Florida Project

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The Florida Project

The Florida Project is a land of medians. In this small triangle-shaped plot of southwestern Colorado, nature, the past, and present meet and exert influence on the future. Historically, it is where the Ute Indians, Spanish, and Americans converged and claimed the area as their own. Climatically, it is a place where the warm, arid wind of the southwest desert plateau meets the gusts of the San Juan mountains to the north. Reclamation stepped into the middle of this middle ground at the height of the anything is possible, go-go 1960s. As an initial component of the Colorado River Storage Project, the Florida Project was a piece on the assembly line of construction. From foundation excavation to first deliveries of water, Florida's Lemon Dam and Reservoir were brought into this world with an air of business as usual nonchalance. Recently, a new turning point appeared, as cattle raising and agriculture have felt the intrusion of paved streets, sewage systems and tract homes. Since the early 1990s, the city of Durango, the largest community nearest the project has grown without limits. Dealing with the creeping menace of suburban subdivisions constrains the people and the mission of the Florida Project to travel an increasingly narrow road.

Project Location

In La Plata County Colorado, "Florida" is pronounced in the same manner the Spanish explorers first called the river 200 years ago, with the emphasis on the last syllable. Instead of tropical breezes and endless sunshine, this Florida gets a taste of both the desert climate of the Colorado Plateau and the coolness of the 14,000 foot high San Juan mountains nearby. Toward the east and southeast of project lands, the San Juan mountains extend to the San Luis Valley with an outlier running south into New Mexico at a rapidly decreasing elevation. Northeast and north of the project, the San Juan's are more or less directly joined to the rest of the Rocky Mountains. Project lands are almost entirely on the Florida Mesa, one of the largest and most compact bodies of land in the Florida River basin. This diamond-shaped plot is 15 miles long, six miles wide with its northern apex five miles due east of the city of Durango. The project's

southern extremity is near the junction of the Florida and Animas Rivers, about 15 miles south of Durango. The dam and reservoir are about 14 miles northeast of town.

One of the few chroniclers of La Plata County's past believed that to call the Florida a river was "rather an undeserved dignity." The Florida River heads on the south slopes of the Needle Mountains, about 10 miles southwest of the Continental Divide. The 68-mile drainage area above Lemon Dam varies in elevation from 7,950 feet at the damsite to more than 13,000 feet at the headwaters. The frost free season comes and goes quickly between the warmth of early June and the cool of late September, approximately 112 to 130 days. Temperatures in Durango vary from 99 to -27 below, and town averages 19.16 inches of precipitation. The growing months between June and September, however are usually dry, as the region collects less than eight inches of rainfall. The Florida Mesa can boast of "more uniform and better soil than usual for areas of similar size in Western Colorado," with red sandy to red clay loam of good quality and great depth.[1]

Project History

The first known inhabitants of Southwestern Colorado date back more than 10,000 years. The most intriguing of these early cultures was the Anasazi, a Navajo word meaning "the old people." Their attempts at farming produced only a single variety of corn and squash, but they sustained themselves by hunting and gathering wild seeds, fruits and plants. The Anasazi disappeared from the region around 1300 A.D. for reasons anthropologists still only guess at.[2]

The next group to live off this land were the Ute Indians. The exact date of the first contact between the nomadic Utes and Spanish explorers remains in doubt, but the Utes possessed their first horses as early as 1640 as the result of encounters with Spanish expeditions in New Mexico. Between 1761 and 1765, the first Spaniards venturing through what would become La Plata County were led by Juan Maria de Rivera. Rivera's journal of his trek is lost to

1. U.S., Department of Interior, Bureau of Reclamation, *Report on the Florida Project, Colorado*, (October 1940), 2; U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 1, 1961, 15; U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 20, 1987, 138; Albert Edward Culhane, *A History of the Settlement of La Plata County Colorado*, (M.A. thesis, Boulder, Co.: University of Colorado, 1934), 3.
2. Paul O'Rourke, *Frontier in Transition: A History of Southwestern Colorado*, (Denver: Colorado State Office Bureau of Land Management, 1980), 15, 17, 25.

history, but it is commonly believed he named most of the streams and mountains in La Plata County. One of those streams was described as *Florida*, or "blooming" in English. A little more than a decade later, in 1776, Padres Silvestre Velez de Escalante and Francisco V. Dominguez joined by eight companions, followed Rivera's route permanently establishing the names given to the landmarks by the earlier party.[3]

Despite Spanish exploration, Southwestern Colorado remained a part of the enormous Ute hunting and tribal land. After the United States claimed this area from their victory in the Mexican War, treaties in 1863 and 1868 between the United States government and the Utes established the first boundaries on the tribe. The treaties were designed to protect and limit the increasing numbers of whites trespassing onto Ute land. Regardless of the agreement, gold miners and their lust for ore turned friction between whites and the Utes into open warfare. In 1873, U.S. Army Captain John Moss attempted to negotiate a private treaty between both sides in La Plata County. His efforts were stymied by combat between both sides, but a temporary truce was called the following year. According to the terms of the arrangement, the Federal government purchased three million acres from the Utes, including most of the mountains and all of the prospective mineral land. An 1875 dispatch to a Denver newspaper depicted the Florida Valley as empty with a few unoccupied cabins along the river and patches of grass unable to sustain a herd of cattle. By the beginning of the 1880s, other bands of Utes were moved into the Utah Territory. Only the Southern Utes were allowed to stay in Colorado on a 15-mile wide, 100 mile-long strip of reservation land.[4]

The settlement of the San Juan Basin was incidental to the discovery of gold and the rapid expansion of mining in the nearby mountains. Attracting people to raise crops instead of prospecting for gold was a more daunting proposition. There was little desirable land outside of the reservation, and it was not until the reservation was opened to outside settlement on May 4, 1899, that another land grab began. In another deal with the government, the Southern Utes

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3. Culhane, *A History of the Settlement of La Plata County Colorado*, 11-3.
4. *Florida Project, Colorado*, 3; *Rocky Mountain News*, 19 September 1875, p. 4; O'Rourke, *Frontier in Transition*, 45, 53-4.

accepted 374 allotments of land totaling 60,000 acres for their own use. The remaining 636,000 acres purchased by the Federal Government were soon sifted through by whites and the better lands settled.

Typical of other newly inhabited parts of the west, irrigators unfamiliar with their surroundings unsuccessfully experimented. The overproduction of crops not suited to the area and the inaccessibility of certain markets were the two primary drawbacks to farming the Florida Mesa. Successful farmers quickly learned any agricultural production in the area served as an adjunct to the livestock business. Local winter rangelands were not sufficient to support the Hereford cattle and sheep coming down from the mountain pastures at the end of summer. In order to support the hungry herds and flocks, and keep themselves in business, farmers grew alfalfa hay, grains, and grass hay.

At the turn of the century, 23 ditches watered an average of a hundred acres each directly from the Florida River. Two of these, the eastern mesa's Florida Farmers Ditch System, and the Florida Canal system supporting the western mesa, continue to serve practically all local irrigators. The town of Durango built a log crib dam and a 200 acre-foot capacity reservoir near the head of the Florida River in an area known as Upper Park. It was eventually abandoned due to its inaccessibility and poor condition of the dam and outlet works. In the dry year of 1902, it was apparent that a water storage facility was needed, and there was talk among Durango residents and mesa farmers about building a dam. Heavy rainfall in following years washed from local memory the fact that storage would be needed when the next dry cycle arrived.[5]

Seasons of excess moisture were dim recollections by the late 1920s. The first federal investigation of the Florida River was packaged with other western Colorado damsite surveys as part of a Public Works Project. An allotment of $150,000 from an appropriation made available under the National Industrial Recovery Act of June 16, 1933 launched the initial investigation of the Florida River. In September 1938, the work conducted under the 1933 appropriation was transferred to the Colorado River Basin Investigations and continued under provisions of Section

5. *Florida Project, Colorado*, 3, 14.

15 of the Boulder Canyon Act. These studies were held in the midst of the century's worst dry spell; twelve years of drought commencing in the late 1920s before annual precipitation returned to normal at the dawn of the 1940s. At summer's close in each of those dry years, the small amount of water left in the ditches could only nurture the hay and grain flush against the canals. Lack of water for the second cutting of hay resulted in an inadequate feed supply for cattle during the winter. Farmed acreage on in Florida dropped from 18,351 acres in 1929 to 13,794 in 1938 -- a 25 per cent reduction in irrigated lands. Hard times in the fields snowballed into increased farm indebtedness, loss of farms, consolidation of holdings under one management, and an increase in tenancy. A 1939 Bureau examination of the Florida Mesa perceived local farmers as "naturally alert, progressive and receptive to new ideas," but after more than a decade of unforgiving weather, "they have become skeptical of new proposals and become resigned to their present condition."[6]

The Bureau's 1939 study thoroughly covered the logistics of bringing a water project to the Florida Mesa. The sandstone for the dam would be quarried near the site, the sand and gravel for the concrete would come from washing and crushing the stones of the riverbed, and cement and equipment would be hauled from Durango. Reclamation noted the main drawbacks to both crews and design would be the project's elevation of 8,000 feet and a short construction season of six months.[7]

Isolation and the war delayed construction from 1939 to 1945, and a series of post-war studies would delay construction. In an effort to get the government to notice them, the Florida Water Conservancy District (FWCD) was born on July 20, 1948, in the La Plata County Courthouse in Durango. The FWCD would be the agent in all actions with the Federal Government when the decision would be made to build a facility across the Florida River. From the birth of the FWCD in 1948 to the late 1950s, reports in favor of developing Florida were commissioned. In each passing report, it became more likely the federal government would

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6. U.S., Department of Interior, Bureau of Reclamation, *Florida Project - Colorado*, (September 1939), 21; U.S., Department of Interior, Bureau of Reclamation, *Report on the Florida Project, Colorado*, 4; *Durango Herald-News*, 14 April 1960, p. 1.
7. *Florida Project, Colorado*, 54

construct Florida as part of the Colorado River Storage Project. The proposed dam would be named after the site's landowner, Charles H. Lemon. The coincidence of a Lemon and Florida at the base of the San Juan Mountains was not amusing to a certain group of New Mexican politicians. A brief game of political hardball, played in congressional appropriations committee rooms, awaited the Florida Project before it could have its own day in the sun.

Project Authorization

Construction of the project as a participating element of the Colorado River Storage project was authorized by Act of April 11, 1956 (70 Stat. 105) P.L. 485. Actual construction was authorized by Secretary of the Interior Fred A. Seaton on April 4, 1960. However, a month of acrimony between the states of Colorado and New Mexico almost killed the Florida Project. New Mexico's Governor John Burroughs, and its delegation to the Senate, felt Florida and other Federal water projects in Colorado's San Juan Basin would deprive citizens near Farmington, New Mexico their dry year water rights. Florida was held hostage by New Mexican politicians demanding the House Appropriations Committee withhold funds until the two states reconciled their differences. La Plata County was downcast, and three weeks after Seaton's authorization, the *Durango Herald-News* headlined the project as a "Dead Duck." It would take the weighty influence of House Interior Committee Chairman Wayne Aspinall (D-Colo.) to smooth the ruffled feathers of both sides and put the Florida Project back on track. Six months later with the dispute between the two states forgotten, Seaton certified project lands good for irrigation. In November 1960, FWCD members voted to enter into a repayment contract with the United States by a 315-to-1 margin. The repayment contract ordered FWCD to pay the project's reimbursable construction costs totaling $1,775,000. The reimbursable costs included delivery from project works to the FWCD, water for irrigation of irrigable land within the FWCD, and for the operation and maintenance of project works. The FWCD would pay 50 successive installments with the first annual payment of $35,500 due December 31, 1971. A $125,000 construction cost premium assigned to 785 acres of irrigable lands held by the Utes was deferred under provisions of the Act of July 1, 1932 (47 Stat. 564) until the tribal title was extinguished.

After the legalities were settled, Reclamation assigned William F. Crabtree as project manager and Murray J. Miller as Florida's construction engineer.[8]

Construction History

The Florida Construction Division office on Main Avenue in downtown Durango was the scene of the bid opening on June 1, 1961. Construction Engineer Miller's announcement of the bid raised gasps in the audience of contractors and representatives. J. F. White Engineering Corporation of Englewood, Colorado held the apparent low bid. White offered a proposal $700,000 less than the engineer's estimate of $5.5 million. Miller admitted that afternoon to the *Durango News-Herald* that he was "not overjoyed" by White's offer. Miller's misgivings were born from his belief that "most of our problems come from contractors who bid too low and then they can't make any money on the job. But I'm not worried about it. Maybe he has some ideas the others didn't think of." On the final day of June, Reclamation's Comptroller General found enough errors in White's bid to cancel their offer. The next lowest bid of $5.8 million was tendered through a joint venture of Colorado Constructors, Inc. (CCI) and A. S. Horner Construction, Co., Inc., both of Denver.[9]

Colorado Constructors and Horner's moved equipment on July 6 to begin preparatory work on separate offices and maintenance yards. While their bid was presented jointly, the two contractors operated independently. Horner would build all concrete structures, excavating and placing the lining in the outlet works tunnel, adit, and shift. They would also install the high pressure gates and miscellaneous metal work, and make all electrical and mechanical installations. Colorado Constructors would move all the earthwork to the damsite. A subcontractor cleared the dam and reservoir sites, a right of way for a county road and a Rural Electrification Administration (REA) powerline. Horner and CCI would also spilt the work on the Florida Farmers Ditch Diversion Dam.[10]

Looking like a shopping center parking lot on Christmas Day, only a few trucks and other

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8. *Annual Project History, Florida Project*, Vol. 1, 1961, 11, 15; *Durango Herald-News*, 20 April 1960, p. 1; *Durango Herald-News*, 20 May 1960, p. 1.
9. *Annual Project History, Florida Project*, Vol. 1, 1961, 19, 63-5; *Durango Herald*, 1 June 1961, pp. 1, 3.
10. *Annual Project History, Florida Project*, Vol. 1, 1961, 19.

pieces of equipment scurried along the foundation's surface in preparation for laying the dam's material. Encompassed by sturdy evergreens and spindly aspens, the dam site soon was a hive of activity. A battery of machines, including a 50-ton pneumatic-tired roller, a rock-saw wheeled trencher, and a 8,100-lb. Essick vibrating compactor, gouged and formed the site according to Reclamation's design. Horner installed a portable batching plant in their maintenance compound 600 yards south of the dam on the river's west bank, delivering concrete to the site by 6.5-yard transit mixers. Placement was made with a mobile crane.[11]

Highly porous glacial gravel over the river channel and badly weathered rock on the abutments required digging a positive cutoff. The deeper the crew dug, the more seepage flowed out of the foundation. Continuous pumping was the method used to control the elevation of the water. Design specifications dictated pressure grouting of many areas. These included the rock foundation of the embankment and spillway crest structure, the heel of the left spillway footing, and the rock surrounding the outlet works tunnel, gate chamber, adit, and shaft. A grout cap trench, 3 feet wide and 3 to 5 feet deep was cut into the rock foundation and sealed off by a fan-shaped grout curtain. A key element to the success of the project, drilling and grouting operations across the dam site went ahead with only minor difficulties.[12]

On August 18, 1961, excavation of the intake channel's outlet works began, continuing until September 11 when crews cut into the toe of an old land slide on the right side of the channel. Removing a support at the toe triggered a new slide and digging immediately ended. Several hundred thousand yards of loose dirt needed to be removed to save the intake. After four days of consultations, Reclamation engineers decided to move the intake approximately 300 feet upstream to an area better suited to excavation. Digging the repositioned intake channel at the new site lasted from mid-September to November 1. The same day the intake was moved, September 15, employees of Colorado Constructors called a general strike against the firm. There was no specific reason why the stoppage was called, but only two shifts were lost when the men went back to work a day later. The only other misfortunes to strike the project

11. *Ibid*., Vol. 1, 1961, 21, 23, 70.
12. U.S., Department of Interior, Bureau of Reclamation, *SEED Report on Lemon Dam*, (Denver: 1985), 17-9.

happened within the space of five days in July 1963. On July 5, a dump truck driven by a CCI employee collided with a DW-20 tractor-scraper off the haul road to the dam, killing the dump truck driver. A flash flood washed out backfill along the spillway's right side on July 10, temporarily delaying operations.[13]

Comprising four zones, the impervious core of Lemon Dam is layered with selected clay, silt, sand, and gravel. The stones and sand of Zones 1, 2, and 4 were gathered at borrow pits upstream from the dam. Because of the soil's high moisture content and a large percentage of rocks, workers practiced selective excavation to obtain the right kind of clay, silt and gravel for zone 1. Zone 2 is sand, gravel and 12-inch cobbles, zone 3 tops zone 2 with clay, silt, sand, 12-inch cobbles and 18-inch rock fragments, and materials for zone 3 were leftover from the dam and spillway's foundation excavation. The dam's downstream face, or zone 4, consists of cobbles, boulders, and rock fragments up to a cubic yard in size. This material came from separation of the oversized rock from zones 1, 2, and 3. Additional oversized rocks were sorted in the borrow area and hauled to the zone 4 embankment. The 3-foot thick layer of riprap that topped off the dam's upstream embankment was quarried 5.5 miles upstream from the damsite. Being choosy nature to find the right material paid off, as an examination conducted by Reclamation concluded "the quality of material being used is clearly superior to that tested in the laboratory when designs were prepared."[14]

The completed dam stands 284 feet high with a crest length of 1,360 feet. Containing 3,042,000 cubic yards of rock and earth, the dam embankment's maximum base width is 1,170 feet, with a crest thickness of 30 feet. The spillway is on the right abutment of the dam and consists of an approach channel, a concrete inlet and ogee crest section, open concrete chute, concrete stilling basin, and outlet channel discharging into the Florida River. The design capacity of the spillway is 9,600 cubic feet per second (cfs). The outlet works is also found in the dam's right abutment and includes an approach channel, a concrete intake structure, and a

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13. *Annual Project History, Florida Project*, Vol. 1, 1961, 21-2, 76; U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 3, 1963, 12.
14. U.S., Department of Interior, Bureau of Reclamation, *SEED Report on Lemon Dam*, 21, 24; U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 3, 1963, 13.

concrete-lined tunnel with upstream circular and downstream horseshoe sections. A gate chamber is provided for two 2.25-foot-square-high pressure emergency gates and two 2.25-foot-square high regulating gates. The 9-foot free-flow horseshoe-shaped tunnel features a design capacity of 900 cfs. Fish screens were installed at the dam in 1963, but never put to use. For the next 25 years, the rotary screen caught only debris, clogging the canals annually. Willing to unload the screen to any interested party, the FWCD made a gift of the device to the Northern Colorado Water Conservancy District in October 1989.[15]

Lemon Reservoir is approximately one-half mile wide and three miles long with a maximum water surface area of 622 acres and maximum water surface elevation of 8,148 feet. The reservoir's total capacity is 40,146 acre feet, of which 39,030 acre feet are active conservation. Snowmelt from April to July provides the greatest amount of run-off into the reservoir followed by high-intensity summer and fall rainstorms. Both the Lemon Dam and Reservoir were completed in December 1963.[16]

The Florida Farmers Ditch Diversion Dam is about 8 miles downstream from the Lemon Dam and was rehabilitated by Reclamation in 1962-63. The diversion dam features a concrete gravity overflow spillway section with a gated sluiceway and intake structure located near the spillway on the right abutment. The sluiceway is controlled by a 10 x 13-foot radial gate. The intake structure, designed to discharge 185 cfs into Florida Farmers Ditch is controlled by a 12-x 10-foot radial gate.[17]

From the Florida Farmers Ditch Diversion Dam, 185 cfs is transferred down its lateral system south to the bifurcation with the Florida Canal. From there, water flows west through Florida Farmers' laterals to the Hood Splitter. At that point, water goes through laterals to the west side of the Project. The Florida Farmers Ditch Company and the Florida Co-op Ditch Company oversee the use of this water.[18]

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15. *SEED Report on Lemon Dam*, 1
16. U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 11, 1973-4, 1; U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 20, 1987, 128.
17. *Annual Project History, Florida Project*, Vol. 20, 1987, 139.
18. *Ibid*., Vol. 20, 1987, 139-40.

As construction progressed in the spring of 1962, the United States and the FWCD signed a contract to modify and extend the existing distribution system. The Florida Farmers Ditch was enlarged and relocated along 3.9 miles, and Florida Canal was also enlarged and relocated over 1.8 miles. The entire Florida carriage distribution system is five miles of cobblestone lined main canals, 10 miles of unlined main canals and 120 miles of unlined laterals and ditches. Because of the plunging elevation from the dam to the crop lands, all irrigation is done by gravity flow. At the Florida Canal, 7.5 miles downstream of Lemon Dam, 80 cfs is diverted through two 30 foot wide slide gates and transported through its laterals southwesterly to Pastorious Reservoir. Pastorious is a 200 acre-foot regulatory and holding pond. From Pastorious, water goes to the southern tip of the project through Florida Canal and canal enlargement laterals. The laterals range in capacity from two to 50 cfs and were built between June 1963 and November 1964. The cost of all project facilities totaled $11.1 million.[19]

Post Construction History

The first irrigation water was delivered in 1964, and the FWCD completed rehabilitation of the existing lateral system the following year. The diversion works, main canals, and laterals were turned over to FWCD for operation and maintenance on April 1, 1967. On New Year's Day 1968, Lemon Dam was also handed over to the district.

Since 1966, Reclamation engineers had been aware of the effects of freezing and thawing on the dam's spillway. In Reclamation's Denver office, the director of design and construction, Harold Arthur, commented in an April 1973 memo, that repairs were needed to the Lemon Dam's spillway to prevent a possible flood of "catastrophic proportions." Arthur estimated the walls would succumb as early as the following winter. Three weeks later, on the morning of May 14, 1973, the second panel from the inlet on the dam's left spillway entrance wall failed. Moist earth gathered weight behind the concrete walls, subsequently freezing and expanding, a phenomenon known among engineers as "ice jacking." The ground's movement pushed sections of the walls resulting in their failure. Siegriest Construction Company of Denver began repairs

19. U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 24, 1991, 139-40.

in September 1973 and concluded operations exactly a year later. Despite the troubles with the spillway wall, a 1985 examination determined the dam to be "unusually watertight" with the engineers' only concern an active landslide upstream of the spillway inlet on the dam's right side.[20]

Settlement of the Project

The Florida Mesa had been farmed for more than 40 years when the Florida Project was first discussed in the late 1930s. But the greatest impact on agriculture came from a source outside of the farming community after the Lemon Dam was completed. Alfalfa and grain producers and their lands were discovered by the outside world. Many faced a decision whether to stay or sell out to sprawl.

People living at the foot of the San Juan Basin had few disruptions in their lives until the 1950s. During that decade, local uranium, gas, and oil resources were first discovered and developed. The earliest encroachment onto the Florida Mesa came in the late 1950s when 175 homes were built near U.S. Highway 160 and Colorado Highway 172. Durango and its environs grew from approximately 7,500 people in 1950 to 10,530 in 1960. This boom peaked by the early 1960s, only to pick up again in the mid-1990s, this time driven by people escaping the urban sprawl they had created in places like Southern California. Between 1990 and 1994, La Plata County's population grew by 5,000. Florida Mesa is directly impacted by this growth, as La Plata County has no zoning laws. Looking back on a tradition of outlasting drought and Federal uncertainty, current cattlemen and growers must now ponder whether it's worth defending their livelihood from the subdivisions spreading north and eastward from Durango.[21]

Supplanting agriculture and ranching is an economy rooted in the twin corruptions of environmental destruction and the social inequities inherent in service jobs. Population pressure has increased the cost of housing. In the early 1990s, a modest ranch home in the city's

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20. *Durango Herald*, 21 May 1973, p. 1; U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 11, 1973-4, memo from Harold G. Arthur to Regional Director, Salt Lake City, Utah; *SEED Report on Lemon Dam*, 2, 16.
21. *Annual Project History, Florida Project*, Vol. 9, 1969-70, 20; *Annual Project History, Florida Project*, Vol. 1, 1961, 43; *Rocky Mountain News*, 2 May 1994, p. 6A, 8A.

downtown cost $80,000. By 1994, the value of that house skyrocketed to $144,000. The price of real estate forced a growing cadre of maids, waiters, and construction workers to take a 90-minute commute each day from Farmington, New Mexico, where living is cheaper. Developers, business owners, and governments support the resort developments in hotels, motels, and restaurants. Whether there is a role for cattle, alfalfa, and a dam is for the citizens of the county to decide.[22]

Uses of Project Water

The annual average irrigation supply of water from the Lemon Reservoir is 25,740 acre-feet. An average of 25,500 acre-feet diverts into the Florida Canal and Florida Farmers Ditch for irrigation of 12,500 acres of supplemental service and 5,700 acres of full service land above the river. An additional 240 feet is diverted along 25 miles of the river to a number of small ditches for supplemental irrigation of 1,250 acres. Agriculture remains an appendage of southwestern Colorado's livestock industry. A large percentage of livestock fed on project crops are sold at sales barns near Durango and the town of Cortez and then moved by truck to slaughterhouses elsewhere. In 1991, total crop value was $2.7 million and the average value of an acre of land was $190.83. Major crops on the project included corn, oats, wheat, alfalfa hay, other kinds of hay, irrigated pasture, and silage. Very little of the forage crops are shipped outside the area. A total of 14,259 acres were under irrigation in 1991, as there were 83 full-time and 375 part-time farms.[23]

In 1964, the National Park Service spent $106,150 for roads, parking lots, camping areas, a boat launching ramp and other inducements to lure people to the new lake. In two years, a number 4.6 times the estimate of the 1959 Definite Plan Report visited Lemon Reservoir. The increase of visitors in 1966 alone provided a jump of 202 per cent over the previous year. Sanitation facilities in the summer of 1966 were inadequate, as a seasonal park ranger and one

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22. U.S., Department of Commerce, Bureau of Census, *1990 Census of Population and Housing Summary Tape File 1A*, Mountain Division, September 1991; *Rocky Mountain News*, 2 May 1994, p. 6A.
23. *Annual Project History, Florida Project*, Vol. 24, 1991, 3; *Annual Project History, Florida Project*, Vol. 20, 1987, 139; U.S., Department of Interior, Bureau of Reclamation, *1991 Summary Statistics: Water, Land and Related Data*, (Denver: 1991), 215.

park laborer could not keep up with the trash left by picnickers, campers and fishermen. Money was quickly allotted for eight toilets, additional garbage cans and cleaning and rehabilitating the water intake and filter system. The U.S. Forest Service took over operations in July 1967, and the area counted 260,000 visitor hours by 1991.[24]

The dry year of 1974 drained the reservoir down to 15,000 acre-feet of useable water, curtailing deliveries for the first time since the project opened. Several people owning no water rights installed pumps in ditches owned by the companies supplying water to users on the Florida Mesa. Involvement of the local District Attorney and the La Plata County Sheriff's Office thwarted the water robbers.[25]

By the 1980s, the decreasing importance of agriculture had some at the FWCD looking to the Lemon Dam as a revenue producer. In a 1980 interview with Durango's *San Juan Journal*, FWCD's President George Brown assessed the future of the Florida Project as limited, "There is less land in agriculture on Florida Mesa now than there was before the construction of the project." New commercial and private developments freed up supply that previously went to the hay crop. The FWCD took the excess water and divided up among those still farming, but the FWCD's long range plan was to pay their debts to the Federal Government by selling their water to Durango consumers. Brown lamented, "You can't make a living farming at this altitude with such a short season. More and more people are selling out or breaking their land up for houses." He believed in selling their extra water to Durango, the funds would pay off both the project costs and the $3 per acre foot operation and maintenance fees, as "I think in the long run the whole thing is going to subdivisions." Ironically, at the time of the 1939 investigation, Reclamation offered the town of Durango 500 acre-feet annually from a federally-built reservoir. The government's asking price of $100,000 under the terms of the 1939 Reclamation Project Act was too steep for the town's city fathers. It seems likely that Durango will get more than 500

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24. U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 6, 1966, 26; U.S., Department of Interior, Bureau of Reclamation, *Annual Project History, Florida Project*, Vol. 9, 1969-70, 41, 44.
25. *Durango Herald*, 28 June 1974, p. 1.

acre-feet from the Lemon Reservoir in the future as the city continues to grow.[26]

Conclusion

Reclamation's smaller and relatively recent projects, like Florida, face an uncertain direction as the West gains extra people. Really only a footnote to most examinations of the Colorado River Storage Project, Florida may become an important part of a changing landscape. Since the early 1960s, the project has served its users well, but who it will serve in the future -- farmers or suburbanites -- is impossible to predict.

Suggested Readings

Paul O'Rourke, *Frontier in Transition: A History of Southwestern Colorado*, (Denver: Colorado State Office Bureau of Land Management, 1980).

About the Author

Robert Autobee holds a Masters degree in History from the University of Northern Colorado. The Colorado Historical Society published his thesis, *If You Stick With Barnum: A History of a Denver Neighborhood*, as part of their *Essays and Monographs in Colorado History* series in 1993. He has worked as an editor and reporter for several different Colorado newspapers, and for *Western Resources Wrap-Up*, based in Washington, D.C.

26. *San Juan Journal*, 27 February 1980, p. 1, 3; *Report on the Florida Project, Colorado*, 12.

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