles paid tribute to specific streams with savory descriptions of topography, vegetation, animals, and aquatic life. Streams from every region of the United States received national attention. Writers celebrated rivers for their wildness and beauty as well as for the life they supported.[70] When the Kissimmee, Caloosahatchee, and the Oklawaha Rivers were included in an Army Corps of Engineers, across-Florida canal project, preservationists defended them as living organisms. Similar federal projects in the past had destroyed river plant and animal habitat with little public protest.[71] Increasingly, Americans lamented the destruction of nature and expressed a desire to curb their government's practices.

The federal government's action on water projects during the time reflect an increased value for wild rivers. In 1963, Congress debated for nearly a year before it passed new water-projects

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[69]Mary Hagen, "Turn Left at Spring Creek," *American Forests*, September 1964, 30-31, 57-59.

[70]Harold Titus, "Float Trips U.S.A.," *Field and Stream*, October 1965, 102-7, 115-6; November 1965, 86-93.

[71]Stephen Trumbull, "The River Spoilers," *Audubon*, March-April 1966, 105.

legislation. Throughout this process, controversies arose regarding many river projects where remaining wild rivers were threatened by damming, dredging, or draining for agriculture. The 1966 omnibus rivers and harbors bill authorized only $669,075,000 -- the smallest water projects bill in years.[72] This is especially significant because even while concern for freshwater supplies was high, public support for dam projects fell. By the 60s, Americans began to perceive rivers as a finite resource. Existing utilitarian concepts of rivers remained, but added to these was the belief that not all rivers should be dammed.

Corresponding to anti-dam sentiment, public criticism of pork barrel legislation, the Bureau of Reclamation, and especially the Army Corps of Engineers mounted. The Corps' project review process, critics pointed out, did not incorporate public interest in river aesthetics or natural qualities. Rather, dam-building decisions were based on narrow economic cost-benefit analysis. By mid-decade, Corps' dams covered over 4 million acres and had a combined shoreline longer than the United States mainland coast.[73] There was a

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[72]*CQA*, 19 (1963): 454; 21 (1965): 779; 22 (1966): 677.

[73]Luther J. Carter, "Dams and Wild Rivers: Looking Beyond the Pork Barrel," *Science*, October 13, 1967, 233-234.

growing sense of diminishing returns from water projects that destroyed additional natural habitats. Critics called the dam-builders "power-hungry" and "compulsive." It seemed that the Corps would not voluntarily curb its appetite for additional water projects and instead would eventually consume every trickling stream in America. (fig. 2.2.)

Figure 2.2 -- This 1965 anti-dam Cartoon appeared in the North Little Rock *Times.*

Citizen advocates, working with the BOR, sought involvement in river basin planning to balance development with preservation.[74]

Officials of federal resource management agencies often found it difficult to keep up with the times. Pinchot-type conservation made the Bureau of Reclamation and the Forest Service showcase federal agencies for dam-building and timber producing -- the keystones of progressive conservation throughout most of the twentieth century. Later, though, these agencies came under attack for infringing on people's right to enjoy nature and for threatening the right of nature to exist.[75] Established in 1902 to bring agricultural productivity to the arid Western United States, the Bureau of Reclamation grew steadily in its early decades. With Roosevelt's extensive New Deal public works projects, though, the Bureau expanded greatly. The middle decades of the twentieth century are considered to be the "Golden Years of Reclamation" as the Bureau of Reclamation's budgets and influence on national water policy reached unprecedented levels.[76] That the Bureau

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[74]Richard Starnes, "Shall Our Rivers Be Eternally Dammed?," *Field and Stream*, March 1965, 14, 103.

[75]Nash, *Rights of Nature*, 9.

[76]William E. Warne, *The Bureau of Reclamation* (New York: Praeger Publishers, Inc., 1973), 17.

fell out of the public's favor is no surprise; it was the federal government's most zealous dam-building agency.

The Bureau of Reclamation's commissioner throughout the 1960s, Floyd Dominy, was a brusk, outspoken, cigar smoking Westerner who was born and raised in arid farm country. Dominy had risen through the bureaucratic system partly because of his unyielding success at dam-building.[77] He admittedly preferred man-made reservoirs over naturally flowing rivers for several reasons. Holding the water in reservoirs was desirable obviously for irrigation and hydropower uses, but Dominy also claimed that houseboat and water-skiing recreation on man-made lakes was superior to that offered by rivers. But his position came under increasing public scrutiny by the 1960s when environmental awareness was strong. "I have been a controversial bastard for many years," Dominy bragged at the height of the environmental movement.[78]

On February 13, 1966 Dominy gave a speech in North Dakota in which he ridiculed the idea of preserving rivers under a national system. He argued that no rivers or even portions of rivers needed to be set

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[77]John McPhee, *Encounters with the Archdruid* (New York: Farrar, Straus, and Giroux, 1971), 153-5, 168.

[78]Ibid., 170.

aside from development. He claimed to have seen all the wild rivers he ever wanted to see; to Dominy, rivers were only useful in traditionally modern, utilitarian ways. Speaking about a controversial proposal to construct a series of dams involving the Grand Canyon, he claimed the Colorado River was "useless to anyone" as long as it remained undammed. He and others who supported the Grand Canyon dams felt that opposition was based largely in the Sierra Club and with people who believed the "lies" of Sierra Club president, David Brower. The North Dakota State Fish and Game Commissioner was furious and wrote to Secretary of Interior Stewart Udall to complain that Dominy was uninformed about changing American values. According to historian Mark Reisner, men like Dominy "couldn't fathom that a sea change in public feeling towards the natural world was taking place." Reisner calls this an "epochal shift" that guaranteed things would never be the same.[79] People were not concerned only because of what the dams would do to the canyon, they simply wanted no more dams. The battle between dam-building and river advocates served as the coming of age for the American preservation movement and under Dominy's

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[79]Mark Reisner, *Cadillac Desert: The American West and its Disappearing Water* (New York: Viking Penguin Inc., 1986), 251-2, 298.

leadership in this and other cases, Reisner says, "the Bureau lost touch with reality...completely."[80]

Thinking Like A River

Like Aldo Leopold before them, Americans concerned with water recreation, consumption, and pollution during the 1960s reflected a broadening respect for rivers. Environmentalism and ecology encouraged new conceptions of the water cycle and the interdependence of all life. These new ideas represent "thinking like a river" in both concrete and intangible ways. American officials and concerned citizens now understood that water flows cyclically; thinking like a river, they understood pollution would not disappear in the flow of water but rather would only be carried elsewhere. Understanding the interdependence of all life is also thinking like a river because of the interconnected nature of river basins. The main stream of a river is as dependent on its tributaries as the tributaries are effected by conditions down river. In fact, Americans of the 1960s came to recognize the importance of river basin planning -- treating the whole river organism -- and by doing so they were for a time defining the

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[80]Ibid. 295.

world in terms of the river.

Recreationists provide the best illustration. Through their physical exposure to rivers, fisherman, canoeists, rafters, kayakers, and those who merely sat and watched their favorite river role by were unavoidably changed by the interaction. Like Leopold, they heard the water song and were moved. The river gave them skills which strengthened their bodies, cleared their mind, and rejuvenated their spirit. In running the river, they became transformed, enraptured. The full force of water and of nature became exceedingly real to them. This sort of intimate interaction with rivers leads river runners to speak of the "the spirit of the river," "the living river," and their own "personal philosophy of rivers." One rafting enthusiast turned author accounts for these esoteric notions by explaining (although no more concretely) that when you begin a river trip you "give yourself to the river...[and it] penetrates your being."[81] Like sportsmen of the early twentieth century who led the American conservation movement in pushing for wildlife preserves, river enthusiasts contributed a passionate voice in favor of

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[81]William McGinnis *Whitewater Rafting* (New York: Quadrangle/The New York Times Book Co., 1975) xiii, xvi-xvii.

river protection[82]

The increasingly pessimistic evidence about nature, water, and rivers during the late 1950s and 1960s became unacceptable to many Americans. Thinking as they did -- that solutions for their myriad modern problems were to be found in a recovered ecological balance in nature -- they knew something must be done about rivers. But just what to do was not immediately clear.

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[82]John F. Reiger, *American Sportsmen and the Origins of Conservation, Rev.ed.* (Norman, Okla.: University of Oklahoma Press, 1986).

CHAPTER THREE

A Meandering Passage

A study of any good state map of any of the original forty-eight states will show how few wild rivers exist, how late the hour, how urgent the cause. -- John Craighead

"I heard the call and for years it had led me to the Wild Rivers," John Craighead wrote in 1965.[1] He spoke to the ever-growing population of river enthusiasts: "We have known the Wild River and marked up another episode that lends significance to life."[2] On river trips around the country "[c]ontentment, confidence, and exhilaration reigned." At the same time Craighead spoke to people who had not yet fully discovered themselves in nature: "Such moments are rare, often fleeting -- but poor indeed is the man who cannot mark up a few in a lifetime." He wrote poetically about his favorite rivers "talking now loudly, then softly." But he also lamented the development he saw encroaching on wild rivers. Pollution killed the living water, noise displaced solitude, and the river wildness dissipated. For Craighead,

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[1]John J. Craighead, "Wild River," *Naturalist,* Autumn 1965, 3.

[2]Ibid., 4.

this held a very personal significance because once the wild character of a river was destroyed, he felt that its "voice" was silenced. "A pristine conversation between man and nature" was no longer possible.[3]

There were many who agreed and many more who were coming to agree with the sentiment Craighead expressed. He was able to communicate his ideas for a national river preservation effort with his contemporaries because of the growing consensus regarding the need to do something about rivers. Along with his brother Frank and numerous other river advocates of the early 1960s, John Craighead was able to channel concern for wilderness, freshwater, and rivers into a movement to establish an innovative federal designation system.

Although the Craighead brothers were not the only advocates of river preservation, they are significant for the attention and influence they brought to the issue. As early as 1957, Frank and John Craighead suggested a protective system for rivers similar to the National Park idea.[4] Through the early 1960s they continued to develop and publicize

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[3]Ibid.

[4]John Craighead, "Wild River," *Montana Wildlife*, June 1957.

their ideas for wild rivers. Later, they advised conservation leaders and governmental officials both as advocates and as wildlife biologists. They were effective because they presented an informed, balanced case for protection. "Some rivers must be harnessed," John wrote, "but they need not be despoiled nor is it necessary to harness or deface them all. We can but deplore the greed and ignorance that has allowed the few to pollute and deface them to the detriment of the many."[5] The Craighead brothers also drew on a number of recent public issues such as recreation, pollution, ecology, and the nation's antiquity:

> [W]e can be certain that the soul-satisfying joy and inspiration that is the unique quality of clean, sparkling water flowing through a wild, unspoiled landscape with its natural complement of flora and fauna, will not be retained for future generations. They are entitled to this heritage; we are obliged to try to see they get it.[6]

By 1965, advocates for river protection could make such strong endorsements of the wild river idea -- even suggest a social obligation to do something -- because there was, by then, undeniable public and political support for action on wild river legislation.

As support for this idea increased, the government responded

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[5]John J. Craighead, "Wild River," *Naturalist,* Autumn 1965, 4.

[6]Ibid., 5.

with a variety of tentative, uncoordinated programs related to rivers. In addition to increasing controls on pollution, federal agencies initiated pioneering studies of the public demand for water and water recreation as well as surveys of the condition of the nation's rivers. Congress also integrated nationwide river basin planning as well as several individual river designations similar to national parks. All the while, the growing wilderness movement commanded more and more attention from the federal government. The earlier legislative struggle over wilderness legislation helped acclimatize the nation to the idea of wild river preserves while at the same time precluding action on national river system proposals.

Passage of the Wild and Scenic Rivers Act resulted from a meandering policy that developed through successive projects. First, the government acknowledged that the water crisis required innovative solutions like river basin planning. It also responded to calls for river protection by gathering information about the condition of the nation's rivers. Next, Congress established individual river preserves that served as experimental prerequisites to the national system. These tentative efforts appear to have been necessary predecessors to wild

river preservation.; they popularized the idea of wild rivers while they served as prototypes for the national system.

Addressing the Water Issue

Many of the objectives of New Conservation were vague, innovative, and experimental. Because of this, federal environmental policy through most of the 1960s did not represent a coherent, well defined agenda. According to historian Martin Melosi, the Johnson administration "often demonstrated a lack of consistency in support of environmental issues."[7] Rather, the administration's environmental directives tended to meander between alternative approaches. The most obvious explanation for this is simply the immense volume of environmental legislation passed between 1963 and 1968. Federal programs aimed at addressing water issues also reflect this lack of an organized, focussed, or goal-driven agenda. "In some cases," explains Melosi, "the administration was a leader, in some, a follower, in others, a

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[7]Martin V. Melosi, "Lyndon Johnson and Environmental Policy," *The Johnson Years, Volume Two: Vietnam, the Environment, and Science*, ed. Robert A. Devine (Lawrence: Univ. Press of Kansas, 1987), 141.

usurper."[8] Instead of adopting a purposeful approach to river degradation, therefore, the Johnson administration vacillated from pollution control to river basin planning to river inventories to attempts of establishing preserves.

These programs often contributed to the increased awareness of rivers and water policy. River basin planning, for example, incorporated ecology into river policy and recognized that rivers could not be addressed in part. The Water Resources Planning act of 1963 established co-operative federal-state river basin commissions to develop comprehensive water use plans. These were to oversee flood control, water supply development, pollution control, ecological conditions for fish and wildlife populations, and water recreation.[9] These issues all held great significance for understanding the condition of the nation's rivers and identifying ways to improve their treatment. Later planning initiatives familiarized officials with the difficulties of coordinating water agencies and prepared the way for coordinated river protection. For example, The River Basin Planning Act of 1965 was

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[8]Ibid., 118.

[9] James L. Sundquist, *Politics and Policy: The Eisenhower, Kennedy, and Johnson Years* (Washington, D.C.: Brookings Inst., 1968), 366.

intended to encourage state and local planning for a wide variety of water uses. It provided for a water inventory to better define the nation's water resources and water needs.[10] It also created planning regions and encouraged state involvement and cooperation.[11] (fig. 3.1)

Planning was a far-sighted concept, but it did not offer immediate results. There was growing sentiment in favor of dynamic protection for rivers. The most persistent idea, in this respect, was to create a system of federally preserved rivers. "Years after we had moved west," explained John Craighead, "we went back and saw the Potomac. The water was polluted, it wasn't anything like what we had known." It was clear to the Craigheads and others that the nation's rivers were becoming spoiled. Recalling how the idea developed, Craighead said: "I realized that we still had wild rivers in the West, but we wouldn't for long if we didn't do something to save them." It became increasingly clear to wild river advocates that they should have a program specifically designed and managed for rivers instead of trying to

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[10]Sen Jordan testifying, Congress, Senate, Committee on Interior and Insular Affairs, *Wild and Scenic Rivers*, 90th Cong., 1st Sess., April 13, 14, 1967, 61.

[11]Ibid., 37.

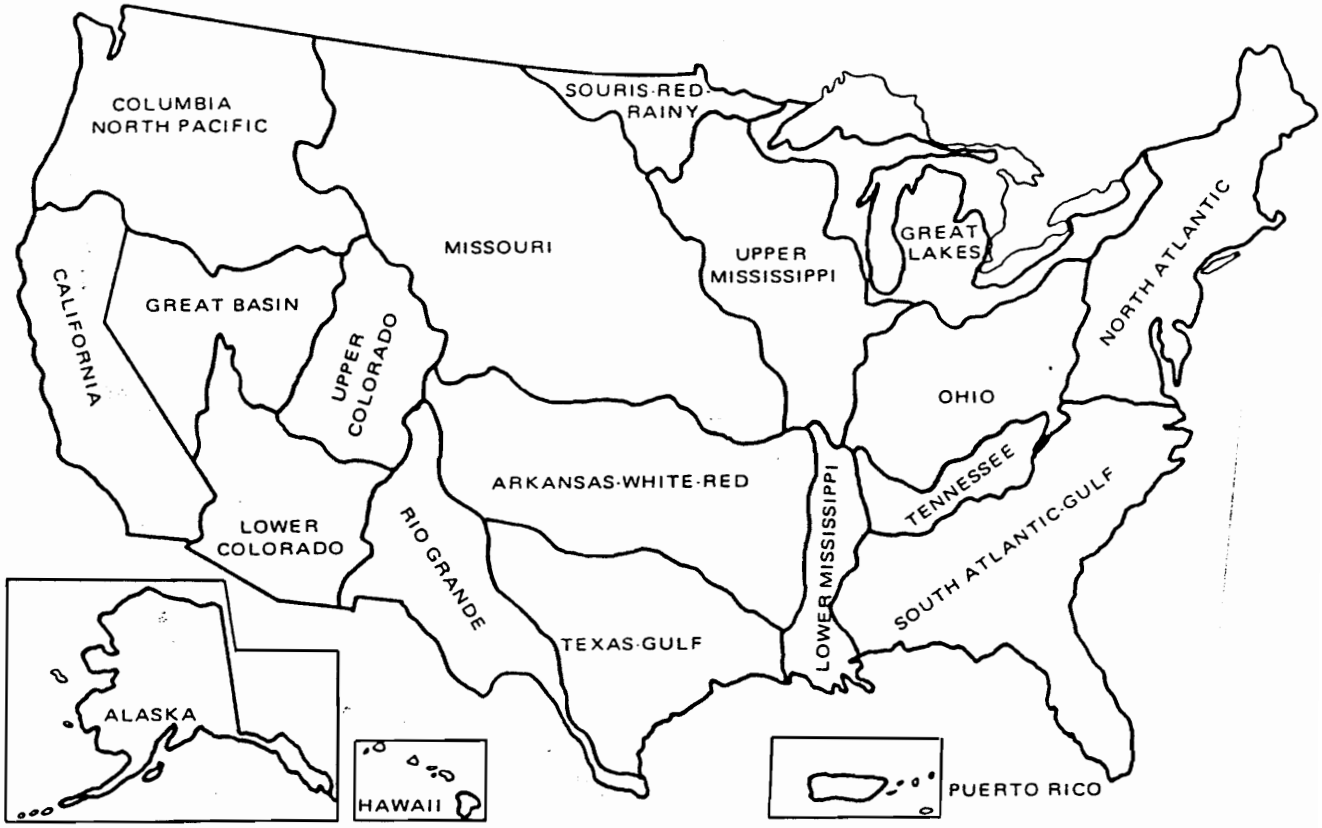

Fig. 3.1 - Water Resources Regions of the United States

protect rivers on a case-by-case basis.[12] Craighead understood that undisturbed stretches of rivers already under federal control lacked permanent protection. Many more had no protection at all. He advocated "strong, resolute," and "specific" legislation for rivers because he knew that fragile river ecosystems would continue to suffer in private hands and under multiple-use management practices.[13]

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[12]Tim Palmer, *Endangered Rivers and the Conservation Movement* (Berkeley: University of California Press, 1986), 136-7.

[13]John Craighead, "Wild River," 4.

Wild river legislation is similar to the development of wilderness legislation which departed abruptly from the existing practice of federal land-management agencies informally designating limited areas within their jurisdiction as "primitive" or "wilderness." In the early 1960s, conservation organizations such as the Sierra Club and the Wilderness Society lobbied for legislation to prevent the Forest Service and Park Service from reversing these ad hoc designations; in the view of wilderness advocates, the protection these designations offered was always conditional.[14] Likewise, river advocates such as the Craigheads felt the exceptional nature of rivers required special and permanent regulation through a national river system.

To this end, the Craigheads contributed specific ideas for studying and surveying rivers. They also developed the concept of classifying rivers and proposed a variety of classification systems based on human development and recreational demands, as well as the size, physical conditions, and ecological state of rivers. For example, they suggested categories of "Wild," "Semi-wild," "Semi-harnessed," and

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[14]Sundquist, 337.

"Harnessed-development rivers."[15] As wildlife biologists, the Craigheads were able to contribute ecological sensitivity to the evolving idea of wild rivers. Their suggestions were important for generating dialog and technically refined management ideas for the anticipated system.

An essential prerequisite to protecting rivers was knowing their condition. In 1963, Stewart Udall and his counterpart Secretary of Agriculture Orville Freeman, appointed a special study team to survey wild rivers in the United States. Udall and Freeman wanted to determine which of the nation's rivers, averaging at least 550 cubic feet per second, were still in a free-flowing, natural condition.[16] The survey lasted two years and covered approximately 100,000 river miles on 600 rivers. Seventy-three met requirements such as quality, location, remoteness, or accessibility for possible designation as a wild river. Twenty-two were selected for more detailed study of landholdings,

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[15]Frank C. Craighead, "A River in Transition," *Naturalist*, Autumn 1965, 6-18.

[16]Cubic feet per second (CFS) is an estimate of water volume flow. 550 CFS means that 550 cubic feet of water flow by a given point on a river in 1 second's time. CFS varies greatly with the annual cycle; a river flowing 14,000 CFS in June may only flow 2300 CFS in September and less in January. CFS also varies over distance -- rivers grow as they drop in altitude. Terrain is more significant than volume in forming whitewater.

water rights, and other potential obstacles to federal designation. This information served as a basis for river legislation in 1965. The study also served as a criteria for evaluating rivers in the future.[17]

River Designation Precedents

Attempts to designate river preserves received sporadic attention through the mid-1960s. These designations served as experimental river preserves and facilitated development of wild river legislation. They allowed legislators to test public opinion as well as ideas for implementation. They also further popularized the wild river idea. Supporters did not know precisely what they wanted to accomplish with river protection, but they apparently expected to know when they stumbled upon it.

Generating publicity for wilderness and wild river preservation was likely the most significant contribution of the Ozark Mountain rivers, established by Congress in 1964. A *New York Times* editorial pointing to the Ozark National Scenic Riverways in praising the

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[17]Charles H. Callison, "12 Rivers Under Protection Study," *Audubon*, May-June 1964, 178; Starnes, 14; *CQA*, 21 (1965): 773; Stewart L. Udall testifying, Congress, Senate, Committee on Interior and Insular Affairs, *National Wild Rivers System*, 89th Cong., 1st Sess., April 22, 23, 1965, 63.

legislative trend toward innovative conservation while calling the Wilderness Act "historic." The paper reported that the new federal river park in Missouri was important not only for preserving 140 miles of the Current and Jacks Fork Rivers but also for setting a precedent of saving unspoiled, free-flowing rivers. These would provide outstanding natural beauty and recreational opportunities. If established, the editorial continued, a national system of wild rivers would represent "precious gifts to future generations."[18] A month later, the paper continued to praise the "conservation Congress" for saving the Current and Jacks Fork Rivers from exploitation.[19]

During hearings before Congress in 1965, the Interior Department relied on the Ozark National Scenic Riverways as an example of successful river designation. Secretary Udall called it "pioneering legislation" because it established a federal preserve despite private ownership of land.[20] Officials did not merely point to these rivers as symbols, though. They also used them as models for future legislation:

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[18]*NYT* August 11, 1964.

[19]*NYT*, September 20, 1964.

[20]Sec. Udall testifying, *NWRS*, 71.

"We hoped that the Current River proposal would be prototypical, and that we could come forth with other river proposals," explained Ted Swem of the National Park Service planning team.[21] River protection of this sort was an innovative idea and it presented a unique challenge for managed preservation. Instead of high-elevation wilderness areas, wild rivers flowed through lowland valleys and drew their water from expansive river basins. The federal government understandably needed to model the system before authorizing it.

In the case of the Allagash and Wolf Rivers, the important precedent was establishing a protocol of state and federal cooperation in efforts to preserve rivers.[22] In these two instances, Congress provided grants through the Land and Water Conservation Fund to match state funds set aside by Maine and Wisconsin.[23] In Maine cooperation was essential because, although relinquishing control for the river was not desirable to citizens, the state could not independently finance its preservation. Slow accumulation of land along

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[21]Palmer, 139.

[22]Sec. Udall testifying, *W&SR*, 50.

[23]Sec. Udall testifying, *W&SR*, 50.

the river due to lack of funds made the process vulnerable to private speculation and development inconsistent with preserving the river. The federal government provided essential funding for securing control of land more quickly. Secretary Udall later emphasized the benefits of preliminary efforts such as these for developing additional legislation. Many of the key ideas for national river legislation, he reported, were worked out through Interior's negotiations with these states.[24]

Preliminary river designations also kept the question of what to do about rivers before Congress and the public throughout the early-1960s. Water project proposals in Maine, for instance, threatened the Allagash River basin even as the state acquired land along the river. The Allagash increased awareness of the threatened condition of rivers throughout the nation. In Maine, fish and game clubs responded to this news by claiming the Allagash was one of the few remaining wilderness areas in the United States. Although, the Allagash was in demand for hydroelectric power, they felt it was more important for recreational uses.[25] The Allagash resurfaced in the news repeatedly in the years

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[24]Ibid., 51.

[25]*NYT*, February 7, 1965.

preceding passage of the Wild and Scenic Rivers Act. It undoubtedly served as a symbol for the threatened condition of even the most remote wild rivers.

Individual designations for river preservation also gave legislators tangible examples of the sort of river protection that was needed. During the two years between 1965 and 1967, while Congress held river system hearings and negotiated details for national river legislation, the Department of Interior kept its attention on specific legislation. The people of Maine, Stewart Udall explained, along with their representatives in Congress, agreed that the state would work to preserve the Allagash River according to the emerging national river standards. Mainers wanted it this way because of their predilection for state control, according to Udall. Despite its special circumstances, though, Udall pointed to the Allagash as a symbol of what the national system could accomplish. "By all standards," Udall claimed, the Maine river was "one of the great scenic masterpieces of this country."[26]

In another case, specific river legislation was able to raise the standards for river protection by establishing more stringent

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[26]Sec. Udall testifying, *W&SR*, 46.

protection through larger buffer zones and more aggressive land acquisition. The Buffalo River in Arkansas was not included in the national system because of attention it received in more protective individual legislation. The National Wildlife Federation encouraged consideration of this river for the national system but preferred the Buffalo's specific legislation because it provided a larger area of regulation along the riverbanks which allowed more protection and outdoor recreation.[27] In this case, at least, the national proposal was eclipsed by stronger individual river protection.

Other river programs, though not as influential, reflect the nation's widespread interest in the wild river idea. For example, in the mid-1960s there was a detailed study and proposal for protecting the Connecticut River along a stretch that flowed through rural New England. Also in the Northeast, Governors Rockefeller and Hughes of New York and New Jersey respectively carried out negotiations for a federal-interstate compact to designate sections of the upper Hudson River. There were similar plans under consideration for the Potomac River near the nation's capital and the upper Missouri River above Fort

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[27]Thomas L. Kimball, National Wildlife Federation testifying, *W&SR*, 76.

Peck in Montana. Udall pointed to these examples in presenting the administration's case for national wild river legislation.[28]

The exercise of studying, selecting, and managing these individual river preserves gave federal authorities valuable experience and the motivation to tackle the larger idea of a national river system. Like wilderness areas established individually, beginning as early as 1924 with Aldo Leopold's Gila Wilderness, these efforts made broader protection under a national system seem possible. "After studying the Current, the Allagash, and the Missouri, we began talking about the possibility of a system of rivers," recalls Ted Swem, director of river planning for the park service.[29]

Not only were the substance of these prerequisites important, but so were their timing. Several significant predecessors to wild river preservation converged in 1964 making that a significant year for river protection. The Land and Water Conservation Act of 1964, for instance, created a fund for purchasing additional public areas. Without this funding, acquiring land along rivers would have been much

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[28]Sec. Udall testifying, *W&SR*, 45.

[29]Palmer, 139.

more difficult, if not impossible. The Ozark Mountain Scenic Riverways also came to fruition in 1964, further drawing attention to river protection; interestingly, of all the preliminary individual river preserves, this one most resembles the Wild and Scenic River System. Perhaps most important, though, of the 1964 predecessors to wild river legislation was the Wilderness Act which became law after a decades-long struggle. The Wilderness Act set a precedence for preserving "wildness" and served as a model for wild rivers.[30] Secretary of Interior Udall reported in 1965 that rivers legislation would be a valuable addition to the Wilderness Act.[31] Within several months of the Wilderness Act's passage, the administration began drafting wild river legislation.[32]

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[30]Dyan Zaslowsky and The Wilderness Society, *These American Lands: Parks, Wilderness, and the Public Lands* (New York: Henry Holt, 1986), 381; *CQA* 20 (1964): 474; Dennis G. Asmussen and Thomas P. Bouchard, "Wild and Scenic Rivers: Private Rights and Public Goods," *Congress and the Environment,* ed. Richard A. Cooley and Geoffrey Wandesforde-Smith (Seattle: Univ. of Washington Press, 1970), 167; Stewart L. Udall testifying, *NWRS*, 70.

[31]Sec. Udall testifying, *W&SR*, 51.

[32]Ibid., *NWRS*, 70.

Meandering Passage

The fundamental ideas of wild river preservation were well established by 1965. Recreation, environmental concern, and nostalgia provided the needed public support to establish a national river system. By this time, advocates had projected their ideas in support of a national system for close to a decade and had also actively grafted the idea of river preservation onto current public concerns over wilderness and ecology. As the various prerequisites converged during the mid-1960s, the political will of the nation seemed ready to engage the wild river idea.

The political climate of New Conservation and the Great Society made the mid-1960s ideal for pushing the wild river concept. Historian James Sundquist characterizes Johnson's environmentalism as "the never-ending race with despoliation."[33] Because rivers were obviously spoiled and getting worse, they were a conspicuous choice for focusing the administration's attention. Add to this, the indisputable benefits wild rivers held for recreation and improving quality of life and one quickly appreciates the strong support. Stewart Udall later recalled

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[33]Sundquist, 379.

that "President Johnson's chief of domestic affairs kept saying, 'Johnson wants new legislation,' and I told him about the wild and scenic rivers idea and he said, 'That sounds great, get it ready.'"[34]

It took some political and tactical meandering, though, before the variety of proposals could be distilled into their final legislative form. This is understandable when one considers the magnitude of change occurring during the 1960s. In view of these changes, the idealism of New Conservation and of the Great Society appears to have created more questions than it answered. Moreover, it did not prescribe what means might be used to improve American's quality of life beyond recreational preserves such as rivers. Instead, it relied on experimentation.

The most obvious source for developing wild river protection was wilderness legislation; the two movements were closely associated from Echo Park on. The wilderness idea had been around much longer, of course but the two came into wide popularity only after 1955. Stewart Udall compared the wild river idea with wilderness like this: "The Wilderness concept had this forty-year gestation period. With wild

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[34]Palmer, 144.

rivers it was just a few years. It came on strong...The momentum of the wilderness bill had a tide moving...The timing was just perfect."[35] But Udall fails to recognize that wilderness rivers are central elements of wilderness and were also part of the forty-year gestation. Despite this, wild rivers appear to have arrived on the environmental scene much later than wilderness. They were actually a tangent or out-growth of the broader idea of wilderness, though. Rivers received attention later because wilderness advocates and sympathetic politicians had to pick their fights carefully and one at a time.

Perhaps chronology is not that important anyhow. The political meandering of New Conservation as it attempted to do something about rivers resulted in an organic development of ideas. Instead of an unswerving directive made by an uninformed bureaucrat, the legislation followed, like a stream through a meadow, the way of least resistance. There were contributions from specific river preserves such as state-federal cooperation, land acquisition practices, and management techniques. The later were especially important for establishing regulations of buffer zones, compatible resource uses, and public

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[35]Ibid.

access easements.

Like wilderness, the idea departed from defensive strategies of preservation which relied on monuments of nature to rouse public opinion. This would be a system of rivers representing many regions of the nation. Even those who opposed specific rivers conceded the overarching idea of wild rivers was desirable. River preservation had become a national goal.

CHAPTER FOUR

Wild and Scenic Rivers

In water we see all of nature reflected. And in our use of that water, that nature, we see much of our past and future mirrored. -- Donald Worster

On September 3, 1964 President Johnson signed the Wilderness Act, thus bringing to fruition the idea of preserving *wilderness* in America.[1] Although ecologist Aldo Leopold had been dead for over 15 years, the idea he had pioneered during the 1920s and 1930s was finally enjoying popular appeal. The Wilderness Act was intended to bring these various designations together under one system to protect them in perpetuity.[2] But it did not preserve *wildness* sufficiently or in all its desirable contexts. This was true even by the ecological standards of the mid-1960s; there were other approaches to defining and preserving wild nature. So when President Johnson signed the Wilderness Act, officials at the Department of Interior did not breathe a sigh of relief and move on. Instead, they immediately began

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[1]Public Law 88-577 in *U.S. Statutes at Large*, 78, 890-6.

[2]*Congressional Quarterly Almanac* (Washington, D.C.: Congressional Quarterly, 1965), 20 (1964): 485.

work on a wild river legislation to augment the Wilderness System. By November, the Department of Interior had established a study team to begin drafting a proposal.[3]

Although the idea of establishing a national system of rivers progressed steadily, it endured a number of Congressional hearings, counterproposals, and amendments before becoming law in the Wild and Scenic Rivers Act of 1968. The National Wild and Scenic Rivers System included eight rivers (called "instant rivers" because they were to be immediately included in the system) and a list of study rivers for possible future inclusion. An examination of Senate hearings held in 1965 and 1967 reveals many influences on the final legislation. In addition to being an extension of the wilderness idea, river preservation during the 1960s embodied general concern for river degradation and recreation values. Accordingly, two potentially conflicting objectives emerged from the hearings: the national river system was to offer accessibility for the public and more effective protection for rivers. Concern regarding protection reflected a rising ecological

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[3]Secretary of Interior, Stewart L. Udall testifying, Congress, Senate, Committee on Interior and Insular Affairs, *National Wild Rivers System*, 89th Cong., 1st Sess., April 22, 23, May 17, 18, 1965, 7O.

consciousness by focussing on the viability of fish populations. Related to this was the belief that rivers represent a spectrum of wildness requiring classification. The wildness spectrum illustrates a continuation of the wilderness idea while also signifying an increasing sensitivity to river ecology.

Despite strong public and political support, the idea of wild rivers encountered some obstacles. Regional opposition to river preservation surfaced when economic development and property rights became threatened. The latter proved especially significant in 1967 when the Johnson administration surprisingly abandoned its original proposal in favor of an alternative one. In part due to this move, the power to condemn property became the single largest obstacle to passing the Wild and Scenic Rivers Act. Despite this and other setbacks, though, the idea of preserving America's few remaining examples of relatively unspoiled rivers enjoyed consistent support from both the public and Congress. As with the Wilderness Act before it, strong national support leant an air of inevitability to river preservation. But like the Wilderness Act, wild river legislation began hesitantly and became further diluted through compromise with regional

and special interests.

Wilderness Rivers

The idea of river preservation was closely associated with wilderness from the beginning. The wilderness cult that grew around and sustained the wilderness idea was not concerned only with high elevation, desert, arctic, and otherwise remote areas included in the wilderness bill. Preservationists were also concerned about America's endangered wild rivers.[4] When wildlife biologists John and Frank Craighead first promoted the idea of a wild river system, they linked it explicitly with the idea of wilderness. "Rivers and their watersheds are inseparable," John Craighead wrote in 1957, "...to maintain wild areas we must preserve the rivers that drain them."[5] Later Craighead affirmed that rivers were "the most fragile portion of wilderness country."[6] Through his involvement in drafting wilderness legislation, however,

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[4]See David Brower, ed., *Proceedings, Sixth Biennial Wilderness Conference*, and David Brower, ed., *Wilderness: America's Living Heritage*, The photo plates included are especially useful for the many images of wilderness rivers.

[5]John Craighead,"Wild River," *Montana Wildlife*, June 1957.

[6]John Craighead,"Wild River," Naturalist, Autumn 1965, 4.

Craighead found that leaders such as Olaus Murie and Howard Zahniser preferred to avoid controversy by focussing on *de facto* wilderness (areas already designated as "wilderness"). "The more I became involved," Craighead recalled, "the clearer it became that we needed a national river preservation system based on the wilderness system but separate from it."[7]

When the rivers system bill was first introduced into Congress in 1965, it remained explicitly connected to the Wilderness Act passed several months earlier. The *New York Times* called it a "companion" to the recently established wilderness system.[8] Secretary of Interior Stewart Udall called the Wilderness Act, the Land and Water Conservation Fund, and the newly proposed Wild River bill the most outstanding pieces of conservation legislation in the decade.[9] Senator Frank Church of Idaho emphasized that the proposed bill was "patterned after and intended to be a working partner to the Wilderness Act." He added that it was a "necessary corollary" to

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[7]Tim Palmer, *Endangered Rivers* (Berkeley: University of California Press, 1986), 137.

[8]*New York Times*, March 9, 1965.

[9]Sec. Udall testifying, *NWRS*, 68.

wilderness preservation.[10]

The connection between the two is easy to understand. Gary Snyder offers one meaning of *wilderness* as: "A place of danger and difficulty: where you take your own chances, depend on your own skills, and do not count on rescue." To him, this meaning implies chaos, the unknown, and "the demonic."[11] This description has clear similarities to common riverine epithets such as "Devil's Teeth Rapids" on the Salmon river and "Hell's Canyon" of the Snake. Snyder's definition could also easily be applied to a river-running experience. Wild rivers represented in the post-World War II era, as they still do, many of the notions associated with wilderness.[12]

In the spring of 1965 the momentum for wilderness preservation was still very strong, and the idea of creating a national wild rivers

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[10]Sen. Frank Church testifying, *NWRS*, 19.

[11]Gary Snyder, "The Etiquette of Freedom," in Max Oelschlaeger, ed., *The Wilderness Condition: Essays on Environment and Civilization* (San Francisco: Sierra Club Books, 1992), 27.

[12]A full treatment of wilderness and its relation to wild rivers is beyond the scope of this thesis. In addition to Roderick Nash's *Wilderness in the American Mind*, see Max Oelschlaeger's *The Idea of Wilderness* (New Haven, Conn.: Yale University Press, 1991) . This is an indispensable work on the symbolic elements of wilderness. An interesting example of the linkage between rivers and wilderness is found in Aldo Leopold, "The Ecological Conscience," *The Bulletin of the Garden Club of America*, Sept 1947, 45-53. Here, Leopold frames his wilderness preservation concept in terms of rivers, specifically the Flambeau river of Wisconsin.

system enjoyed widespread support. Democrats and Republicans alike spoke out in favor of Johnson's anticipated proposal.[13] Senator Frank Church believed there was strong support for a national river bill among legislators, throughout the nation, and most notably, in his own state of Idaho where the proposed system would have a high impact.[14] Because of its many remote and unspoiled rivers, hundreds of river miles in Idaho would be included in a federal river system. The prospect of establishing federally preserved rivers, therefore, held special significance there.

Interior Secretary Stewart Udall sent the administration's proposal to Congress on March 3, 1965.[15] The bill, called S. 1446, named six rivers to be immediately included in the system and nine additional rivers to receive further study for possible inclusion.[16] The Senate

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[13]*NYT*, January 17, 1965.

[14]Sen. Church testifying, *NWRS*, 20.

[15]Secretary of Agriculture, Orville L. Freeman in letter to Senator Jackson, April 12, 1967, Congress, Senate, Committee on Interior and Insular Affairs, *Wild and Scenic Rivers*, 90th Cong., 1st Sess., April 13, 14, 1967, 8.

[16]The six "instant" rivers were (1) the Salmon river, Idaho from North Fork to Riggins and the entire Middle Fork; (2) the Clearwater river, Idaho including the Middle Fork from Kooskia to Lowell, the Lochsa river from Selway to the Powell Ranger Station, and the Selway river from Lowell to Thompson Flat; (3) the Rogue river from Grants Pass, Oregon to the Pacific Ocean; the Rio Grande from the Colorado state line to Pilar, New Mexico; (5) the Green river, Wyoming from its origin in the Bridger

Select Committee on Interior and Insular Affairs, chaired by Senator Henry Jackson of Washington state, opened hearings the following month in Washington D.C. to collect information and testimony related to the proposal. In May, Frank Church along with fellow Idaho Senator Len Jordan and Wyoming's Milward Simpson travelled to field hearings held in Green River, Wyoming and Boise, Idaho. The Committee worked on the administration's proposal throughout 1965 and 1966 before reporting favorably on it. In September, 1966 the Senate passed the Wild Rivers bill, but it failed to receive consideration in the House. The administration submitted a new proposal in 1967, and the Senate Committee on Interior and Insular affairs again held public hearings. The Senate hearings of 1965 and 1967 reveal many of the perceptions and objectives surrounding river preservation during the period.[17]

A Current of Ideas

On the one hand, supporters of the legislation celebrated rivers

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Wilderness to its confluence with Horse Creek; (6) the Suwanee river in Georgia and Florida. The proposed study rivers included sections of the following rivers: Buffalo, Tenn.; Cacapon, W. Va.; Eleven Point, Mo.; Hudson, NY; Missouri, Mont.; Niobrara, Neb.; Skagit, Wash.; Susquehanna, NY & Penna.; and the Wolf, Wis. *NWSR*, 3. These lists changed as rivers were added or removed from consideration.

[17]The proceedings of these hearings are transcribed in *NWRS*, and W*&SR*.

for their positive contribution to the quality of life in America. Wild rivers were valuable for providing the public with opportunities to enjoy scenery, fishing, wildlife, history, and recreation.[18] These concepts are apparent in the administration's presentation of the wild rivers bill which offered detailed descriptions for each of the rivers included in its proposal. These descriptions included specific recreational, geographic, and aesthetic attributes that justified preservation. They also pointed to the historic importance of rivers in the development of the nation.[19] At the same time, America's pre-Columbian past was recalled in Native-American placenames; the "Clearwater" river, for example, took its name from the Native-American "kooskooskia."[20] Preservationists argued for protection of America's river heritage.

On the other hand, river preservation rhetoric contained a foreboding element. Secretary Udall claimed *all* American rivers were increasingly in danger of being ruined.[21] Something needed to be done

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[18]Sec. Udall testifying, *NWRS*, 64.

[19]Sen. Lee Metcalf testifying, *NWRS*, 22.

[20]Sen. Church testifying, *NWRS*, 20.

[21]Sec. Udall testifying, *NWRS*, 69.

soon before more rivers were unnecessarily dammed or spoiled. Testimony before the Committee on Interior and Insular Affairs repeatedly expressed alarm over pollution and the damming of rivers. United States rivers were "open sewers" and "chemical tanks," according to Senator Walter Mondale, a supporter of the Johnson administration's bill. Every major river drainage in the country, he believed, was heavily polluted.[22] Concern over the Federal Power Commission (FPC), Army Corps of Engineers, and the Bureau of Reclamation's overzealous pursuit of water projects also remained central to the idea of saving rivers. Senator Church complimented the bill for returning dam-building authority to Congress -- which it did, but only for rivers included in the system.[23] The FPC received a too broadly defined mandate during the 1920's, Secretary Udall added.[24] Growing popular concern for rivers had reached the highest levels of the federal government.

News of pervasive degradation combined with an increasing demand for recreation to create a sense of urgency regarding rivers

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[22]Sen Walter F. Mondale testifying, *W&SR*, 30.

[23]Sen. Church testifying, *NWRS*, 69.

[24]Sec. Udall testifying, *NWRS*, 70.

and the need to preserve them. Secretary of Agriculture Orville Freeman reported that the joint study conducted in 1963 and 1964 had found a dwindling number of unspoiled rivers. He felt this was especially significant because demand for recreational rivers was "surging."[25] Wild rivers were disappearing at the very moment their recreation values were beginning to be appreciated. Immediate action was needed to save America's wild rivers for future generations because industrial and urban demands were about to destroy the last of these.[26] "The need is urgent," Senator Church claimed, for congressional action to preserve the "remnants of America's great, rushing white-water."[27] Like Lewis and Clark who discovered the Salmon to be a "river of no return," Americans perceived they were approaching a point of no return after which the opportunity to preserve rivers would be lost.

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[25]Sec. Freeman testifying, *NWRS*, 72.

[26]Sen. Metcalf testifying, *NWRS*, 22.

[27]Sen. Church testifying, *NWRS*, 18.

Make it Accessible and Effective

The general objectives of river preservation advocates were to protect the integrity of rivers and streams for freshwater conservation and for scenic, fish, wildlife, and recreation values. Beyond these, several specific goals emerged from the hearings. One of these was to make National Rivers available to as many Americans as possible. To accomplish this, the Department of Interior wanted to include rivers representing many parts of the country.[28] Rivers in the East and Midwest received special attention due to their proximity to urban areas.[29]

Because accessibility was desirable, support for river preservation understandably focussed on local river segments. In the Twin Cities area, for example, the St. Croix River served as the focal point for discussions regarding the national system. Proponents argued that the Saint Croix would soon be overrun by urban growth

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[28]Sec. Udall testifying, *W&SR*, 48.

[29]For example, Sen. Robert F. Kennedy asserted that the Hudson and Susquehanna rivers had wild attributes and should therefore be included. Kennedy wanted designations near urban centers and pointed out that population growth would occur largely near existing cities. Sen. Kennedy testifying, *NWRS*, 42.

unless it received immediate protection.[30] Likewise, the *New York Times* typically reported on river preservation in relation to Hudson River attractions.[31] William Prime of the 1963 U.S. Kayak team claimed that 50 rivers within 100 miles of New York City deserved consideration for the federal system. Additionally, he wanted many local and state river designations to eventually augment the federal system.[32] Secretary Udall felt state preservation efforts were needed as well to provide more local water recreation opportunities.[33]

The desire to have wild rivers near population centers led some to propose including rivers that had already suffered from development or pollution. Senator Len Jordan, a strong advocate for accessibility, repeatedly called for reclamation or restoration of rivers in populated areas. He was particularly interested in restoring the Potomac, which he called the "rottenest" river in the country. In addition, he suggested that rivers from every state should eventually be

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[30]The St. Croix was especially important because it was the last big clean river near a Mid-west city and the Twin Cities were expected to more than double in population before the turn of the century. Sen. Gaylord Nelson testifying, *NWRS*, 208;*W&SR*, 21.

[31]*NYT*, January 19. 1965; February 9, 1965.

[32]William Prime testifying, *NWRS*, 148.

[33]Sec. Udall testifying, *W&SR*, 46.

included for the express purpose of making wild rivers as accessible as possible.[34] With this goal in mind, the possibility of expansion was built into the legislation. Enlarging the federal system was anticipated through adding rivers from the study list and from future proposals by the departments of Agriculture and Interior.[35]

The goal of accessibility aimed to meet human demands for recreation. Another fundamental objective for the national rivers system was to secure effective protection for rivers. If the legislation was supposed to preserve rivers, which ostensibly it was, then advocates wanted more rivers included and more effective protection from degradation. River preservation advocates, both public and private, criticized S. 1446 for being too mild. An editorial called the proposed bill a disappointment and said the protection it offered was "feeble."[36] The National Audubon Society described the legislation as "cautious." However, its leadership understood that the administration was trying to keep the river system as uncontroversial as possible in its

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[34]Sen. Len B. Jordan testifying, *NWRS*, 78; *W&SR*, 29.

[35]Sec. Udall testifying, *W&SR*, 50.

[36]*NYT*, September 8, 1966.

early stages.[37] Other critics, such as Pennsylvania's Representative John Saylor, were considerably less forgiving. He claimed the Interior's study-team proposal was very weak. When the second round of hearings opened in 1967, Saylor urged the Senate committee to produce a stronger bill. He wanted more rivers to be included -- up to 16 immediately and 66 for further study. Saylor was also concerned with the level of protection being proposed. Instead of a five year moratorium, Saylor wanted an indefinite suspension of all Corps of Engineers and Bureau of Reclamation projects on study rivers. Where the existing bill provided for a 300 foot scenic easement or buffer zone, Saylor proposed a full mile.[38]

Rupert Cutler, the Assistant Executive Director of The Wilderness Society, also criticized the river legislation for not fully protecting wild rivers. Wilderness conditions would only be preserved when rivers flowed through areas designated under the Wilderness Act, he pointed out. Further protection was needed if rivers were to remain "truly

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[37]Charles H. Callison, Asst. to the President, National Audubon Society, testifying, *NWRS*, 121-2. This was the same strategy wilderness advocates used in the struggle to pass the Wilderness Act. Sec. Udall later reported that keeping the river legislation uncontroversial was the administration's intent. *W&SR*, 62.

[38]Rep. John Saylor testifying, *W&SR*, 35-6.

wild."[39] The Wilderness Society conceded that the FPC's dam-site selection process had recently expanded to incorporate broader values, but it felt certain rivers should be taken out of water-project consideration permanently. According to Cutler, the society was not against dams in general. It only opposed dams on rivers that held the "highest value" in their natural condition.[40] Cutler was suggesting that a narrow strip of land along the banks of selected rivers was not going to provide protection. General concern persisted as to whether the Johnson administration's proposal offered effective preservation for rivers.

Migrating Fish and the Ecology of Rivers

Concern over effective river protection reflected the growing environmentalism of the 1960s. River advocates often measured the river system legislation in terms of ecology. Wildlife, especially fish, were the most popular barometer, in this respect, because they indicated the ecological well-being of rivers. In the case of Idaho rivers,

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[39]Rupert Cutler, Assistant Executive Director of The Wilderness Society testifying, *W&SR*, 94.

[40]Ibid., 97.

concern typically focused on the threatened condition of anadromous fish.[41] The Executive Director of the Pacific Marine Fisheries Council, Leon Verhoeven, claimed that including only part of the Salmon River was inconsistent with the intended purpose of the system: to preserve rivers in their natural condition. He believed that native fish species were essential elements of wild rivers and were necessary for outdoor recreation and proper water conservation. Discussing dam-site proposals for the lower Salmon, Verhoeven elevated fish, wildlife, and recreation as equal or superior to water development values. If completed, these hydroelectric dams would inevitably disrupt fish migrations and the river would be transformed into a series of static,

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[41]Migratory fish that swim up rivers from the sea to spawn. "Anadromous" is from the Greek *anadromos* -- "running upward." The discussion that follows concerns fish of the Pacific salmon family native to the United States' Pacific Northwest, Western Canada, Alaska, Siberian Russia, and Northern Japan (Hòkkaido Island). There are six species of Pacific salmon, five are native to the U.S.: King (also Chinook), Chum, Coho (also Silver), Pink (also Humpback), and Sockeye (also Blueback). Salmon are important to the Pacific Northwest for economic and recreational values and they hold popular interest because of their exceptional natural characteristics. Sometimes reaching 125 lbs, salmon live most of their life at sea. They "run" inland rivers and streams to return to and reproduce at their place of origin. Naturalists believe they are "imprinted" with the chemical characteristics of their natal stream and then "smell" their way back after reaching sexual maturity. In order to accomplish this, they must swim for many hundreds of miles against river currents, up thousands of feet in elevation, literally jumping up waterfalls. "Salmon" is from the latin *salmo* meaning "leaper." *Webster's New Collegiate Dictionary* (Springfield, Mass.: G. C. Merriam Co., 1959); S. D. Sedgewick, *The Salmon Handbook* (London: André Deutsch Ltd., 1982), x-xi; Ian Dore, *Salmon: The Illustrated Handbook for Commercial Users* (New York: Van Nostrand Reinhold, 1990), 7, 56.

disorienting reservoirs from Riggins on down. (fig. 4.1) Even one dam, according to Verhoeven, could potentially block the return of Chinook, Steelhead, Blue Back, or Sockeye salmon.[42]

During the 1950s and 1960s, concern for salmon increased in the Pacific Northwest as fish populations fell precipitously. Commercial salmon catches fell to half their historic level.[43] The apparent reason for this was a decrease in spawning. All wildlife is threatened when habitat is disturbed, but spawning salmon are especially susceptible to environmental changes in rivers. They have no energy reserves and even slight changes in water flow can disrupt their migration.[44] Further, most salmon only spawn once and then die; so disruptions can have very severe and sudden effects on the species. Fish prevented from spawning will never get another chance.[45] Natural disasters such as earthquakes and rockslides have always interrupted spawning but what changed in the 1950s was an increase in man-made disasters -- namely

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[42]Leon A. Verhoeven testifying, *NWRS*, 100-1. What's more, many of the immature fish (called "smolt") swimming downstream are killed as they pass through hydroelectric turbines.

[43]Ian Dore, *Salmon: The Illustrated Handbook*, 100.

[44]Ibid., 85-6.

[45]Ibid., 43.

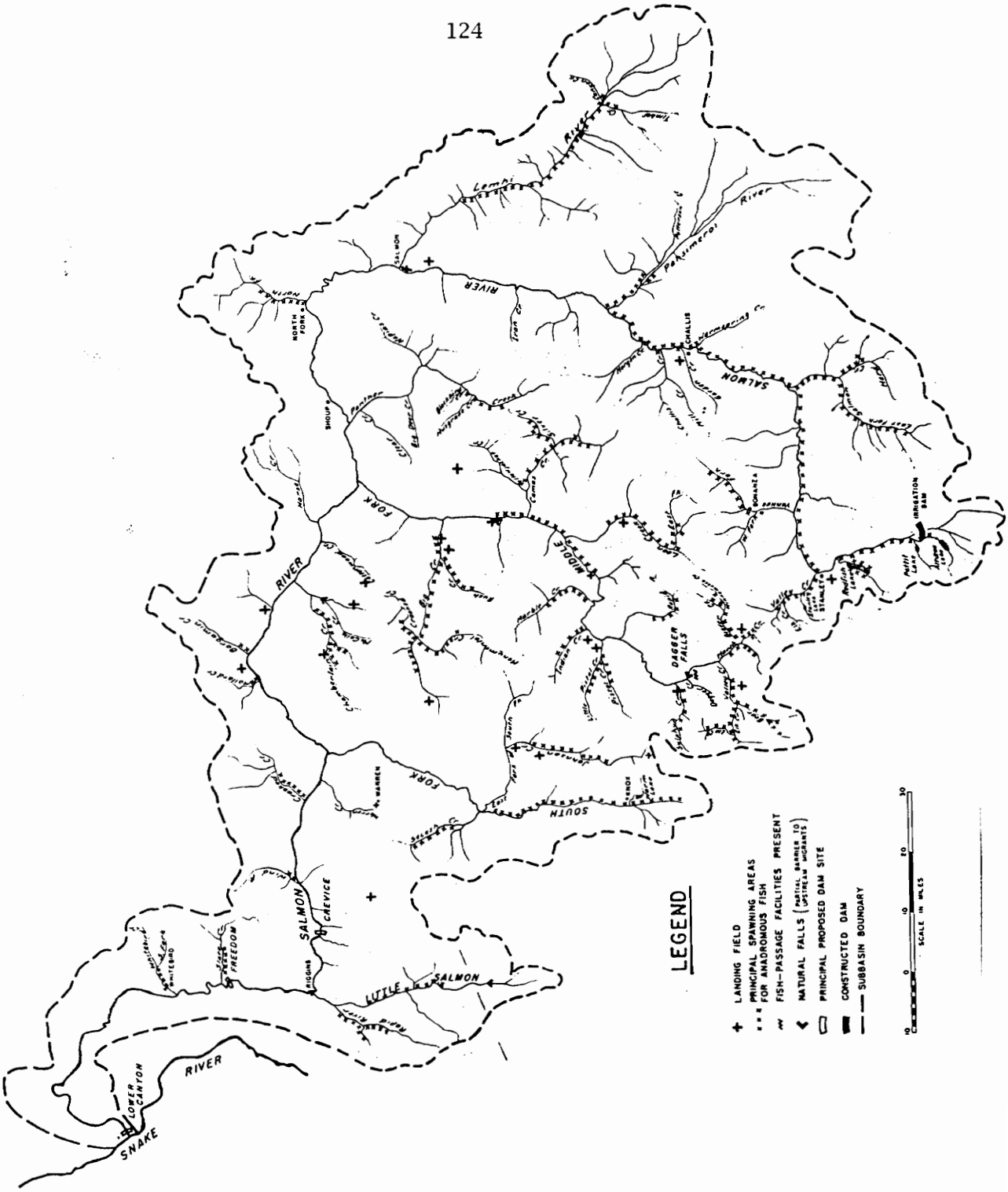

Figure 4.1 -- Map of the Salmon River drainage shown at the 1965 hearings. Riggins is located at the far left near the Snake river.

dams, logjams, and pollution.[46] The Pacific Marine Fisheries Council, along with everyone else in the Columbia River basin who read the newspaper at the time, knew this.[47] (fig. 4.2) Even the President and Chairman of the Pacific Northwest Power Company suggested that the Salmon River be preserved as a fish sanctuary "until there have been tested and proven on other streams methods which will safely pass migrating salmon."[48]

A representative from the office of Idaho's governor expressed similar concern for anadromous fish runs. By the 1960s, about half of Idaho's pre-Columbian stream area was inundated by water development projects. Water conservation and hydroelectric projects either eliminated or greatly reduced anadromous fish spawning in these streams. The Idaho state government wanted stronger protection for the Salmon and Clearwater river drainages specifically for their

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[46]Ibid., 85-6.

[47]For example, completion in 1957 of The Dalles dam on the Columbia greatly damaged salmon runs. This lead to a highly publicized court case in which four Columbia river Native American tribes won $25 million in compensation for lost fishing at Celilo Falls. Also, in 1964 Washington and Oregon started to close commercial fishing on the Columbia to protect the summer chinook run. Ibid., 115-6. See also, Ernest Day testifying, *W&SR*, 82.

[48]John J. Burke, Pres., Pacific Northwest Power Co. testifying, *NWRS*, 122.

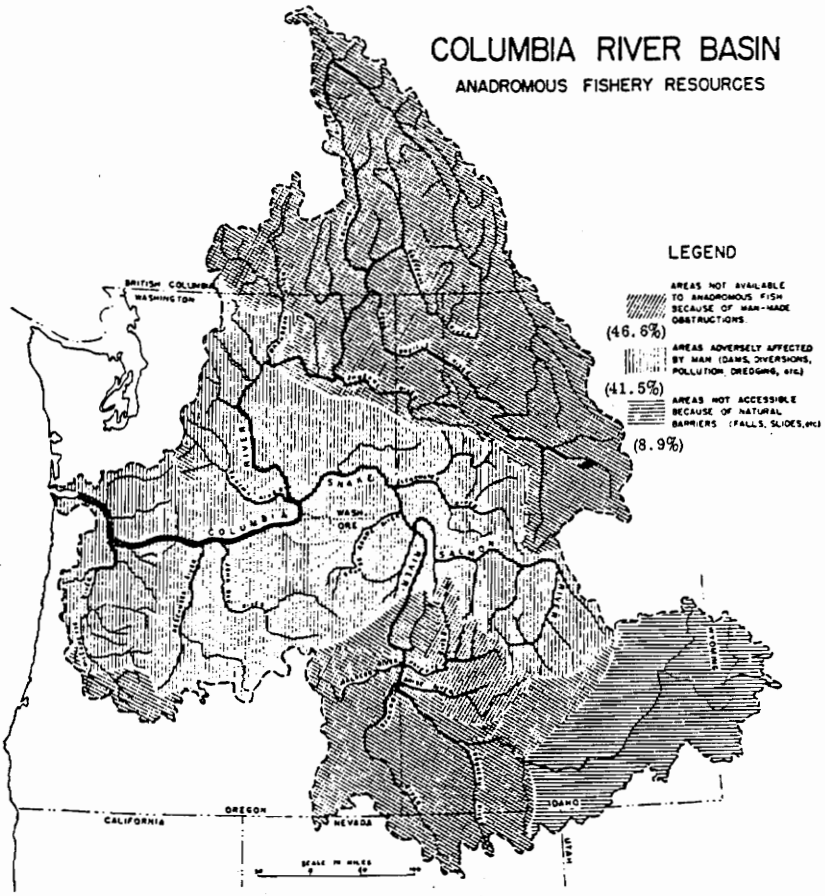

Figure 4.2 -- Map of the Columbia River basin shown at the 1965 hearings.

increasingly rare migratory fish runs.[49]

Ongoing concern for Idaho's salmon population led Senator Frank Church to propose that the lower Salmon River be included in the proposed national river system. Senator Church, who had worked for years to secure protection of the Salmon River, was primarily

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[49]Frank Cullen testifying, *NWRS*, 115.

concerned with what he called "ancient spawning grounds." Consequently, he proposed an amendment at the opening of the 1965 hearings to include the lower Salmon. This river section required protection as well, if the natural conditions of the river were to remain intact upstream.[50] By 1967, Church was dedicated to securing protection for the entire Salmon river. He justified this position most often by pointing out that high dams proposed for the lower section of the river would harm the salmon runs upstream.[51]

Church's ideas illustrate an increasing awareness of the natural balance and ecosystem of rivers. He now spoke about *how* water projects and other forms of development caused environmental problems. Reservoirs, for instance, caused water temperatures to rise which in turn weakened and disoriented migratory fish. This made it impossible for salmon, in the Senator's words, to "follow their instincts."[52] Not only did anadromous fish provide tangible evidence of increasing threats to fragile river ecosystems, they also illustrated the

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[50]Sen. Church testifying, *NWRS*, 20.

[51]Sen, Church testifying, *W&SR*, 54.

[52]Sen. Church testifying, *W&SR*, 83.

interconnectedness of river basins by migrating into the far reaches of the Columbia River basin. Concern for salmon forced a recognition of the need to accommodate ecological standards in the national river system. The final Wild and Scenic Rivers Act included the entire Salmon River instead of stopping at the town of Riggins as was initially proposed.

Other evidence of an increasing sensitivity toward river ecosystems is found in goals expressed by Stewart Udall. In 1965, Udall wanted to control upstream pollution of designated river sections. He realized that drawing imaginary lines along rivers (establishing boundaries around "sections") for federal regulation purposes was useless without attention to the river drainage system as a whole. He proposed modifying upstream mining activity when it defeated the intended purpose of river preservation.[53] In the 1967 hearings he expressed even broader goals. The river system was important, he claimed, not only for protecting streams for fishing and floating but also for protecting the water quality of entire watersheds.[54] This

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[53]Sec. Udall in letter to Hubert Humphrey, March 3, 1965, *NWRS*, 8.

[54]Sec, Udall testifying, *W&SR*, 45.

statement is not surprising because the general objectives of river preservation had always included freshwater conservation. It is significant, however, that Udall recognized the need to monitor activities beyond the banks of rivers and beyond the designated boundaries of preservation.

Americans have traditionally drawn arbitrary boundaries on the landscape with little consideration to topography or natural barriers. These artificial boundary lines superimposed on nature have proved to be very problematic. At best they provide an ineffective basis for management -- be it for political and economic management *of* humans or wildlife and resource management *by* humans. More often they exacerbate existing problems of managed communities. For humans, arbitrary boundaries often lead to conflicts based on culture, race, and economy. In terms of ecosystems, damage occurs by preventing or violating naturally flowing cycles, such as seasonal migrations, predator range, fire, and natural succession of flora.[55] Demarcations that make no effort to represent natural cycles confound human efforts to capsulize and sustain natural conditions. Biologist Edward Grumbine

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[55]See Alston Chase, *Playing God In Yellowstone: The Destruction of America's First National Park* (Boston: The Atlantic Monthly Press, 1986), chs. 1, 3-8.

says "[n]owhere do these boundaries reflect what happens ecologically." Humans distort the processes of nature resulting in habitat destruction and extinction.[56]

Rivers, because they reveal ecological damage quickly, provide a vivid illustration of the pitfalls of such boundaries. Frank and John Craighead explained this even as they popularized the wild river idea: "A river channel and its watershed are inseparable ecological entities transcending the boundaries of national parks and forests, private and public land, municipality, county, and state."[57] When discussion surrounding goals for the national river system centered on artificial boundaries, it suggested an increasing awareness of the water cycle, river biology, and ecological ideas in general.

Support for the idea of wild rivers from 1965 through 1968 resulted from a variety of related trends. Most notably, these included a rising demand for recreation, growing environmentalism, and the wilderness preservation movement -- all of which peaked at or about

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[56]Edward Grumbine, *Ghost Bears: Exploring the Biodiversity Crisis* (Washington, D.C.: Island Press, 1992), 9.

[57]Frank C. Craighead, and John J. Craighead, "Recreational Classification, Inventory and Evaluation," *Naturalist*, Autumn, 1965, 33.

this time period. Americans wanted some of their rivers to remain wild, unimpounded, and ecologically viable. They also wanted the opportunity to visit these rivers for boating, fishing, and other recreation uses. But their desires did not magically remove all obstacles to river protection. There remained conflicting uses, economic fears, management issues requiring innovation, and mistakes in political strategy to overcome. So despite strong support, other factors delayed passage, and in some cases weakened, the wild river system bill.

Conservation Easements

Conflicts with traditional land and water users were inevitable. While the Wilderness Society claimed to oppose dams only on rivers that contained the “highest value” in their natural condition, others expressed the exact opposite stipulation.[58] Senator Ernest Gruening, who cosponsored S. 1446, for example, admittedly supported river designation only when "more valuable" hydroelectric power development

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[58]Rupert Cutler testifying, *W&SR*, 97.

was not restricted.[59] The Governor of Wyoming made the blanket statement that "whatever steps necessary to make full use of our resources...[are] of paramount importance."[60] Recreation and the preservation of natural integrity would doubtlessly not qualify as "full use" by this governor's definition. River preservation was still only acceptable to some when nothing else could be done to extract profit from the river.

This prerequisite has strong similarities to what historian Alfred Runte has identified as a "worthless lands" policy in United States conservation. Runte argues that land had to be economically unproductive before receiving protection as a National Park.[61] Although this analysis has come under attack for overgeneralizing, Runte does argue convincingly that "worthless lands" are most likely to receive National Park designation.[62] Regardless, arguing that land is economically useless or, rather, most useful as part of the public

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[59]Sen. Ernest Gruening testifying, *NWRS*, 48.

[60]Governor Clifford P. Hansen of Wyoming testifying, *NWRS*, 57.

[61]Alfred Runte, *National Parks: The American Experience* (Lincoln: University of Nebraska Press, 1979), ch. 3, esp. 48-9.

[62]For criticism of Runte, see Richard W. Sellars, "National Parks: Worthless Lands or Competing Land Values?" *Journal of Forest History*, v. 27 (July 1983), 130-4.

domain has been a standard tactic of preservationists in the United States.

America's tradition of establishing National Parks and other recreational areas invariably prompts the question of multiple use when new designations are under consideration. National Wild Rivers were no exception. What was exceptional in this case, though, compared with land areas, was that rivers are not easily called "worthless." Runte based his argument on mountains, deserts, and canyons -- natural features that could not be profitably farmed, logged, or mined. Even the most remote rivers, however, have some economic value. It is not surprising, therefore, that Governor Hanson of Wyoming opposed inclusion of the Green river because it had potential for economic development.

When faced with challenges such as this, supporters typically sought conciliation rather than provoke future opposition. Senator Jordan, despite his support for river preservation, agreed with claims made by the Forest Industries Council that rivers could be developed for multiple use. How mining, logging, grazing, and water projects could continue on preserved rivers was not clear, but Jordan's language

suggested it was possible. These industries felt they were at risk of being abused and apparently Jordan agreed. He testified that designated rivers could be enjoyed without "doing violence" to these long-established industries.[63] Secretary Udall reflected the same need to appease traditional interests when he too claimed river designation could compliment other uses.[64] In their effort to avoid opposition, river advocates accommodated those users that caused the most visible degradation of rivers and streams.

After conciliatory language accomplished all that it could, supporters resorted to real compromise to head off opposition. One of the more effective compromises was an innovation called a *scenic* or *conservation easement*. An easement, in this case, amounted to the government reimbursing landowners for imposing restrictions on land use. Easements created a strip of land that was supposed to buffer preserved rivers from non-compatible uses such as mining but allowed land owners to retain their property and continue to use it for

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[63]Sen. Jordan testifying, *W&SR*, 151.

[64]Sec. Udall testifying, *NWRS*, 64.

agricultural profit.[65] Without spending large amounts of money to purchase land, the federal government could secure marginal protection of rivers. Udall promoted S. 1446 by emphasizing that little land acquisition would be necessary.[66]

Udall used the recently established Ozark Mountain National Rivers as an example of the successful implementation of scenic easements. Along these rivers the buffer zone was 900 feet. Landowners within this area agreed not to develop their land in any way that caused pollution or changed the scenic values for which the rivers were selected. This agreement allowed for cattle grazing and farming to continue (even though these practices cause agricultural pollution from erosion sediments, manure, and fertilizer). Buildings-construction next to the river or commercial development of any kind was not acceptable, though. In exchange for accepting this restriction of private property rights, land owners received financial compensation.[67]

The National Wild River bill was even less threatening because it

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[65]Ibid.

[66]Ibid.

[67]Ibid., 79.

called for only a 300 foot easement along river banks. The distance from the river was reduced to minimize conflict with private land owners, and consequently, to avoid opposition in Congress. Officials in the Department of Agriculture believed this distance would still be sufficient to provide public access points and to sustain the scenic attributes of rivers. Three-hundred feet was a well established unit for such buffer zones. It was commonly recognized as the minimum area needed to encompass water development projects such as man-made lakes and reservoirs.[68] In spite of the growing perception that rivers were threatened, protection for the ecological integrity of riverine systems dropped to the lowest established level.

Degrees of Wildness

Another innovation that resulted from the Senate hearings was the idea of classification. In 1965 John and Frank Craighead, who had earlier pioneered the idea of river preservation, suggested that rivers be classified according to their setting, relative wildness, and management needs. They objected to the generic reference to all

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[68]Sec. Freeman testifying, *NWRS*, 72-3.

rivers in the proposed system as “free-flowing.” This lumped a wide range of river conditions into one, inadequate description. Although they understood that emphasizing "wild" in the name of river designations had a great deal of public appeal, they suggested that classifications be used for management purposes to differentiate between rivers' relative “degree of wildness.” Rivers near urban areas that were scenic but not truly pristine would receive a different designation under this plan. More rivers from the East could be included in the national system because there would be an appropriate designation for them. Defining certain rivers as truly wild would also dispel the common belief that no Eastern rivers rivaled those found in the American West.[69] Although conditions varied a great deal, there were still unimpounded, unpolluted rivers and streams supporting native species and providing recreational solitude and whitewater in many parts of the country.

Many river advocates initially resisted the idea of classification. The idea of river categories brought additional confusion to an already vague and unprecedented scheme. Could the government effectively

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[69]John Craighead in letter to Sen. Metcalf, April 16, 1965, *NWRS*, 23-5; see also Frank and John Creaighead in letter to Sen. Gale McGee, April 19, 1965,*NWRS,* 40.

manage two or more categories of rivers without conflict? Would this lead to a whole new set of management problems? Differences between individual rivers and their relative wildness was a tenuous issue. Even those who recognized the significance of these differences questioned whether classification would weaken the system by overcomplicating it.[70]

Others, though, immediately viewed categories as an improvement to the system. The Isaak Walton League agreed that using only one category would potentially cause all rivers to drift to the level of the least wild. They feared that pressures to develop, dam, and pollute rivers would successfully drive standards to the lowest common denominator -- the standard that one category would necessitate. The Salmon River, for example, might be developed to the degree of the Susquehanna while both remained federal preserves under the designation "Wild River."[71] Categories were needed to define various types of rivers and to apply different standards for their selection and management. Some rivers were in truly wild settings;

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[70]Sen. Church testifying, *W&SR*, 32.

[71]Joseph Penfold, Conservation Director of the Isaak Walton League of America testifying, *NWRS*, 203.

others were marginally remote or located in an agricultural setting; yet others were near cities but still restorable.[72] The final version of the bill (now called the Wild and Scenic Rivers bill) included a classification scheme to avoid lowering standards of rivers believed to be truly wild.

Another benefit of classification was that it facilitated identification of ecological standards for individual rivers (or stretches of rivers). Advocates believed these requirements could be more effectively met by incorporating a classification framework. One river could include two or more designations so that each river segment received appropriate, customized attention..[73] Discussions regarding classification did not go so far as to actually include river ecology, but it did recognize rivers were complicated entities with environmental needs.

Once the idea of classification was incorporated, a semantic problem arose over the meaning of *wild* and *scenic*. Some argued that wild rivers could be accessible by road but not often. They had mostly undeveloped banks and were typically remote. It was also important

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[72]Rupert Cutler testifying, *W&SR*, 94.

[73]Sen. Mondale testifying, *W&SR*, 32-3.

that they give experienced outdoorsmen a challenge. Scenic rivers, on the other hand, might be developed and often had dams. They were very accessible and provided a variety of recreation opportunities such as boating and camping. But at the same time, they should be quiet, calm, and gentle. Less developed areas on these rivers might have whitewater and some remoteness for the more rugged outdoorsmen.[74] The *New York Times* suggested that wild rivers flowed through sparsely populated, natural, and rugged country. Scenic rivers, on the other hand, had slower water, were more easily accessible, and represented the pastoral scene. Fortunately, the newspaper reported, both types of river could be restored to their natural state, even if they were polluted.[75]

In the final version of the Wild and Scenic Rivers Act, there are three classes of rivers. As defined in the legislation, *Wild Rivers* are supposed to be free of dams and relatively inaccessible (i.e. accessible only by trail). They should also have watersheds and shorelines that are unpolluted. *Wild Rivers* represent "vestiges of primitive America." The

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[74]Sen. Gaylord Nelson testifying, *W&SR*, 18.

[75]*NYT*, August 9, 1966.

second designation is *Scenic River* which includes rivers that have no dams, are largely undeveloped, and are accessible occasionally by roads. The third, least wild, classification is *Recreational River.* These sections are accessible by road and may have developed shorelines, impoundments, and diversions. But these rivers are mostly unpolluted, sustain some wildlife, and still provide scenic and recreational experiences.[76]

These loose definitions are interesting because they reflect a belief that all rivers embody some degree of wildness. The idea of a wilderness spectrum existing across various rivers has clear ties to the idea of wilderness and the wilderness preservation movement. Instead of fixating on whitewater or remoteness as the only litmus for wild rivers, Americans understood that many kinds of rivers could be included in their system. They also understood that essentially natural characteristics could still be found in rivers all over the country. They wanted to preserve a variety of these rivers representing all kinds of settings from the suburban to the pastoral to the pristine.

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[76]Public Law 90-542 in *U.S. Code Congressional and Administrative News, 90th Congress -- Second Session, 1968*, (West Publishing Co.: St. Paul, 1969), 1056.

Migrating Support and the Economy of Rivers

Despite efforts to conciliate local opposition, river preservation inevitably required some disruption for landowners or communities. Opposition was based largely on an aversion to such disruption, especially in relation to property rights and the economic consequences preservation held for individuals, towns, and regions. Throughout the legislative process, therefore, Congressional debate focussed on specific rivers named in the legislation and the economic impact for constituents. Guided by the belief that the highest good is short term economic profit -- especially for areas regarded as economically depressed -- politicians successfully removed rivers from the bill.[77] In addition to this, the details regarding how scenic easements would affect citizens came into question repeatedly. Representatives claimed that private property rights were threatened, land was being "tied up," and the federal government was usurping local

[77]For example, Rep. Harley O. Staggers of West Virginia argued that including rivers from his state would only aggravate existing economic problems, *W&SR*, 39. The Cacapon river was originally included in the administration's list of Study Rivers. The Lost river and a portion of the Shenandoah were later brought into consideration. Because of local opposition, though, none of these West Virginia rivers remained in the final legislation.

authority for zoning.[78] These points of opposition were strong in both rural areas and in areas of dense population where the pressure to develop rivers was often greater.

A good example is found in the *New York Times* when the paper attacked several New York representatives to congress for opposing S. 1446. The Army Corps of Engineers had several damsites selected along the Susquehanna River and local business interests supported industrial development. The newspaper blamed these potential development opportunities for the Representative's "parochial porkbarrel" action.[79] Although the Representatives claimed to strongly support the general goals of the bill, they opposed specific details of the legislation. Most notably, they could not support the moratorium time period of five years for study rivers because of development needs in their districts.[80]

To overcome these obstacles, supporters emphasized recreation and tourism as economic benefits of river preservation. These

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[78]Rep. John G. Dow testifying, *W&SR*, 40.

[79]*NYT*, July 21, 1966.

[80]*NYT*, July 28, 1966.

industries were reported to be the fastest growing segments of the economy. This was a reasonable argument because the growing demand for recreation had fostered the idea of river preservation in the first place. Senator Church believed that this segment of the economy would replace or surpass older, established uses for preserved rivers.[81] Ted Trueblood of the Idaho Wildlife Federation even went so far as to claim the wild rivers bill was an "asset" to his state's economy. Growth in the recreation industry was unlimited, he believed.[82] The Idaho Department of Commerce supported this claim by reporting a marked growth in tourism during the preceding decade. According to this agency, tourism in Idaho grew from a $100 million industry in 1957 to over $160 million in 1964. Similarly, the State Fish and Game Department reported $30 million was spent annually on hunting and fishing in Idaho with the Salmon River drainage alone receiving over half this business.[83]

Economic arguments abounded. At field hearings held in Green

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[81]Sen. Church testifying, *NWRS*, 93.

[82]Ted Trueblood of the Idaho Wildlife Federation, Nampa, Id. testifying, *NWRS*, 109.

[83]Franklin Jones, Ada County Fish and Game League testifying, *NWRS*, 111.

River, Wyoming, Governor Hansen conceded that tourism contributed to his state's economy, but he pointed out that the economic benefit was concentrated mainly in the region of Yellowstone and Grand Teton National Parks. During the winter, tourist business fell off sharply leaving many people unemployed. The governor wanted growth in year-round jobs, not just seasonal tourism.[84] Instead of federal designation of the Green River as wild or scenic, he called for construction to begin at a proposed damsite. The Department of Interior held that the proposed dam was not economically feasible, though. The site failed even to meet the government's often criticized cost-benefit ratio standard.[85] Secretary Udall took the moral high ground in relation to economics by proclaiming "we cannot compute in dollars and cents the real worth of our wild rivers."[86] Others turned the issue of cost against the proposed system's economic critics by pointing out the rising costs of land. If rivers were to be preserved -- and no one dared oppose the idea in principle -- then it needed to be done immediately. In the future,

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[84]Gov. Hansen testifying, *NWRS*, 375.

[85]Sec. Udall testifying, *NWRS*, 71.

[86]Ibid., 63.

costs of land acquisition and easement compensation would be far greater. Even worse, the opportunity to include many rivers would likely be lost to development and degradation of the water and surrounding land.[87]

Closely related to economic arguments was the question of water rights. The central role of water in the history of the American West has been well documented elsewhere. Borrowing from Karl Wittfogel, environmental historian Donald Worster characterizes the area between the 100th meridian and the extreme West Coast as a "hydraulic society" because most communities here rely heavily on impounded and diverted water.[88] In the town of Green River, Wyoming, citizens viewed water rights as their safeguard against poverty. Local or state control of water was essential to agriculture and industry as well as for domestic needs. Otherwise, they feared Southwestern Wyoming might become another Appalachia.[89] Governor Hansen invoked the Colorado River Compact and the Upper Colorado River Basin Compact that

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[87]Sen. Frank J. Lausche testifying, *W&SR*, 28.

[88]Donald Worster, *The Wealth of Nature: Environmental History and the Ecological Imagination* (New York: Oxford University Press, 1993), 33.

[89]Adrian W. Reynolds, Publisher, *Green River Star* testifying, *NWRS*, 92.

guaranteed "consumptive" use of water. He warned that any reduction in these guarantees would destroy the base of federal agreements with the states.[90] The Assistant Colorado River Commissioner for Wyoming cited the Wyoming State Constitution (section 31) which reserved water of all streams, springs, lakes, etc. as state property. The town of Green River, Wyoming, is only several hours drive from Dinosaur National Park. To many residents of Southwest Wyoming, Echo Park still served as a vivid reminder of the federal government's misguided influence where states relinquished control. They characterized the Green River as a test of state versus federal authority.[91] To their way of thinking, Wyoming's rivers were already wild and scenic; there was no need to relinquish control for them to bureaucrats in Washington.[92]

Interior officials responded to these challenges using court precedents and by attempting to refute unsubstantiated claims. One of the linchpins of Interior's response was a ruling by the Supreme

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[90]Governor Hansen testifying, *NWRS*, 75.

[91]Joseph L Budd, Asst. Colorado River Commissioner for Wyoming testifying, *NWRS*, 89.

[92]Gov. Hansen testifying, *NWRS,* 52; James Greenwood, Jr., Pres., Green River Valley Cattleman's Assoc., Member, Exec., Committee, Wyoming Stock Growers Assoc. testifying, *NWRS,* 80-2.

Court in *Arizona v. California* (1931) where the court ruled that the federal government could build Hoover dam regardless of state water rights. Also, Interior claimed the Upper Colorado River Basin Compact placed no limits on the rights or powers of the United States.[93] In general, the White House tried to avoid water rights issues by claiming that the river system was not a water-use bill, and should therefore not be dragged into water-use controversies.[94] Despite these efforts, local opposition to including the Green continued. A section of the Green River eventually became part of a Colorado state river system, but it failed to receive federal designation.

In the summer of 1966, debate concerning the number of rivers, the buffer zone area, and the issue of classifying rivers delayed the national wild rivers bill.[95] By July, Secretary Udall recognized that the chance of enacting S. 1446 before the end of the year was slim, but he showed determination to have it passed after the winter recess.[96] In

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[93]Sec. Udall in letter to Sen. Jackson, May 13, 1965, *NWRS*, 77.

[94]Sec. Udall testifying, *W&SR*, 53.

[95]*NYT*, June 16, 1966

[96]*NYT*, July 1, 1966; November 18, 1966.

August the Senate unanimously passed the national Wild and Scenic Rivers bill. The legislation did not receive a vote in the House, though, because more field hearings were scheduled by Colorado Representative Wayne Aspinall, chairman of the House Committee on Interior and Insular Affairs.[97] Aspinall reportedly said the House had "no interest in this bill."[98] The *New York Times* criticized the "crusty" Aspinall for closing the committee before important conservation legislation was reported and called his move an "arbitrary decision."[99]

Wayne Aspinall had done this sort of thing before. He blocked passage of the Wilderness Act using similar techniques after it had passed the Senate in both 1961 and 1963. He offered his own proposal instead which would have cut the area of designated wilderness in half and retained the right of access for mineral exploration and grazing.[100] Explaining his position, he said "conservation means the maximum good for the maximum number." Aspinall, a native of Colorado, represented

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[97]*NYT*, August 9, 1966.

[98]*CQA*, 21 (1965): 773.

[99]*NYT*, September 8, 1966.

[100]Charles Moritz, ed., *Current Biography Yearbook 1968* (New York: The H. W. Wilson Co., 1969), 32-4.

a traditional frontier approach to land and water use. "If we stop mining and grazing and water development and timber harvest in any area we have stopped maximum use," he claimed.[101] In order to get the Wilderness Act through Aspinall's Committee, supporters had to make a number of concessions.[102] The two most significant of these secured access for mining operations and complicated the process for adding new areas to the system.[103]

In addition to a reputation for favoring traditional land and water uses, Aspinall was also good friends with Floyd Dominy, Commissioner of the Bureau of Reclamation and outspoken opponent of river preservation. According to historian Mark Reisner, these two maintained "the most cordial of relations." Aspinall believed religiously that the Bureau of Reclamation represented the West's salvation. He claimed Dominy was more than the best commissioner he ever knew, he was the only good one, as well.[104] It is not surprising, then, that S. 1446

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[101]*Christian Science Monitor*, Oct. 5, 1962.

[102]*Current Biography Yearbook 1968*, 33.

[103]*CQA*, 20 (1964): 486.

[104]Mark Reisner, *Cadillac Desert: The American West and Its Disappearing Water* (New York: Viking Penguin Inc., 1986), 256-7.

met a strong obstacle in Wayne Aspinall. What is surprising, though, is the strategy adopted by the administration between September, 1966, when Aspinall let the Wild Rivers Bill die in committee, and the opening of the next session of Congress.

A Muddling Proposal

In the winter of 1967 the idea of establishing a national system of wild and scenic rivers was arguably at a low point. Momentum for the system was waning. Advocates had just experienced a disappointing failure after steady progress over the previous two years. And further, the Wild Rivers bill would eventually have to get through Aspinall, not around him. Instead of consolidating support behind S. 1446, though, the administration chose to submit a new proposal. On February 18, the Johnson administration submitted S. 1092 by executive communication. The reason given for this surprising move was that the Department of Interior had identified areas of the legislation that it felt needed improvement.[105]

The Senate Committee on Interior and Insular Affairs now had two

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[105]Sec. Udall in letter to Sen. Jackson, April 12, 1967, *W&SR*, 8.

river bills before it.[106] Senator Church, along with three dozen other cosponsors, reintroduced the original bill in January.[107] S. 119, as it was now called, was essentially identicle to S. 1446 proposed two years earlier with its accumulated amendments. It was the obvious choice for securing national river legislation in 1967. S. 119 had already received a great deal of attention from the Senate and passed there with ease several months before. So, the administration was faced with the difficult task of selling its revised proposal to a group of legislators who had committed many hours to S. 119. "We worked very hard on this bill for two years" Senator Church explained.[108]

Although quite similar, there were some important differences between S. 119 and S. 1092. The administration's strategy was to present the changes not as enlargements of the system but as refined approaches to the same set of objectives. The two bills were reportedly based on the same study carried out by the departments of

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[106]Altogether, there were seventeen National River System bills introduced to the 89th and 90th Congresses. Many were House and Senate versions of the same bill. The two proposed by the administration along with Rep. John Saylor's proposal (H.R. 90) received the most attention. As with the Wilderness bill, Rep. Wayne Aspinall introduced an alternative Wild River bill (H.R. 8416) as part of his opposition.

[107]Sen. Church testifying, *W&SR*, 2.

[108]Sen. Church testifying, *W&SR*, 51.

Agriculture and Interior in 1963 and 1964. Many of the changes did appear to be minor adjustments. S. 1092 provided for the establishment of state and local river systems and for their incorporation into the federal system. It set a limiting standard for land acquisition (320 acres per river mile) where S. 119 allowed regional differences. It also increased the number of rivers to be included from seven to nine.[109] This was an insignificant expansion, though, compared to other more ambitious proposals such as John Saylor's that called for 16 "instant" national wild rivers.

Some of the administration's innovations proved to be significant in the eyes of the Senate committee members. S. 1092 dropped a proposed National Wild Rivers Review Board that S. 119 would have established. This board would bring specialized management to the system but would also remove control from Interior and Agriculture officials. S. 1092 also increased the number of study rivers from 17 to 35 (still far below Saylor's proposal for 66 study rivers). More significantly, it doubled the time period for the moratorium on study rivers from five to 10 years. Even more striking was the absence of

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[109]Sec. Udall testifying, *W&SR*, 47-8.

limits on the government's authority to condemn property.[110] These changes provoked varying degrees of opposition but the increased moratorium and the issue of condemnation, in particular, drew criticism.

Although the administration's revised proposal included some popular improvements, the majority of Senators considered S. 1092 an irritating complication. For instance, the new bill contributed a clearer definition of "free-flowing" and incorporated river categories.[111] But instead of simply amending S. 119 with these improvements, it required legislators to start over and retrace their political steps. Improvements aside, Senators found the new proposal distressing because they had already produced a hard-fought bill with compromises and amendments.[112] "The National Wild Rivers Review Board was my brainchild," Senator Jordan complained. He was upset because the board would have reviewed proposed changes within the system providing what the Senator called an "escape hatch" for designations. "You have made a renegade out of me," Jordan sneered

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[110]Ibid.

[111]Rupert Cutler testifying, *W&SR*, 94.

[112]Sen. Church testifying, *W&SR*, 51.

at Udall, “I am not with you anymore.” Apparently incensed by the administration for abandoning its previous concessions, Jordan dismissed the new proposal as “abominable.”[113]

Secretary Udall recognized this problem and anticipated criticism. At the end of his initial presentation on April 13, 1967, he tried to reassure the committee that problems in the legislation could be worked out between himself and Secretary Freeman. They had been doing so with the Johnson administration's innovative land and water policies for over six years, he pointed out.[114] However, the committee was not about to relinquish authority to the president's cabinet. Senator Jordan expressed the committee's feelings at the end of Udall's presentation stating simply: "We have some real problems."[115]

Like Udall before him, Secretary Freeman's testimony focussed on the favorable attributes of S. 1092. The members of the committee were not easily placated, though. They repeatedly raised concerns about water rights, scenic easements for public access, and the

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[113]Sen. Jordan testifying, *W&SR*, 58.

[114]Sec. Udall testifying, *W&SR*, 50.

[115]Sen. Jordan testifying, *W&SR*, 65.

question of condemnation.[116] Of the three, the last received the most attention.

Condemnation and the Committee's Disposition

The issue of condemnation -- the government's power to take property from individual citizens -- stirred a great deal of debate during the 1967 hearings. Geographers Dennis Asmussen and Thomas Bouchard regard this as the single most important issue of the Wild and Scenic Rivers Act.[117] They claim it represents a dramatic confrontation between public recreation needs and "the sanctity" of private property. Asmussen and Bouchard are correct in pointing out that condemnation emerged as the central issue. But they overstate the significance of the precedent set here because condemnation powers were greatly reduced in the final legislation. They also fail to recognize the political consequences of the condemnation debate and they misrepresent the regional dynamics of the issue.

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[116]Discussion between Sec. Freeman and Sen. Church, *W&SR*, 131-4.

[117]Dennis G. Asmussen and Thomas P. Bouchard, "Wild and Scenic Rivers: Private Rights and Public Goods," in Richard A. Cooley, ed., *Congress and the Environment* (Seattle: University of Washington Press, 1970), 163-74.

Asmussen and Bouchard claim that because federal ownership of land is common in the West, people in that half of the country easily accept additions to the public domain.[118] There is indication, however, that the exact opposite is true. In Western states, the ratio of public to private land is very high compared to that found in the East. In the state of Idaho, for instance, 64% of the land is under federal control while 10% is regulated by state agencies. In all of Idaho, only 25% of the land is privately owned.[119] Similarly, Utah is two-thirds federally owned. California, Arizona, and Wyoming are all about half. Nevada is 85% federally controlled.[120] This created a different climate for accepting a policy of condemnation for federal land acquisition. Speaking for Idaho, Senator Jordan said condemnation was understandable for the construction of highways and railroads and for renovation of slum areas. For the purpose of creating recreation areas, though, condemnation was a new idea -- especially for people surrounded by

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[118]Ibid., 168.

[119]Sen. Church testifying, *W&SR*, 152.

[120]Wallace Stegner, *Where the Bluebird Sings to the Lemonade Springs: Living and Writing in the West* (New York: Random House, 1992), 64.

federal lands.[121] It just didn't seem necessary in these areas of the country.

Conversely, Asmussen and Bouchard imply property rights were more important to Easterners. In the East and Mid-west, though, there was relatively little opposition to condemnation. In these regions, Americans were more likely to accept an apparent invasion of private property rights because there was little public land and parks were in demand for recreation. Senator Nelson of Wisconsin, for example, favored condemnation and pointed to the policy in his state as an example of successful land acquisition. The Wisconsin Conservation Department had the same power of condemnation as the Highway Department. The only difference was that the Conservation Department was required to establish land prices before condemnation occurred. The Highway Department could settle this detail afterwards. The Senator claimed the policy was long established and worked well. In Wisconsin, at least, condemnation for the purpose of acquiring park lands received the public's support.[122]

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[121]Sen. Jordan testifying, *W&SR*, 151.

[122]Sen. Nelson testifying, *W&SR*, 151.

West Virginia provided a misleading exception in the East; here, regard for condemnation resembled that found in the public domain states. Thomas Stokes, a retired naval officer stated it succinctly: "Clean air, water, food, and shelter are necessary to life. Recreation and public enjoyment, though desirable, are not." Stokes, like everyone else who appeared before the Senate committee, expressed support for the objectives of the rivers bill. But he could not support any method of land acquisition that threatened property rights.[123] More likely, he was reflecting the general opposition to including the Cacapon and Shenandoah Rivers. In addition to condemnation, West Virginians opposed designation because they feared national river status would provide a "front lawn" for commercial development by outsiders.[124] In contrast, citizens and politicians from the bordering state of Ohio repeatedly called for rivers to be included from their state.[125]

A more sophisticated analysis recognizes that opposition to river

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[123]Thomas M. Stokes testifying, *W&SR*, 107.

[124]Larry L. Chambers, Vice Pres., Potomac Basin Federation testifying, *W&SR*, 99.

[125]The Little Miami, Little Beaver, and Maumee rivers were particularly popular. Sen. Frank J. Lausche testifying, *W&SR*, 29; These rivers were desirable precisely because they were threatened with development. Glenn Thompson, Editor, *The Journal Herold*, Dayton, Ohio testifying, *W&SR*, 90-2; Richard Midden, Dept. of Natural Resources, State of Ohio testifying, *W&SR*, 105.

designation occurred in small regional pockets. The Eastern panhandle of West Virginia and Southeastern Wyoming are the two clearest examples. Opposition in these areas was strongly localized and based on region-specific economic conditions. In Wyoming it was water-hungry ranchers who equated the Green River with economic viability.[126] The river provided a foundation for the region and therefore held great significance for the people who lived around it. The river was so important to Southwest Wyoming that people there feared losing control would cause them to revert to "a second Appalachia."[127] In West Virginia, regional opponents of designating the Cacapon and Shenandoah Rivers simply relied on the fact that they *were* Appalachia. Their state provided plenty of recreation opportunities, they pointed out, and designating these rivers would only hurt their marginal rural economy.

Nonetheless, condemnation emerged as the largest obstacle to passing the Wild Rivers bill. Condemnation does not represent "a bold

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[126]Sen. Simpson testifying, *NWRS*, 28.

[127]Adrian W. Reynolds, Publisher, *Green River Star* testifying, *NWRS*, 92.

new advance in social legislation," though.[128] The condemnation powers that remain in the legislation are very limited. Rather, the issue served as a focal point for attacks on the administration's new proposal. If condemnation were dropped from the legislation, critics claimed, opposition would likely diminish. In its place, ideally, a system of negotiation would be established. Government authorities and private landowners could then negotiate terms of acquisition or possibly agree on joint control of the land. This, proponents claimed, would allow the objectives of the bill to be met while landowners retained possession and control of their land.[129]

But changing the condemnation provision wasn't enough. Early in the discussion regarding the administration's two bills, Senator Church suggested the current administration bill (S. 1092) might be abandoned in favor of the one already passed by the Senate (S. 119).[130] The confusion surrounding condemnation and other differences between the two versions led Committee members to become frustrated. As it

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[128]Asmussen and Bouchard, 163.

[129]Clifford Umsheid, Secretary of the West Virginia Eastern Panhandle Land and Rivers Protective Association testifying, *W&SR.*, 114-5.

[130]Sen. Church testifying, *W&SR*, 53.

became increasingly clear that the condemnation provision would be dropped from the legislation, attention returned to the original proposal. "I think the disposition of the committee is clear." Church eventually said, "We will work on S. 119."[131] Udall admitted that simply amending S. 119 in the first place, instead of creating a new bill, would have perhaps been a better strategy.[132]

Steady Progress

By 1965 the political establishment recognized the changing perception of rivers. When Secretary of Interior Udall submitted the Administration's bill to Congress, he wrote to President of the Senate Hubert Humphrey about fish, wildlife, scenic, and recreation values. These were "measureless" economically, he believed, but should nonetheless be preserved as America's heritage of unspoiled free-flowing rivers.[133] Udall stressed these points in April while testifying before the Senate. In addition to traditional uses of rivers, there were

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[131]Sen. Church testifying, *W&SR*, 107.

[132]Sec. Udall testifying, *W&SR*, 51.

[133]Sec. Udall in letter to Hubert Humphrey, *NWRS*, 6.

now "other equally important" values. Fish, wildlife, recreation opportunities, and scenic beauty could now be characterized as resources.[134] Udall's words did not fall on unsympathetic ears. Senator Robert Byrd called America's rivers "one of our most priceless assets," while Senator Robert Kennedy claimed rivers offered a spiritual experience not found anyplace else.[135]

Riding the tails of the Wilderness Act, wild rivers legislation had an air of inevitability. President Johnson's annual messages on environment illustrate steady progress toward Congressional approval. In 1965, he said, "The time has come to identify and preserve free-flowing...rivers." The following year he was "encouraged by the response" to his proposal and in 1967, he renewed his recommendation -- "overwhelmingly approved by the Senate" -- to establish a national system of rivers. By 1968, Johnson merely asked Congress "to complete action this year" on the Wild and Scenic Rivers Act, which it did, naming eight rivers to the system and 27 for further study.[136]

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[134]Sec. Udall testifying, *NWRS*, 62.

[135]Sen. Robert C. Byrd testifying, *NWRS*, 46; Sen. Robert F. Kennedy testifying, *NWRS*, 42.

[136]*CQA*, 24 (1968): 66A; 22 (1966): 1268; 23 (1967): 40A; 24 (1968): 66A.

Congress completed action September 26, 1968 on a compromise bill, S. 119, combining the Senate and House versions for legislation establishing a national river system. The Senate's broader version would have designating 12 rivers immediately with 28 rivers slated for additional study. The House bill called for only six rivers and 25 for further study. The compromise bill included eight rivers in the system immediately and required study of 27 rivers.[137] The eight rivers included in the Wild and Scenic Rivers Act were the Clearwater River of Idaho; the Eleven Point in Missouri; the Feather in California; the Rio Grande of New Mexico; the Rogue of Oregon; the Saint Croix in Minnesota and Wisconsin; the Salmon in Idaho; and the Wolf River of Wisconsin.[138]

The final version of the bill included a 10 year moratorium on study rivers.[139] Compromise was also reached on condemnation power which Congress limited to areas where the federal government owned less than 50% of the land bordering designated rivers. Condemnation

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[137]*CQA*, (1968), 485.

[138]Public Law 90-542 in *U.S. Code*, 1057-8.

[139]Ibid., 1061.

was also prohibited from political subdivisions, such as towns. The federal government could provide guidelines for zoning in these areas, however.[140] Further protection for property owners is found in a stipulation that citizens could continue to reside on condemned property for up to 25 years or until the death of the owner.[141]

The legislation did establish some limited land acquisition procedures. The federal government received authority to condemn up to 100 acres per mile on both sides of designated rivers -- this was reduced in the compromise bill from 320 acres passed in both the House and Senate. Land owned by states was exempt from this condition but could nonetheless be donated to the federal system. Condemnation was prohibited on political subdivisions and Indian lands; in these areas the government's power was limited to issuing guidelines for land use.[142]

The legislation directed the secretaries of Interior and Agriculture to carry out studies on rivers listed for that purpose as quickly as

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[140]Ibid., 1062.

[141]Ibid., 1063.

[142]*CQA*, (1968), 485.

possible and not later than 10 years from the time S. 119 became law. Special priority was to be given to rivers believed to be threatened most by development. This appears to be a protective measure but it actually was intended to allow development to proceed sooner in cases where study rivers were rejected. For example, the study period was limited to two years for the Suwanee River in Florida and Georgia primarily because this river was in demand for development projects. Study rivers found to be suitable for the national system were not automatically incorporated but had to run a bureaucratic gauntlet that included reviews in both the Departments of Interior and Agriculture as well as by the Secretary of the Army, the chairman of the FPC, and the Governor's of all affected states. If a study river remained unopposed after these reviews, Congress could proceed with the designation process. The law stipulated an additional obstacle to expanding the river system. Congress had to delay implementing a new designation until the legislatures of all affected states had time to complete a full session while aware that the river had received a positive recommended for the national system.[143] These prerequisites insured

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[143]Ibid., 486.

that only the most uncontroversial rivers would survive the review process and enter the river preservation system.

The wilderness movement, growing ecological awareness of rivers, rising demand for recreation, and environmentalism in general combined to bring the idea of river preservation to the fore. Americans of the 1960s wanted some of the nation's rivers to remain unimpounded, unpolluted, and ecologically sound. They also wanted the opportunity to visit these rivers for fishing, boating, and other recreational activities. But their objectives for establishing a national wild river system did not survive unscathed after encountering obstacles to river protection.

Conflicts arose with traditional interests such as mining and logging and also due to regional fears of economic hardship. Opposition also came from ideological political opponents such as Wayne Aspinall. All of these successfully won concessions from river advocates. Like the Wilderness Act, therefore, the Wild and Scenic Rivers Act provides insufficient long-term protection for wild nature. The idea of a national wild rivers system was a hesitant first step in the right direction but will not sustain natural conditions into the future.

Under increasing demands the current system will fail to meet even the most rudimentary objectives of river preservation.

EPILOGUE

The River System

The four horsemen of destruction are still on the loose: dams, diversion, ditching, [and] development. -- Kevin Coyle

"Now let me dispel one misunderstanding," Representative Wayne Aspinall commented at the passage of the Wild and Scenic River Act, "[w]e have not 'locked up' these rivers." Aspinall, who had recently won concessions from river advocates, was confident the legislation would not significantly alter traditional resource management. His statement suggests the Wild and Scenic River System was largely a symbolic nod to rivers and not meant to offer absolute protection. Aspinall went on to say: "If the Corps of Engineers, for instance, wants to put a development in on any of them, all it has to do is advise the Secretary of the Interior ahead of time, and inform the Congress what the effects of its development will be. Then if Congress says okay, okay it is." Aspinall earlier opposed strong protection for rivers primarily because it would eliminate opportunities for economic development. Apparently though, he felt development was not greatly limited by the final legislation. "Likewise there is nothing in the bill," he reported, "and there

could be nothing in the bill -- to prevent any landowner along any of these study rivers from continuing to do what he wants to do with his own land."[1] These words may have been spoken with special-interest politics in mind, but Aspinall clearly highlighted the difficulty in attempting to preserve nature within a society predisposed to consuming natural resources.

The American legislative process entrusted with establishing natural preserves and securing environmental protection often fails to accomplish its basic objectives. This is due, in part, to legislators' ignorance of nature. More important, though, government institutions often compromise on the environment in order to secure a democratic consensus on complex issues. This was the case when the federal government set out to protect rivers. Concern over water shortages, pollution, and public health led to calls for river legislation in the 1950s and early 1960s but eventually resulted in protective designations for only a handful of representative rivers. Instead of broad protections designed to address real threats to the nation's freshwater, the river legislation established a classification system based on scenery and

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[1]*Congressional Quarterly Almanac*, (Washington, D.C.: Congressional Quarterly, 1969), 24 (1968): 488.

recreational user groups. Wild Rivers are not significant, therefore, for improving the general condition of freshwater in America. Rather, the Wild and Scenic Rivers System is noteworthy because it represents a hesitant first step toward recognizing the importance and value of unspoiled rivers.

River advocacy is significant because of rivers' fundamental, even essential role in the natural history of the earth and in the recorded mythology of humankind. In this respect, rivers provide a case study of humanity's relationship with nature. Like the hydrologic cycle and the cycle of life in which water plays a vital role, popular regard for rivers came full circle in the 1960s. Rivers had long-held rejuvenative, spiritual, and deeply symbolic meanings for humans. They were eternal, mystical, and incomprehensible. As sources of food, water, transport, and physical boundary, they gradually expanded in meaning as human civilizations grew in size and complexity around them. With the emergence of the first modern factories, rivers became commodified, allocated, and drained of their power. Eventually, the primitive significance of rivers became wholly subverted to utilitarian conceptions which define a river as an object for human consumption --

a faucet, a means of distribution, an effective garbage disposal, and the epitome of nature as a commodity: a hydropower dam site. As modernity peaked, therefore, so did the use and abuse of rivers. Likewise, as the church of science and reason began to recede after the Second World War, human's desire for the primordial river began to return.

River advocacy during the 1960s provides an in-road to understanding the broader cultural zeitgeist of the late twentieth century. "If an historical era is ending," claims Stephen Toulmin, "it is the era of Modernity itself."[2] Faith in modern science as an ethical system -- the belief that humanity is separate and dominant over nature -- began to crumble after World War II. Before then, modernity had established that nature, and by extension, rivers were simply objects of human consumption. Throughout most of the twentieth century, accordingly, science justified anthropocentrism by pointing to the benefits of scientific management. Yet, at best, science provides useful tools by executing the scientific method within an immensely simplified world-view -- a view which reduces nature to its component

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[2]Stephen Toulmin, *Cosmopolis: The Hidden Agenda of Modernity* (New York; The Free Press, 1990), 3.

parts. River advocacy during the 1960s constitutes one instance of this world-view being questioned. As Toulmin explains:

> Rather than our being free to assume that the tide of Modernity still flows strongly, and that its momentum will carry us into a new and better world, our present position is less comfortable. What looked in the 19th century like an irresistible river has disappeared in the sand, and we seem to have run aground[3]

This has caused a seemingly chaotic transformation of Western culture and of the human relationship with the natural world. In the late-twentieth century, Americans can neither rely on modern science to solve all their problems nor even allow science to continue unrestrained in its manipulation of nature. "The very project of Modernity thus seems to have lost momentum," Toulmin continues, "and we need to fashion a successor program."[4] In the 1960s, many Americans came to realize this for the first time and, not knowing what to do, they turned to the idea of river preservation in a scrambling effort to halt further destruction.

At the close of the twentieth century, though, there is still not a clear successor program to replace the vacuum of belief once filled by

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[3]Ibid.

[4]Ibid.

modern thinking. A likely possibility is some form of environmentalism, which continues to expand both ethically and in practice giving some indication of the direction of Western thought. "We need to rejoin humanity with nature within an ecological understanding of the world," Toulmin suggests.[5] Rivers continue to serve as a symbol and a prototype, in this respect. Donald Worster, for instance, proposes that in addition to Leopold's "land ethic" we cultivate a "water ethic."[6] This is understandable considering the essential position water holds for life. As Worster explains:

> Water, after all, covers most of this planet's surface. Even more than land, water is the essence and the context of life, the sphere of our being and that of other creatures. It has a value that extends beyond the economic use we make of it on our farms.[7]

Despite this, Americans have not fully come to terms with the importance of water or its various stages of the hydrologic cycle. Rivers, along with the rest of the natural world, continue to suffer the abuses of industry and population as the residue of modern thinking

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[5]Ibid., 147.

[6]Worster, *The Wealth of Nature*, 134.

[7]Ibid.

lingers.

Public concern for water, typical of that demonstrated during the 1960s, continues decades later as the condition of the freshwater cycle becomes increasingly threatened. Media coverage, as well, continues to publicize the worsening condition of water and rivers. This recurrent doom-saying was recently illustrated by a special issue of National Geographic published in November of 1993. "Across the continent a toll of pollution, diversion, and waste degrades water," the magazine warns.[8] Domestic wells are reportedly drying up, aquifers are disappearing, and the nation's rivers are overdeveloped. Americans still waste incredible volumes of the precious "foundation of life."[9] These realities have not effectively changed since they were first identified; over the last four decades, the supply of freshwater has repeatedly been perceived as an impending crisis -- all this despite more than a quarter century of protection offered by the Wild and Scenic Rivers Act.

Instead of acting dynamically to include rivers most threatened by

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[8]*Water: The Power, Promise, and Turmoil of North America's Fresh Water* (a *National Geographic* special edition), (November, 1993), 108.

[9]Ibid.

development and pollution degradation, the Johnson administration admittedly set out to include only uncontroversial stretches of rivers and streams. River advocates repeatedly abandoned rivers proposed for the system when even marginal opposition arose. The remaining proposals for river preserves were often superfluous because little threat existed in these areas for the very same reasons the rivers were uncontroversial: they were often remote with no significant development or already protected within the Wilderness System. Legislative concessions such as reduced condemnation powers and moratorium periods for study rivers also emboldened more traditional interests that felt threatened by the river system. Aspinall, confident in his ability to win concessions from conflict-wary politicians, suggested that even the uncontested preserves would be abandoned if and when opportunities for economic profit arose.

In addition to marginal protection for rivers, the legislation also contained significant management weaknesses. From 1968 through the mid-1970s, the river system languished; there was relatively little action on protecting American rivers during this time because of a lack of national leadership for river preservation. The law failed to assign

specific responsibility for regulation of the river system. Since no office, agency, or individual held ultimate responsibility for the national rivers, no effective leadership existed. Regulation was further hampered by confusing jurisdictions of the Departments of Interior and Agriculture and their various agencies.

System expansion was obstructed as well by the lack of political leadership. Responsibility for spearheading additional river designations consequently fell to private citizen groups. Unfortunately, interest for the condition of rivers in the United States temporarily waned during the early 1970s as the environmental movement focussed on other topics, such as energy. In the six years following its establishment, the Wild and Scenic River System received only four small additions. As part of the wilderness idea, wild rivers fell out of the preservation limelight and Congress turned its attention again to designating remote land areas as wilderness. For example, legislators expanded the Wilderness System in 1969, adding 800,000 acres of primitive land; these new designations did not recognize any of the nation's rivers, though. The most significant river action that year occurred in September when Congress established the Buffalo National

River, including 132 miles of the Buffalo River in Arkansas. Although important for closing a long preservation struggle in a populated part of the country, this act largely replicated earlier precedents of specific river designations and did not propel the river system.[10] Meanwhile, in 1969 the Cuyahoga River in Ohio became overwhelmed by combustible pollutants and burst into flames.

An attempt at filling the national leadership void occurred in 1973 with the creation of The American Rivers Conservation Council (ARCC or American Rivers). This organization serves as a clearinghouse for directing river conservation efforts and related issues. The ARCC is still only a private environmental advocacy organization, though, and has no political authority. Attention for rivers during the mid-1970s typically focussed on very specific locations that represented monuments of nature such as canyons. In 1975, for example, regional preservationists secured the establishment of Hells Canyon National Recreation Area along the Oregon-Idaho border and the following year, West Virginia residents won National River status along the New River

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[10]*CQA*, 25 (1969): 795.

Gorge.[11] These measures reflected traditional monumentalist preservation efforts, however, and not the broader goals of watershed or ecosystem protection that had emerged as ideals for the national wild river project.

The national leadership void continued until Jimmy Carter became president and undertook more broadly defined initiatives for rivers. The Carter presidency is generally regarded as strong on environmental issues such as reducing energy consumption and heightening awareness of world population growth. But Carter took a special interest in rivers and their degradation. Historian Burton Kaufman points out that Carter often took positions against damaging water quality even when economic development was at stake.[12] "We must identify as quickly as possible the best remaining candidates for inclusion in the Wild and Scenic Rivers System," Carter advocated, "before they are dammed, channelized, or damaged by unwise development along their banks."[13]

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[11]*CQA*, 31 (1975): 275; *CQA*, 32 (1976): 151.

[12]Burton I. Kaufman, *The Presidency of James Earl Carter, Jr.* (Lawrence: University Press of Kansas, 1993), 202.

[13]Heritage, Conservation, and Recreation Service, *Nationwide Rivers Inventory: A Report on Natural and Free-Flowing Rivers in the Northwest United States* (Department of Interior, 1980), 5.

Carter moved decisively to increase the nation's nature preserves and focussed specifically on rivers. In the 1977 Alaska Lands proposal, the Carter administration called for 33 Alaskan rivers (including about two and a half million acres) to be added to the wild river system.[14] That year Carter also established the Heritage, Conservation, and Recreation Service (HCRS) to oversee a variety of related issues surrounding historic sites and environmental preservation. One of the HCRS's first objectives was to study the nation's rivers to identify possible additions to the national river system.[15] Carter also directed federal land-management agencies to assess rivers and streams within their jurisdiction and to submit recommendations for wild river designations. Completed in 1980, the HCRS survey reviewed parts of all United States rivers 25 miles long or longer.[16] The study rated rivers for the degree to which they remained undeveloped and for outstanding natural characteristics, such as fish and wildlife populations and geologic features. In its report, the HCRS repeated a commonly

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[14]*CQA*, 33 (1977): 671.

[15]HCRS, 5.

[16]Except in Montana where the Governor opposed the federal study.

expressed goal that the Wild and Scenic River System might serve as a "heritage collection" of representative rivers from various regions of the country. It went further, though, to suggest additions to the system should be biologically intact and preserved to remain so.[17]

President Carter not only made river protection a priority, he also recognized and communicated the ecological importance of preservation. In his 1979 environmental message, he called for quick action to identify additional rivers and to protect them as important parts of "natural ecosystems." Carter wanted to set a leadership example for state, local, and private landowners by taking an "aggressive" role in preserving rivers.[18] After three years of legislative struggle, the final Alaska Lands Bill added 26 rivers to the Wild and Scenic Rivers System and slated 12 for further study. That year, 178 miles of the Salmon river in Idaho were added as well. On January 19, 1981, Carter's Interior Secretary Cecil Andrus added five Northern California rivers to the system in an eleventh-hour effort to expand the river system. The Reagan administration's Justice Department

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[17]HCRS, 11.

[18]Ibid.

attempted to nullify these additions, though, through court action. The designations remained in question until 1984 when the 9th Circuit Court of Appeals upheld them.[19]

The Reagan administration attacked the river system in a variety of ways. Within weeks of taking office, Interior Secretary James Watt abolished the HCRS and shelved its national river study. Reagan subsequently proposed additions to the system but drastically reduced the number of river miles initially recommended by the federal land agencies. He also incorporated his proposals into a bill making it harder to designate rivers, easier to develop land within the boundaries of the system, and easier to reclassify or even remove rivers if development needs arose. Using funding cuts, reorganization, management plans, and litigation, the Reagan administration successfully limited the growth and effectiveness of the system. Cris Brown, Conservation Director of ARCC, believed "the [Reagan] administration has not simply been passive on river issues, they have tried to drown the whole program."[20]

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[19]*CQA*, 40 (1984):

[20]*CQA*, 47 (1991): 318.

When the federal system became law in 1968, legislators expected it to grow quickly to include over a hundred river segments in the first decade and possibly an additional hundred by 1990. But instead the system gained only 16 new designations in its first 10 years. Now there are close to 75 river segments including several thousand river miles in the national system. The National Park Service estimates there are approximately 3.5 million river miles in the United States, though. Only nine percent of river miles in the lower 48 states remains undeveloped according to American Rivers. And most of these are included in proposals for development.[21] To augment the federal system, over thirty states have established their own river preserve systems. The degree of protection offered by these varies greatly, though, so it is difficult to characterize how effective the state systems are.

Despite this, the system undeniably propelled river preservation efforts in America. According to Frank Craighead, the Wild and Scenic Rivers System is a success. He points out that before the river system, every threat to rivers was fought on an individual basis. The Wild and

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[21]*National Geographic* (November, 1993), 64.

Scenic Rivers System established a proactive approach to river protection. Craighead feels the legislation is perhaps most significant, though, for furthering the idea of ecosystem management. He thinks it has allowed government agencies to make headway in managing complete river basins instead of more arbitrary sub-divided management units.[22] The Wild and Scenic Rivers Act also fulfills many of the goals popularly attributed to it. It does preserve a sampling of the nation's river heritage. It also provides recreation to countless Americans -- especially in populated regions of the country that otherwise lack outlets such as National Parks. And although rivers in general remain threatened, at least some rivers are assured a degree of protection within the system.

River preservation continues to expand in isolated instances to incorporate broader ecological values. For example, in 1991 a bill adding land to Mark Twain National Forest included limitations on logging and mining on the land immediately surrounding the Ozark Mountain Rivers to avoid potential risk to a Wild and Scenic River

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[22]Interview by the author.

area.[23] Even more noteworthy, in 1993 a number of United States dams came under attack for being unnecessary. During debate regarding the reissue of federal permits for dam locations, Americans began considering the possibility of dismantling dams. Specific rivers considered included the Rogue River in Oregon, the Edwards River in Maine, and Wisconsin's Pine River. In Western Washington, the federal government actually settled with private utility owners to remove two dams on the Elwha River. Secretary of Interior Bruce Babbit recommended this action to restore all five native Salmon species to the river and consequently to Olympic National Park.[24]

We cannot establish absolute preservation, certainly, under even the best circumstances because we live in an infinitely dynamic, evolving world. As humans, we are also part of nature and must inexorably participate in it. Historians Larry Dilsaver and William Tween point to the inherent problems of ecosystems and preservation efforts within the context of multiple-use: "Can a modern society preserve 'unimpaired' not just isolated natural features, but entire natural

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[23]*CQA*, 47 (1991): 318.

[24]*Chicago Tribune*, February 28, 1994.

ecosystems while at the same time intensively using them for recreation?"[25] Because we are participants in the natural world, though, does not mean that everything we might do in relation to nature is justifiable. What is important is to decide how much impact we want to have on our environment. Do we want a completely humanized world? Or do we want to reconsider our consumptive-materialistic bent? More fundamentally, do we want to address world population growth before it obliterates all other issues as irrelevant? The Wild and Scenic Rivers Act, along with most other United States environmental legislation, does not address these questions. This is so, in part, because environmental consciousness changes slowly and fundamental questions such as these were not developed or absorbed into mainstream thinking until more recently. The 1960s are interesting, however, because they witnessed the infusion of many environmental ideas (such as ecology and watershed protection) into American popular culture and dialog.

Over the succeeding decades, environmentalism has become

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[25]Larry M. Dilsaver and William C. Tweed, *Challenge of the Big Trees: A Resource History of Sequoia and Kings Canyon National Parks*, (Three Rivers, Ca.: Sequoia Natural History Association, 1990), ix.

variously a secular religion and a subversive ideology threatening the very foundations of Western capitalism. Despite the controversy, fragmentation, and entrenchment surrounding the concept *environmentalism*, however, environmental concerns pervade the world in which we live. Increasingly, all Americans are "environmentalists" because they define the world in terms of the environment. Even the most strident "wise-users" or seemingly anti-environmental special interests such as the logging industry of the Pacific Northwest are actively ushering in the environmental age. As the first wave of environmentalism crested in America during the late-1960s, Lewis Mumford recognized this universal shift in conceiving the world: "All thinking worthy of the name must now be ecological, in the sense of appreciating and utilizing organic complexity, and in adapting every kind of change to the requirements not of man alone, or of any single generation, but of all his organic partners and every part of his habitat."[26] Consumption and population fill our daily lives with environmental issues -- ones that effect the home, the workplace, and often threaten the quality of life on earth. The post-modern world,

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[26]Lewis Mumford, *The Pentagon of Power* (New York: Harcourt Brace Janovich, 1970), 393.

therefore, will be an environmental world.

The root of these concerns can be found in the post World-War II era where outdoor recreation, personal health, and ecological conceptions of nature represent environmentalism entering the public consciousness. Radiation, pollution, overcrowding, and shortages such as the early 1960s freshwater scare appeared periodically to foretell impending doom. In its prerequisite spirit of crisis, therefore, America became temporarily fixated on the nation's rivers. It is for this reason that Americans of the 1960s agreed that "something should be done about rivers."

That *something should be done* is as far as United States democracy could go at the time. Americans still do not agree and perhaps never will agree how best to interact with wetlands, lakes, rivers and the life they support. There are as many answers to this question as there are people who think about water. Like population, though, the puzzle of what to do will only grow more difficult as we struggle to reach solutions for the least-common-denominator environmentalism of consensus democracy. Even moderate protection for rivers, for nature, and for life in general proves difficult when it is

transmuted by compromise with development interests. The urge to develop and consume economic materialism is not a self-sustaining urge, however. Perhaps a revival in water-crisis media coverage, such as National Geographic's recent special issue, will stimulate some new consensus. More likely, it will take an active regional approach to find a balance between the demands for water and the requirements of sustaining water quality and quantity as well as ecosystems.

In the future, instead of drawing boundaries around select rivers, the emphasis of river preservation should shift to rivers and streams in general. Preservationists need to begin thinking of national rivers as that set that includes all rivers in the nation. If our limited supply of freshwater is to be conserved, then more attention is also needed for the entire water cycle including rivers, wetlands, lakes, as well as the subterranean and atmospheric realms. Efforts to protect the nation's rivers could continue to use a classification model and apply individualized ecological standards. Even under a classification and regulation system such as this, though, many rivers are not going to improve much because of future agricultural, industrial, and domestic demands. This reality should not prevent Americans from monitoring

and reducing all river degradation, however. Until the current economic and political systems change sufficiently to insure a sustainable level of consumption, river advocates should obstruct further development and degradation. As with other stop-gap efforts such as car-pooling and recycling, education is essential. The vacant but popular slogan "Think globally. Act locally" would gain a refreshing significance if it were applied to this end. Ideally, Americans could be educated regarding local solutions for improving local river degradation. This is already happening in isolated instances through programs such as Adopt-A-Stream and the Isaak Walton League's Save Our Streams. If efforts such as this are expanded, the general treatment of rivers might improve, degradation may not reach all rivers and streams that remain relatively wild, marginal rivers can begin to heal and possibly return to an ecologically viable condition, and dead rivers will perhaps not get a great deal worse.

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