Just Add Water
Reclamation Projects and Development Fantasies
in the Upper Basin of the Colorado River

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Abstract
The history of the development of the American West is full of countless examples of promoters seeking to encourage outside investors to buy land, invest in mines, and build railroads. The history of water projects in the region is no different. Residents of communities such as Grand Junction, Colorado, recognized early on the two-fold dilemma that they faced: irrigation and reclamation projects would be critical to the economic growth of the area, and the funding for these projects would have to be obtained from sources outside the region. The promoters of such projects relied upon booster literature in order to entice investors with alluring (and often false) descriptions of the potential wealth to be had in these “irrigated Edens.”

While some parts of the American West quickly developed into large-scale irrigation areas, other regions, such as the Upper Basin of the Colorado River, languished. The small population, remote location, and marginal land in this area sharply limited its political and economic clout. These limitations, however, became less problematic following the passage of the Reclamation Act of 1902, when the federal government became the funding source of last (or increasingly first) resort for water projects in the American West. Since the federal government had access to larger financial and construction resources than other entities, and federal projects merely had to break even rather than turn a profit, it was now much easier for Upper Basin projects to secure funding.

The advent of federal funding, however, did not eliminate the role of local promoters and booster literature. In fact, their role became even more important because now instead of simply trying to impress a single investor, or even a handful of investors, it was necessary to convince a whole federal bureaucracy as well as Congress about the merits that a particular water project had to offer. Gradually, over time, the scale and nature of these projects began to change. Instead of simple
stand-alone irrigation projects, local and regional boosters, with the active support of the Bureau of
Reclamation, began to promote massive, multi-phased projects that covered entire river basins.

This paper will examine the booster literature that was used to promote the largest such
plan—the Colorado River Storage Project. This six state project received congressional approval in
1956, and the arguments made on its behalf by supporters indicate how much the scope and nature
of reclamation projects changed over time. Rather than simply serving irrigation needs, the Colorado
River Storage Project was intended to promote rapid and massive industrial development in the
Upper Basin region. Instead of simply touting the benefits this project would have for agriculture,
which would have been the norm for promoters in the past, the booster literature also touted the
potential for industry, as well as other diverse goals such as increased recreational opportunities and
even improved national defense.

Just as promoters in the past often over-hyped the projects they were supporting, the booster
literature for the Colorado River Storage Project also raised unrealistically high expectations. Instead
of becoming the new industrial heartland of America, the Upper Basin today still remains a rural,
agricultural region. In some instances, such as oil shale, industrial development actually backfired,
leading to an economic setback for the region. Thus large-scale water development in the Upper
Basin did not ultimately turn out to be the total panacea that local residents had desired.

In the northwest corner of the state of Colorado, straddling the border with
Utah, is a 325 square mile federal preserve called Dinosaur National Monument.
Although the monument encompasses the scenic canyons of the Green and Yampa
Rivers, most tourists visit Dinosaur to see the preserved remains of the prehistoric
creatures that give the area its name. The main dinosaur exhibit is located at the
visitors' center on the Utah side of the monument, where a modern glass and steel
building encloses the uplifted remnant of a prehistoric riverbed that contains the
fossils of various ancient reptiles.

Most tourists never journey past the visitor center, but the road does continue on for several more miles. After crossing over the Green River, drivers reach the end of the asphalt pavement and continue on a narrower dirt track. Just to the left of the road are carved petroglyphs, which serve as reminders of the first settlers in this area. Around the next bend in the road is a site that preserves the memory of a more recent one.

A woman by the name of Josie Morris settled here about 1914. Like many things about Josie (her exact age, how many husbands she had—legal or otherwise) this date is open to question. Park historians do know that she lived here until her death in 1964, most of the time on her own, leading a fairly self-sufficient life which she occasionally subsidized through poaching or producing moonshine. The site that Josie chose to homestead was a particularly good one because a natural spring bubbled up out of the ground near her cabin, which provided Josie with plenty of water for her own use as well as for irrigating her orchard and garden. She also used the nearby Cub Creek for watering her livestock.

Not long after Josie settled at this site a neighbor challenged her use of the water in Cub Creek. He did so, not in the stereotypical Western way of a gunfight, but by taking Josie to court. Under the legal doctrine of prior appropriation, the downstream neighbor claimed he had first rights to use any water in the creek. Citing this doctrine the judge ruled that Josie could not continue to draw water from Cub Creek. However he then went a step further by ruling that if any water from the spring on her property drained into the creek, the spring could be considered a tributary of Cub Creek; and therefore the neighbor would be entitled to claim that water as well. In order to comply with the court’s decision and still preserve her
option to use the spring, Josie built several small ponds to catch the water and even flooded some of her own pastures to prevent any spring water from washing into the creek. Only by impounding the water (and in the case of her fields, wasting it) was she able to preserve her right to use it.

Josie’s struggle to maintain control of her own water supply offers an example in microcosm of the larger struggle over the control and development of water in the American West. In a region that is in large part defined by the absence of high levels of precipitation, this struggle is not just limited to feuds between neighbors but also involves conflict between counties, states, and whole river basins. The effort to control water has typically focused on two issues: determining who has the legal right to use the water; and determining how best to put that water to use. It was this second goal that led to the passage of the Reclamation Act of 1902—legislation which allowed the federal government to assist (as well as subsidize) directly in the development of water resources in the West.

As the title of the legislation might suggest, the primary focus of early federal reclamation projects was on irrigating new crop land. Over time, however, the scope of these federal projects grew and shifted away from being primarily agricultural. Instead they began to include such diverse elements as hydro-electricity, mining, recreation, industrial development, and regional planning. This shift away from agriculture to industry was particularly noticeable in the Upper Basin of the Colorado River over the course of the twentieth century. The Upper Basin also provides a clear example of how this shift, made with the best of intentions, could end up having unintended (or even disastrous) consequences.

Like many facets of western water law, the Upper Basin of the Colorado River is a legal fiction. Created during negotiations over the Colorado River Compact of
1922, the basin is defined as that portion of the drainage area for the Colorado River which is located upstream from Lee's Ferry, Arizona. The basin includes portions of five states: Wyoming, Colorado, Utah, New Mexico, and Arizona. The legal concept of the Upper Basin and Lower Basin was created in part to help divide the flow of water in the river between the various competing states, and especially to give the other river basin states protection from California's steadily growing water consumption and political power. Despite assurances and visions that the Lower and Upper Basins would be developed at the same pace, the Lower Basin quickly absorbed the majority of federal reclamation spending. As a result, it would be more than thirty years after the compact was signed before the Upper Basin would see the construction of larger-scale federal reclamation projects.

Reclamation development in the Upper Basin, both public and private, has long suffered from a series of limitations: limited arable land, limited funding sources, and limited local skill and equipment. What the region did not suffer from was a limited desire for reclamation. An examination of the history of reclamation development in the area around Grand Junction, Colorado shows that almost as soon as the first outside settlers arrived, they identified reclamation development as crucial to the economic potential of the area. The stages of reclamation development in Grand Junction followed a pattern similar to what took place in other parts of the West: small, locally-controlled projects gave way to larger-scale efforts that required outside funding. In the early 1880s farmers near Grand Junction began developing a series of irrigation efforts on the banks of the Colorado River (then known as the Grand River). These projects soon proved to be unviable on their own and were consolidated into a larger valley-wide canal project (known as the Grand Valley Canal) designed not only to irrigate land on the banks of the river, but also further away. This more ambitious
project exceeded the financial resources available in the Grand Junction area, so a series of outside investors ended up funding construction of the canal. This process eventually culminated in the canal company being owned in 1885 by the Travelers Insurance Company of Hartford, Connecticut.

Even outside, private-sector financial resources, however, were not enough to construct and maintain a viable canal project, and in 1894, following a series of reorganizations, foreclosure auctions, and court challenges, the Grand Valley Canal switched from being a for-profit corporation to a not-for-profit mutual company. This, of course, left project supporters with the same problem as before: how to secure financing for further irrigation development in the valley when such projects appeared unlikely to turn a quick profit. At this point the federal government and the Reclamation Act of 1902 played a key role in changing the direction of development in the West. By merely requiring that projects eventually had to repay their costs (with a liberal definition of repayment), rather than generate immediate profits, the Reclamation Act transformed hundreds of previously uneconomic projects into potentially viable ones.

In the first two decades of the twentieth century, the federal Reclamation Services undertook to build a series of projects in the region around Grand Junction. The most ambitious of these projects was the Gunnison Tunnel (1909), which diverted water from the Gunnison River through a six-mile tunnel into the Uncompahgre Valley. While federal involvement did allow for the construction of larger-scale projects, it did not always improve the financial success of these projects. The Grand Valley Project (not to be confused with the Grand Valley Canal), located on the Colorado River upstream from Grand Junction, was approved by the federal government in 1911 with a projected three-year repayment period once the project
was finished. Although it was completed in 1917, repayment did not start until 1928, and only after the government changed the repayment period to 40 years, wrote off $812,000 in construction costs, and instituted a reduced payment plan for the first five years. Similarly, the Uncompahgre Project (of which the Gunnison Tunnel was part) originally had a repayment period of 10 years, which the government then extended to 20 and later 40 years. Despite the extensions, however, local farmers proved unable to meet the revised repayment schedules, so in the early 1950s Congress approved an extension for the project that spread the repayment period out over 106 years, and wrote off $1 million of the original $10 million cost.

While these federal projects were much larger in scope than the previous private-sector projects, they remained much smaller than the development occurring in the Lower Basin of the Colorado River. Early projects there included Laguna Dam, Roosevelt Dam, and Coolidge Dam. Additional projects, such as the All-American Canal and Imperial Dam, followed the completion of the Colorado River Compact in 1922. Despite the seeming success of the Bureau of Reclamation, the federal agency actually had severe financial difficulties during its first thirty years of existence, owing in large part to the chronic cost overruns on projects and the inability of farmers to pay back construction costs in a timely manner. The turning point for the Bureau was Hoover Dam.

Standing 726 feet high, Hoover Dam at the time of its construction in 1935 was the largest reclamation project in the world. The dam, however, not only represented a physically larger project for the Bureau of Reclamation, it also represented a new kind of project. Whereas past projects had typically focused on irrigation and flood control benefits for the immediate surrounding area, Hoover Dam offered little to the sparse populations of southern Nevada and northern Arizona.
Instead the bulk of the benefits literally flowed down the river to Southern California in the form of improved flood control for the Imperial Valley, and, more importantly, hydro-electricity for Los Angeles.

The advent of hydro-electricity had a two-fold impact on the Bureau: one, it transformed the agency from a financially-troubled program into an economic powerhouse; and two, it encouraged the Bureau to start planning more, and larger, integrated regional projects rather than continuing to concentrate on traditional, stand-alone initiatives. In particular, the financial boom from hydro-electricity led Reclamation officials to start planning for so-called “cash register” dams, which sometimes had no merit other than generating electricity. The profits from these dams were used to offset the losses typically incurred by irrigation projects.

Hoover Dam was the beginning of the so-called “golden age of reclamation,” which lasted for the next forty years. The Boulder Canyon Act of 1928, which authorized construction of Hoover Dam, ushered in this era by also authorizing the Bureau of Reclamation to investigate feasible projects in the Upper Basin of the Colorado. In 1946 the Bureau issued its preliminary plan for the region, a wish list of over one hundred proposed dams—one for virtually every river in the Upper Basin. There were so many proposed projects in the plan that to build all of them would have required more water than existed in the basin. The Bureau demonstrated the high level of political power it now had by announcing that it would not consider any projects in the Upper Basin until the states in the area had reached a formal agreement on dividing the Colorado River’s water among themselves. The states quickly complied, and the Upper Basin Compact was formally signed in 1948.

Following ratification of the compact by Congress the following year, the Bureau of Reclamation released a revised plan in 1950 entitled the Colorado River
Storage Project (CRSP). The CRSP called for the construction of ten major dams and reservoirs on the Colorado and its tributaries. These reservoirs, however, would not serve any irrigation or flood control purpose. Instead they would regulate the flow of the river in order to help maximize the production of hydro-electricity. In turn, the profits from the sale of this electricity would help offset the cost of building a dozen smaller regional irrigation projects.

While the stated core goals of the Colorado River Storage Project may have been water and light, the Bureau and its boosters actually had a much larger agenda in mind: to transform the Upper Basin of the Colorado River from a desert wasteland into a new industrial and recreational center for the United States. Clearly influenced by the model of the Tennessee Valley Authority, which during the New Deal had helped to promote the development of one of the most impoverished regions of the South, the promotional literature supporting the CRSP stressed the broad cornucopia of benefits that would flow from the project—not only for the Upper Basin but the entire nation.

Perhaps not surprisingly, one of the major potential benefits the promotional literature touted about the Colorado River Storage Project was that it would unleash the vast untapped wealth of natural resources in the Upper Basin. Pamphlets featuring maps of the region speckled with various resource symbols described the region as the “treasure chest of the nation.” Others called it a “yawning giant.” Estimates varied about how many valuable minerals were located in the area (ranging between 42 and 200), but among those mentioned were lead, copper, iron, zinc, phosphates, gold, silver, oil, natural gas, gisonite, gypsum, tungsten, molybdenum, and vanadium. Promoters were quick to emphasize that the Upper Basin was the chief domestic source for such strategic minerals as uranium, and contained the world's
largest reserves of oil shale. All that was needed to unleash these potential riches was power and water. Failing to do so, warned a pamphlet produced by the mining industry, “can hurt our entire national economy and our national defense program.”

Another benefit that the literature promoted was the potential for industrial development from the CRSP. This industrial growth was directly linked to the expanded use of natural resources. Regional boosters expressed frustration over the fact that while mining took place in the Upper Basin, the extracted raw materials were shipped elsewhere for processing and manufacturing. With power and water from the Colorado River Storage Project, plants could potentially be built within the area to use these materials instead. This in turn would help to diversify the local economy. These same boosters, however, stressed that industrial growth would require “fabulous amounts of water,” not just for the manufacturing process but also for the workers who would relocate to the area seeking employment.

Boosters did not just expect growth in rural areas; they also anticipated that there would be growth in the cities of the Upper Basin as well. Arguments in support of the need for more urban water took two contradictory forms. Much of the promotion literature claimed that due to “the continued shift of population from East to West,” western cities such as Salt Lake and Albuquerque had reached the limits of their growth owing to a lack of new water supplies. Denver in particular was held up as a dire warning because it had instituted water rationing. (This, however, was a somewhat misleading example since the rationing was due to a severe, multi-year drought which hit Colorado in the early 1950s—a fact that the literature did not mention.) In contrast to the literature which claimed that more water was needed to catch up with existing growth, others argued that the water was needed to spur on additional growth. These promoters freely admitted that their population growth
estimates were “based on the assumption that additional water can be secured,” and that “if no additional water is to be obtained only a relative small increase in population can logically be expected.”

When examined together these two arguments reveal a clear flaw: if urban growth in the region had reached a limit due to the lack of additional water, then the Colorado River Storage Project, which would introduce a larger but ultimately finite amount of water, could at best only delay this problem but not solve it. The day of reckoning would be merely deferred, not eliminated. The promotional literature also ignored the fact that the CRSP was not designed to serve urban water needs. The cities cited as examples, in fact, are located outside the Upper Basin watershed. The only way for the CRSP to serve these cities was to provide new sources of water for agriculture so that existing water supplies could be diverted out of the basin. The literature also never addressed the question of whether additional growth was necessary or even desirable. (Such a question would undoubtedly have struck the promoters as completely irrational.) Instead promoters argued that the CRSP was necessary so the West “can keep pace with the rest of the nation.”

Supporters of the Colorado River Storage Project were quick to point how the economic benefits of all this anticipated growth would ripple through the region, particularly in the form of increased tax revenue. One promotion publication argued, “[t]he claiming of arable land areas out of desert wastes would add millions to taxable land values in Utah and the Upper Basin. And the adding of supplemental water in areas restricted to early maturing crops would further expand the tax base.” Senator Clinton Anderson of New Mexico, a strong proponent of the CRSP, stressed how the project would lead to the development of new industry and “the money that those industries pour into our State in tax revenues will help to support our schools...."
These rosy tax scenarios, however, failed to mention the fact that the influx of a larger population to provide the work force for these new industries would necessarily lead to increased public expenditures for more roads and schools, thus raising the question of whether or not the increased revenue would even be sufficient to cover the new expenses. As if to deflect this question, one promoter argued that if the CRSP was not approved “the property values adjacent to the Colorado River in the Upper Basin will diminish in value and waste down the river with the water.”

While many of the potential benefits predicted for the Colorado River Storage Project, such as an enhanced agricultural infrastructure and an improved tax base, were similar to those that nineteenth-century reclamation boosters had touted, some of the benefits were distinctly new. One such new potential benefit was increased recreational opportunities. Promoters were quick to point out the fact that the bulk of the proposed reclamation projects would be located between “two transcontinental highways and much nearer to the eastern populations desiring” recreational opportunities. The CRSP, it was promised, will “greatly expand the nation's existing facilities for fishing, boating, camping, water-skiing, swimming and other recreational activities. It will open up new scenic areas, now inaccessible. Colorful natural bridges, spectacular canyons and historic sites will be made available to the people of the nation.”

However, promoters were also quick to stress that the full recreational potential of this region would only be realized if all the proposed projects in the CRSP were built, because it was these individual projects that would allow for access to recreational areas. The construction of Glen Canyon Dam would create Lake Powell, which in turn would allow people to reach Rainbow Bridge National Monument “by means of a scenic short boat trip. In its current isolated status, Rainbow Bridge is
accessible only by an arduous pack trip by horseback or by a long river trip and a 10-mile hike. As a result, comparatively few people have seen this wonder of the world.” Flaming Gorge Dam promised to “make accessible the awesome scenery of the deep gorge of the Green River....” The Echo Park Dam promised to open the Lodore Canyon, which currently is “dangerous for boat trips, even with experience guides,” “to people who love true beauty.” Additionally promoters claimed that these projects even had scientific value because they would enable “[s]cientists and naturalists [to] have new access to the primitive area.”

Clearly much of this rhetoric was aimed at countering the attacks being made on the Colorado River Storage Project by environmentalists (or as they were called then, conservationists). Promoters of the project sought to combat these attacks in a variety of ways, one of which was by labeling environmentalists as elitists. The rhetoric proponents used suggested that reclamation projects had the potential to make nature more democratic. “Without the projects, there will be no development, and only a few men with means and with physical stamina and courage to endure dangers will ever be able to see and appreciate the grandeur of these Rocky Mountain canyons.” “[T]he Colorado River Storage Project will provide full enjoyment of areas that are now open only to a few—the people who can afford expensive river trips and the people who care to risk these trips.” “It will make available this area to the people instead of restricting it to a few.”

Another angle of attack was to claim that development would make nature more family friendly. “The projects will open new vistas for conservationists, tourists, fishermen, nature lovers and the American family.” “With development of the dams, many of these areas will be accessible. A few roaring rapids will be turned into placid lakes where a man can take his family for a boating or fishing outing.” However, lest
promoters be accused of taming too much of the wilderness they were quick to add, 
“[a]nd there are still a hundred miles of river rapids in the same general area, for those
who like this sport.”

Promoters even went so far as to claim that the Colorado River Storage Project
had the potential to improve nature. CRSP reservoirs promised to “provide numerous
havens for ducks and other migratory birds.” These havens were “not now present but
vitaly needed.” Additionally, “the project will turn silt-laden rivers into clear streams.
The Green and Yampa rivers now are muddy most of the time because of heavy
deposits of silt. Dams to be constructed will hold this silt in check, turning brown
rivers into clear and sparkling streams.” “Navajo Dam will turn the muddy, sluggish
San Juan River into a clear reservoir.” These clear streams in turn would offer new
recreational opportunities. “Flaming Gorge Dam will make a clear water fisherman’s
stream out of the lower Green River now too clouded with mineral deposits to be a
game stream.” What promoters did not know was that the process by which these
rivers became clear would destroy the local river ecology and drive out the native fish.
The new fishing holes would be world famous and strictly artificial.

Another group for whom the Colorado River Storage Project would offer a
mixed legacy was the Navajo. Promoters, however, promised that the CRSP would be
a supreme blessing for the tribe. In order to make this promise, promoters had to take
the unusual gambit of attacking the past actions of the federal government and the
white settlers in the region. Pro-CRSP literature argued that the Navajo “often go
hungry because they have been shunted aside onto marginal lands with inadequate
water supplies. They also lack clothing and shelter.” The newspaper in Farmington,
New Mexico, which published a special supplement in support of the CRSP featuring
the plight of the Navajo on the cover, claimed that the reason “30 per cent of the
tribe” lived at subsistence levels was because “we Americans have broken so many solemn treaties.”

In contrast to this history of past abuse, supporters of the Colorado River Storage Project maintained that reclamation was the key to helping the Navajo. One source of help would be the construction of Navajo Dam on the San Juan River in New Mexico, which promoters claimed would lead to industrial development in the area and therefore provide jobs to tribal members. The second source of help was the proposed Navajo Indian Irrigation Project, which aimed to irrigate up to 125,000 acres of land on the reservation. A third source of help, though one with no obvious link to the CRSP, was the promise that “this project will help provide educational opportunities for the children of the Tribe,” by leading to the construction of schools for sixteen thousand Navajo. More broadly, promoters stressed that the CRSP would help in the “rehabilitation of this long-neglected segment of the original American society,” and offer “partial fulfillment of promises made to the Navajo people in the treaty of 1868 and never lived up to.” Project supporters also offered a more tangible reason than honor for non-Navajos to support these initiatives. “This project will help the Indians help themselves. In the long run, it will save the government money because it helps the Navajos to become self-supporting, instead of having to be supported by government expenditures.”

Promoters, however, seemed to have set a low threshold for success. One document claimed that the construction of Navajo Dam “would give a decent standard of living to one-fifth of [the tribe]....” Unfortunately these lowered expectations proved correct. The Navajo Indian Irrigation Project has ultimately turned into a political boondoggle. Unlike other component projects of the Colorado River Storage Project, which were developed and administered by the Bureau of Reclamation, the NIIP was
quickly turned over to the Bureau of Indian Affairs where it turned into a financial black hole, “which yielded few benefits to the tribe and provided far less employment of tribal members than originally negotiated.” Perhaps it was this unproductive experience that led the Navajo to oppose further federal reclamation projects on the Colorado River when they were proposed in the 1960s.

Just as the promoters of the Colorado River Storage Project pointed out the ways that the Navajo had suffered injustice, project supporters also pointed out the ways that they perceived themselves to have also been treated unfairly. Ironically, even though promoters argued that the CRSP would create new recreational opportunities and help Indians, they also complained that these two factors had hindered development in the region. “In the four Upper Basin states, and particularly in Utah, there are expansive areas taken up by Monuments, Parks, Forest Service, Grazing Service, Indian Reservations, and other reserves of various kinds, all tax free. And now some would deprive the common people of this area of one of the few resources which is available for development and use.” Senator Arthur Watkins of Utah expressed jealousy about the economic growth occurring in other parts of the country. “Our Detroits and our Pittsburghs seem to grow ever larger, while the industrial have-not areas content themselves with a few industrial handouts.” He later expanded his complaint to include foreign aid projects. “We have spent 300 millions to help Italians build reclamation projects, yet the Italians are under no obligation whatsoever to repay any of the costs of those projects. We are willing to repay in dollars and cents for the capital on irrigation, and dollars and cents, with interest, for municipal uses and for power.” Senator Frank Barrett of Wyoming took a different tact, borrowing from the states-rights rhetoric of southern politicians. “Overpowering and vital interest of these Western States are involved, and after all, people of the
West ought to have the major right to make the decisions affecting their welfare."

While some promoters argued that "justice" required that the Colorado River Storage Project be built, others warned of the regional devastation that would ensue if the CRSP did not receive congressional approval. George Clyde, the Commissioner of Interstate Streams for Utah, offered a legal doomsday scenario. "If the project is not authorized, the rights of the Upper Basin states to their share of the Colorado River will be effectively destroyed." He continued, "Failure of Congress to authorize this project will be the equivalent of their confiscating these rights in the Colorado and making them available to the Lower Basin and Mexico." Others warned that this was the "last watering hole" for the Interior West. "The Colorado River is the last water resource available in many parts of the area to supply additional water for municipal and industrial purposes." "Testimony given...left no doubt that the future of [these] states is dependent upon the plan." Congressman Wayne Aspinall of Colorado offered an even more dire scenario. "[S]tand on a canal bank as it winds its way over the land. On the uphill side, you have virtually a barren desert with but scrub growth and little green. On the downhill side you have green and growing crops, houses, cities and life. That is the choice in the West, irrigation or desolation; abundance or scarcity."

Sometimes the apocalyptic predictions promoters used would end up undermining the very argument they were trying to make. "When [the Colorado River's] waters have been used, there is no other substantial supply on tap. The future of the Southwest will have dropped back with its past." Thus, it seems, whether or not the CRSP was built the West was doomed to economic collapse.

An unusual variation on this doomsday theme was the plea by promoters to build the Colorado River Storage Project not for them but for the sake of "our best crop, our children." Senator Arthur Watkins in a letter to Secretary of the Interior
Oscar Chapman complained, “For many years the young people of my state have been migrating in large numbers to other states where there would be opportunities for homes and livelihoods. The limiting factor in Utah has been lack of water and power.” Utah’s other Senator, Wallace Bennett, echoed these sentiments but conjured up images of the old orphan trains when he predicted, “We shall have to continue to export our children to other states because opportunity for them is lacking.” George Clyde complained, “Utah has long been a feeder state. Its raw materials have been shipped to other centers for processing. Its children have had to seek employment elsewhere.” One promoter cited the plight of the children in his attack on efforts by environmentalists to block the CRSP.

Natural scenery is a beautiful thing, but economic security can also be very attractive. Approximately 30% of the native born population of Utah must seek employment outside the state, after the state has educated and trained them in the art of making a living. Power and water for irrigation would unlock many of Utah’s natural resources and enable more [of] the people of the state to remain home.

The Republican Party of Utah endorsed this focus on the future when it passed a resolution supporting the Colorado River Storage Project and claiming that among its many benefits the project “will provide new homes and opportunities for our children and their children....” As another promoter put it, with the CRSP “[o]ur young men and women can build their destiny here.”

While much of the promotional rhetoric surrounding the debate over the Colorado River Storage Project focused on local concerns, supporters also were quick to claim that the nation as a whole would benefit in a variety of ways. One area of emphasis was how the national economy would grow as a result of the CRSP. Promoters claimed that the industrial development of the Upper Basin would lead to
a higher standard of living in the region. As a result of this, “[t]he people of this reclamation area...will want and need new products—cars, tractors, stoves, refrigerators, household items and equipment. Thus new markets will be created for products manufactured in other parts of the country.” Even during the construction phase for the CRSP the country as a whole would benefit “because an estimated 81 percent of the construction costs will be spent in markets outside the Upper Colorado River Basin.” The project was even touted as a financial boon for the federal government due to the increased income tax that would be generated in the newly prosperous region, not to mention the revenue the government would gain from the sale of hydro-electricity generated by the CRSP dams.

While many of the supposed benefits that promoters claimed would come from the Colorado River Storage Project seemed fairly straightforward and conventional, there was one set of benefits that was quite different. Supporters claimed that in addition to all the various economic rewards from the CRSP, this project was vitally necessary in order to increase the security of the United States from the Cold War threat of the Soviet Union. Some promoters emphasized the untapped reserves of strategic minerals, such as uranium, oil shale, gilsonite, and bentonite, among others, located in the region—minerals that could only be fully developed with water and power from the CRSP. Others claimed that the country needed to develop all of its potentially irrigable land. Senator Wallace Bennett warned that recent history had shown that the United States could not rely on foreign supplies during wartime, and that we must develop domestic sources.

Supporters of the Colorado River Storage Project also argued that the project would strengthen the nation’s industrial capacity in the event of an atomic war. There were two aspects of this argument that promoters set forth. One was that the CRSP
would allow for industrial dispersion into the interior of the United States. Senator Bennett warned how “[t]he overwhelming bulk of our productive capacity could be obliterated by a few well-placed bombs or missiles, for our key industries are concentrated in just a few areas.” A group lobbying on behalf of the CRSP produced an entire brochure quoting the testimony of national Civil Defense Administrator Val Peterson on why the project was necessary for national security. In it, he expressed concern about the “[t]he potentially fatal vulnerability of concentrations of industry....” Peterson went on to call “attention to the work that Russia is reported to have done in developing a second line of industry behind the Ural Mountains.” Senator Arthur Watkins took this idea a step further when he suggested that “the United States, too, should build its own industrial defense bastion behind the protective peaks of our own ‘Urals,’ the great Rocky Mountain Range.” Local promoters in Utah further suggested that not only was Utah “made up of many valleys, each protected by high and rugged mountains on all sides giving industries the best form of strategic protection,” but also that “Utah’s geographical position is such that it is a distributing point and has excellent transportation facilities to all the West Coast’s harbors, the nation’s railroad systems, and/or air bases.” Promoters, however, were careful to not present themselves as a threat to the industrial welfare of other parts of the country by clarifying that “[n]o one is advocating that our industries be relocated,” rather that they simply be duplicated in the interior.

The second argument concerning industrial security that supporters of the Colorado River Storage Project made was that the Upper Basin not only offered geographic security, but geologic security as well. In comments that seemed to foreshadow the dialogue from Dr. Strangelove concerning “a mine shaft gap,” Civil Defense Administrator Peterson warned that “the balance of victory between two
military powers may well rest with the nation whose civilian population can best minimize the effect of an atomic attack and get up off the ground organized and ready.” To help facilitate this, Peterson pointed to the examples of “underground defense plants and military installations in Scandinavia,” which he said were cheaper to build “under the rock” than on the surface. Project supporters, seizing on these comments, were quick to point out that “[d]eep gorges abound in the project area. Power plants and industrial plants could be tunnelled into the sheer rock walls at canyon floor level, providing protection from atomic blast.” Senator Watkins went a step further, envisioning a whole network of underground installations.

The Mountain West has thousands of feet of solid rock in mountain and canyon walls which can be utilized to protect vital industries and government installations from atomic attack. These natural bomb shelters can be located in the ribs of the aptly named Rocky Mountains. Tunnels and caves could be developed in these mountains at widely separated locations to give this nation an impregnable industrial bastion that would be secure even against the awesome weapons of the atomic and hydrogen bombs.

All of this could be possible, CRSP promoters promised, just by developing water and power in the region.

Supporters of the Colorado River Storage Project did not simply worry about the impact of an atomic war upon American industry; they also stressed how the project would benefit civilian evacuations. Senator Bennett pointed out that “[i]f we don’t have water for our present needs in some areas, it will obviously restrict our ability to meet our civil defense responsibilities....” Civil Defense Administrator Peterson warned what those responsibilities might be. “In this nuclear age, if an attack is made..., it will be necessary, first, to get our people away from our critical target areas,...and if a city is hit by a hydrogen bomb, we will not be able to re-enter for some time, and possibly never....” “It would be fortunate if we had areas with water and power facilities far removed from our vulnerable and heavily populated urban
centers to which these people could go." “The Upper Colorado Development, by providing water and power, would pave the way for taking care of those who by necessity may be forced to evacuate our West Coast cities.” The chief thrust of all these various defense arguments was that an opponent of the CRSP was an opponent of national security.

Despite the “un-American” taint, opponents of the Colorado River Storage Project did manage to get some aspects of the project changed. Chief among them was the deletion of the proposed Echo Park Dam that was scheduled to be built inside Dinosaur National Monument. When Congress agreed to drop the dam, environmentalists agreed to drop their opposition to the overall project. (A decision that many of them later came to regret when Glen Canyon was subsequently flooded as part of the project.) As a result of this compromise, the Colorado River Storage Project finally received congressional approval in 1956. Passage of the project, however, did not mean that booster efforts in support of the CRSP came to a halt. Although Congress had agreed to the project in principle, federal reclamation officials still had to obtain annual financial appropriations from Congress in order for the project to continue.

In order to help secure this ongoing funding, project promoters continued their publicity campaign on behalf of the Colorado River Storage Project. Just as the promotional literature in the 1950s had tried to demonstrate how the CRSP addressed various local and national concerns, the new literature evolved over time to reflect changes in those national concerns. By the 1970s the communist threat had been replaced by the energy crisis. Instead of talking about strategic minerals, promoters now focused on the potential fuel sources located in the Upper Basin. Developing these sources would help the United States to meet “our national goal of
freedom from reliance on foreign oil." Among the resources waiting to be fully
developed in the area were coal and oil shale. As in the past, however, promoters
stressed that water was the key component to developing this material. Now, however,
they went even further with their water pitch by announcing that "[s]ince the natural
supply of the Colorado River will someday be inadequate, ways of augmenting the
flow of the river are being investigated." Thus promoters continued to dream about
even bigger and more grandiose reclamation projects for the Upper Basin.

When examining the literature that promoters used in support of the Colorado
River Storage Project it is clear that the size, scope, and ambition of the CRSP
exceeded anything ever envisioned by local boosters in the nineteenth century. One
question that comes to mind, however, is were the boosters in the 1950s any more
accurate in their predictions than the boosters had been in the 1880s? Did the
development they foresaw come to fruition with the construction of the CRSP? The
quick answer would be no, but a more complete answer would suggest that the
outcome of the CRSP stands as a model for the law of unintended consequences.

Charles Wilkinson, in his book Fire on the Plateau, talks about the "Big
Buildup" on the Colorado Plateau (a region that substantially overlaps with the Upper
Basin) between 1955 and 1975. While there is no doubt that massive development
took place in the region during this time period, it was not the type of development
that Colorado River Storage Project supporters had envisioned. Instead of extracting
and processing natural resources on-site, companies continued the practice of hauling
materials away to be processed elsewhere. Virtually no large-scale industrial
development took place in the region, even after the CRSP was completed, nor did
substantial urban growth occur in the area either. While cities such as Salt Lake,
Phoenix, and Denver, located outside the Upper Basin, have grown exponentially,
there continues to be no major urban presence within the region. The Upper Basin instead remains a “plundered province” providing raw materials to other parts of the country.

Ironically, the economically most promising natural resource in the area proved to be the most financially devastating one. Oil shale had long been touted as an energy source that would potentially make the Upper Basin one of the wealthiest regions of the country. The process required to extract the oil from the rock, however, is an expensive and inefficient one, which requires large amounts of water and produces large amounts of spent shale. Promoters of the CRSP proclaimed that the reclamation project was vital to ensure that sufficient water would be available to allow the oil shale industry to grow. When the sharp rise in oil prices took place in the 1970s it appeared that these predictions would, indeed, come true. Major oil companies began buying up property in the area around Grand Junction, Colorado, in anticipation of this new boom. Instead, things suddenly went bust. In May 1982 Exxon, the dominant company in the oil shale business, suddenly shut down its operation, triggering a regional economic depression that lasted for nearly a decade.

The demise of the oil shale industry should not, however, be taken as an indication that the Colorado River Storage Project failed all the objectives that promoters proclaimed for it. The CRSP did result in the Bureau of Reclamation becoming a major hydro-electric producer in the region (although the chief beneficiary has been the Lower Basin rather than the Upper). Perhaps the one area where the CRSP has had the greatest success, however, has been in creating a massive recreation industry in the Upper Basin. The tourist revenue generated in 1997 at Lake Powell alone was $455 million, derived from approximately 2.5 million visitors. While environmentalists have never forgiven the building of Glen Canyon Dam, it is obvious
that its construction has had a sizable, long-term economic impact on the region. This is clearly another instance of unintended consequence because, while the promoters did talk about the recreational enhancements that the CRSP would produce, recreation was clearly not the primarily benefit they were looking for from the project. Promoters, however, are nothing if not ingenious when it comes to reinventing themselves and their claims. The current tourist slogan for Lake Powell is a prime example of this, Lake Powell: America's Natural Playground.

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ENDNOTES

1. Information on Josie Morris from a park brochure entitled “Josie Bassett Morris.” Information about her water struggle comes from a plaque at the Josie Morris Cabin site. Copies of this information were obtained from David Whitman, Chief Interpreter, Dinosaur National Monument, 4545 East Highway 40, Dinosaur, CO 81610–9724.

2. While I am not trying to claim that the Upper Basin is simply Grand Junction writ large, I am initially focusing on this particular area for three reasons: Grand Junction became the largest commercial/industrial hub within the Upper Basin, the development patterns in Grand Junction mirror those that took place throughout the basin, and a larger body of historical literature and analysis is available for this area than other parts of the Upper Basin. See William Wyckoff, Creating Colorado: The Making of a Western American Landscape, 1860-1940 (New Haven, 1999), 226, 231; Lawrence J. MacDonnell, From Reclamation to Sustainability: Water, Agriculture, and the Environment in the American West (Niwot, 1999), 93–95; and Brad F. Raley, “Private Irrigation in Colorado's Grand Valley,” Chapter 9 in Fluid Arguments: Five Centuries of Western Water Conflict, ed. Char Miller (Tucson, 2000).

3. MacDonnell, From Reclamation to Sustainability, 95.


Worster, *Under Western Skies*, 66; Richard Lowitt, *The New Deal and the West* (Norman, Oklahoma), 82.


Trade Promotion Committee of the Vernal Junior Chamber of Commerce, “Principal


17. Upper Colorado River Commission, The Colorado River Storage Project, booklet, [1956?], folder 1, Book Collection 38; Upper Colorado River Grass Roots Inc., Impact: An outline of the many benefits to be derived from the Colorado River Storage Project, pamphlet, [1954?], folder 1, Book Collection 38; Upper Colorado River Grass Roots Inc., The Colorado River Storage Project: A project to benefit ALL Americans!, pamphlet, [1954?], folder 1, Book Collection 38.


27. Upper Colorado River Grass Roots Inc., Impact: An outline of the many benefits to be derived from the Colorado River Storage Project, pamphlet, [1954?], folder 1, Book Collection 38; Upper Colorado River Commission, The Colorado River Storage Project, booklet, [1956?], folder 1, Book Collection 38; Upper Colorado River Grass Roots Inc., The Colorado River Storage Project: A project to benefit ALL Americans!, pamphlet, [1954?], folder 1, Book Collection 38.


