

Appendix 3: A Beginning Compilation of Stakeholder Perspectives on the History of Dolores River Diversions, Agriculture, and Recreational Uses of the Dolores River

A nonpoint source pollution watershed plan is a project through which stakeholders come together to discuss water-quality issues in a watershed and define voluntary solutions. Prior to the Dolores Project, the primary influence on the Dolores River above its confluence with the San Miguel was the trans-basin diversion of the Dolores River into the Montezuma Valley by precursors to the Montezuma Valley Irrigation Company (MVIC). The construction of McPhee Dam and the Dolores Project set in motion changes that involved the transition from the MVIC era beginning in the early part of the 20th century, to the Dolores Project construction era from 1980 to 2000 to the post-construction era from 2000 forward. These changes have expanded irrigated acreage, extended the irrigation season, and provided a firm water supply for domestic use and economic development – all of which have benefited the communities in Dolores and Montezuma counties including the Ute Mountain Ute Tribe. Managed releases from McPhee Dam have also affected boaters and fish and riparian populations below the dam.

Because the changes brought about by the Dolores Project have profoundly reshaped all of the interests described above, it is important to consider the rich history and culture of the Dolores River and the communities that have benefited from the trans-basin diversion in the pre-McPhee MVIC era, as well as the adjustments set in motion during the construction era which continue into the post-construction period. All of these changes involve interrelated social, economic and ecological dimensions that provide the foundation for collaborative watershed planning going forward.

The Nonpoint Source Pollution Watershed Plan was undertaken by the Dolores River Dialogue in keeping with its ongoing efforts to improve ecological conditions downstream of McPhee Reservoir while honoring water rights, protecting agricultural and municipal water supplies, and allowing for the continued enjoyment of rafting and fishing. The interviewees' comments in this appendix reflect some of the history and values associated with this watershed and the changes described above. They provide essential context in support of viable and broadly accepted strategies for addressing water-quality issues in the Dolores River below McPhee Dam.

The original impetus for collecting these perspectives was to illustrate the views of the people who own and rely upon the water rights that the DRD's mission statement pledges to honor. In that same spirit, the effort was broadened to include the perspectives of recreational boaters. This historical appendix is not designed to suggest solutions to management issues on the river, but to provide a snapshot of the views of those who use, benefit from, and value the resources of the Lower Dolores River. The DRD-Steering Committee also recognizes that this appendix could grow to include the voices of others such as landowners in the river corridor, interests involved with salinity, mining and grazing, and other stakeholders. Therefore, this appendix is not meant to be the final story of all stakeholders' views; it is a start and it recognizes that many diverse voices and interests care about this watershed.

Early years in the Montezuma Valley

Water has always been the most significant limiting factor on growth in Southwest Colorado, and for millennia people worked to devise ways to capture and hold this precious resource. The Ancestral Puebloans who hunted and farmed across the arid mesas and arroyos of Mesa Verde and the Montezuma Valley commonly used catch basins and check dams to save rainwater and put it to use on their crops. Near Far View at Mesa Verde National Park lie the remains of an ingenious man-made, stone-lined reservoir 12 feet deep and 90 feet wide, connected to an irrigation ditch 4 miles long (*Grahame, John D. and Thomas D. Sisk, ed. 2002.*

Canyons, cultures and environmental change: An introduction to the land-use history of the Colorado Plateau. 01/22/13 <http://www.cpluhna.nau.edu/>.

The early explorers and speculators who ventured into the Montezuma Valley in the second half of the 19th century saw an area with plentiful sunshine and warm summers, ripe for farming and settlement, but lacking one key ingredient to make it flourish: a reliable water supply. People would spend a century struggling to turn that dream into reality.

About a mile and a half south of present-day Cortez, a tiny settlement including a saloon, store and post office sprouted in the early 1880s around a watering hole called Mitchell Springs. Historian June Head wrote about the springs in a Feb. 1, 2013, column in the *Cortez Journal*:

W.L. Glenn, the veterans service officer in Cortez did some research in the county records on Mitchell Springs and this is his report: “The springs are found under a rock. It was a large pit 8-by-10 foot deep where water collected. The springs had good drinking water but flow was not great. Across the creek west another spring was flowing.” (*June Head*)

The land around Mitchell Springs was too swampy for much development, and the tiny settlement disappeared as the town of Cortez began growing on higher land nearby. The people of Cortez continued to use the springs, according to Head, either hauling water themselves or taking it from a cistern at Market and Main streets that was filled by men who hauled it for the town.

Meanwhile, to the north, the Dolores River flowed through a narrow and mountainous valley ill-suited for large farms or municipalities. The settlers felt a logical action would be to bring the two resources together. But doing so would require tunneling through the divide between the Montezuma and Dolores valleys. “That must have been a big project to do with dynamite and horses,” said Keenan Ertel, the son of one of the irrigators interviewed for this report. “But they never let anyone stop them.”

In the late 1880s, following one unsuccessful project, two companies launched competing efforts to drill through the ridge. The Montezuma Valley Water Supply Company began work on a canal and tunnel in 1885. The mile-long tunnel, seven feet high and nine feet wide, was completed in 1889; the company also built a three-mile-long flume to Cortez, and water began arriving (*The River of Sorrows: The History of the Dolores River Valley, Chapter Three, Maureen Gerhold*).

The diversion tunnel was the start of developing this country. I walked through that tunnel once. It wasn't sealed. There were cracks, and rocks hanging down. There were some places it was hard to stand up, because it wasn't even that high. Every year or so they would have to clean it. Now it's abandoned and sealed up; they bored a new one. (*Walter Ertel*)

Meanwhile, the Dolores Number Two Land and Canal Company began construction of a different canal and flume in 1887, designed to serve the Yellow Jacket area to the north as well as Trail, Alkali and McElmo canyons. This canal was six miles long, six feet deep, and 25 feet wide, and the flume was more than a mile long and 18 feet wide (*Water – Transforming a Valley: A History of the Montezuma Valley Irrigation Company; compiled by Iris Higgins Johnson*).

Both ventures succeeded in the herculean task of cutting through the ridge and providing water to new areas, but both struggled financially. Eventually they merged into the Colorado Consolidated Lands and Water Company, which later transferred its holdings to the Montezuma Water and Land Company. That company ultimately went broke for a number of reasons, including a lack of storage capacity and conflicts with the board of county commissioners, which set its rates. Disgruntled farmers, exasperated by all the problems and inconsistencies in

obtaining their water, decided in 1902 to form the Montezuma Valley Irrigation District. In 1907 the district succeeded in getting a bond issue passed and was able to purchase the old company's irrigation system and water rights (*Water – Transforming a Valley*).

Cortez residents were relieved to have a more-plentiful source of water, but it remained in fairly scanty supply, as Head wrote in her article:

People living in the new town of Cortez probably didn't do much washing of clothing. One of the first early day residents of Cortez said they wanted to have some trees planted – so they took their dishwater and wash water and watered the trees. Another later said they wanted trees so badly they planted them in buckets and put them out in front of the houses to grow in hopes that someday they would have water to use for trees, etc. (*June Head*)

Still, the importance of the diversions to Cortez and the surrounding area cannot be overstated, according to the irrigators interviewed for this report. Without the tunnels and canals, Cortez would never have grown into the city of 8,500 it is today. Likewise, with only dryland farming possible, Montezuma County would not support the population of 25,500 it does now.

There wouldn't be a valley without it (the diversion). It meant everything to Cortez. Without the water there is not a Cortez. There is nothing here. . . The ancestors of everybody around here got it to the point where it's at and I think it's our responsibility to keep it intact and carry it on for the future. (*Danny Decker*)

Had there not been diversions, would we still have just the cattle company that ran cattle from Mancos to Monticello, or would this area around Cortez have developed dryland farming like Yellow Jacket to Dove Creek? It certainly would not sustain the populations we have. I don't even want to think about what would have been here without the diversion. (*John Porter*)

Interviewees Keenan Ertel and Don Schwindt said that, prior to the diversions, Cortez was the “stepchild” of the county because of its location on a sagebrush plain rather than adjacent to a river. The availability of water – through a complex series of canals and ditches – brought the town to life and allowed it to become the county seat.

The Montezuma Valley isn't really a valley. It's not flat, it's cut through with arroyos. There's nothing easy about it. . . . The only reason Cortez got built was because they had the basin water. They were building a canal system and knew it was going to come. For a number of years Cortez struggled to keep up with Mancos and Dolores and probably had less wealth in the town. We don't have fancy old homes in Cortez. . . It was a hard time developing a community here. Cortez was behind Mancos and Dolores in population till the oil boom, about 1957. People have worked hard to build civilization here. . . .Cortez was a hardscrabble place. (*Don Schwindt*)

The first canal that was built from the tunnel was to the city of Cortez. The land developers that were developing the valley – that was their main construction camp, where Dolores State Bank is today. Their chief engineer laid out Cortez and the first canal they built was to the city of Cortez and it came in down across on the east side of Park de Vida and ran about to the library and split and went around the north side

on the ridge of Montezuma and went on the south side, and part of those was all farms, and as the town grew they took in the fields. (*Les Nunn*)

Montezuma Avenue used to have a main delivery ditch. I remember a ditch going down Madison and there were still fields there. There was a hay barn at Seventh and Madison. The ditches came to the town and gave water during irrigation season. (*Don Schwindt*)

Even with the improvements, the road to an adequate and reliable water supply remained very bumpy. In 1907, the Montezuma Valley Irrigation District began work on two reservoirs. Narraguinnep, which had been started in 1888 just below the “Great Cut”, was enlarged; and a new reservoir called Groundhog, at the headwaters of the west fork of the Dolores, was built (*Maureen Gerhold, River of Sorrows, Chapter Three*). The Groundhog work began May 2, 1907, with “two hundred men, eighty teams, twenty dump wagons, and two dirt elevators,” according to Gerhold. However, Groundhog was washed out shortly after it was built and was not reconstructed until the 1930s.

The district also completed work on Totten Reservoir in 1907 – and it, too, was washed out by flooding. The Montezuma Valley Irrigation District became mired in debt, and discouraged members often refused to keep paying their levies. In 1920 the district was dissolved by court decree and the new Montezuma Valley Irrigation Company was incorporated. It was organized so that its shareholders owned individual mortgages that served as collateral for their irrigation debts, motivating them to meet their obligations (*Water – Transforming a Valley*).

In my dad’s time, everybody was always fighting over water and there is still some fighting to some degree, but not nearly as bad. I remember a story – one neighbor was stealing another neighbor’s water and the other neighbor came and shot him one morning, shot him dead. (*Danny Decker*)

This company was chronically short of water no matter what they did, and money was hard to come by, pre-Project. (*Don Schwindt*)

There followed several decades in which improvements were slowly made to the entire irrigation system. New ditches were built, wooden headgates were replaced by steel and concrete ones, flumes were replaced by arroyos, and canals were enlarged. Groundhog was reconstructed in the 1930s; Narraguinnep was enlarged in the 1940s; Totten was rebuilt in the 1960s with a new dam 29 feet high (*River of Sorrows, Chapter Three*). As of 2003, the MVI system included two main diversion canals and 17 distribution laterals (*Water – Transforming a Valley*).

McElmo Canyon

Water was likewise key to the development of McElmo Canyon southwest of Cortez. McElmo Creek was just an intermittent stream until the beginnings of irrigation in the Montezuma Valley, according to Jonathon C. Horn’s “Landscape-Level History of the Canyons of the Ancients National Monument.”

In 1904, the Rock Creek Reservoir and Canal Company platted the Rock Creek Reservoir Ditch, the earliest small project bringing water to McElmo Canyon (*Landscape-Level History of the Canyons of the Ancients National Monument*). Rock Creek Reservoir, with a 34-foot-long dam, was built near Battle Rock.

In 1907, the Number 2 Canal for the distribution of water in the northern portion of the

Montezuma Valley was completed. According to Horn, this included the Lone Pine Lateral, which terminated at the head of Trail Canyon. Excess water thus flowed into Trail Canyon. Along with water that entered McElmo Creek beginning in the late 1880s as irrigation runoff from further east in the valley, this new supply attracted settlers to McElmo Canyon and enabled them to grow fruit trees: apples, peaches, pears, plums, and grapes, according to Horn. McElmo fruit became famous around the world; McElmo peaches are reported to have won awards at the 1904 World's Fair in St. Louis.

Unfortunately, the modest infrastructure designed to provide more water to arid areas proved inadequate to handle unexpectedly large amounts. In July 1911 rainstorms washed out much of the irrigation system in the canyon and the county:

A wall of water took off down McElmo Creek and cut a canyon within a canyon. In that rich farming area whole orchards and wheat fields were washed out into Utah. That flood marked the beginning of the inevitable bust which followed the boom years. (*City of Cortez web site*)

People lost their homes in the flood. My dad said they'd slip outside at night and listen to the creek banks caving all night long. The banks were real soft. (*Jimmy Porter*)

Jimmy Porter is a third-generation McElmo farmer; his grandfather, Elsworth Porter, was one of the first four people adjudicated on an early ditch started in 1892 in McElmo Canyon. He said historic photos show that portions of McElmo Canyon not served by irrigation ditches were "just greasewood and alkali" back in 1910.

After the flood, people rebuilt, and McElmo Canyon continued to farm using irrigation runoff. Keeping the water flowing was a constant struggle, according to Jimmy Porter – too much water at times washed out headgates; keeping ditches cleared and the infrastructure in good repair was time-consuming. He said he was probably of junior-high age when he began carrying a shovel everywhere.

We always helped shovel ditch and build flumes. It took a long while to develop the ditches. Floods washed them out. People spent all year working on ditches. They probably didn't have water all the time. . . .

When I first started farming we had a flume wash out here and had to build a new one. It was the first major project done on the Rock Creek ditch in several years. We replaced that flume out here a couple years ago – it was 50 years old. We built all the major structures when I was young. Now that I'm old, we're still doing a lot of different structures (Jimmy Porter).

Montezuma Valley Irrigation Company

The roots of agriculture in the West lie in mutual ditch companies such as MVI. Today the private, non-profit company has 1,358 shareholders and 33,284 shares of stock. Governed by a seven-member board of directors, MVI provides irrigation water to approximately 30,000 acres, all within Montezuma County.

When it was created in 1920, MVI was organized so that each share in the company entitled the owner to one-80th of a second-foot of water to irrigate an acre of land, and one vote in company decisions. This gave shareholders some say in who ran the company and appealed to their "ethic of independence" (*The Dolores Project, Garrit Vogesser, Bureau of Reclamation*)

History Program). However, it also meant that large shareholders had great say and smaller ones had little say over company policy, according to Walter Ertel.

A key development in the company's history was a change in voting. In 1975, Terry Schurr, a rancher in the lower valley, came to Walter Ertel and suggested some changes, including giving each landowner a single vote no matter how many shares he owned, and having board members represent specific districts. This was to prove a significant development for the company:

[Terry Schurr] had quite a few proxies, so we hustled and got a lot of proxies and voted ourselves onto the board. We played the same game. I became president of the board. We changed the voting system to one vote for one man.

By doing so, the stockholders became more interested in the company. They felt they had a voting right. Before that, they often didn't attend the meetings. There might be six or 10 people there – the board and those that didn't have anything else to do.

They used to have the annual meeting in the old office, a little building between the Dolores State Bank and what is now the secondhand store on Main. Then it went to the American Legion Hall, then Mesa Elementary and eventually the Lewis-Arriola school. When we started having our annual meetings at the Lewis-Arriola Community Center the company just snowballed. . . . We're pleased that the company came out as well as it did. (*Walter Ertel*)

For the first time, they had formal districts they would represent. It was a real stride forward. That's when Walt was elected. . . . It was a significant change in how the company operated. (*Don Schwindt*)

MVI's stockholders have always chosen to keep the company as independent as possible, even turning down some opportunities that might have meant more government money. For instance, at one time there was talk of having the Bureau of Reclamation reorganize MVI into a district somewhat like the Dolores Water Conservancy District. The stockholders said no.

That scenario was approached, but the stockholders in MVI at the time decided they would rather not have the government intervention or control in their company. It's been a private company since 1920 and they're a little bit independent. They weren't willing to give up everything the BOR would ask. If BOR would have done it they would have rebuilt the whole MVI system probably and added pipelines to conserve more water, and they in turn would have ended up sending it down the river. (*Les Nunn*)

A recent issue that MVI faced in 2011 was whether or not to lease 6,000 acre-feet to the Colorado Water Conservation Board for its instream-flow program. There were many opinions on the possible benefits and drawbacks of the idea, but ultimately the stockholders rejected it.

The stockholders were never in favor of letting any water out of their control to a government agency because sometimes the government might come back at the end of the lease period and say, 'You didn't need it before – we're just going to keep it.' . . . MVI just never was real in favor of bowing down too much to the government agencies. They were all individuals and they want to keep it that way. We spent all this time and all these years doing everything ourselves. We never asked for any help from anybody. (*Les Nunn*)

The Dolores Project

While the trans-basin diversions from the Dolores Valley to the Montezuma Valley, along with the creation of MVI and its complex system of canals and pipelines, had allowed for the development of the area, local farmers still lacked the truly reliable water supply that would allow agriculture to flourish.

Even with Groundhog Reservoir and direct-flow rights to the river and Narraguinnep and Totten, MVI simply didn't have enough water to provide a full irrigation season. Most of the time the water supply would be cut to half a head in July and many times then to a quarter-head in August, and then in drier years they would rotate that quarter-head. You'd have it one week and not the next, so you'd have to pick what crops you'd save and what you'd sacrifice. . . . I can remember as a young man helping my father. You'd get a crop of grain along – gee, it was beautiful! But you ran out of water, so the yield was half or less of what it would have been had you had enough water to irrigate one more time. . . . My dad was a director of MVI. They looked at lots of options for how to provide that full supply of water and it always came back to, 'Guess we'd better wait and put our efforts toward getting the Dolores Project.' (*John Porter*)

The problem with the river – it depended totally on the snowpack, and the other problem was if we had a lot of sand storms, red dust would cover the snow and it would melt too fast. The river had always made more water than MVI could use in the spring and we didn't have any way of stopping it. . . .

Except in really good years, ordinarily nobody had enough water to make a third cutting of alfalfa because you would run short of water. Usually you could make the first cut in pretty good shape and the second one if the river held up good. With Groundhog and Narraguinnep there was a lot of years there wasn't anything to irrigate with.

1977 was the worst I saw, because we didn't have McPhee then. In 1977 we got to irrigate three weeks out of the summer and that was all. . . . Toward the end of August this country rained a lot so we all got irrigation water for another week. That let me irrigate my orchard one more time to save the apples and have something to sell. In 1977 everybody that pastured cattle or had cattle in the valley, a lot left the country. I hauled mine to South Park. In the drought in the '80s I hauled some cattle out but that drought wasn't near as severe. In the '80s we still did manage to put up a little hay. Two weeks of water in the spring doesn't raise you a whole lot of hay. If we get any snow now and when it runs, you can catch it all and it can be distributed and it may not be 100 percent and may not be for very long but you'll probably get one cutting anyway. (*Les Nunn*)

Before the Project, it was a struggle. In the drought of 1977 there was very little snow – runoff was small. We had 80 acres where Hay Meadows subdivision is now, in Moravian barley we were growing for Coors. We had sideroll sprinklers. We had done two irrigations and were starting on a third. They cut us to a quarter-head so we no longer had water to continue sprinkling that barley, only part of it. Sixty-five acres of it shriveled up, but where we had made a third partial irrigation, Coors could take that. We did have Groundhog to supplement the river flow, but once it was pulled down to its fish pool, the river was dead from the diversion down. It took every bit to run M & I and MVI. (*Keenan Ertel*)

People had talked for decades about building a major reservoir on the Dolores, according to Les Nunn: “The MVI stockholders and management and the older boards started talking about the Dolores Project in the 1920s or ’30s. It wasn’t a new idea in 1960 or whatever.”

Bringing the project to fruition would prove a daunting task, however.

In 1942, engineers with the Bureau of Reclamation drilled 10 exploratory holes at the proposed site of McPhee Dam near the town of Dolores and completed the first feasibility study. In 1968, the Dolores Project was authorized by Congress through the Colorado River Basin Act of September 30, 1968 under the Colorado River Storage Act of April 11, 1956 (*The Dolores Project*). The Project appeared to be moving smoothly on track in the early 1970s. In fiscal year 1970, Congress appropriated funds for advance planning, and in 1976, the Dolores Project received funding for construction

However, environmental and fiscal concerns were being raised about the number of major dams being built across the West. These prompted President Jimmy Carter to issue a “hit list” of 19 Western water projects, including the Dolores Project. Westerners reacted with anger and indignation.

Richard Lamm, governor of Colorado from 1975 to 1987, labeled the hit list a “study in federal ignorance...riddled with antiwestern prejudice.” He concluded that Carter’s decree “reflected no understanding of western conditions, of western people, of the nature of their lives, or of the relentless, crushing aridity that shapes their land and everything in the West.” Yet, there was fundamental truth at the heart of the president’s message. Federal reclamation policy towards new projects coupled with “generous federal financing” had fostered a “use or lose syndrome.” In essence, it seemed that westerners simply wanted projects because the funding was available. . . . (*The Dolores Project*)

Secretary of the Interior Cecil Andrus recommended that Carter reverse himself and allow funding for the Dolores Project, and ultimately Carter did so. One of Andrus’ main arguments was the need to satisfy historic water rights for Colorado’s Ute Mountain Ute Tribe, located on a reservation south of Cortez.

In 1908, the U.S. Supreme Court had issued a landmark ruling, *Winters v. United States*, that said that the creation of Indian reservations included an implicit right to water for the tribes – enough for them to fulfill the “purpose” of the reservation, which generally included some agriculture. The Court also said these water rights dated back to the establishment of the reservation. For the Ute Mountain Utes, that was 1868. However, although the Mancos River runs through their reservation, they had not been granted any rights on that river when the Jackson Project was built on the Mancos in the 1940s, and they were eking out an existence hauling water from Cortez.

The federal government built Jackson without ever thinking about the Utes, or maybe they thought about them and ignored them. I’ve always wondered which it was. Had there not been the Dolores Project, there’s no question that the Utes could have dried up the Mancos Valley when they finally exercised their Winters Doctrine rights, so the Dolores Project was the answer to prevent that from happening. That would have been a consequence that we sure don’t want to think about. (*John Porter*)

Negotiations to resolve water-rights claims for the Ute Mountain Utes as well as their neighbors to the east, the Southern Ute Indian Tribe, began in earnest in the early 1980s, even as construction began on McPhee.

“Things were moving on parallel tracks,” said Mike Preston, who served on the Ute Mountain Ute negotiating team. Preston is now general manager of the Dolores Water Conservancy District. “If the water-rights settlement had broken down at any point, that might very well have ended the appropriations for the Dolores Project.”

The Colorado Ute Indian Water Rights Settlement, reached in 1986, established that the Ute Mountain Utes would receive water from McPhee Reservoir as a partial settlement of their potential reserved water rights claims. (Other rights were to be satisfied through the Animas-La Plata Project in La Plata County, which also satisfied rights of the Southern Utes.)

In 1994, water from McPhee first flowed to the Ute Mountain Ute Reservation. It allowed the Utes to develop a thriving restaurant and casino, a 100-room hotel, a truck stop/travel center, an RV park, and a 7,700-acre farm. The Ute tribe is the largest employer in Montezuma County.

The profitable Ute Farm and Ranch Enterprise is one of the Tribe’s shining successes, employing 18 full-time workers and up to seven seasonal workers, more than half of them members of Native American tribes. With approximately 24,000 acre-feet of water from the Project and another 4,000 leased from the Dolores Water Conservancy District, the tribe grows alfalfa, corn, wheat, triticale, and sunflowers, and manages a 700-head cow-calf operation, according to farm and ranch manager Paul Evans.

The Dolores Project – rescued from nonexistence by the obligation to satisfy tribal water rights – likewise proved a boon to the entire Montezuma Valley and to dryland areas in Dolores County as well:

For me in particular, that full water supply has meant all the difference in the world. I’ve actually cleared more land. When I first bought this place [a hay farm south of Cortez], there was only 100 acres of hay; now I got over 400 on the same place. We were able to spread the water out, buy more acres, with more efficient means of irrigation. Without the Project, we would probably have 80 percent less income in the whole area. In the dry years, dryland doesn’t do very well at all like it used to and [the Project] has made all the difference. . . .

One of the first years I was here, we went to a half a head early in July and by August we rotated a quarter-head between the north system and south system. In ’77 we had a little over two weeks’ worth of water. It was really a struggle. The Project has done what it was supposed to. Everything’s allocated right now and most years there doesn’t seem to be any extra water at all unless you have a really heavy snowpack.

I think it’s put more of a stable supply through the summer down the river. A lot of people don’t realize it used to dry up completely. (*Danny Decker*)

Prior to the Project, generally by July 4 everything went to half a head and then depending on what the river was making and what had been stored in the reservoirs, we went to a quarter-head in August, then rotated among ditches in September. You’d have water in one ditch one week, then another.

With the Project, everybody got approximately 100 percent for the whole summer from April through September.

The other thing McPhee did, it made some folks out north able to raise a decent crop, nearly guaranteed every year. Before, they were simply at the mercy of Mother Nature. If you had winter, you got to raise something; if you didn't, there wasn't anywhere to go to get water to help. (*Les Nunn*)

The Dolores Project was declared “substantially complete” in 1995, although work continued until 1998 to correct minor design and construction flaws.

Today the Project, managed by the Dolores Water Conservancy District, provides water for “irrigation, municipal and industrial use, recreation, fish and wildlife enhancement, and production of hydroelectric power” in the Montezuma Valley, the Ute Mountain Ute Reservation, and the Dove Creek area in Dolores County. It furnishes water for approximately 1,200 farms containing 61,660 acres of agricultural land growing mainly alfalfa, oats, corn, and pasture for livestock. It provides an annual supply of 8,700 acre-feet of municipal and industrial water for the municipalities of Cortez and Towaoc, capital of the Ute Mountain reservation. (*The Dolores Project*)

While farmers clearly benefited from the Project, it had widespread impacts on the broader economy, stimulating the growth of stores that sold farm vehicles, farm equipment, and anything else the agricultural community might need. As farmers' prosperity increased, banks, supermarkets, restaurants and gas stations were able to flourish as well.

IFA, John Deere, Big R, Joe Keesee, and parts stores also benefited from the Project. It's really a boost to the community. We had no implement stores at all when the Project was built. We had no place you could buy a tractor. The Project and John Deere came in and Basin Co-op, Cortez Diesel, Southwest Diesel – a lot of the farmers own their own trucks. Dove Creek got a lot from it, too. Dove Creek has a big implement store now. The Project really helped Dove Creek's economy too. (*Jimmy Porter*)

It gave the farmers more money in their pockets and that spilled over into Cortez. Now we have a Super Walmart. Had we stayed on the river economy that we had before, nobody would have done as well as they're doing now. (*Walter Ertel*)

The Future

Despite the tremendous benefits the Dolores Project has provided as reported by interviewees for this report, it has not entirely slaked the region's thirst. As mitigation for the deleterious effects the Project would have on the river's ecosystem, Dolores Project documents established a catch-and-release trout fishery downstream from the dam, to be managed by the state Division of Wildlife (now Parks and Wildlife). Opportunities were also to be provided for whitewater boating through spring releases from the dam. The Bureau of Reclamation also created wetlands and continues to supply water for their maintenance.

After the BOR reduced downstream releases in 1990, a drought year, fish suffered a significant decline. The BOR and DOW worked out an interim operating agreement to provide a minimum 30,100 acre-feet of water per year to ensure the survival of the trout fishery. Later, that amount was increased, but trout and native fish populations continue to remain a concern.

Likewise, whitewater enthusiasts have voiced concerns over how the releases from the dam are managed in the spring, saying there has not been enough attention paid to the needs of the boating community (please refer to pages 11-15 for some of their voices and stories).

Irrigators would like additional water as well. For instance, the sunny and warm McElmo Canyon area has a longer growing season than the rest of Montezuma County and thus needs water early. In recent years, this has been more difficult to obtain.

Pre-McPhee, there was a lot of spill water coming down McElmo. When they started to a quarter-head or half-head in July, then we got low in late summer, till the rains came. Since they built McPhee, MVI has been putting in lots of pipelines. We're not getting runoff till the first of June, so by then we have lost the first cutting [of alfalfa]. So we're trying to negotiate a deal with Totten [Lake] to get more water. We need the water when we need it. Later on there's plenty of water, but that might not be forever. . . . Last spring I think we were down to eight second-foot for about a month. . . . Right now our major goal is to get permanent water out of Totten. We're going to go back to greasewood if we can't. (*Jimmy Porter*)

The Ute Tribe would like additional water to allow its Farm and Ranch Enterprise to expand:

We're at a point where we feel we have no more water. We do have some land we could probably put into production but we don't have any more water so we have to start going up instead of out – do some value-added things or change crops to vegetables, but I'm not too keen on that. (*Paul Evans*)

Irrigators have serious concerns about any talk of finding additional water to benefit fish or rafters, because they don't know where that water will come from in a basin where every drop is precious. The possibility of climate change only increases their worries. Even talk of reducing “inefficiencies” in the MVI system can be worrisome, because they say no water is being wasted.

Every drop of water that gets diverted from a stream gets put to use somewhere. The MVI environment is different from the full-service area [served by the Dolores Project], where nothing gets away to nourish an environment. We have swamps and critters living here – deer, pheasants, geese – and land values are higher because of that environment. Maybe we could use it more efficiently, but we need to really ask what that water has done once it was pulled over here. (*Don Schwindt*)

Boating on the Lower Dolores River

The Dolores River begins high in the San Juan Mountains and flows some 200 miles before joining the Colorado River near the Utah border. It has always been popular with boaters. While the construction of McPhee Dam divided the river in two and dramatically changed rafting conditions, the Dolores – particularly the stretch below the dam – remains popular. The boaters interviewed for this report say a number of qualities make the Lower Dolores exceptional. One of the most important of those is the fact that it offers an uninterrupted, multi-day experience (when conditions allow):

It's the last multi-day non-permitted river on the Colorado system. You can go from Bradfield Bridge to Moab, a week-long trip. (*Carolyn Dunmire*)

Probably one of the shining things I like about the Dolores is it's one of the best multi-day river trips. It isn't necessarily the big whitewater jump-in-the-hole-and-do-the-kayaking thing, but the crowning glory is the multi-day camping trip with a wilderness-to-semi-wilderness experience, even outside the boundaries of the WSA

[Dolores River Canyon Wilderness Study Area]. . . You can do that whole 179 miles of that river, all the way to the Colorado if you want a 16-day experience or so, if you've got water. There are not a whole lot of places you can do that. (*Rick Ryan*)

It's one of the few rivers that when it is flowing offers an uninterrupted trip from the dam all the way to its confluence with the Colorado River, about 180 miles, and from there you can take it all the way into Moab and all the way down to Lake Powell. The Dolores itself offers a fine uninterrupted trip of up to two weeks. (*Tony Littlejohn*)

Most of us that were commercial-running it compared it to the experience you'd get on the Middle Fork of the Salmon River. It was a primo multi-day trip in Colorado, the only multi-day trip in the state of three days or more. And it was primarily through roadless areas. (*Reed Dils*)

Another special value the Lower Dolores offers for boaters, related to its multi-day quality, is the variety of scenery and ecosystems it traverses. Beginning at Bradfield Bridge, the Dolores rushes through the deep red-rock cliffs and towering trees of Ponderosa Gorge. Then it begins to transition into "the prettiest slickrock canyon in the country," as Bill Dvorak described it.

For anyone interested in nature, whether scientifically or just subjectively, it offers a tremendous variety of habitats and ecosystems as you progress from a mountain stream through the Ponderosa Gorge, which is a stellar representation of an old-growth ponderosa and Douglas fir forest, grading into lower desert environments. There is a portion of the river where the box elder is dominant and you get into more PJ-Upper Sonoran life-zone habitats, and this is all within a hundred miles. It's the only river I know of that really offers all of that, with the exception of the San Miguel, but because of the difficulty of a lot of those sections on the San Miguel, it is not as often boated. (*Tony Littlejohn*)

It offers amazing experiences, unbelievable beauty and fun. The whitewater, the wildlife – there's otter, deer, bear, elk, elk remains and antlers and tracks, birds, and even some fish you can see, though not like on other rivers where you have salmon jumping. I've really had a great time on that river. It's a wonderful place to go. I've wrecked my boat, gotten hung up in Snaggletooth [rapid], and been pulled off rocks by other boaters, sometimes because of low water levels. (*Sam Carter*)

In the first five miles of the trip, through Ponderosa Gorge, the river is bordered by trees ranging from young to very old, some as broad as 48 inches in diameter. Tree-ring samples taken a decade or so ago found some trees to be 350 years old, according to Rick Ryan, a former Bureau of Land Management ranger widely known as "Ranger Rick."

The Dolores River corridor is home to an abundance of wildlife, including desert bighorn sheep, black bears, mountain lions, deer and elk, river otters, peregrine falcons, and many other birds and animals, some of which may be glimpsed by rafters. There are plant systems that exist nowhere else in the United States, at least three in one 90-mile stretch, according to Ryan, and hanging gardens and rare flowers such as the Kachina daisy and Eastwood monkeyflower. "I've seen some flowers and vegetation in there that would knock your socks off," Ryan said. Archaeological resources dating back as far as 12,000 years include petroglyphs, pictographs and

granaries visible from the river or by hiking short distances. Such unusual features help make raft trips particularly interesting to children, contributing to the “family-friendly” quality of the Lower Dolores also cited by boaters as one of its special attributes:

To have a river with 170 miles of family-friendly whitewater that goes from ponderosa forest into Utah canyon country – that is a pretty special trip. The ability to drop from ponderosa forest into canyon country is what really separates the Dolores from other rivers. . . .

With the exception of a few rapids, which can be portaged, it’s the sort of thing that both parents and young kids can do in a raft or duckies or inflatable kayaks, so it has a very broad interest and ability level. The comparison with the Grand Canyon is a good one. The Grand Canyon is spectacular, but it requires a pretty robust set of skills to do it. The Dolores River is a much more accessible venue for a broader group of the population. That’s why it’s so frustrating to have it unavailable many years. (*Kent Ford*)

The stretch from Slickrock to Bedrock, being largely a float trip, is particularly conducive to family trips. The fact that no permit is required for private boating and that projected flows are now available on the internet has made it particularly popular with locals.

The Lower Dolores from Slickrock to Bedrock is a great stretch for families. It’s a kid’s first experience on the river. From Slickrock to Bedrock, you can put kids in duckies and they can captain their own craft. For kids it’s an incredible introduction to wilderness and rivers. There are dinosaur tracks and rock art. It’s mind-blowing for them because they may never have been away from a road or a car before. (*Carolyn Dunmire*)

The variety of water and boating experiences is also a plus:

It offers a lot of diversity in terms of the kinds of water you’re on. It can be very serene water or some pretty challenging whitewater. It offers all of that. (*Tony Littlejohn*)

From Slickrock to Bedrock is sort of like the San Juan River, but you don’t need a permit and it’s a cooler temperature. It has the same spectacular scenery, but the Dolores River is a bit more user-friendly because there’s no permit and not as much use as the San Juan. You can find some tucked-away places. (*Carolyn Dunmire*)

Rafting the Dolores below McPhee offers the opportunity to get away from civilization and into areas that, while not officially designated as wilderness, certainly have wilderness qualities.

It would be nice if part of it didn’t run along the highway, but you hardly notice the highway is there because of the density of the growth along the river. (*Bill Dvorak*)

Once you get into the WSA, the Big Gyp boat launch down to Bedrock, that’s still in very pristine shape. The inaccessible areas have maintained a high quality of integrity for as long as we’ve been boating it because of small use. . . . Most of the places I’ve been on the rim take you to viewsheds that are unobstructed by man’s influence, largely, and that offer some fine vantage points and vistas of the gradation

from southern Rocky Mountains to the desert and canyon areas through spectacularly rugged country. *(Tony Littlejohn)*

The boaters interviewed were unanimous in their belief that the Dolores River is a very special place, even when compared to all the other rivers in the nation, and that the recreational opportunities it does or could provide are unsurpassed.

I rank the Dolores as one of the three best river trips in the country. The San Miguel is a good resource, but not of that quality. The Dolores is one of the top three. The Grand Canyon and the Middle Fork of the Salmon are the other two. It's that quality. *(Bill Dvorak)*

The construction of McPhee Dam certainly changed the boating experience on the Lower Dolores – and not for the better, according to those boaters who experienced the river both before and after the completion of the Dolores Project.

Rick Ryan worked for some commercial-rafting companies in Durango in the 1980s, then began working for the BLM in 1991. After that time he made at least three multi-day trips per rafting season over 19 years, in addition to numerous private trips.

He said when he first started with the BLM, there were about 36 river outfitters operating on the Dolores. Today there are about 16. He attributed the decline to the fact that flows cannot be guaranteed.

It's pretty much a locals' river now, whereas before, more people from all over the United States were coming. . . . If that was your only river after the dam, you weren't going to make a living. I had about five outfitters that didn't apply anymore and gave up their permit and said, 'It's not worth it anymore.' *(Rick Ryan)*

Prior to the dam's completion, boating on the Dolores used to be much more predictable, boaters said, and there were bigger flows in the spring. Boaters understand the natural variables involved in the timing of snowmelt runoff and were able to deal with those, they said.

In the pre-McPhee years there was "quite a heyday on the Dolores," according to Tom Klema, who first ran the Dolores in 1974. The river was heavily boated except during the rare years when there was insufficient water, such as 1977 and 1981, and the recreational experience then was generally outstanding.

The differences between a wild and dam-controlled river are stark, and are definitely felt by the boating community. Many boaters miss the big flows and the "wildness" of the old boating days. While the value of the Dolores Project to the area's agriculture and overall economy are unquestionable, most boaters report their experiences have been altered forever and they lament this fact.

When it was a wild river there was something about that that's different than having it dam-controlled. We all miss the big flows. *(Tom Klema)*

In the '80s and '90s there were commercial outfitters proud of their Dolores River activities and their Dolores River trip, and now that's just nonexistent. Not many of them were based locally, but they would certainly run their trips there seasonally. *(Kent Ford)*

Bill Dvorak, who has run the river since 1979, said for a number of years he probably did more commercial boating on the Dolores than anyone else. He drew a contrast between the pre- and post-dam years:

All through those early years, right through the 1980s, we had good seasons, except when there was a drought year, and on into the '90s. We had some hit-or-miss years; some years we ran and some years we didn't. But since 2002 there have only been one or two years you could run a trip. I think I had one or two trips, not last year but the year before [2011] when we had some water.

. . . The only way I have been able to run any commercial trips at all is to say, 'We'll run the Dolores if it's running, and if not we'll do the San Miguel,' if people are willing to do that. . . . Because it's so hit-and-miss, few people even consider [the Dolores] now. (*Bill Dvorak*)

Although the river is theoretically boatable at flows of 800 cfs or even less, it makes for a poor experience, some boaters said. The section from Bradfield Bridge to Slickrock, popular with families and potentially a very enjoyable three-day trip, is "just no fun" at low water such as 800 cfs, so "sections disappear off the map," according to Dunmire. "800 cfs is acceptable for canoes and smaller boats, but is the absolute, and not very enjoyable, minimum for a loaded raft and a family."

Boaters have made no secret of the fact that they would like to see more consistent flows for rafting and a longer advance notice of managed releases. That theme was echoed by nearly all the boaters interviewed. They believe boating, if given a greater priority, has the potential to bring more people and dollars into the area.

If the community were to say, "Rafting has value, too," look what commercial boating would bring into our community. If they compare it to ag, I think they would be surprised. And this meshes with the growing part of our community, the new people who are coming in. (*Carolyn Dunmire*)

However, boaters recognize the conflicting demands on the river and have taken part in a number of different discussions designed to help enhance the downstream environment and provide adequate releases for boating whenever possible, while still respecting water rights. One such effort is the grassroots Dolores River Dialogue, established in 2004.

I think the Dolores River Dialogue is pretty cool. I judge meetings by shoes, and if you look around the room at a DRD meeting, you see clogs, sandals, flip-flops, cowboy boots, lace-up boots, high heels, everything. The mix of people is tremendous and the cooperation in the discussions I have witnessed is pretty cool. . . . I'm a teacher, and I admire the way they are able to hear all sides of the story. I'm impressed with their efforts. I'm also impressed with the idea of the new spill timing to take care of native fish. (*Sam Carter*)

Recently, the boating community has taken part in the Lower Dolores Working Group, created in 2008 to seek alternatives to Wild and Scenic River suitability that would protect the river's exceptional values. The boating community has also worked with groups involved in examining possible legislation to protect the Lower Dolores River corridor and an Implementation Team designed to improve native fish viability in the river. Boaters

have expressed a willingness to allow changes in timing of spring releases from the dam in order to improve conditions for native fish.

Irrigators, environmentalists, representatives of state and federal agencies, and others are actively involved in these groups as well. Their goal is to find ways to use the resources of the Dolores for the benefit of the entire area while protecting the qualities that make it an extraordinary river and providing opportunities for boaters, anglers, and recreationists of all types to continue enjoying it.