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Not long ago, the Missouri Breaks portion of the upper Missouri River was white space on most maps, representing a relatively unknown but vast area where few people ventured and even fewer stayed. Our information culture and the attention surrounding the Lewis and Clark Centennial have unveiled to the world the raw treasures of this area. The timeless, powerful, and remote essence of this area has been rendered fragile and susceptible to land and mineral development and increasing tourism. The destruction of the Eye of the Needle formation, a hallmark of the upper river, during the 1990s was a dreadful example of the region's vulnerability. The oil and gas industry seeks to move into the area.¹ A recent letter to the editor expresses the concerns and the sense of powerlessness of local residents in the face of these developments:

Missouri River Breaks territory is up for grabs. Our wide open spaces, grand vistas along the Lewis and Clark trail, have great appeal to corporate giants, city dwellers and the wealthy who want two-week get-aways - their very own piece of the “Big Sky.” Farms and ranches are struggling. The losers are the small operators no longer able to make a profit . . . [T]here are fewer ways to make a living in our rural areas, leaving landowners no choice but to be exploited.²

In his last days in office, President Clinton brought even more attention to the area when he designated the Upper Missouri Breaks National Monument,³ expanding and altering the Wild and Scenic Rivers designation that Congress had bestowed in 1976. While Clinton probably triggered several thousand more visits to the area, the national monument designation may have added only a veneer of resource protection. It does not automatically provide for needed environmental restoration, such as Cottonwood reforestation. It may not effectively control increased visitation, one of the major threats to the area. The designation does not acknowledge the presence of local residents, whose lands are scattered among federal lands in a checker-boarded fashion, or necessarily engage their cooperation and energy in advancing the federal government's protective goals.

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¹ Bush Makes Oil Industry Optimistic, BILLINGS GAZETTE (online ed. May 17, 2001).
² Letter from Lewistown resident to editor, GREAT FALLS TRIBUNE (May 18, 2001).
I. Overview

This proposal starts with a review of the resource protection goals for the Missouri Breaks region (the Missouri River Corridor), followed by an examination of the web of existing protections and the inadequacies of the federal Wild and Scenic and National Monument designations. The proposal then describes a blueprint for a Missouri River Corridor Trust that promises a more workable and lasting river protection institution. The Trust is a hybrid public-private arrangement that features the best characteristics of each sector.

The proposal is based on these assumptions:

1. While the idea for this article originated before the January 2001 national monument designation, this designation is now taken as a "given" and becomes part of the context for this proposal.

2. The existing legal regime is used as much as possible. The proposal avoids "wishing" ourselves out of the problem of inadequate resource protection. While the Trust does require some legislative and administrative changes, the goal is to use existing laws and policies creatively to minimize (although not eliminate) the reliance on new legislation, the enactment of which is uncertain.

3. Successful natural resource protection is neither entirely in the domain of government nor in the domain of the market. The best features of government (e.g., the ability to regulate behavior directly) and market mechanisms (e.g., flexible, voluntary relationships) are enlisted in a hybrid that provides a tailored proposal protecting the Missouri River Corridor.

4. The Missouri Breaks region has many different constituencies. A successful protection strategy must enlist all these constituencies in order to develop legitimate and stable corridor protection.

II. Resource Protection Goals for the Missouri Breaks

The resource management goals for the Missouri Breaks region, extending from Fort Benton to upstream of Fort Peck Reservoir, are suggested by the problem statement. They are also obvious to anyone who carefully studies the region:

- Maintaining the Missouri Breaks' natural and historic character. The area is a historic and national treasure. We must ensure that its essential character is protected for the benefit of future generations.

- Undertaking resource restoration, principally Cottonwoods and other keynote flora and fauna. Human activities have altered the river and affected riparian species and habitat, and these degrading trends must be reversed.
• Encouraging citizen cooperation while minimizing cost and governmental regulation. Resource protection is greatly enhanced when local citizens also share the goals, participate in achieving them, and benefit from their success.

III. MISSOURI BREAKS CONSTITUENCIES

The Missouri River is both a local and national resource, and this fact is reflected in both the mixed land ownership patterns throughout the region and the different reasons Americans value the area. The corridor is severely checker-boarded, meaning that private, state, and federal lands are quilted together in a patchwork system that bedevils effective land stewardship. The river corridor is also symbolic of some of America’s great heroes (Meriwether Lewis, William Clark, Sacagawea), the nation’s westward migration, and the West’s original natural beauty. The river corridor is also part of the ancestral home of Plains Indians, homesteaders, and their descendants who all carved difficult but special lives in a beautifully harsh landscape.

The Missouri River Corridor Trust is based on careful recognition that all these constituencies have legitimate claims to participate in resource management decisions concerning the Missouri River Corridor. Specifically, the relevant constituencies are:

• neighboring residents, many of whom who own land in the corridor and all of whom have “proximity” interests that often extend back many generations;
• other persons in the region or nationally who may have visited the area, but whether they ever visit, value the area’s natural and historic character; and
• local, state, tribal, and federal governments who have differing responsibilities for land and resources in the area.

IV. THE VENEER OF EXISTING RESOURCE PROTECTION

Both the federal government and the State of Montana have acted repeatedly to protect the Missouri River Corridor. While important steps, these efforts have delivered less protection of the natural and historic character of the area than is commonly appreciated. Indeed, the legal regime governing the land and water of the area is as haphazard as the pattern of checker-boarded ownership.

A. State Ownership of Bed and Banks

When Montana achieved statehood in 1889, the state received title to
the bed of the river below the ordinary high water mark. In 1936, shortly before the completion of Fort Peck Dam, the Charles M. Russell National Wildlife Refuge was created, but the refuge extends only ten river miles upstream from Fork Peck Reservoir into the Missouri River Corridor.

B. Wild and Scenic River Designation

On October 12, 1976, President Ford signed legislation adding the 149-mile segment of the river from Fort Benton to Fred Robinson Bridge to the Wild and Scenic River system. The river certainly epitomizes wild and scenic values, but the designation primarily effects only federal land. Especially from Fort Benton to Judith Landing (90 river miles downstream), the corridor is a mix of federal, private, and state trust lands. The boundaries of the wild and scenic designation average a mile or less on each side of the river.

Under the Wild and Scenic Rivers Act, the protected area cannot contain more than 320 acres of land on both sides of the river, per river mile, measured from the ordinary high water mark (the upland limit of state ownership). When governmental ownership exceeds 50 percent of the acreage in an area, which is true below Judith Landing, the United States cannot acquire any more land by condemnation under the auspices of the Act’s provisions. Only those federal lands within 1/4 mile of the river are withdrawn from mining.

Under the specific legislation designating the Wild and Scenic Missouri, the Secretary was given very limited authority to acquire land in the first 40 miles downstream of Fort Benton. Below Coal Banks Landing, the Secretary may acquire land as necessary for “rim-to-rim protection” of the river and can condemn scenic and public access easements.

No explicit reservation of water was made for the wild and scenic portion of the river. Under the federal reserved water rights doctrine, however, sufficient previously unappropriated water is impliedly reserved to fulfill

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4. Under the constitutional “equal footing doctrine,” states admitted to the Union after the thirteen colonies receive ownership of the bed and banks of navigable rivers. See Pollard v. Hagan, 44 U.S. 212 (1845).
5. This does not include school land sections or in-lieu land selections. See Andrus v. Utah, 446 U.S. 500 (1980).
8. Id. § 1277(b).
9. Id. § 1280.
the purposes of the land reservation (here, water rights for instream flows). The priority date for this reserved right is a rather junior 1976.

C. Water Reservations

Montana has an innovative water reservation program allowing public entities to establish instream flow rights and conditional future rights for consumptive uses (usually irrigation and municipal purposes). In 1992, the Montana Department of Natural Resources and Conservation (MDNRC) adopted water reservations for the Missouri River above Fort Peck Reservoir. Approximately 164,000 acre-feet per year (ac-ft/yr) were reserved for the future consumptive needs of fifteen municipalities and seventeen conservation districts and projects. Most of these entities are upstream of the Missouri River Corridor.

Instream flows were also obtained by government agencies including the Montana Department of Health and Environmental Sciences (MDHES), the Montana Department of Fish, Wildlife and Parks (MDFWP), and the Bureau of Land Management (BLM). For water quality purposes, MDHES was awarded a reservation of 4,390 cubic-feet per second (cfs) (3,178,360 ac-ft/yr) at the upper end of the corridor (Virgelle) and a reservation of 4,815 cfs at the bottom of the corridor (Landusky). To aid fish and wildlife, MDFWP was awarded reservations of 4,280 cfs for the Missouri River reach from Marias River to Judith River and 4,652 cfs for the remainder of the corridor. These reservations run concurrent with those of MDHES. All of the reservations have a priority date of July 1, 1985, but the municipal and conservation district reservations are subordinate to the instream flow reservations.

D. State of Montana-BLM Compact

Montana is conducting an adjudication of all water rights, including reserved rights asserted by federal agencies; but the state has encouraged settlement of those claims through negotiations with the Reserved Water Rights Compact Commission. A compact was approved in 1997 quantifying the BLM’s water right claims for the Upper Missouri National Wild and Scenic River. The Montana-BLM Compact is in full satisfaction of

12. State of Montana-United States of America, Bureau of Land Management, Water Rights Compact (codified at Mont. Code Ann. § 85-20-501 (1999)). The compact, which also applies to Bear Trap Canyon Public Recreation Site, requires state water court approval; however, the document has not been submitted for approval. The compact has been ratified by the federal government.
the agency's claims on the mainstem based on the 1976 Wild and Scenic River designation.

The compact recognizes an instream flow right through the Missouri River Corridor with a priority date of 1976 although this date is essentially subordinated to pre-1988 uses. The size of the instream reservation is indeterminate: it is the water remaining in the river after subtracting (1) small (de minimis) upstream uses like lawn and garden watering; and (2) an "available water supply" budget that allows future consumptive uses totaling 1.2 million ac-ft/yr (ranging from 35,000 ac-ft in October to 219,000 ac-ft in May). The compact does not address the 1985 reservations, but it is likely that any development of the consumptive use reservations would be charged against the "available water supply" budget.

During spring run-off, when high flows are necessary for irrigation, Cottonwood propagation, and fish movement, the "available water supply" uses would ultimately deduct 3,083 cfs from the river in April, 3,650 cfs in May, and 1,033 cfs in June. Historically, mean flows have been 8,830 cfs in April, 13,640 cfs in May, and 18,240 cfs in June, measured at the top of the corridor, leading to an imputed compact instream flow right of between 5,747 and 17,207 cfs during this time of year (before de minimis uses). Of course, much of the irrigation may never be developed and, if it is, will provide late-season return flows.

E. National Monument Designation

President Clinton's January 19, 2001, designation of the Upper Missouri River Breaks National Monument describes at length the natural features, fish and wildlife, and historical sites that are protected. The designation withdraws 377,346 acres of federally owned land from any form of entry including future mines or oil and gas development. Existing oil and gas leases must be managed so as to prevent "new impacts . . . [on] the objects protected by this proclamation." The BLM is designated as the agency to manage the monument.

Although the Montana-BLM Compact does not explicitly preclude additional reserved right claims based on the monument designation, the proclamation explicitly waives any additional mainstem claims. Water is reserved for two tributaries, the Judith River (for Cottonwoods, antelope and deer habitat, and pallid sturgeon spawning) and Arrow Creek (for Cottonwoods). These tributary designations have a priority date of 2001, very junior to the late 1800s upstream rights already claimed on these tributaries.

F. Assessment

While the federal government has acted repeatedly to protect the char-
acter of the Missouri River Corridor, these steps are insufficient by themselves to adequately protect and restore the essential qualities of this segment of the West's most historic river. We can begin with the irony that the bed and banks of this federally protected river are actually owned by the State of Montana. Federal protection is further fragmented by checkerboarded land ownership, especially in the upper reach. The mixed land use pattern makes it difficult to control access to the corridor to protect the monument's core values. Federal land use controls affect only federal holdings, and pre-existing patents and leases must be honored.

Most importantly, the federal designation does not address the financial resources necessary to manage this almost 600 square mile area (60 percent of the size of Rhode Island) - not including the intermixed state and private lands.

Concerning water rights, again ironically, the flow of the river through the corridor is more adequately protected by the state's own water reservations of 4000+ cfs for instream purposes, which have priority over any future water development by the municipalities and irrigation entities most likely to make consumptive use of the river. Except in drought years, MDHES's 4,815 cfs reservation at Landusky effectively sets the future base flow through the corridor. Without these state reservations, these entities could use the "available water supply" budget before they would have to leave water in the river for the wild and scenic portion of the river.

V. MISSOURI RIVER CORRIDOR TRUST

A. Overview of the Proposal

This proposal involves the creation under state law of the Missouri River Corridor Trust, and the boundaries of the trust zone would trace the 149-mile Missouri Breaks area needing protection, overlaying existing private, state, and federal lands. The Trust area would in many areas be wider than the narrow band created by the 1976 Wild and Scenic River designation.

The Trust's basic Charter would state specific goals, similar to those enumerated at the beginning of this section. The Missouri Corridor Trust is proposed with important roles and opportunities for local landowners and governments, but balanced by regional and national concerns. Adjoining landowners have the additional opportunity to participate by enrolling their lands in the management program. The board of trustees is charged with preferring volunteer or contractual arrangement (both in land use controls and services) to regulation. Indeed, the board's regulatory power is limited to controlling access to the corridor and, if necessary, zoning a narrow "river vista" band to protect views near the river.
B. The Trust’s Charter

Anderson and Fretwell, in formulating a trust proposal for Utah’s Grand Staircase-Escalante area, have described the increasing use of trust arrangements in natural resource management. This proposal for the Missouri is also described as a trust in order to convey the important stewardship role of the institution. Unlike the Anderson-Fretwell proposal, however, the Missouri River Corridor Trust is created under state law pursuant to an intergovernmental agreement (Charter), negotiated and entered into by the State of Montana, the United States, counties appurtenant to the river, and neighboring Tribes.

The governing agreement would create a sixteen-person board of trustees with four trustees from each of the three constituent groups:

- **Local residents** - Persons residing within the Trust area who would elect their four trustees in local elections.
- **Regional and national patrons** - Interested persons regionally and nationally who would elect their four trustees in periodic internet elections. Any American citizen or legal resident (except for landowners within the Trust area) would be eligible to vote. Middle school and high school students would be entitled and encouraged to participate. The voting system would require verification of the voter’s identity and would prevent people voting more than once.
- **Governments** - Of the four governmental trustees, specific seats would be reserved for county, state, tribal, and federal governmental representatives. The participating counties (Choteau, Blaine, Fergus, and Phillips) would caucus periodically to select their representative, and it is likely that the seat would rotate among the counties. The Governor would appoint the State of Montana trustee. The three tribal governments (Rocky Boys, Fort Belknap, and Fort Peck) would caucus and rotate their seat in a similar fashion. The Secretary of the Interior would appoint the United States’ trustee.

The trustees would elect four officers who would also serve on the board. The parties creating the Trust would be free to specify a fiduciary standard, or a lesser standard of care, to be exercised by these trustees.

Existing federal and state law allows the creation of such an organization by intergovernmental agreement. Since the national monument is administered by the Bureau of Land Management, the Federal Land Policy and Management Act (FLPMA) authorizes the Secretary of the Interior to “enter into contracts and cooperative agreements involving the manage-

ment, protection, development, and sale of public lands.” Tribal governments may enter into contracts and intergovernmental agreements so long as the federal Non-Intercourse Act is not violated, which usually requires review and approval of the agreement by the Department of the Interior.

The 1972 Montana Constitution encourages strong local government and provides flexibility for innovative and cooperative governmental forms that might be pioneered to meet future needs. The Constitution indicates that local governments may “(a) cooperate in the exercise of any function, power, or responsibility with, (b) share the services of any officer or facilities with, (c) transfer or delegate any function, power, responsibility, or duty of any officer to one or more other local government units, school districts, the state, or the United States.” This language provides enormous authority and opportunity for intergovernmental cooperation.

This broad authorization for intergovernmental cooperation has been amplified by passage of the Interlocal Cooperation Act and the State-Tribal Cooperation Agreements Act, allowing Montana public agencies to enter into agreements with Tribes to “perform any administrative service, activity, or undertaking that a public agency or a tribal government . . . is authorized by law to perform,” including taxation and fee levies.

C. Board of Trustee Powers

Other than legal and financial functions, the board would not engage in operations, choosing instead to contract for services. The board of trustees would have some core regulatory powers but would accomplish most of its purposes through competitive contracts issued to private firms and state, federal, tribal, and local governmental agencies. For instance, a contract for managing boating and camping permits might be awarded to TRW. A contract for protectively fencing a young stand of Cottonwoods might go to a local farmer. A contract for police services might be awarded to the Fort Belknap tribal government.

The board of trustees would have the following powers under the Charter:

- Own, acquire, or lease property including easements and water rights;

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14. 43 U.S.C. § 1737(b) (1999). FLPMA identifies “public land” as land owned by the United States and administered by the Secretary of the Interior. Id. § 1702(e).
17. Id. §§ 18-11-101 to -112.
18. This is the so-called “Phoenix Plan” where contracts for some municipal services, such as ambulances, are issued competitively but both private firms and public agencies, like the fire department, may bid.
- Negotiate land use controls with landowners within the Trust zone; contract for services such as concessions, policing, and environmental restoration; and limit and charge for access to the Trust area (property owners, of course, could access their own lands).
- Impose access fees, including hunting and fishing fees.
- Undertake environmental restoration programs, including programs benefiting fish and wildlife.
- Facilitate and participate in land exchanges.

The Trust may not need zoning authority since the initial strategy is to rely on cooperative action with neighboring landowners and contractual land use controls. The Secretary of the Interior already has condemnation authority to acquire scenic easements under the 1976 legislation. While the Secretary may not be able to delegate condemnation authority to the Trust, the Secretary could pledge to exercise that authority in conformity with Trust policies and recommendations. In the event that voluntary action and contractual restraints, coupled with the Secretary’s powers, are insufficient to maintain the natural and historic character of the corridor, the Trust probably could be granted zoning authority by the participating county governments, or these governments could establish a separate, multi-county zoning district overlapping the corridor.¹⁹

Strict development controls over the “river vista,” that narrow band between the canyon rims bracketing the river, would be necessary to prevent, for example, the construction of a Holiday Inn on the rim in full view of rafts on the river.

VI. RESOURCE PROTECTION STRATEGIES

Under the proposed arrangement and powers, the Missouri River Corridor Trust would have the capacity to address each of the resource management goals contemplated by this problem. The initial task of the board would be to establish performance standards addressing the Charter goals.²⁰ For instance, limits on the number of people visiting the corridor annually

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¹⁹. Montana law provides two methods for counties to zone rural areas. The county commission may establish a zoning district, but it must first have adopted a growth policy and zoning “may not prevent the complete use, development, or recovery of any mineral, forest, or agricultural resource” by the owner. MONT. CODE ANN. §§ 76-2-201 & -202, -209 (1999). If zoning is needed, this method probably would provide insufficient protection. Alternatively, 60 percent of the “freeholders” may petition the county commission to create a zoning district. Id. § 76-2-101. The zoning cannot regulate lands used for “grazing, horticulture, agriculture, or the growing of timber,” id. § 76-2-109, but these uses (unless taken to extremes) would be consistent with the corridor’s desired character.

²⁰. See Donald R. Leal & Holly Lippke Fretwell, Parks in Transition: A Look at State Parks, who report on a performance-based, “entrepreneurial budgeting system” used in the Texas state park system. “EBS is an innovative, incentive-based financing system that encourages and even challenges managers of individual parks to find new ways of raising revenue and saving money, while still protecting park
would be set, as would water quality parameters and the number of desired acres of Cottonwood regeneration. The board would utilize a variety of strategies to achieve these performance standards relying primarily on contract services and volunteer action. In responding to the specific Charter goals, these strategies might include the following.

A. Maintaining the Missouri Breaks’ Natural and Historic Character

The principal land use issues facing the Trust include checker-boarded land ownership, land uses incompatible with the natural and historic character of the corridor, and limiting access so that ecological systems are sustained and the visitors’ experience remains pleasant.

Some of these land management issues have been addressed by the President’s national monument designation. Grazing can continue. Existing mineral patents and leases can be developed, so long as new impacts are not created. Future mineral development is prevented. These limitations, however, do not apply to private or state land.

The Trust could undertake a variety of land management activities, some of which are beyond federal authority. It could facilitate land exchanges to consolidate ownership and use its funds to purchase parcels. Such exchanges and purchases would be particularly useful in acquiring state trust lands near the river that, because of constitutional requirements to maximize income, might otherwise have to be developed more intensely. The Trust could contract with private landowners to purchase conservation easements beyond the river rim, limit nonconforming land uses, undertake vegetation restoration on their lands, and otherwise work to achieve performance standards. The Trust or one of the participating governments could accept land donations that would provide tax benefits to the donors.

In the event these steps were insufficient to protect the natural and historic character of the region, the Trust could impose zoning on private lands near the river. Since existing uses would be grandfathered, no takings problem would arise.

Access is a valuable asset that can be marketed to the Trust’s advantage, but access must be carefully and fairly limited so that the natural and historic character of the region is not overwhelmed. The intergovernmental agreement would vest the Trust with police power and control over public roads in the vicinity of the corridor so that land access is controlled, motor-

amenities. At the heart of the EBS is the performance agreement. It is in essence a contract between the park manager and [agency] officials to meet certain goals.” Id.

ized vehicles minimized, and permit fees collected. Local landowners, of course, would retain normal access to their lands.

Use of the river for boating and rafting would also be limited. The Trust would itself market access permits for noncommercial entries but would contract with concessionaires for commercial trips (who, in turn, would make royalty payments to the Trust). The value of these commercial trips could be enhanced, for instance, by offering specialized river trips revisiting Lewis and Clark sites, “repainting” Karl Bodmer scenes, or studying natural science.

Some of the access permits would be distributed to landowners who are participating in land management activities and who have elected to receive payment in the form of permits that can be used, sold, or held for investment. Recognizing that corridor access should not be limited to wealthy bidders or adjoining landowners, a final block of access permits would be available to other persons who have demonstrated their interest in the Missouri, an idea that is discussed later.

One potential problem with these access controls is presented by the “public trust” doctrine, a judicial doctrine (based on common law) recognizing the public interest in tidal waters and important rivers and lakes. In 1984, the Montana Supreme Court recognized, in cases known as the “stream access decisions,” that both the Montana Constitution and the public trust doctrine allow that “any surface waters that are capable of recreational use may be so used by the public without regard to streambed ownership or navigability for nonrecreational purposes.” Does the state constitution and the public trust doctrine prevent the Trust from limiting recreational use of the Missouri River through the corridor?

The simple answer is “no.” The constitutional provision cited by the court specifies that surface water is “the property of the state,” but goes on to recognize the legislature’s power to regulate water uses and rights. After the stream access decisions, the legislature passed a detailed stream access law. Although the supreme court invalidated provisions of the law that impaired private property rights (e.g., camping on private land), it held that “[t]he balance of the statutory scheme accords with the Montana Constitution and the opinions of this Court.” This holding indicates that the legislature can limit public access to this portion of the Missouri River, if done

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22. This earned-access notion was initially developed by Joseph L. Sax in Mountains Without Handrails: Reflections on the National Parks (1980).
24. 682 P.2d at 171.
reasonably and to advance a public goal. This conclusion is supported by
decisions in other states indicating that the public trust doctrine requires
legislatures to carefully consider decisions affecting publicly important wa-
ters.\textsuperscript{27}

\textbf{B. Undertaking Resource Restoration}

Efforts are needed to restore the Cottonwood stands along the upper
Missouri, as well as to provide more favorable conditions for fish and wild-
life. These steps must include both improved land management (including
the activities already discussed) and sufficient instream flows.

Research that is underway suggests that limited Cottonwood regenera-
tion results from a reduction in high river flows that "produce the bare,
moist surfaces necessary \ldots in locations that are safe enough from future
disturbance to allow the survival to mature trees;" "hot-season" grazing;
and winter ice scouring.\textsuperscript{28} Apparently, a high flow event once every nine
years is sufficient to regenerate Cottonwood stands.\textsuperscript{29}

While the problem statement suggests that the Canyon Ferry reservoir
complex near Helena may have leveled river flows to the detriment of the
Cottonwoods, that interpretation may not be supported by the research or
the long-term hydrologic records. Scott \textit{et al.} have reported, based on a
112-year record period, that 72 percent of the Missouri Breaks Cotton-
woods were established during flood events exceeding 50,000 cfs.\textsuperscript{30} At
Virgelle, the last U.S. Geological Survey (USGS) gage above the corridor,
flows have exceeded 50,000 cfs for only a few days in 75 years; and only in
June 1948 was the mean monthly flow in excess of that amount. June is the
high run-off month for the upper Missouri. For that month, long-term mean
flows into Canyon Ferry are 12,620 cfs. The mean flows out of Canyon
Ferry are 8,697 cfs, indicative of reservoir filling. Below Canyon Ferry, the
Missouri is a "gaining river," and flows are 50 percent higher when they
reach Virgelle, where June mean flows are 18,240 cfs.\textsuperscript{31} Even if Canyon
Ferry did not exist, Missouri River flows through the corridor would not
reach 50,000 in an average year. If Scott \textit{et al.} are correct about the rela-
tionship between high flows and Cottonwood propagation, successful re-
generation will depend on extraordinary run-off events, a general reduction

\textsuperscript{28} Gregor T. Auble & Michael L. Scott, Fluvial Disturbance Patches and Cottonwood Recruitment
Along the Upper Missouri River, MT, in 18 WETLANDs 546, 556 (1998).
\textsuperscript{29} Id.
\textsuperscript{30} Michael L. Scott \textit{et al.}, Flood Dependency of Cottonwood Establishment Along the Missouri
River, Montana, USA, 7 ECOLOGICAL APPLICATIONS 677 (1997).
\textsuperscript{31} U.S. Geological Survey, Montana Streamflow Data, at http://www.usgs.gov/mt/nwis (last vis-
of consumptive uses throughout the entire upper basin, or human cultivation of the trees.

Still, water could be acquired by the Trust to experiment with the value of higher flows for Cottonwood and certainly more water will help other species. Acquisitions could include existing senior rights along the Missouri and its tributaries, additional releases from Canyon Ferry, and additional releases from reservoirs in the Bureau of Reclamation’s Sun River Project (Gibson, Pishkun, and Willow Creek reservoirs). The purchase of state rights would be easiest. Leases or forbearance agreements might be cheaper since they could be negotiated to allow the Trust to take the water once every five or ten years, but leases have been controversial in Montana and would require special legislation. Water releases from Canyon Ferry would have to be coordinated with the Corps of Engineers to avoid complicating the Corps’ management of downstream reservoirs to avoid spring flooding.

Certainly, state-law water rights could be acquired and transferred on the Judith River and Arrow Creek. For instance, on Arrow Creek, a landowner claims a relatively senior (1916) irrigation right with a flow of 200 cfs (No. 41R-W-200730-00). This right could be purchased and transferred downstream to benefit Cottonwood regeneration. Additionally, the 1992 state water reservations soon will be up for a ten-year review by the Department of Natural Resources and Conservation. The Trust might apply for any of these reservations that are modified or cancelled. However, human planting of Cottonwoods, coupled with fencing to prevent wildlife and stock grazing may be a more effective way to restore these trees.

C. Encouraging Citizen Involvement

The Trust affords many opportunities for local residents and landowners to become involved and benefit from its activities. Residents are entitled to elect their four trustees. Landowners may contract with the Trust to create conservation easements or undertake restorative measures on their land. Local residents and landowners alike may contract to undertake restoration on public lands or provide river guiding or policing services. They may also become employees of Trust contractors. Many of the local residents have especially good backgrounds to undertake the cultivation of Cottonwoods - they are farmers.

VII. Trust Finances

The Missouri River Corridor Trust would have a combination of capital and recurring financial needs. Capital expenditures would include visitors’ centers, camping and boating facilitates, and, most importantly, re-
source restoration. The types of annual operating expenses would be similar to those of federal or state parks, i.e., administration, maintenance, policing and access monitoring, visitor greeting and site interpretation, and land/water stewardship. The goal is to develop revenue sources other than federal appropriations to meet these needs.

A. Capital Expense Budget

Other federal and state park units provide financial experience that is helpful in estimating capital and annual budgets for the Trust. A 1994 survey of major National Park Service units indicates that the average national park, with approximately 200,000 acres, has existing improvements valued at $10 million and capital needs of $7.5 million ($12.5 million and $9.5 million, respectively in current dollars). While the Missouri River Corridor has 50 percent more land than the “average” park, most visitation is likely to center on the river, thereby reducing the number of facilities that need to be constructed. A reasonable estimate of the Trust’s initial capital needs (depreciating assets) would be $25 million spent over a five-year period.

Resource restoration, such as Cottonwood regeneration, acquisition of land and water rights, and the improvement of fish and wildlife habitat, is appropriately considered a capital expenditure since these expenditures enhance the environmental richness and the long-term value of the area. The costs of resource restoration must also be based on other environmental restoration experiences, which are difficult to compare to the Missouri River Corridor. At one extreme, $7.8 billion has been budgeted for the restoration of the Florida Everglades. Southern California Edison has committed to spending $50 million over 35 years to mitigate the environmental effects of its Sierra Nevada hydroelectric dams. Restoration of the Lake Tahoe basin is estimated to cost $300 million over ten years.

The Missouri River Corridor is rather pristine by comparison to these areas. Much of the restorative work will be limited to reforestation, habitat improvements, and water rights acquisition. The cost of purchasing or leasing water rights is difficult to estimate since Montana does not have an established water market. In recent years, the Montana Department of Fish,

32. See Leal & Fretwell, supra note 20.
35. Friends of the Earth, RIVERS OF POWER 7 (2000).
Wildlife, and Parks has leased 3,614 ac-ft/yr of water for instream flows for $100,000. The Bureau of Reclamation leased 40,000 ac-ft of water, for instream purposes, from the Boise River Water Bank for between $6 and $7 per ac-ft. In Washington, the Bureau leased 4,300 ac-ft of water, again for instream purposes, for between $23 and $35 per ac-ft. At these higher rates, 100,000 ac-ft of water, equivalent to almost 10 percent of the average June flows at Virgelle, could be acquired for $300,000.

A generous estimate of the resource restoration needs for the Trust also would be $2.5 million per year, leading to a total capital budget (including deprecating capital assets) of $37.5 million over five years or $7.5 million per year. Obviously, the need for capital expenditures would not end after five years but would probably decline. These long-term needs are not addressed here.

B. Annual Operating Budget

The Missouri River Corridor Trust is designed to be a lean organization, with staffing limited to administrative and financial functions. Many of the revenue-generating functions, such as permitting and guides, would be awarded, after competitive bidding, to contractors.

In terms of annual operating expenses, the “average” national park has a budget of $1.7 million per year and 40 full-time (equivalent) employees, although the budget for Hovenweep National Monument in Arizona had a budget of only $125,000 in current dollars while Yellowstone National Park had a budget of $22.5 million in current dollars. The FY 2000 budget for Grand Canyon National Park exceeds $17 million. In their proposal for a trust for the Grand Staircase-Escalante, Anderson and Fretwell assume a budget of $6.4 million per year for the 1.9 million-acre area, which is over five times larger than the Missouri River Corridor.

An estimate of $3 million per year is projected for these annual operating expenses - slightly less than half of those estimated for the much larger Grand Staircase-Escalante monument in Utah. Thus, the Trust’s annual financial needs for the first five years are calculated as follows:

<table>
<thead>
<tr>
<th>Capital expenses</th>
<th>Depreciating improvements</th>
<th>$5.0 million</th>
<th>$7.5 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource restoration</td>
<td></td>
<td>2.5 million</td>
<td></td>
</tr>
<tr>
<td>Annual operating expenses</td>
<td></td>
<td>3.0 million</td>
<td></td>
</tr>
<tr>
<td>TOTAL/YR.</td>
<td></td>
<td></td>
<td>$10.5 million</td>
</tr>
</tbody>
</table>

38. Tarnished Jewels, supra note 33.
C. Revenues

These major sources would be used to generate the resources necessary to meet the capital and annual budgets for the Trust: (1) revenues from access fees and other activities at the corridor; (2) in-kind, cooperative actions supporting Trust goals; and (3) revenues from a surcharge imposed on hydroelectric power produced at the Pick-Sloan Project dams on the Missouri River and its tributaries. These are the Trust's most significant assets, and careful utilization should yield sufficient revenues to meet the Trust's capital and operating budgets.

1. Access Fees

Access fees would come from leasing activities, visitation fees, river permits, and hunting and fishing fees. Much of the federal land is leased for grazing (there are apparently 55 grazing allotments covering 229,423 acres\(^4\)) and hunting and fishing occurs on both state and federal land. Both of these revenue sources should be assigned to the Trust, but they would probably yield less than $100,000 per year. Oil and gas royalties are not considered here since it would be politically difficult to obtain an amendment to the federal Mineral Leasing Act to dedicate these revenues to the Trust.

Reportedly, 43,000 people visited the Missouri Breaks region in 1997 by land.\(^{41}\) During the last two years, between 5,000 and 5,500 people rafted or canoed on the river for an average of four days each (a voyage down the entire corridor can take six to ten days). The BLM has estimated approximately 22,000 visitor days on the river for each of these two years.\(^{42}\)

For revenue purposes, it is estimated that the Trust itself would successfully collect access fees only from half the land visitors, a group that will increase due to the Lewis and Clark Centennial. These fees are estimated at $5 per person per day. The Grand Canyon National Park currently charges $10 for seven days. The Trust would also directly collect the permit fees for noncommercial boating and rafting trips on the river. The Trust would competitively auction the concessions for guided hiking, boating, hunting, and fishing trips through the corridor. Many of these guided trips would be high-dollar, specialty tours emphasizing art/photography, history, or natural science. Both land and water access would be capped to retain the natural, historic, and remote values of the region.

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41. Solitude Under Siege: Increased Tourism Poses Threat Upriver, KANSAS CITY STAR (Nov. 9, 1997).
It is difficult to predict future river visitation, the amount of revenue it would produce, and in the case of auctioned concessions, the franchise payment to the Trust. At present, a four-day guided commercial trip in the Corridor costs $650 per person; for six days, $975.\footnote{43} This is a $160 per day rate. Grand Canyon National Park has the most experience with intense management of boating and rafting. In 1999, the park saw 115,500 user days on commercial river trips and 54,500 user days on noncommercial trips.\footnote{44} For noncommercial trips, the park charges a $100 application fee, a $100 per person rafting fee, and if people hike along the way, a $100 per person hiking fee (the children’s rate is much less). Commercial guides charge between $250 and $350 per day for nonmotorized trips.\footnote{45} Gross revenue from these commercial trips is apparently between $29 million and $40 million per year!

Comparing other forms of popular recreation, Country Walkers charges $385 per day for walking tours of the Glacier-Waterton parks area (lodging included). National Geographic charges $325 per day for guided trips to Yellowstone and Grand Teton National Parks or trips to Bryce, Zion, and Grand Canyon National Parks (hotel included). The daily rate at Disneyworld ranges between $43 and $48, depending on the ticket ($38 for children), but the visitor has many other opportunities to spend money, as every parent learns. Ski lift tickets at major western resorts are now $55 to $65 per day.

The Trust’s share of commercial river trips would be the result of an auction among potential concessionaires. Concessions at national parks have been notoriously undervalued. Studies early in the 1990s indicated that park concessions were at 3 percent, compared to 9 percent collected by other federal agencies. In 1999, Grand Canyon concessions apparently paid a 5 percent royalty on $118 million in revenue.\footnote{46}

Based on these investigations, it is estimated that Missouri River Corridor river trips, increasing at 10 percent per year, will average 27,000 visitor days for each of the five years. One-third of these trips will be noncommercial, one-third will be basic commercial, and one-third will be enhanced commercial. The Trust will collect $50 per day per person for noncommercial trips and will impose a 9 percent royalty on the basic guided trips ($250 per day) and the enhanced trips ($350 per day). These assumptions lead to the following projections of Trust revenues per year:

\begin{itemize}
  \item \textbf{Noncommercial trips:} $50 per day per person, resulting in $13.5 million per year.
  \item \textbf{Basic commercial trips:} 9 percent royalty on $250 per day, resulting in $2.4 million per year.
  \item \textbf{Enhanced commercial trips:} 9 percent royalty on $350 per day, resulting in $3.15 million per year.
\end{itemize}

\footnotetext{43}{Montana River Expeditions, \url{http://www.montanariver.com} (last visited May 29, 2001).}
\footnotetext{44}{U.S. Dep’t of Interior, Nat. Park Serv., 2001 Grand Canyon National Park Profile (2001).}
\footnotetext{46}{U.S. Dep’t of Interior, \textit{supra} note 44.}
Receipts from leases, grazing, hunting & fishing fees $100,000
General access (22,000 @ $5) 110,000
River access:
  Noncommercial (9,000 visitor days @ $50) $450,000
  Basic commercial (9,000 visitor days @ $250 x 9% royalty) 202,500
  Enhanced commercial (9,000 visitor days @ $350 x 9% royalty) 283,500
TOTAL/YR. $1,146,000

2. Cooperative Action

Local residents and other regional and national patrons of the Missouri River Corridor would provide services to the Trust. Some of these services would be under contracts, such as for habitat improvements. Some of these services would be on a volunteer basis. Some of the local contractors might choose to accept river access permits as payment. Since these permits would be transferable, these people might hold these permits for investment purposes, selling them in years when all permits have been sold or in future years when the value has increased.

A block of the river access permits would be reserved for volunteers or others who do not have the financial means to purchase permits. For local residents, these activities could include working at the visitors' center, resource restoration, guiding, or policing. For others outside the region, the permits would be awarded to the winners of competitions focusing on the Upper Missouri. For instance, high school classes around the country might compete in designing the best web site explaining the relationship between river flows, grazing, and Cottonwood populations. Adults could compete by submitting essays on why they want to want to visit the corridor or teach a class on Lewis and Clark at a public school. These people could also obtain access to the corridor by volunteering to join work crews directly benefiting the area.47 The work might include fencing Cottonwood saplings or conducting surveys of aquatic species. The difficult task of selecting the successful applicants would be handled by the four "regional/national" trustees.

This block of river access permits would reduce the Trust revenues. Since these permits would be awarded in consideration of services to the Trust, overall Trust expenditures would be reduced - at least partially. Any shortfall should be made up by the last revenue source to be discussed, hydropower.

47. The Montana-Dakota BLM office reports that 199 volunteers contributed almost 11,000 hours of services in 1999, valued at $155,000 ($14.35/hr.).
3. Hydropower Revenues

Free-flowing water is probably the most valuable Trust asset. The river through the corridor is the principal scenic and life-giving resource, but it also is unconsumed water that benefits all downstream water users. The beneficiaries include hydroelectric power users, recreationalists, municipalities, industries, and the navigation industry. If these flows were not protected as instream flows, they could be consumptively developed or even exported outside the basin (subject, of course, to what the U.S. Supreme Court decides is Montana’s equitable share of this interstate river).

The value of the instream flow made possible by protection of the Missouri River Corridor could be charged to specific downstream water users, but the administrative and collection problems of doing so would be daunting. The hydropower produced at Missouri River mainstem dams provides a more practical method of capturing the downstream value of these instream flows. A surcharge on hydropower production at Pick-Sloan dams targets the most valuable use of water, is easier to collect, and has approximately the same final incidence as a more precise levy. Indeed, the surcharge would apply to large out-of-basin hydropower users in areas providing none of the land or water necessary for hydropower production.

Hydroelectric power production was one of the purposes of the Pick-Sloan Missouri Basin Program, authorized by Congress in 1944 (other purposes of this multipurpose program included flood control, irrigation, navigation, recreation, preservation and the enhancement of fish and wildlife). Pick-Sloan power is marketed at wholesale by a federal power marketing authority, the Western Area Power Administration (WAPA). On an interim basis, WAPA can adopt higher hydropower rates, but the tariff must be filed with and confirmed by the Federal Energy Regulatory Commission (FERC). 48

Although Pick-Sloan power is marketed through two divisions of WAPA, this proposal considers only hydropower produced at mainstem Missouri River dams (Canyon Ferry in Montana; Garrison in North Dakota; Oahe, Big Bend, Fort Randall, and Gavins Point in South Dakota) and marketed through WAPA’s Eastern Division. 49 Eastern Division power plants generate more than 10 million megawatts hours (MWh) in an average year.

The hydropower produced at these Missouri River dams is sold to more than 300 customers, including rural electric cooperatives, municipal-

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48. The Secretary of Energy’s interim rate-setting authority has been delegated to WAPA by 42 U.S.C. § 7152(g)(1)(E) (2000). The interim rate schedule must be filed with FERC within five days. See 18 C.F.R. § 300 (2000).

49. Eastern division power also includes one-half of the production at Yellowtail Dam in southeastern Montana. Although on a tributary, this production has been left in this proposal since WAPA’s Eastern Division data is not easily disaggregated.
ties, public utility districts, irrigation districts and federal and state agencies. Surplus power is also sold to power suppliers including investor-owned utilities and power marketers. While this hydropower is sold to entities in twenty-one states and Canada, downstream Missouri River states benefit most from this relatively cheap source of electricity: North Dakota, 1.2 million MWh; South Dakota, 2.0 million MWh; Nebraska, 2.0 million MWh; Iowa, 1.3 million MWh; and Missouri, 1.1 million MWh. Minnesota, most of which is outside the Missouri River basin, receives the largest share of Missouri River power, 2.8 million MWh in FY 2000. By user group, Minnesota municipalities are the largest consumers of this power, using almost 1.5 million MWh in FY 2000, followed by public utility districts in Nebraska (1.3 million MWh). Montana, which provides more Missouri River water than any other state, consumes 0.8 million MWh.

WAPA markets its hydropower at different rates under firm and interruptible power contracts. In FY 2000, more than 13 million MWh of Missouri River hydropower was sold for over $260 million, yielding an average wholesale rate of $.0199 per kilowatt hour (kWh) (19.9 mills). Nationally, by comparison, electricity from all sources was retailed at $.066 per kWh in 2000.\textsuperscript{51} WAPA’s Missouri River power sales are under-valued if compared to comparable sales by other electricity producers in the region. In 1999, the U.S. Department of Energy’s Office of Policy studied wholesale rates charged by federal power marketing authorities such as WAPA and compared them to wholesale rates charged by other suppliers in the region.\textsuperscript{52} WAPA’s overall $.016 per kWh rate\textsuperscript{53} was a full cent less than wholesale rates charged by other suppliers in the region ($0.026/kWh). For 1998, this resulted in an “implied revenue loss” of $407 million to WAPA.\textsuperscript{54}

Assuming that Missouri River hydropower was marketed at the regional average rate of $0.026 per kWh, revenues would have increased during FY 2000 from $260 to $340 million. This $80 million per year difference\textsuperscript{55} represents a potential revenue stream that could be tapped for the Missouri River Corridor Trust.

\begin{itemize}
\item \textsuperscript{50} Western Area Power Administration, \textit{Operations Summary 2000} (2000).
\item \textsuperscript{51} U.S. Energy Information Administration, \textit{Monthly Energy Review}, Table 9.9 (May 2001).
\item \textsuperscript{53} Composite rate for sales from all of WAPA’s facilities including Boulder, Parker, Central Valley, and others.
\item \textsuperscript{54} U.S. Dep’t of Energy, \textit{supra} note 52, at Table 13.
\item \textsuperscript{55} Of course, sales may decline if rates are increased, but the argument here is that the hydropower resource is significantly under-valued and even a modest increase in rates would produce revenues sufficient for Missouri River Corridor Trust purposes.
\end{itemize}
Based on our budgeting to this point, it appears that we need to generate about $9.4 million per year to balance the Trust's budget during the first five years (this would likely decrease as capital improvements and restoration are completed and the popularity of the area grows). To raise this $9.4 million per year from hydropower would require that the average rate for Pick-Sloan power to be increased from $.0199/kWh to $.0206/kWh, still below the regional average wholesale rate of $.026/kWh for non-federal power.

4. Financial Recap

The Trust's projected finances may be summarized as follows:

<table>
<thead>
<tr>
<th>Expenditures:</th>
<th>$10,500,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital (including restoration)</td>
<td>$7,500,000</td>
</tr>
<tr>
<td>Operating</td>
<td>3,000,000</td>
</tr>
<tr>
<td>Receipts:</td>
<td>10,546,000</td>
</tr>
<tr>
<td>Access &amp; other fees</td>
<td>1,146,000</td>
</tr>
<tr>
<td>Proceeds of hydropower surcharge</td>
<td>9,400,000</td>
</tr>
</tbody>
</table>

VIII. Conclusion

Past federal and state efforts have provided important protections of the Missouri River Breaks region; but lasting resource protection comes through the more difficult, careful weaving of the Corridor's future into the law of the river and a web of voluntary and long-term contractual arrangements. As we have seen, an impressive array of existing legal and financial tools is available to fashion these arrangements. The Missouri River Corridor Trust suggests how these tools might be combined into a flexible, forward-looking entity that involves the governments having jurisdiction in the area, local residents, and regional and national patrons of the river.

While the Trust relies on existing tools, some additional steps must be taken. The involved governments must negotiate the intergovernmental agreement, and they must be supported by their citizens. The Secretary of the Interior will have to coordinate the Department's actions with the Trust. The Montana legislature will have to dedicate hunting and fishing receipts to the Trust and perhaps authorize additional water rights leasing and limitations on river access. WAPA will have to increase the rates for Pick-Sloan hydroelectric power, and this action must be confirmed by FERC. While this surcharge is modest and still leaves Pick-Sloan power undervalued, it may be opposed by those who argue that one area should not benefit exclusively from the increase. Political support could be engendered by proposing a basin-wide fund, supported by a larger surcharge, that would be used for environmental restoration along the entire river, the settlement of Indian water right claims in the basin, and basic municipal water supplies.
for communities lacking these public services. Even after subtracting surcharge revenues dedicated to the Trust, a margin of $70 million per year of undervalued hydropower still exists for such a basin-wide fund.

Tools are inanimate objects unless they are used creatively by individuals who see opportunity and who dare to try. Ultimately, the protection of the Missouri Breaks depends on leaders who can envision and articulate a promising future and set forth practical steps for achieving it. Fortunately, the Missouri River has a long tradition of such opportunity, leadership, and courage.