Wild and Scenic Rivers

The Importance of Federal River Protection in the Rockies

By Sarah Turner

Key Findings:

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- Nationwide, 2.3 percent of river miles are protected under the Wild and Scenic Rivers Act.
- 33 States, including Idaho, have state river protection programs similar to the National Wild and Scenic Rivers System.
- The Rockies contains 16 percent of the nation's major dams.
- The Rockies region ranks 4th of 8 census divisions in percentage of river miles designated as Wild and Scenic.
- Among Rockies states, Idaho contains the most river miles designated as Wild and Scenic (562 miles).

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Introduction

Water in the western United States is a scarce and precious resource. Receiving an annual average of between 20 and 40 inches of precipitation,[1] most of the eight-state Rockies region is considered to be a semi-arid climate with areas of climatic variability. Due to dry conditions, water is a primary focus of natural resource management and urban planning, and many residents of the region have a vested and growing interest in water issues.[2] Between 2000 and 2008, the population of the Rockies grew by 160%.[3] Daily water withdrawals for public supply also grew, with average per capita daily consumption of 131 gallons by 2004.[4] How to maintain water supplies for growing municipalities without drying up the region's agricultural water rights is, so far, an unanswered question. While municipalities, irrigators, and governments compete for a limited resource, we must also consider the fate of natural waterways and river ecosystems and must find a way to strike a balance between them.

This report looks at the role of river protection in the context of the realities of western water law. The first section of the paper reviews the basics of western water law and instream flows to set the stage for a more detailed look at the National Wild and Scenic Rivers Act and the river protection policies of individual states and agencies. Implementation of these government policies helps to assure that the needs of the natural environment are balanced with society's other water needs.

Western Water Law and Instream Flow

In order to understand the place of, potential for, and challenges facing river protection in the Rockies region, it is important to first understand the basics of existing water law and instream flow. The settling of the western United States by non-Native Americans was possible due largely to the development of water resources.[5] Although people originally settled where water was readily available, improved technology and methods of transporting and storing water soon allowed for development of cities and farms in some of the driest parts of the region.[6] With these changes, a system of water rights developed, known as the prior appropriation doctrine.

This complex doctrine has three main tenets. First, water rights are allocated based on a "first in time, first in right" provision; those holding water rights with an earlier priority date are permitted to fulfill their full allocation before those with junior rights can fulfill any of theirs. The priority date of a water right is historically defined as the date on which the water was first diverted and put to beneficial use. This provision serves to provide certainty to existing water rights holders.

The second primary aspect of the prior appropriation doctrine is commonly known as "use it or lose it." After a certain period of time, if a diverter fails to use their full allocation of water, they can be forced to forfeit a portion or all of that water right.[7] This provision acts as a major disincentive to leave water in the stream from the point of view of the water user.[8]

The third major requirement of the prior appropriation doctrine is beneficial use. Beneficial use is often defined as the basis and limit of any water right;[9] beneficial use dictates what is considered to be appropriate uses of diverted water.[10] Historically, western water law has placed a higher value on commercial, domestic, industrial, and agricultural off-stream diversions.[11] However, over the last few decades, states in the Rockies Region have recognized the importance of maintaining instream flows in the region's rivers and establish

Rio Chama near Abiqui, NM

mechanisms for protecting instream flows. The principle of beneficial use allows for flexibility in the accepted uses of the region's water resources as public values change.

In a region where natural waterways were once thought to exist solely for human consumption, recognizing the importance of instream flows represents a shift in a long-held belief.[12] Instream flow can be defined most simply as the water that remains in the riverbed for the sake of ecosystems and species.[13] An instream flow water right is a non-diversion right to a specific quantity of water, guaranteed within the context of the prior appropriation doctrine to remain in the riverbed. The limitation of using instream flows to maintain ecosystems

and species is that historically no value was recognized for water left in streambeds, and now instream flow rights are primarily junior rights. As a result, instream flows are fulfilled only after senior rights on the waterway have been filled. As water resource management is primarily a state responsibility, each of the eight Rockies states currently has its own instream flow program. Since water laws differ from state to state, state instream flow programs show some variation across the region. For specific information on the instream flow programs in each Rockies state, see Table 1.[14]

The interplay between human water consumption through diversion and instream flows for recreation and ecosystem maintenance is best understood through the lens of water sustainability. The United States Geologic Survey (USGS) defines "water sustainability" as the need to sustain water supplies for present and future generations while striking a balance between consumptive water use and water for ecosystems and species maintenance.[15] To achieve this balance, the needs of consumers and ecosystems must be quantified and identified so that resources can be allocated in accordance with state law.[16] How best to strike this balance is a point of some contention.

River Networks

The United States contains around 456,000 miles of perennial stream and rivers.[17] With an estimated 60,000 large and small dams nationwide,[18] many miles of rivers and streams have been altered and harnessed for consumptive uses. Of the 456,000 miles of perennial waters, the expansive eight-state Rockies region contains around 62,000 miles of streams, or about 13% of the total mileage.[19] In addition to 13% of the nation's perennial waters, the Rockies region also contains 16% of the major dams in the U.S.[20] including Nevada's Hoover Dam, Utah's Glen Canyon Dam, and Colorado's Blue Mesa Dam (See Figure 1).

With the rapid population growth currently taking place in the region, the pressure on natural resources is steadily increasing. Average total water withdrawals in the Rockies since 1990 have remained about constant, having experienced a decrease from the 1980s. What has seen a steady increase is the percentage of the water withdrawals for public supply for consumptive uses. Public supply withdrawals have increased from around 2,800 million gallons a day in 1985 to approximately 4,000 million gallons a day in 2000.[21] Not surprisingly, this trend in public supply withdrawals correlates with increasing population. Although public supply withdrawals represent a relatively small percentage of the total withdrawals in the region (only six percent in 2000), increases in public supply withdrawals is indicative of decreases in withdrawals by other sectors.[22] Rising demand for public supply and demographic projections for further population increases in the region have sparked renewed interest in dam and reservoir construction in certain areas of the region to meet these growing needs. The contention over the proposed NISP (Northern Integrated Supply Project) project on Colorado's Cache la Poudre River is a good example of the public divide between water consumption and waterway preservation.

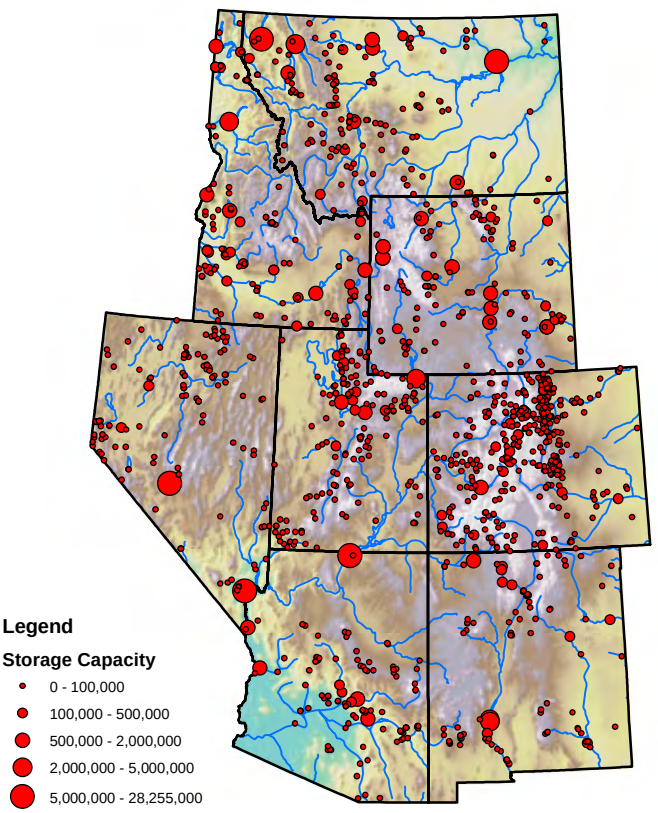
Federal land protections such as Wild and Scenic Rivers and National Parks are designed to protect and preserve those areas of the United States that are considered to possess outstanding values of national importance. Of the 456,000 miles of perennial streams and rivers nationwide, about 10,000 miles, or 2.3%, of these are protected by the federal government under the Wild and Scenic Rivers Act. In other words, 97.7% of these rivers, or about 445,000 miles are not protected under the NWSRS.[23] Of the Rockies region's 62,000 miles of perennial waters, about 1,200 miles or about 2% of the total are afforded protection under the NWSRS. While it may seem like a low percentage of rivers are protected, water resources are predominately a state responsibility so low levels of federal river protection are to be expected (see Figures 2, 3, 4 and Table 2).

Table 1: Instream Flow Program Summary for States in the Rockies Region

State	Ownership	Year	Means of Appropriation	Recognized Beneficial Use
Arizona	Public or Limited Private	1941	New appropriation or transfer	Wildlife, Fish, Recreation
Colorado	Colorado Water Conservation Board	1973	New appropriation or transfer	"to preserve and improve the natural environment to a reasonable degree"
Idaho	Public or Limited Private	1974	New appropriation or transfer	Fish and wildlife habitat, Aquatic life, Recreation, Aesthetic beauty, Navigation, Transportation, Water Quality
Montana	Public or Limited Private	1969	New appropriation or transfer	Fisheries, Water Quality
Nevada	Public or Private	1988	New appropriation or transfer	Wildlife, Recreation
New Mexico	Public or Private	1998	Transfer only	Fish and Wildlife habitat, Recreation
Utah	Divisions of Wildlife Resources and Parks and Recreation	1986	Transfer only	Propagation of fish, Public Recreation, Preservation or Enhancement of the Natural Stream Environment
Wyoming	State of Wyoming	1986	New appropriation or transfer	Only fisheries

Adapted from "Western States Instream Flow Summary" Table in Western States Water Laws: A Summary for the Bureau of Land Management, 2001

Figure 1: Major Dams and Normal Reservoir Storage Capacity



Note: storage capacity is given in volume units of acre-feet.

Source: National Atlas of the United States, USGS, 2006

National Wild and Scenic Rivers System

The passage of the Wild and Scenic Rivers Act of 1968 was an outgrowth of the environmental movement of the 1960's. For decades, dam construction had been seen as a symbol of national progress[24] and thus was largely unquestioned by the American public. As the age of dams reached its apex in the 1950s and 1960s,[25] public sentiment began to shift toward protecting certain of the nation's naturally flowing rivers. In his 1965 State of the Union address, President Johnson called for the creation of a river bill, declaring "We will continue to conserve the water and power for tomorrow's needs with well-planned reservoirs and power dams, but the time has also come to identify and preserve free-flowing stretches of our great rivers before growth and development have made the beauty of the unspoiled waterway a memory."[26]

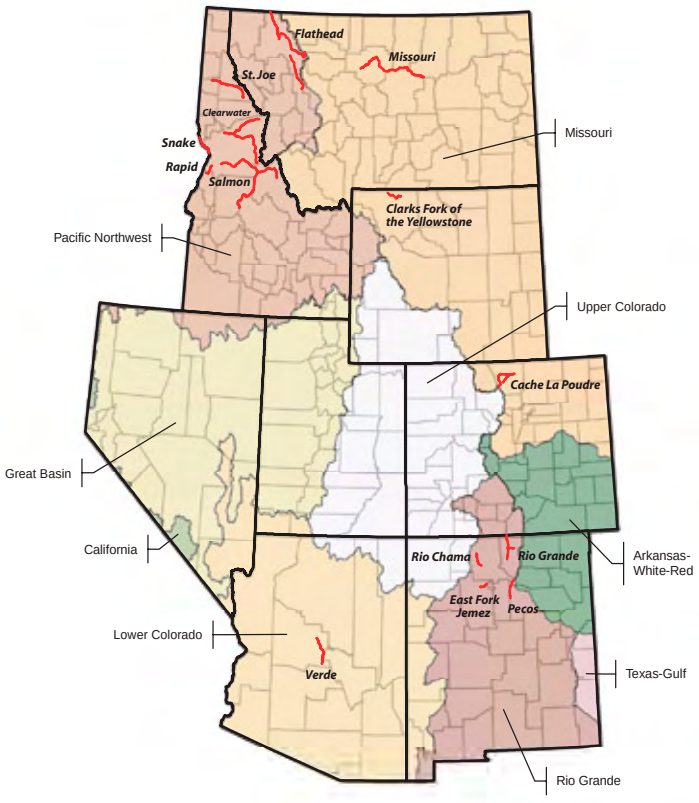
Signed into law on October 2, 1968, the Wild and Scenic Rivers Act declares that the United States will protect, for current and future generations, select rivers with "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values" in free-flowing condition.[27] "Other similar values" can include botanical, hydrological, paleontological, scientific, or heritage values.[28] Designating 12 rivers and tributaries into the National Wild and Scenic Rivers System (NWSRS) at the time of its passage, the Act addresses and outlines all aspects of the NWSRS, including eligibility criteria for inclusion in the system, the addition of components to the system, and the management of designated segments and the protection afforded to them.

Eligibility and Suitability

To be eligible for inclusion in the NWSRS, rivers and river segments must meet certain criteria. First, the river or segment must be free-flowing, which is defined in the Act as "existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modifications of the waterway."[29] Second, the river or segment must possess one or more of the outstandingly remarkable values (ORVs) listed above or in Table 3.[30] Once a river or river segment is deemed eligible for designation, a determination of suitability is undertaken.

The suitability determination asks the following question: "Even if the stream is good enough to be a national river, is it in the public interest to designate it?"[31] Typically, determining the suitability of a particular river or segment takes several factors into account, including the status of land ownership along the river, the presence of minerals, the existing uses of the river corridor, the potential uses of the adjacent lands and the river, the federal, state, local, tribal, public, and other interests, the cost of properly administering the designated segment, the ability of the agency to manage the river area, and the historical or existing water and land rights.[32] Any river or river segment in free-flowing condition that possesses one or more outstanding values is a potential candidate for

Figure 2: Wild and Scenic Rivers by River Basin



Source: U.S. Fish and Wildlife Service, 2008; National Atlas of the United States, USGS, 2006

Table 2: Wild and Scenic River Summary by Rockies State

State	Reaches of Wild and Scenic Rivers	Miles of Wild and Scenic Rivers	Total Perennial Stream Miles	Percent Wild and Scenic by River Miles
Arizona	1	69	1,928	3.6%
Colorado	3	76	10,802	0.7%
Idaho	11	562	9,008	6.2%
Montana	5	384	14,409	2.7%
Nevada	0	0	4,213	0.0%
New Mexico	6	133	3,569	3.7%
Utah	0	0	6,734	0.0%
Wyoming	1	32	11,189	0.3%

Source: Calculated from GIS data provided by the U. S. Fish and Wildlife Service, 2008; and the National Atlas of the United States, USGS, 2006

designation as a wild and scenic river.

The Nationwide Rivers Inventory (NRI), maintained by the National Park Service in partial fulfillment of Section 5(d) of the Wild and Scenic Rivers Act, lists free-flowing river segments possessing one or more ORV (See Figure 5 and Table 4). Inclusion in the NRI does not guarantee a river either eligibility or inclusion in the NWSRS; the inventory simply acts as "a register of river segments that potentially qualify as national wild, scenic, or recreational river areas."[33] Other potential NWSRS candidates are identified by federal agencies during planning for use and development of water and associated land resources.[34] It is through these two avenues that potential additions to the NWSRS are identified.

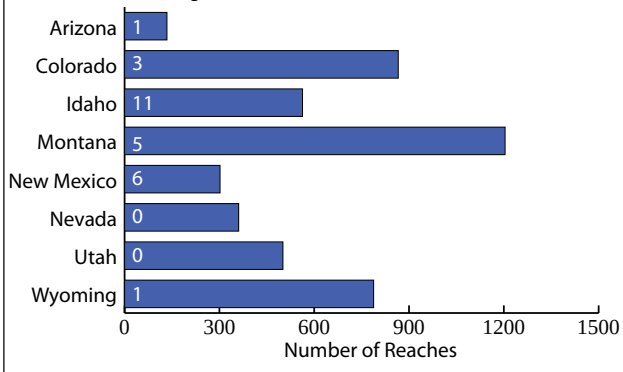
River Study Process

Most rivers added to the NWSRS first undergo a study process by one or more federal administering agencies such as the National Park Service, National Forest Service, or the Bureau of Land Management. Rivers are identified for study by one of two methods. The first is by a Congressional authorization initiated at the request of local residents, river conservation organizations, user groups, or an individual Congressional delegate having an interest in a particular river.[35] Congress identifies the agency responsible for conducting the study and may provide direction for the study's scope.[36] The second way to identify a river for study is through the regular land use planning processes of federal agencies.[37]

Studies of congressionally identified rivers typically take several years to complete. Before the study begins, Congress convenes an interdisciplinary study team, composed of members of federal agencies and contracted personnel, which is responsible for conducting the study.[38] While this study team leads the research, input from the public and interest groups is vital to the study process.[39] The team then identifies and assesses the qualities and resources of the particular river segment, eventually determining the river's eligibility.[40] The study process for agency-identified rivers is similar in many ways to the congressional identification process. The agency process also employs an interdisciplinary study team of specialists and typically takes from two to five years to complete.[41] Determinations of eligibility and suitability by a federal agency are reviewed during the regular land planning process of that agency, which typically occurs every 10 to 15 years.[42]

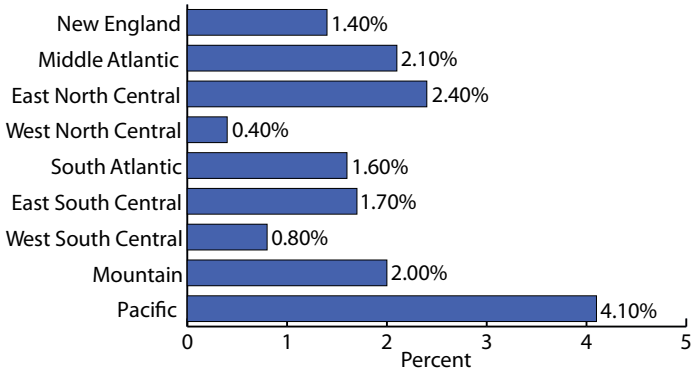
The river study process is designed to identify and evaluate the eligibility, classification, and suitability of the river in question. As discussed in a previous section, to be eligible for inclusion in the NWSRS, a river must be free flowing and must possess one or more ORV (Outstandingly Remarkable Values). Determination of free-flowing condition is based on the river's hydrology, including the

Figure 3:
Number of Stream Reaches, Total (bars, blue)
and Number Designated Wild and Scenic (number, white)



Source: calculated from GIS data provided by the U. S. Fish and Wildlife Service, 2008; and the National Atlas of the United States, USGS, 2006

Figure 4:
Wild and Scenic Percent of River Miles by Census Division



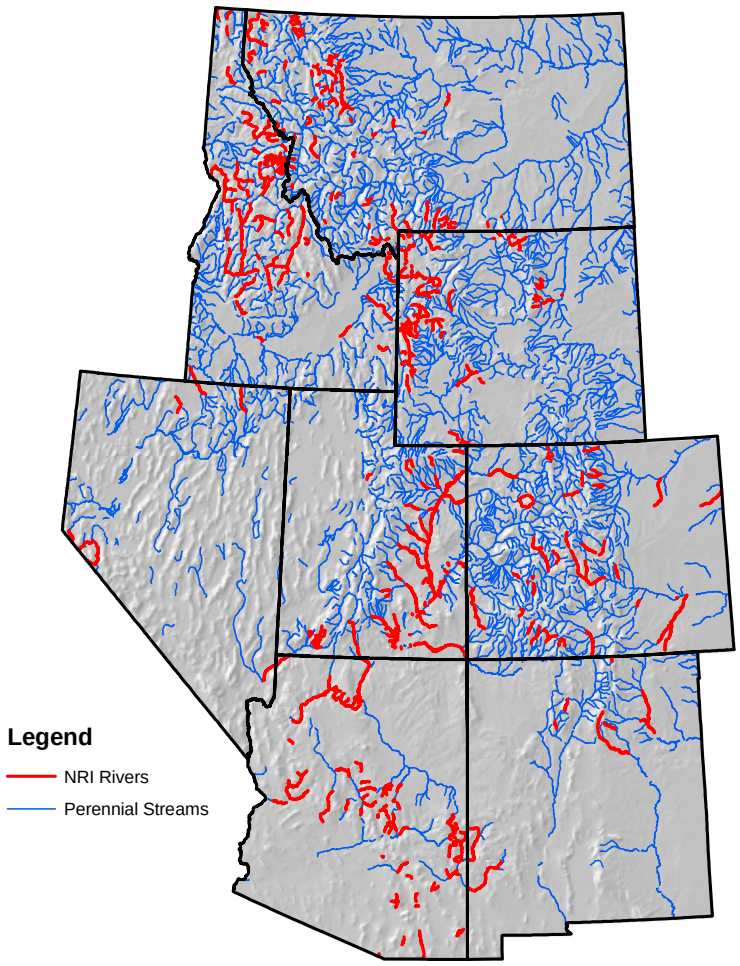
Source: calculated from GIS data provided by the U. S. Fish and Wildlife Service, 2008; and the National Atlas of the United States, USGS, 2006

presence and effects of any human-made alterations to the river's natural course.[43] After determining the free-flowing status, several methods can be used to determine whether a particular river's values and resources are unique, rare, or exemplary enough to be considered "outstandingly remarkable."[44]

Determining what is remarkable on a comparative national and regional scale is based on objective, scientific analysis by the study team.[45] Although the potential resource spectrum of ORVs is broad, the values must be river related; they must be located in the river or along its banks, contribute substantially to the functioning of the river ecosystem, and owe their existence to the presence of the river.[46] For each value constituting eligibility for the NWSRS, minimum thresholds for each relevant value must be met for the values to be considered outstandingly remarkable (See Table 3).[47] The final step is to determine the suitability of the segment in question. To do so, the study team considers many environmental and social factors not considered in the eligibility study.[48] While guidelines for determining suitability exist, suitability is more influenced by the unique values and characteristics of a particular river.[49]

After a river is determined to be both eligible and suitable for inclusion in the NWSRS, the next step is to recommend the river segment for designation. For congressionally identified river studies, a formal Wild and Scenic River Study Report serves as a formal recommendation for designation.[50] The formal study report must comply with the provisions of the National Environmental Policy Act (NEPA) by including an impact analysis of wild and scenic designation as well as alternatives for protection.[51] Following a 90-day comment period from federal officials, the final study report is submitted to Congress, at which point Congress must decide whether or not to designate the river.[52] For agency-identified study rivers, the recommendation for designation appears in an Environmental Impact Statement's Record of Decision, after which there is a 90-day public comment period. Once this comment period is over and the agency makes the necessary responses or changes to the proposal, the administering agency may submit the proposal to Congress for review.[53]

Figure 5: Rivers Designated Within the Nationwide Rivers Inventory



Source: U.S. Department of the Interior, 1997

Congressionally identified and agency-identified study rivers are afforded different levels of protection during the study period. Under the Wild and Scenic Rivers Act, congressionally authorized study rivers are protected from the following: the licensing and construction of water resource projects that could adversely affect the river, the sale of public land within one-quarter mile of the river corridor, and mineral leasing.[54] These protections last throughout the study process and then for three years following the submission of the final study report to Congress. Unless a

Table 3: Minimum Requirements for Outstanding Recreational Values (ORVs)

Value	Minimum Requirements
Scenery	Landscape elements of landform, vegetation, water, color and related factors result in notable or exemplary visual features or attractions
Recreation	Recreation is or has the potential to be popular enough to attract visitors from throughout or beyond the region or are rare within the region. Could include sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting, and boating.
Geology	The river area must contain one or more example of a geologic feature, process, or phenomenon that is unique or rare within the region
Fish	May be judged on the merits of population, habitat, or a combination.
Wildlife	May be judged on the merits of either terrestrial or aquatic wildlife populations, habitat, or a combination
Prehistory	The river corridor must contain a site where there is evidence of occupation or use by Native Americans
History	The river corridor contains a site or feature associated with a significant event, person or cultural activity of the past that was a rare one of a kind in the region. Typically 50 years or older.
Other Values	May include additional river-related values including hydrology, paleontology, and botany resources.

Source: Adapted from information in The Wild and Scenic River Study Process, p.13 – 15, 1999.

Table 4: Nationwide River Inventory Category Mileage										
	State	Scenic	Wildlife	Fish	Recreational	Geologic	Cultural	Historic	Other	Total
Miles	Arizona	1,264	1,167	1,042	911	690	562	449	561	6,645
	Colorado	2,176	1,527	1,593	1,622	1,530	771	533	350	10,102
	Idaho	1,250	892	1,605	1,033	923	8	178	576	6,465
	Montana	655	95	541	535	290	174	130	45	2,465
	Nevada	186	35	128	124	62	56	0	62	654
	New Mexico	465	249	337	375	238	195	241	85	2,185
	Utah	1,482	1,030	716	1,345	1,204	669	94	154	6,695
	Wyoming	955	796	415	762	498	130	539	286	4,382
Percent	Arizona	19%	18%	16%	14%	10%	9%	7%	8%	100%
	Colorado	22%	15%	16%	16%	15%	8%	5%	4%	100%
	Idaho	19%	14%	25%	16%	14%	0%	3%	9%	100%
	Montana	27%	4%	22%	22%	12%	7%	5%	2%	100%
	Nevada	28%	5%	20%	19%	10%	9%	0%	10%	100%
	New Mexico	21%	11%	15%	17%	11%	9%	11%	4%	100%
	Utah	22%	15%	11%	20%	18%	10%	1%	2%	100%
	Wyoming	22%	18%	10%	17%	11%	3%	12%	7%	100%

Source: U. S. Department of the Interior, 1997

river is added to the NWSRS, usually by a formal vote of Congress, after those three years the river is removed from federal protection.[55] Agency-identified study rivers are not protected during the study process, but may instead be temporarily protected by the administering federal agency.[56]

Addition to the NWSRS

After the river study process is complete and a river segment is determined both eligible and suitable for designation as a wild and scenic river, there are two ways it can be added to the NWSRS. The first and most common way is by an act of Congress. By this method, a federal agency submits to Congress a proposal recommending the designation of a particular river under the NWSRS. Congress reviews the necessary study reports and environmental assessments and either designates or turns down the segment's designation.

Once designated, Congress places management of a river segment under the federal agency that owns and manages its shorelines.[57] The federal agencies most commonly charged with management of wild and scenic rivers are the U.S. Forest Service, the National Park Service, the Bureau of Land Management, and the U.S. Fish and Wildlife Service. The second, and much less commonly employed method of adding rivers to the system, is designation by the Secretary of the Interior at the request of a state. Under this method, the governor or governors of a state or states through which a river passes may submit a proposal to the National Park Service recommending the river's designation. A river must meet three requirements to be designated in this manner. First, the river must already be protected under the state's river protection program. Second, the river must meet the eligibility criteria set forth in the WSR Act. Lastly, the state, or a political subdivision of the state, must be able to bear the cost and management requirements of adequately protecting the segment.[58] Management of these segments falls totally on the state except where federally owned public lands are involved.[59] To date, only 18 river segments, representing 12% of the NWSRS, have been designated in this way.[60]

Classification

Every river designated under the NWSRS must be classified by Congress or the Secretary of the Interior in one of three categories; wild, scenic, or recreational.[61] These classifications are based on the degree of access along each section and the amount of existing development within the river area[62] and therefore do not reflect the outstanding values for which each segment was designated. For instance, a river classified as *recreational* does not necessarily possess outstanding recreational opportunities. *Wild* rivers are considered to be "vestiges of primitive America" that are free of impoundments, accessible only by trail, with essentially primitive watersheds and shorelines, and unpolluted waters.[63] *Scenic* rivers are those sections that are free of impoundments, with shorelines and watersheds largely undeveloped, and accessible in some places by road.[64] *Recreational* rivers are easily accessible by road or railroad, have some development along their shorelines, and may have had some past impoundment or diversion.[65] Classification as wild, scenic, or recreational defines the appropriate level of future development and guides management plans to maintain the conditions for which the river was designated.[66]

Management

Upon designation of a river segment, the federal agency responsible for managing the segment has three years from the date of designation to devise and implement a comprehensive management plan (CMP).[67] The management plan must provide protection of the values for which the segment was designated and should address the following issues: "resource protection, development of lands and facilities, user capacities, and other management practices necessary or desirable to achieve the purpose of this Act."[68] As mentioned in the previous section, classification of a river as wild, scenic, or recreational helps guide the administering agency in their management.

The Wild and Scenic Rivers Act declares that components of the NWSRS shall be managed "in such

Case Study: The Cache la Poudre River

Northern Colorado's Cache la Poudre River leads a double life. The first 76 miles of the river from its source in the mountains of Rocky Mountain National Park is protected in its free-flowing condition as Colorado's only Wild and Scenic River. Once the river exits Poudre Canyon, however, it takes on new meaning. The lower 45 miles of the river (all but seven miles are outside the Poudre Canyon) are designated as a National Heritage Area, the first of such designations west of the Mississippi. This designation recognizes the lower Cache Poudre as the "best example of a working river in the western United States" as it has historically met the many water needs of the area including agriculture, municipal, industry, power, and recreation.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The designation of a segment of the Cache in 1986 as Wild and Scenic brought with it specifications and definitions for where future water projects could be located along the Poudre River. By prohibiting future water development of the upper Cache la Poudre, this designation ensured the protection, forever, of these first 76 miles. At the same time, however, it left open the lower Cache la Poudre to further water resource development and diversions.

This nationally and regionally significant river is now the center of a heated debate over whether or not a new water resource project should be constructed just below the Poudre Canyon. Headed by the Northern Colorado Water Conservancy District (NCWCD), the proposed project is known as the Northern Integrated Supply Project, or NISP. NISP is important for meeting the municipal and industrial water needs of 15 northern Colorado communities. With the construction of NISP, NCWCD plans to provide 40,000 acre-feet of water annually to meet growing municipal water needs. To do this, the NCWCD proposes to build 170,000 acre-foot Glade Reservoir and to use an existing diversion point near the mouth of Poudre Canyon to divert water out of the river and pump it into Glade Reservoir. The projected cost of the entire project is $426 million that will be split between the 15 participant communities and water districts. With a priority date of 1980, the reservoir will only be filled during wet years once senior water rights have been met.

On the other side of this debate are those who do not want to see the project carried through due to the fear that flows on the lower stretch of the Cache, which makes its way through several towns including Fort Collins, will be diminished. Several environmental advocacy groups have joined together in the Save the Poudre Coalition to rally against the construction of the proposed project.

This is the sort of debate facing the Rocky mountain region in the years to come. Only time will tell whether new water supply projects that meet human needs while protecting the environment can be built, and whatever happens, whether the National Heritage segment of the river will continue to live up to its name as an excellent example of a working river.

[1] Cache la Poudre National Heritage Area. http://www.fortnet.org/PRHerCor/index.htm. Accessed January 29, 2009.
[2] "Glade Reservoir/Poudre River Panel Discussion," Online Video, April 7 2008. http://atlas.fcgov.com/GladeReservoirForum/msh.htm. Accessed January 29, 2009.
[3] *Ibid.*
[4] *Ibid.*
[5] "NCWCD Feature Projects," Northern Colorado Water Conservation District. http://www.ncwcd.org/. Accessed January 29, 2009.
[6] "Northern Integrated Supply Project," Northern Colorado Water Conservation District. http://www.gladereservoir.org/most-economical.aspx. Accessed January 29, 2009.
[7] "Glade Reservoir/Poudre River Panel Discussion," Online Video, April 7 2008. http://atlas.fcgov.com/GladeReservoirForum/msh.htm. Accessed January 29, 2009.

manner as to protect and enhance the values which caused (them) to be included in said system without limiting other uses that do not substantially interfere with public use and enjoyment of these values."[69] As noted in the section *Additions to the NWSRS,* the four federal agencies charged with administration of wild and scenic rivers are the Bureau of Land Management (BLM), the National Park Service (NPS), the National Forest Service (NFS), and the Fish and Wildlife Service (FWS).[70] In some cases, two or more agencies may manage land along the river corridor of a designated river. When this is the case, the two agencies split the management of the segment. An example of this in the Rockies occurs on the Cache la Poudre River in northern Colorado. The designated segment (a total of 76 river miles) courses through both Rocky Mountain National Park and Roosevelt National Forest, placing administration of these segments in the hands of the National Park Service and the U.S. Forest Service, respectively. Management of designated rivers deals with recreation and uses of the waterway as well as land uses in the surrounding area.

The past few decades have seen an overall increase in river recreation.[71] Although no known studies have linked river designation as wild and scenic with increased

Case Study: Wild and Scenic Suitability of Rivers in Utah's National Forests

Utah does not currently have any rivers or river segments included in the National Wild and Scenic Rivers System (NWSRS). The U.S. Forest Service is in the process of conducting suitability studies to determine which of Utah's rivers should be recommended to Congress for inclusion in the NWSRS.

Over the past decade, as part of their regular land and resource management plans, the Forest Service has identified 86 eligible river segments in Utah's Ashley, Dixie, Fishlake, Manti-La Sal, and Wasatch-Cache national forests. The Forest Service released a Draft Environmental Impact Statement (DEIS) for Wild and Scenic Rivers Suitability in December 2007, exploring the environmental and social impacts of designating these river segments and presenting alternatives to this form of designation. Encouraging public involvement in the suitability studies and potential recommendations, the Forest Service has held 17 public meetings in Utah, including two meetings in Wyoming and Colorado, and provided a public comment period that extended through February 15, 2008. The final decision recommendation on inclusion in the NWSRS had an expected release date in the fall or winter of 2008 for those segments meeting the suitability requirements. Several environmental and interest groups, including American Whitewater and Utah Rivers Council, are rallying public support for river protection.

The Green River

[1] Kevin Colburn, "Support Wild and Scenic Rivers in Utah," American Whitewater. http://www.americanwhitewater.org/content/Article_view_articleid_29925_display_full. (Accessed August 11, 2008).
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[3] U.S. Forest Service. News Release: Forest Service Releases Draft Environmental Impact Statement for Wild and Scenic River Suitability. December 7, 2007.
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[5] United States Department of Agriculture, Forest Service. Draft Environmental Impact Statement: Wild and Scenic River Suitability Study for National Forest System Lands in Utah, Catherine Kahlow. November 2007.
[6] U.S. Forest Service Intermountain Region, "Wild and Scenic River Suitability Study for National Forest System Lands in Utah; Basic Project Timeline," U.S. Forest Service, http://www.fs.fed.us/r4/rivers/timeline.shtml (Accessed August 11, 2008).

recreational use,[72] recreation on designated rivers is an important focus of their management. Typically, access, natural attributes, and availability of services are the factors that most influence recreation on the nation's waterways.[73] Designation in the NWSRS does not automatically limit recreational uses of waterways, unless limitations or permits on public use are necessary to protect resource values.[74] Beyond regulating use, recreation management on designated rivers must also address the need for and maintenance of facilities such as campsites, restrooms, access ramps, and garbage disposal.[75] Except where other federal or state restrictions apply (such as hunting restrictions in national parks), hunting and fishing on designated rivers remain under state jurisdiction.[76]

The major land use issues addressed by wild and scenic river CMPs are mining, grazing, agriculture, logging, and private land development, with management guided by the classification as wild, scenic, or recreational, and the special attributes of particular segments.[77] In general, current uses of the river and adjacent lands are permitted to continue.[78] Uses clearly threatening to the values of the river area are addressed and regulated through the CMP on a case-by-case, river-by-river basis.[79]

The Wild and Scenic Rivers Act does, however, regulate activities that have the potential to have adverse effects on the river condition and values. One land use issue specifically addressed in the Act is mining and mineral development on public lands.[80] Regulating mining throughout the NWSRS provides safeguards against water pollution and impairment of scenic values.[81] Any mining lease or permit issued or renewed after the date of designation of a particular river segment is subject to conditions set by the Secretary of the Interior or the Secretary of Agriculture. Only segments classified as *wild* have extended protection from mining; the river bed, bank, and land within one-quarter mile of the bank are removed from mineral leasing.[82]

For land uses that may not necessarily have adverse affects on designated rivers, the Wild and Scenic Rivers Act typically allows continued use of existing activities. The Act specifically addresses land uses such as logging, grazing, agriculture, and private land development within the river corridor and lands adjacent to designated segments and may limit activities that would adversely affect the river values. Designation usually has little to no effect on either timber harvesting or logging within a river corridor, beyond the restrictions necessary to protect ORVs. Similarly, existing agricultural and livestock grazing practices are usually unaffected.[83]

In certain cases, private lands may also lie within the corridor of potential wild and scenic segments. Many private landowners fear condemnation of their land by the federal government if the segment is designated under

the NWSRS. The Act, however, neither gives nor implies government control of private land within the designated corridor.[84] Private land owners within the river corridor can use their property as they did before designation, and there is no effect on their property rights.[85] In cases where proposed development on private lands within the river corridor will adversely affect the river values, the government may enter into easements with the landowners to prevent harmful development while leaving the title of the land to the existing owner. In general, despite land owner fears concerning designation of certain river segments, the rights of land owners do not change and future development on private lands is dictated by the classification of each segment.

One of the major protections afforded to designated rivers is protection from federally funded and licensed water resource development projects. The Act prohibits the Federal Energy Regulatory Commission (FERC) from licensing the construction of dams, water conduits, reservoirs, powerhouses, transmission lines, or other projects on any designated component of the NWSRS or in any areas that would directly affect designated segments.[86] The Act also prohibits any federal agency from assisting through loans or licenses any water resource project that would have adverse effects on the values for which the river was designated.[87] This provision protects the free-flowing nature of wild and scenic rivers and is sometimes viewed as the main impetus for designation. However strong, this provision has one serious limitation; it does not prohibit the construction of water resource projects above or below the designated segment so long as the project in question does not "unreasonably" diminish the values present on the date of designation.[88] Here, the Wild and Scenic Rivers Act fails to recognize the importance of ecosystem management by ignoring that stream flows, water quality, and fish habitat are affected by activities above and below the designated segments.[89]

Verde River, Coconino National Forest, Photo from the U.S. Forest Service

Federal Reserved Water Rights Doctrine

Under the federal reserved water rights doctrine (FWRRD) when the federal government reserves public lands for national parks, monuments, or forests, it implicitly reserves a sufficient amount of water to satisfy the purposes for which they were created.[90] The FWRRD is analogous to the water rights doctrine, called the Winters Doctrine, applicable to Indian reservations. Under the Winters Doctrine when an Indian reservation was established by treaty, the tribe reserved water rights sufficient to achieve the purposes of the reservation. The Supreme Court has interpreted the FWRRD narrowly. Presently, federal reserved water rights may only include "quantities of water necessary to meet the primary purposes for which the national park or national forest was established and only in the minimum amounts necessary to meet those purposes."[91] Though restricted by these provisions, the date of priority for federal reserved rights is the date the land reservation was established, giving federal reserved rights senior priority dates when compared with the majority of water rights adjudicated by state law.[92] In the case of wild and scenic rivers, the Wild and Scenic Rivers Act implicitly creates a reserved water right to meet the purposes of the Act: preservation of free-flowing condition and outstanding river values.[93] Although the federal reserved rights for components of the NWSRS have priority dates as of the date of designation into the system, to claim those rights, the administering agency must first identify the amount of water necessary to meet the purposes of the Act, and then must codify that right through the state water rights adjudication system.[94] Often other water rights holders object to the amount claimed for the preservation of designated stretches.[95] Although reserved water rights are attached to each designated stream segment, the right is not always claimed if other flow protections exist, such as state instream flow programs or existing reserved rights on national forest lands.[96]

State River Protection Programs

In addition to the NWSRS, several Rockies states have their own programs to designate state rivers and streams for outstanding qualities. These systems of designation provide varying levels of protection on the state and local levels (see Table 5).

Thirty-three states have state river protection programs modeled after the NWSRS. Idaho is the only state in the Rockies Region with such a program. In the Idaho State Water Plan, the Idaho Board of Water Resources has the authority to designate and protect rivers within the state[97] as "natural" or "recreational" waters. The difference in designation is based on the amount of existing development within the river corridor. "Natural" rivers are free of substantial human-made development in the waterway and the riparian area is largely undeveloped. "Recreational" rivers may have a certain level of development in the waterway and riparian area. Designation prohibits the construction of water resource projects or alterations to the streambed that would compromise the values for which the waterway was designated.[98] The benefit of this program, when compared with the NWSRS, is that Idaho's program protects its rivers while leaving control of those rivers to the state government. As of 1996, 1,700 miles of Idaho's rivers had been protected under this system,[99] more than the total miles of rivers protected as wild and scenic in the entire Rockies Region.

While no other Rockies state has a river protection program similar to Idaho's, several Rockies states have programs that designate and may provide protection to rivers and streams based on their outstanding values. Colorado, Utah, Montana, and Wyoming each have state programs that designate rivers based on fish habitat or population. Colorado's Division of Wildlife has two levels of classification: Wild Trout waters and Gold Medal waters. Wild Trout waters provide habitat for wild trout populations and have primary management objectives to sustain that population. Gold Medal waters are those consistently producing a minimum trout standing stock of 60 pounds per acre and a minimum of 12 quality trout per acre where a quality trout is defined as any trout 14 inches or longer in length.[100]

Utah's Blue Ribbon Fisheries program is similar in that it recognizes waters that support viable fish populations and can withstand pressure from angling.[101] In Montana, Montana Fish, Wildlife and Parks designates Blue and Red Ribbon Streams based on the condition of fisheries, habitat, the presence of native or non-native fish, and the present use of the river segment.[102] This classification system was designed to help communicate the relative importance of Montana's various waterways.[103] Designation under Montana's system does not change the management of rivers but raises awareness and draws attention to the condition of important rivers.[104] Wyoming also has a blue ribbon trout stream program. Designation and classification under this system is based solely on the density (pounds per mile) of sport fish, or those fish most sought out by anglers. Tiers of designation in this program are based on the pounds of sport fish per mile. Once classified, the waters are managed to sustain angling quality, which plays out differently on each river or stream.[105]

As mentioned in the Management section, private land holdings within a proposed river corridor often prevent the designation of the segment as wild and scenic due to private land owner fears of land condemnation. So although designation under the NWSRS may provide

Case Study: The Snake River Headwaters


The Snake River and Mt. Moran

The Snake River Headwaters in northwest Wyoming contains some of the purest waters and largest cutthroat trout populations remaining in the lower 48 states. Several years ago, a number of groups interested in protecting the rivers and streams of this watershed came together to create the Campaign for the Snake Headwaters. Backed by Idaho Senator Craig Thomas, the Snake Headwaters Legacy Act of 2007 was submitted to Congress, petitioning the federal government to designate 23 distinct stream segments on 13 rivers and streams encompassing approximately 388 river miles as Wild and Scenic rivers.[1] The rivers of this watershed, in addition to having high water quality, provide vital habitat for a large array of wildlife species, including bald eagle, osprey, moose, elk, deer, grizzly bears, wolves, Wyoming's largest population of river otters, and over 150 species of birds.[2] What makes this Wild and Scenic nomination unique is that it includes an entire watershed, instead of just one river or stream segment.[3] Since submission to Congress on May 3, 2007, however, there has been no progress on designating the Snake Headwaters as wild and scenic. Recently, the Snake Headwaters Legacy Act has been folded into New Mexico Senator Jeff Bingaman's Omnibus Public Lands Management Act of 2008, with the hope that this will facilitate its passage through the Senate.[4] Though members of the Greater Yellowstone Coalition (GYC) were optimistic that the bill would pass before the closing of the Congressional session in November 2008, it was not reviewed and will now have to wait for Congress to reconvene in January 2009 to be decided.

[1] Bosse, Scott, Email correspondence with author, 7/28/2008.
[2] Campaign for the Snake Headwaters, Informational pamphlet (also available online: www.snakeheadwaters.org).
[3] McNamara, Amy, State of the Rockies Interview, 7/2008.
[4] Bosse, Scott, 7/28/08.

a greater level of protection than state and local programs, because of these controversies, state programs play a vital role in the greater system of river and stream protection.

Table 5: State River Programs		
State	Responsible Agency	Program
Arizona	None	None
Colorado	Colorado Division of Wildlife	Gold Medal and Wild Trout fishing streams
Idaho	Idaho Department of Water Resources	Natural and Recreational Rivers
Montana	Montana Fish, Wildlife & Parks	Blue and Red Ribbon Streams
Nevada	None	None
New Mexico	None	None
Utah	Utah Division of Wildlife Resources	Blue Ribbon Fisheries
Wyoming	Wyoming Game and Fish	Blue Ribbon Trout Streams
Source: Compiled by the State of the Rockies Project, 2008		

Designation by Nongovernmental Organizations

In addition to individual state programs, a number of national and regional nongovernmental organizations have programs that aim to raise awareness of unique waters and work to protect them. Among the many groups and agencies interested in water issues in the Rockies, some of the major groups are American Rivers, the Greater Yellowstone Coalition, and Trout Unlimited.

American Rivers is a national organization based in Washington D.C. that works to protect rivers and maintain healthy river ecosystems nationwide. American Rivers has four major campaigns that address different aspects of river protection: Healthy Waters, Water for Life, River Renewal, and River Heritage.[106] The campaign most relevant to the topic of this report is the River Heritage campaign, which works towards protecting the nation's remaining segments of free-flowing rivers through the wild and scenic designation.[107] The organization is currently promoting the "40x40 Challenge" to designate 40 rivers as wild and scenic in celebration of the system's 40th anniversary on October 2, 2008. While this initiative is taking place nationwide, American Rivers is backing wild and scenic designation for two important Rockies waterways: the Snake headwaters of Wyoming and Fossil Creek in Arizona.

In addition to promoting river protection through wild and scenic designation, every year since 1986 American Rivers has released a report on America's most endangered rivers to highlight near-term threats, such as proposed water diversions, power plants, or other harmful actions. In the 2008 edition of the report, two rivers in the Rockies were listed in the top ten most endangered rivers in the nation. The Cache la Poudre River in Colorado was listed as the third most endangered due to a proposed water diversion and reservoir project. The Gila River in New Mexico, also threatened by a water development project, was listed as the seventh most endangered river.[108] The endangered rivers report aims to raise awareness of river-related issues with the hope of promoting public action.

Trout Unlimited's goal is to "conserve, protect, and restore North America's cold water fisheries and their watersheds."[109] Operating nationally, Trout Unlimited has focused on the Rockies region through a Western Water Project (WWP) since 1998. Through the WWP, Trout Unlimited is committed to working at the state level on water management issues with the ultimate goal of protecting and restoring western fisheries.[110] The WWP has branches operating in five Rockies states: Colorado, Idaho, Montana, Utah, and Wyoming. The main goals of the WWP are to build political alliances with groups that favor healthy stream flows, restore stream flows in key river basins to maintain sustainable coldwater fisheries, and defend instream flows.[111] Trout Unlimited's WWP has had several successes in these states including aiding in negotiations over instream flow rights for the Gunnison River through the Black Canyon of Gunnison National Park in Colorado, working with irrigators in Idaho to obtain a first donation of water rights for instream flow protection, and negotiating the removal of a dam on Utah's American Fork River.[112]

The Greater Yellowstone Coalition (GYC) is a regional organization concerned with the protection of the Greater Yellowstone ecosystem. The Greater Yellowstone ecosystem covers 18 million acres and spans portions of Idaho, Wyoming, and Montana. The branch of the GYC concerned with rivers is called Wild Rivers and Wild Fish. This program has four areas of focus: saving wild rivers under the Wild and Scenic Rivers Act, protecting native and wild trout fisheries, maintaining vital connections between rivers and their floodplains, and preserving clean water.[113] Under this program, the GYC is currently involved in the Snake Headwaters Campaign, advocating for several hundred miles of the rivers and streams in the Snake River drainage to be designated and protected under the Wild and Scenic Rivers Act.[114]

Conclusion

As the Rocky Mountain Region faces continued population growth and increasing demand for municipal water supplies, a balance will have to be found between water consumption and river protection. This report explores several avenues of river value protection, focusing

on the National Wild and Scenic Rivers System as one of the highest levels of protection that can be afforded to a river or stream.

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[3] U.S. Census Bureau. (Matt) Prepared from American Community Survey Data and U.S. Census Bureau Data
[4] Mark T. Anderson and Lloyd H. Woosley Jr., 2005.
[5] Tim Palmer, *Endangered Rivers and the Conservation Movement Second Edition* (New York: Rowman & Littlefield Publishers, Inc., 1986), 1.
[6] Mark T. Anderson and Lloyd H. Woosley Jr., 2005.
[7] *Ibid.*
[8] *Ibid.*
[9] Justice Gregory J. Hobbs Jr. *Citizen's Guide to Colorado Water Law* (Denver, Colorado: Colorado Foundation for Water Education, 2004).
[10] Justice Gregory J. Hobbs Jr. *Citizen's Guide to Colorado Water Law* (Denver, Colorado: Colorado Foundation for Water Education, 2004).
[11] USGS Circular, Citizen's Guide to Colorado Water Law.
[12] Tim Palmer, *The Wild and Scenic Rivers of America* (Washington D.C.: Island Press, 1993), 13.
[13] Instream Flow Council. Instream Flow Council, "Frequently Asked Questions" http://www.instreamflowcouncil.org/faq.htm. (Accessed June 24, 2008).
[14] Eric B. Hecox, *Western States Water Laws: A Summary for the Bureau of Land Management* (Bureau of Land Management National Science and Technology Center. 2001)
[15] Mark T. Anderson and Lloyd H. Woosley Jr., 2005.
[16] *Ibid.*
[17] US River Macro Data National Atlas of the U.S., U.S.G.S. Streams and Waterbodies of the United States, 2006.
[18] National Wild and Scenic Rivers http://www.rivers.gov/. Accessed 2/4/09.
[19] US river macro data National Altas of the U.S., U.S.G.S. Major Dams of the United States, 2006.
[20] US river macro data National Altas of the U.S., U.S.G.S. Major Dams of the United States, 2006.
[21] McMahon, Tyler and Matthew Reuer, "Water Sustainability in the Rockies." *The 2007 State of the Rockies Report Card.* p. 34.
[22] *Ibid.*
[23] US river macro data Calculated from data from National Altas of the U.S., U.S.G.S Streams and Waterbodies of the United States, 2006, and U.S. Fish and Wildlife Service, National Wild and Scenic River System, 2008.
[24] Paul Bockhorst, *A River Reborn: The Restoration of Fossil Creek*, DVD (Paul Bockhorst Productions, 2007).
[25] Marc Reisner, *Cadillac Desert: The American West and Its Disappearing Water* (New York: Penguin Books, 1986), 159.
[26] Tim Palmer, (1993) 22.
[27] Wild and Scenic Rivers Act Section 1(b) Congressional declaration of policy.
[28] Interagency Wild and Scenic Rivers Coordinating Council, *A Compendium of Questions & Answers Relating to Wild & Scenic Rivers.* National Wild and Scenic Rivers System, Washington D.C., 2006 Revision.
[29] Wild and Scenic Rivers Act Section 16(b) Definitions.
[30] *Ibid.*
[31] Tim Palmer: 1993.
[32] Interagency Wild and Scenic Rivers Coordinating Council.
[33] National Park Service; National Center for Recreation and Conservation, "Nationwide Rivers Inventory," National Park Service, http://www.nps.gov/ncrc/programs/rtca/nri/auth.html (Accessed August 2008).
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[35] Interagency Wild and Scenic Rivers Coordinating Council, *The Wild and Scenic River Study Process.* National Wild and Scenic Rivers System, Portland, Oregon, 1999, 8.
[36] *Ibid,* 9.
[37] *Ibid,* 9.
[38] *Ibid,* 10.
[39] *Ibid,* 10.
[40] *Ibid,* 10.
[41] *Ibid,* 11.
[42] *Ibid,* 12.
[43] *Ibid,* 12.
[44] *Ibid,* 12.
[45] *Ibid,* 12.
[46] *Ibid,* 13.
[47] *Ibid,* 13.
[48] *Ibid,* 17.
[49] *Ibid,* 17.
[50] *Ibid,* 19.
[51] *Ibid,* 19.
[52] *Ibid,* 19.
[53] *Ibid, 19.*
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[56] *Ibid*, 29.
[57] Tim Palmer: 1993, 246.
[58] Jack Hannon and Tom Cassidy, Section 2(a)(ii) of the Wild and Scenic Rivers Act of 1968: An underutilized tool to designate national wild & scenic rivers. American Rivers, (1998).
[59] Section 2(a)(ii) of the Wild and Scenic Rivers Act of 1968 by American Rivers.
[60] *Ibid.*
[61] Interagency Wild and Scenic Rivers Coordinating Council, 21.
[62] Interagency Wild and Scenic Rivers Coordinating Council, 20.
[63] Wild and Scenic Rivers Act Section 2(b)(1).
[64] Wild and Scenic Rivers Act Section 2(b)(2).
[65] Wild and Scenic Rivers Act Section 2(b)(3).
[66] Palmer: 1993, 61.
[67] Wild and Scenic Rivers Act Section 3(d)(1).
[68] Wild and Scenic Rivers Act Section 3(d)(1).
[69] Wild and Scenic Rivers Act Section 10(a).
[70] Interagency Wild and Scenic Rivers Coordinating Council, 37.
[71] Interagency Wild and Scenic Rivers Coordinating Council, 37.
[72] Interagency Wild and Scenic Rivers Coordinating Council, 48.
[73] Interagency Wild and Scenic Rivers Coordinating Council, 48.
[74] Interagency Wild and Scenic Rivers Coordinating Council, 37.
[75] Interagency Wild and Scenic Rivers Coordinating Council, 48.
[76] Interagency Wild and Scenic Rivers Coordinating Council, 48.
[77] Wild and Scenic Rivers Act Section 10(a)
[78] Interagency Wild and Scenic Rivers Coordinating Council and Tim Palmer, 246.
[79] Interagency Wild and Scenic Rivers Coordinating Council, 38.
[80] Wild and Scenic Rivers Act Section 9.
[81] Wild and Scenic Rivers Act Section 9.
[82] Wild and Scenic Rivers Act Section 9(a)(iii).
[83] Interagency Wild and Scenic Rivers Coordinating Council, 45.
[84] Interagency Wild and Scenic Rivers Coordinating Council, 39.
[85] Interagency Wild and Scenic Rivers Coordinating Council, 40.
[86] Wild and Scenic Rivers Act Section 7(a).
[87] Wild and Scenic Rivers Act Section 7(a).
[88] Wild and Scenic Rivers Act Section 7 Restrictions on hydro and water resource development projects on designated rivers.
[89] Tim Palmer, *The Wild and Scenic Rivers of America* (Washington D.C.: Island Press, 1993), 263.
[90] Eric B. Hecox, *Western States Water Laws: A Summary for the Bureau of Land Management* (Bureau of Land Management National Science and Technology Center, 2001).
[91] *Ibid.*
[92] *Ibid.*.
[93] Kristina Alexander, Legislative Attorney. "Congressional Research Service Report for Congress: The Wild and Scenic Rivers Act and Federal Water Rights" updated March 5, 2007.
[94] Eric B. Hecox: 2001.
[95] CRS Report for Congress.
[96] *Ibid.*
[97] Idaho State Water Plan, Adopted by The Idaho Water Resource Board, December 1996. p. 82-90.
[98] Idaho Department of Water Resources "Actions and Recommendations" : 11-29-06, http://www.idwr.idaho.gov/waterboard/Planning/Payette/Documents/Payette%20Resource%20Actions-Recommendations.pdf. Accessed January 30, 2009.
[99] Idaho State Water Plan, 1996.
[100] "Wild and Gold Medal Trout Management" Colorado Wildlife Commission Policy. Revised June 12, 2008.
[101] Utah Division of Wildlife Resources, Blue Ribbon Fisheries, "Blue Ribbon Fisheries Program" http://wildlife.utah.gov/blueribbon/good_idea.php (Accessed July 29, 2008).
[102] Mark Lere, Montana Fish, Wildlife, and Parks, phone interview by author, August 1, 2008.
[103] *Ibid.*
[104] *Ibid.*
[105] Dirk Miller, Wyoming Game and Fish, email correspondence with author, July 29, 2008.
[106] American Rivers, "Campaigns." http://www.americanrivers.org/site/PageServer?pagename=AR7_Campaigns. (Accessed July 2008).
[107] American Rivers, "River Heritage." http://www.americanrivers.org/site/PageServer?pagename=AR7_RiverHeritage. (Accessed July 2008).
[108] American Rivers, "Go Wild! 40x40 Challenge," http://www.americanrivers.org/site/DocServer/40_x_40_Fact_Sheet.pdf?docID=4822. (Accessed July 2008).
[109] Trout Unlimited homepage, http://www.tu.org/site/c.kkLRJ7MSKtH/b.3022897/, (Accessed August 2008).
[110] Trout Unlimited, "Western Water Project," http://www.tu.org/site/c.kkLRJ7MSKtH/b.3022975/, (Accessed July, 2008).
[111] *Ibid.*
[112] Trout Unlimited, "WWP Accomplishments – 10 Years," http://www.tu.org/site/c.kkLRJ7MSKtH/b.4176411/, (Accessed December 1, 2008).
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[114] *Ibid.*

Case Study: The Black Canyon

Water sufficient to maintain natural features and processes, both on the land and in watercourses, is fundamental to the health of national park lands. This is a difficult balancing act for the Department of Interior as it seeks to balance its competing statutory obligations of protecting the health of the land and wildlife in situations where competing non-federal and private demands exist on water for hydropower and consumptive use water rights. In a series of cases, including United States v. New Mexico,[1] the Supreme Court developed the "implied-reservation-of-water" doctrine.[2] Under this doctrine, when the President or Congress reserved land from the public domain for a purpose, a quantity of water needed to accomplish that purpose was *impliedly* reserved.[3] This doctrine applies to all national monuments and parks including the Black Canyon of the Gunnison National Park. In each case, the quantity of water reserved for that national park must be adjudicated in state court.

Originally set aside as a National Monument in 1933, the Black Canyon became a National Park in 1999.[4] Two years later, the National Park Service began quantifying the water needs of the Canyon's ecosystem.[5] Once the water needed to maintain flows through the canyon was quantified, the National Park Service could claim through Colorado water court the park's federal reserved water right. With a priority date of 1933, the reserved right of the Black Canyon is senior to many rights held by irrigators, power plants, and other interests in the region.[6]

The 2001 filing in Gunnison District Water Court by the National Park Service sought to employ their reserved water right on grounds that insufficient flow caused by the upstream construction of the Wayne Aspinall series of dams in the 1960s had led to sediment and vegetative build-up. The filing called for at least 300 cubic feet per second (cfs) throughout the year and higher flushing flows in May and June. This request, according to local officials, would supersede longstanding water rights with more junior priority dates for ranching and agriculture in the Gunnison Basin.

In 2003, Department of Interior and Colorado state officials entered into an agreement. Instead of exercising the federal water right to flows of *at least* 300 cfs, the agreement stated that the Gunnison through the Black Canyon would receive 300 cfs or natural flow – *whichever was less*.[7] Episodic, high volume flows were included, but given a priority date of 2003; making this flushing right junior to every right prior, including the Aspinall rights.[8] When this became public, a number of environmental groups began taking actions to have the agreement reevaluated; asserting that low natural flows (below 300 cfs) would jeopardize the Park's ecosystem.[9]

In 2006, U.S. district judge Clarence Brimmer ruled against the NPS-Colorado agreement, calling the earlier decision "arbitrary, capricious, and an abuse of discretion"[10] thereby returning the case to Colorado water court. This action upheld the fundamental necessity to protect the natural resources of the Black Canyon and required a reassessment of the timing and amounts of water flow needed. This ruling effectively prevented the federal government from negotiating away necessary waters to maintain the natural features of the Black Canyon NP and required a transparent process to re-adjudicate the federal reserved water right of the Black Canyon.[11]

The decision of the U.S. District Judge in 2006 led to negotiations aimed at reaching an agreement concerning water rights on the Gunnison River between environmental groups, federal and state agency officials, and other interested parties. The negotiations ended with a decree giving Black Canyon rights to a year-round flow of 300 cfs, and seasonal shoulder and peak flows based on the year's hydrologic conditions.[12] This June, 2008 decree, made official on December 31, 2008, also allows for slight modifications to protect the pre-existing water rights of interested parties.[13] After 30 years of contention over the Gunnison flow in Black Canyon, the new decree provides some compromise with state water rights and protects the ecosystems and aesthetics of the Gunnison River.

The Painted Wall, Gunnison Canyon - © Lisa Lynch, NPS

[1] 438 U.S. 696 (1978).
[2] This is also called the Federal Reserved Water Rights doctrine.
[3] This doctrine is analogous to the Winters doctrine under which water rights necessary for an Indian reservation were reserved when the reservation was established.
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