

Ogden River Project

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The Ogden River Project

The Ogden River Project, as with many Reclamation projects in Utah, incorporated existing, locally built, irrigation systems into a larger project. Ogden city began as an agricultural area in the mid 1800s, but did not boast a large agricultural base when Reclamation built the Ogden River Project. By the time of the project's construction, the area's agricultural tradition had given way to the railroad industry. Ogden, Utah is located in an unenviable position in Weber County, between the Wasatch Mountains to the east and the Great Salt Lake to the west. The city is part of the geographic area known as the Great Basin Desert. Large quantities of precipitation do not often grace the landscape. Temperatures can vary from twenty degrees below zero in the winter to above 100 in the summer. Though the agricultural base remained small, irrigation proved necessary to give it any survivability.

Project Location

The Ogden River Project is located in Reclamation's Upper Colorado Region. The Project is fairly small, not encompassing a large area of land. Pineview Dam and Reservoir, the Ogden Canyon Conduit, the Ogden Canyon Siphon, the South Ogden Highline Canal, and part of the Ogden-Brigham Canal are in Weber County. Much of the Ogden-Brigham Canal stretches north into Box Elder County to Brigham City, Utah.¹

Historic Setting

Home to various groups of Native Americans for several centuries, Northern Utah first attracted Europeans and Americans in the early nineteenth century. Jim Bridger, the famed mountain man, was the first white man to see the Great Salt Lake. Peter Skene Ogden, a trapper for the Hudson Bay Fur Company, and the man for whom the city, river, and valley of Ogden were named, visited the area in the late 1820s. Captain Benjamin Louis Eulalie de Bonneville's military party reached the nearby shore of the Great Salt Lake in 1832. Area tradition claims

1. Department of the Interior, Water and Power Resources Service, *Project Data* (Denver: Government Printing Office, 1981), 714.

Father Pierre Jean De Smet, a Jesuit priest, entered the valley in 1841.²

After the influx of transient trappers, Miles Goodyear became the first permanent white settler in Ogden area in the 1840s. South of Ogden, in 1847 Salt Lake City, Mormon settlers first diverted water from nearby rivers to irrigate their crops. Within a year Mormons had moved north to settle Ogden and areas farther on. Ogden Mormons began diverting water for irrigation in 1848, setting the stage for water rights conflicts for years to come.³

Subsequent settlers to the area moved into Ogden Valley, ten miles to the east of Ogden city on the opposite side of the mountains, and the location of present day Huntsville. The farmers in the valley wasted no time in diverting the waters of the Ogden River for their use. This drastically decreased the amount of water available for the original settlers of Ogden and its immediate surrounding area. The completion of the Transcontinental Railroad in May, 1869, changed the face of Ogden city from a farming community to the Junction City of many western rail lines. In further urban development, Utah Power and Light Company built Pioneer Dam on the Ogden River, for supplemental power, in the early 1900s. Ogden grew and with it the need for more water to provide domestic and agricultural uses.⁴

Ogden grew increasingly desperate for water. The city confiscated water from any available nearby stream for its uses. Ogden found its water supply could not keep up with its ever increasing needs. Ogden made plans to construct a storage reservoir on the Ogden River near the Huntsville. The plans fell through, according to the 1958 *Project History*, because of no funds, no bedrock, no enthusiasm, or all three. In place of the storage reservoir Ogden chose to dig artesian wells in Ogden Valley's river basin. Between 1915 and 1925, the city dug fifty wells, further depleting the water supply of farmers in both the Ogden Valley and the Ogden city areas. Apprehensive Weber County water users searched for ways to fight the depletion of their water sources. The Plain City Irrigation Company filed a lawsuit in an effort to curtail the water

2. Department of the Interior, Bureau of Reclamation, *Project History, The Ogden River Project, 1958*, Record Group no. 115, Box 123, 4.

3. *Ibid.*, 4-5.

4. Reclamation, *Project History, 1958*, 5. – *Project History, The Ogden River Project, 1933*, Record Group no. 115, Box 119, 28-9.

losses. The impending conflict seemed certain to involve Ogden city, and most Weber County farmers in an ugly legal struggle.⁵

Project Authorization

By the late 1920s Reclamation began making plans for storage dams on the Ogden and Weber Rivers. To ease their fears, Ogden area water users entered a July, 1929 agreement stipulating a seven year trial period. During the trial period Ogden city would receive the same amount of water it currently drew from the wells. The Ogden River Project did not come into existence for almost four years with the June 16, 1933 passage of the National Recovery Act (48 Stat. 195). Passage of the Recovery Act allowed Secretary of the Interior Harold L. Ickes to authorize the project, and he allotted three million dollars to it in 1933.⁶

Construction History

Surveying and testing commenced in 1933 for the Ogden River Project under J. R. Iakisch, Resident Engineer. Reclamation used most of the surveying to determine property lines on the border of Pineview Reservoir. Other surveys determined rights of way along canal and conduit routes. Reclamation surveyed new highway locations from Pineview Dam to the towns of Eden and Huntsville. Reclamation's initial test of possible fill material for Pineview Dam yielded no viable selections. Reclamation crews obtained samples from a five mile area and eventually found suitable material for the earthfill portion of the dam.⁷

Utah Construction Company of Ogden and Morrison-Knudsen Company of Boise, Idaho contracted to build Pineview Dam. The contract encompassed construction of new highway sections as well as the dam structure. To deal with the workload, the two companies subcontracted much of the road and concrete work in the contract. Preliminary to construction of Pineview Dam in 1934, Utah Construction and Morrison-Knudsen breached Pioneer Dam. They excavated a channel from Pioneer Dam to Pineview Dam for removing water from

5. Reclamation, *Project History*, 1958, 5.

6. Reclamation, *Project History*, 1958, 5-6. – *Project History, The Ogden River Project*, 1933, 6.

7. Reclamation, *Project History*, 1933, 19, 21.

Pineview's foundation.⁸

Utah Construction and Morrison-Knudsen made good progress during 1935 concentrating on concrete works and the diversion tunnel. Work on the spillway, begun in 1934, encountered problems with excessive breakage in the excavation. Workers laid concrete at the upper end of the spillway to compensate for the breakage. The contractors finished excavating the spillway in December, 1935. Excavation of the diversion tunnel began in January, 1935. Work crews broke through in April. Work continued until August when the tunnel was ready for lining. Workers completed the concrete lining of the tunnel in September, 1935, except for the gate chamber.⁹

Simultaneous with spillway construction, workers excavated a cutoff trench. They drove steel sheet pilings in the trench for the cutoff wall. Crews began driving the pilings at the bottom of the dam site, moving to the south abutment. After completion on the south abutment they started from the beginning point and moved toward the north abutment. Driving of the pilings continued until its January, 1936 completion. Workers laid concrete on the slope of the south abutment, making a seal between the sheet piling and the rock.¹⁰

Utah Construction and some of the subcontractors advanced work on the highways in the contract. They completed excavation of the Eden road tunnel. Workers finished concreting the portals and timbering the tunnel, but did not start the concrete tunnel lining. On the rest of the road surfaces crews laid the gravel base and oiled the surface. The Emergency Conservation Works established a Civilian Conservation Corps (CCC) camp near Huntsville in 1935. The 235 workers from the camp cleared the reservoir site of buildings, brush, and fences, removed old 75 inch pipe, cleaned the steel trestles on the Ogden Canyon Conduit, and accomplished other work not specified on the contracts.¹¹

The contractors diverted water through the diversion tunnel in early 1936. They remove

8. Reclamation, *Project History, The Ogden River Project, 1934*, Record Group no. 115, Box 119, 52, 54.

9. Reclamation, *Project History, The Ogden River Project, 1935*, Record Group no. 115, Box 119, 49, 51.

10. Reclamation, *Project History, 1935*, 51. – *Project History, The Ogden River Project, 1936*, Record Group no. 115, Box 119, 66.

11. *Ibid.*, 53.

a section of the flume originally diverting the water in order to finish driving the sheet piling. Anticipated heavy runoff caused the replacement of the flume section to handle the excess water. Heavy runoff in April topped the flume, breaking it in to pieces. The upper section stayed in place, but the lower section washed away, allowing part of the cutoff trench to fill with mud. This slowed down excavation of the cutoff trench. Workers cleared the cutoff trench during the summer of 1936.¹²

Utah Construction and Morrison-Knudsen began laying the earthfill portion of Pineview Dam as re-excavation of the cutoff trench neared completion. Workers began the earthfill portion by placing five feet of clay over the drains in August, 1936. Work on the embankment continued until the October 15 completion date. Air powered mechanical tampers compressed the earthfill. After completion of the embankment, workers placed rock on the upstream and downstream sides of the dam.¹³

Grouting of tile drains and springs at the dam's foundation began the day after the placing of the earthfill finished. Laborers concluded installation of the high pressure gates in the gate chamber in the middle of October, 1936. Reclamation closed the gates and began storing water November 16. Workers continued excavation and concrete work on the spillway through most of 1936. They finished in October, 1936. Workers completed many of the smaller jobs by the end of 1936: grouting of a channel below the spillway, excavation and placement of riprap from the spillway to Pioneer Powerplant, construction of 75 inch pipe penstock and 60 inch discharge pipe in the diversion tunnel, construction of control works, and placement of radial gates and the gates' operating equipment.¹⁴

Even with the construction of Pineview Dam, Ogden refused to give up its artesian water supply. To prevent the loss of the artesian system Reclamation hooked pipes to the wells and placed them four to thirteen feet below the reservoir bottom. The pipes fed the water into a collector tank. Water then flowed through a 9000 foot long, 38 inch diameter pipe to a point

12. Reclamation, *Project History, 1936*, 66, 68.

13. *Ibid.*, 68.

14. *Ibid.*, 68, 70.

below Pineview Dam where it connected with the Ogden city main.¹⁵

In 1937 enrollees from CCC Camp BR-12 completed cleanup work around Pineview Dam. CCC workers commenced excavation work for the concrete parapet on top of the dam in 1938. Adverse weather and late reception of construction drawings forced postponement of the work until the next year. Work on the parapet did not resume until July, 1939. The CCC forces moved quickly, finishing the parapet in August, 1939. The enrollees completed the curb wall in September, completing work on Pineview Dam.¹⁶

Barnard-Curtiss Company bid low and received the contract for the Ogden Canyon Conduit. The conduit consisted of a 75 inch diameter wood stave pipeline delivering water to the Pioneer Powerplant and the irrigation canals near Ogden city and in Box Elder County. The wood stave pipeline was comprised of wood slats bound together with steel bands. Removal of the old pipeline and the excavation for the new pipe began in summer of 1935. Placement of the pipe finished before the end of the same year. Work continued through the winter as weather permitted. Falling rock during the winter of 1935-36 and floods that spring damaged the pipe necessitating repairs. Workers from the Huntsville CCC camp aided in connecting the pipe to one of the system's tunnels. Completion of the connection on November 20, 1935 finished the conduit construction.¹⁷

The Ogden-Brigham Canal starts its journey to Brigham City at the connection of the wood stave pipe of the Ogden Canyon Conduit and the steel penstock pipes of Pioneer Powerplant. J. A. Terteling and Sons Company, Utah Construction Company, and Morrison-Knudsen Company contracted the early stages of the Ogden-Brigham Canal in 1935. All contractors began excavation work in September of the same year. Work progressed rapidly, but the companies experienced some problems. Runoff from heavy rains floated part of the lined canal from its bed. The lining did not settle in its original grade causing it to crack. Workers

15. "Artesian Well Water Supply for the City of Ogden from the Bed of Pine View Reservoir; Ogden River Project, Utah," *Reclamation Era*, August 1939, 208-10.

16. Reclamation, *Project History, The Ogden River Project, 1937*, Record Group no. 115, Box 119, 65. – *Project History, The Ogden River Project, 1938*, Record Group no. 115, Box 119, 23. – *Project History, The Ogden River Project, 1939*, Record Group no. 115, Box 119, 11-2, 32.

17. Reclamation, *Project History, 1934*, 59. – *Project History, 1935*, 57. – *Project History, 1936*, 80.

repaired the damage with no further problems. Terteling and Sons completed their contract in August, 1936. Utah Construction and Morrison-Knudsen finished the following November.¹⁸

Terteling and Sons received the contract for the remainder of the Ogden-Brigham Canal in January, 1936. Terteling and Sons worked quickly without any major problems. They finished excavating and lining the canal with concrete by the end of 1936 with only work on siphons left to accomplish. Cold weather and snow suspended work in January, 1937 until more suitable weather returned. Work resumed the following March with good progress, but delays in construction material deliveries by the Government slowed progress. In spite of the delays, Terteling and Sons completed the remainder of the Ogden-Brigham Canal by June 5, 1937.¹⁹

J. A. Terteling and Sons contracted to build initial sections of the South Ogden Highline Canal in January, 1936 at the same time the company received its second Ogden-Brigham Canal contract. The company wasted no time in beginning the work after Reclamation gave the order to proceed. Clearing the canal route began April, 1936. Through the remainder of the year the contractor completed most of the canal excavation, siphon and culvert construction, and concrete lining of the canal. The cold weather which stopped Terteling and Sons on the Ogden-Brigham Canal forced work to halt on the South Ogden Highline Canal. Delays once again hindered Terteling and Sons as right of way disputes changed the canal's alignment. Regardless of delays, the company concluded the contract work June 12, 1937.²⁰

Work on Ogden-Brigham and South Ogden Highline Canals in 1938-39 amounted to little more than cleanup and additions. Both canals received trashracks on the inlets of unprotected siphons in 1938. Workers installed a concrete Venturi flume section at the head of the Ogden-Brigham Canal in 1939 with a covered throat to prevent the growth of algae. The Venturi flume contracted the canal's width. The differences in the water's surface levels, in the narrow section, indicated the amount of water flowing through the canal. Reclamation started a mile and a half long wasteway at the end of the South Ogden Highline Canal during the same

18. Reclamation, *Project History*, 1934, 60. – *Project History*, 1935, 56-57. – *Project History*, 1936, 74, 76.

19. Reclamation, *Project History*, 1936, 78. – *Project History*, 1937, 55.

20. Reclamation, *Project History*, 1936, 78. – *Project History*, 1937, 59, 61.

year.²¹

Reclamation awarded contracts to several companies for construction of the South Ogden Highline Canal lateral system in 1940. Construction began in September, 1940 and continued into the next year. The contractors on the South Ogden distribution lateral system completed their work by June, 1941. CCC enrollees worked under pressure to complete the lateral turnouts of the canal in 1941 so water could be turned into the system for the year's irrigation season. CCC forces began building equalizing reservoirs in 1941 along the South Ogden Highline Canal. These reservoirs were used to measure the water turned into South Ogden's lateral system. The CCC constructed six equalizing reservoirs ranging from eight to thirteen acre-feet of capacity.²²

Dan Teters Company contracted to build the Ogden Canyon Siphon in October, 1936. Reclamation gave Teters the notice to proceed the following February. Workers started pouring concrete for pedestals, support footings, and anchorages April 13, 1937, shortly afterwards they poured concrete on the north side tunnels. Teters started placing the 31-¼ inch plate steel pipe April 23, 1937, connecting it to the north side tunnels. At the same time workers commenced erecting the steel bridge which would suspend the siphon 200 feet above the canyon floor and highway. Workers placed the first section of pipe on the bridge on July 3, 1937 and completed the last section six days later. Teters completed hookups and leak repairs by the end of July.²³

Upon completion the Ogden-Brigham Canal measured 24.2 miles in length with a capacity of 120 second-feet. The canal extends in a northerly direction to Brigham City. South Ogden Highline Canal travels south 5.2 miles, and has a capacity of 35 second-feet. The Ogden Canyon Siphon stretches 360 feet with most of its bulk suspended 200 feet above the highway traversing Ogden Canyon.²⁴

Post Construction History

Reclamation realized in 1938 excessive runoff might damage the Ogden-Brigham Canal

21. Reclamation, *Project History, 1938*, 23. – *Project History, 1939*, 32. John S. Scott, *Dictionary of Civil Engineering* (New York: Halsted Press, 1981), 294.

22. Reclamation, *Project History, The Ogden River Project, 1940*, Record Group no. 115, Box 119, 36, 38, 42. – *Project History, 1941*, 35, 37, 39, 41. – *Project History, The Ogden River Project, 1964-68*, Record Group no. 115, Box 145, 15.

23. Reclamation, *Project History, 1937*, 41, 45, 51.

24. Water and Power Resources, *Project Data*, 717.

by causing it to overflow. To combat the overflow possibility Reclamation engineers developed wasteway reservoirs. Wasteway reservoirs provided a place to divert excess water during times of heavy runoff. Work on the reservoirs began in 1940 on the Ogden-Brigham Canal.

Reclamation used CCC forces to construct wasteway reservoirs along the canal. Two reservoirs had vinyl lining. One had a capacity of eight acre-feet and the other a capacity of twenty acre-feet. Three concrete lined wasteway reservoirs had capacities of nine to twelve acre-feet.²⁵

The CCC forces encountered a shortage of workers in February, 1940 when an influenza epidemic struck the camp near Brigham City. Bad luck continued to plague the CCC in Box Elder County in 1941 as work on the wasteway reservoirs continued. In September heavy winds wrecked the buildings at CCC Camp BR-64-44 in Willard, about ten miles south of Brigham City.²⁶

Rock falls, landslides, fires, and floods damaged Reclamation's wood stave pipeline on the Ogden Canyon Conduit. The conduit received damage from falling rocks in 1939, 1946, and 1964. Repairs took from five days in one instance to three weeks in another. In July, 1946 the pipe caught fire, forcing Ogden River Water Users' Association employees and Forest Service fire fighters to put out the blaze. Workers replaced part of the wood stave pipe with 78 inch concrete pipe in 1983. Flooding in 1986 floated 300 feet of the pipeline out of the ground. In December, 1986 Knudson Construction replaced the wood stave pipe with 75 inch steel pipe.²⁷

Reclamation decided to enlarge Pineview Dam and Reservoir to supply water to the newly forming Weber Basin Project in addition to water supplied to the Ogden River Project. Utah Construction Company received the 1955 contract for the dam's enlargement. Initial work consisted of modification of the spillway and relocation of the Eden highway across the dam structure.²⁸

25. Reclamation, *Project History, 1938*, 13. – *Project History, 1939*, 20. – *Project History, 1940*, 10, 36. – *Project History, 1964-68*, 16.

26. Reclamation, *Project History, The Ogden River Project, 1941*, Record Group no. 115, Box 119, 12, 37, 39.

27. Reclamation, *Project History, 1939*, 35. – *Project History, The Ogden River Project, 1946*, Record Group no. 115, Box 119, 17. – *Project History, The Ogden River Project, 1964-68*, Record Group no. 115, Box 145, 4. – *Project History, The Ogden River Project, 1983*, Record Group no. 115, Box 120, 21. – *Project History, The Ogden River Project, 1986*, Record Group no. 115, Box 121, 6.

28. Reclamation, *Project History, The Weber Basin Project, 1955*, Record Group no. 115, Box 64, 31-2.

Concrete construction of the spillway and relocation of the Eden highway again took most of Utah Construction's attention in 1956. The increased size of Pineview Dam eliminated the highway tunnel in the right abutment of the dam. Raising the crest of the dam now kept the entire highway out in the open. Utah Construction completed the concrete work on the spillway over the winter of 1956-57. The company finished raising Pineview Dam's crest and surfacing the road across in September, 1957.²⁹

Increasing the size of Pineview Reservoir threatened Huntsville Cemetery and access to it. Lee Moulding Construction Company contracted to protect the cemetery against the erosive effects of the reservoir's waters, and construct a new road to the cemetery. Filling the enlarged reservoir to its new capacity depended on completion of the contract. Progress moved slowly and the contract expired before completion. Moulding stopped work during January, 1957 because of harsh weather. Resuming work in the spring, Moulding completed the riprap on the shore around Huntsville Cemetery. After finishing the riprap, the company turned its attention to the access road, finally completing it July 26, 1957.³⁰

Pineview Dam was a zoned earthfill dam. Originally Pineview Dam stood 103 feet high. Pineview Reservoir initially held 44,000 acre-feet of water. After enlargement the dam stood 137 feet high. The top width is 30 feet with a maximum base width of 480 feet. Pineview Dam's crest length is 600 feet, and the volume of material totals 418,000 cubic yards. Pineview Reservoir now holds 154,900 acre-feet of water.³¹

As always in Utah, water availability varied from one extreme to the other. As mentioned before heavy runoff in the late 1930s threatened to overflow the canals. On the other end of the scale, in 1976 Utah experienced its worst drought since the state started keeping records in 1892. Seven years later heavy flooding struck in 1983, when Utah received greater than normal precipitation in ten of the year's twelve months.³²

29. Reclamation, *Project History, The Weber Basin Project, 1956*, Record Group no. 115, Box 65, 22. – *Project History, The Weber Basin Project, 1957*, Record Group no. 115, Box 65, 24.

30. Reclamation, *Project History, Weber Basin, 1956*, 30. – *Project History, Weber Basin, 1957*, 30.

31. Water and Power Resources, *Project Data*, 716-7, 1309.

32. Reclamation, *Project History, 1983*, 32.

Settlement of the Project

When Reclamation started the Ogden River Project, Ogden was the second largest city in Utah. In the mid 1930s Ogden had a population of approximately 48,000 people. World War II brought an influx of people to Ogden and surrounding Weber County. The Army's construction of Defense Depot Ogden and Hill Field, a repair base for heavy bombers, made Ogden a center for the defense industry during and after World War II. Military service brought many people to Ogden, and an abundance of jobs in the area kept them there. Ogden grew to 51,927 people by 1946, and the project served a total of 90,000 people in project towns. Most of the farm land on the project was already privately owned. Only 5100 lived on project farms.³³

People continued moving into Ogden during the post war years because of growth in government and railroad employment, but farm population remained steady with only slight increases. Ogden grew to 56,908 people by 1950 even though the total population of project towns dropped to 78,164. Brigham City, Perry, and Willard, in Box Elder County, had 7997 people of the project towns. Farm population increased to 6220 in the same four year span. The demise of the railroads passenger service in the 1950s and 1960s slowed growth in Ogden greatly. The 1963 *Project History* showed a total of 92,000 people served by Ogden city's water contract. This number is deceptive because Ogden's population had stopped increasing in great leaps, but Weber County as a whole maintained its growth. Many of Ogden's suburbs received water from the project through Ogden's water system.³⁴

Ogden had a total population of 63,909 in the 1990 census. It now ranked fifth in population size of Utah cities behind Salt Lake City, West Valley City, a recent conglomeration of Salt Lake suburbs into one city, Provo, and Orem. In the meantime Weber County increased to 158,330 people. The combined total of project towns, including Ogden, totaled 120,349. Of these Brigham City, Perry, and Willard had a combined total of 18,153 in 1990.³⁵

33. Reclamation, *Project History, 1934*, 64. – *Project History, The Ogden River Project, 1946*, Record Group no. 115, Box 120, 31.

34. Reclamation, *Project History, The Ogden River Project, 1950*, Record Group no. 115, Box 120, 37. – *Project History, The Ogden River Project, 1963*, Record Group no. 115, Box 145, 389.

35. Department of Commerce, Bureau of the Census, *Twenty First Census of the United States: Population and Housing, 1990*, Bureau of the Census, 1990.

The Ogden River Water Users' Association organized in 1933 in order to negotiate contracts with Reclamation for construction and repayment of the contract. Water users from the area of the proposed Ogden-Brigham Canal filed a petition in November, 1933 with the Weber County Commission to form the Weber-Box Elder Conservation District. The commission approved the district within the same month. The South Ogden Conservation District formed in 1935 to contract for project water for the irrigable lands adjacent to the South Ogden Highline Canal.³⁶

Initially the Ogden River Water Users' Association entered a contract with Reclamation to repay the \$2.9 million originally allotted to the project. Rising costs of the project, caused by increasing the height of the dam from original specifications, pushed up the repayment total. Reclamation and the Ogden Water Users' Association drew up a 1935 contract making the association responsible for repayment of \$3.5 million. Twenty companies, including Ogden city, received water from the Ogden River Project by 1966.³⁷

Uses of Project Water

Ogden River Project supplied much needed irrigation water to farmers on project lands. The project did not add any more irrigable lands to the area because private owners already had possession of the area's irrigable, fertile lands. Introduction of the project to the area, especially Pineview Dam and Reservoir, benefitted the area by putting an end to conflict between the water users. Construction of Pineview Dam eased the water shortage usually associated with the late summer months. With water in storage water users ceased fighting over who would have primary access to the scarce water supply toward the end of the irrigation season.³⁸

Cultivation of crops received most of the water supplied by the Ogden River Project. Principal crops on the project consisted of cherries, apricots, peaches, apples, berries, sugar beets, alfalfa, and small grains. The presence of the Utah-Idaho Sugar Company and local canneries made sugar beets and fruits prosperous crops. Alfalfa and hay supplied the livestock

36. Reclamation, *Project History, 1933*, 26. – *Project History, 1935*, 15.

37. Reclamation, *Project History, 1933*, 26. – *Project History, 1935*, 15, 17. – *Project History, 1964-68*, 118

38. Reclamation, *Project History, 1958*, 6.

concerns in the project area. Dairy cattle comprised the majority of livestock on the project. Beef cattle constituted a smaller part.³⁹

Table I. Crop types and acreage grown on the Ogden River Project, 1966.

<u>Crop Type</u>	<u>Acres</u>	<u>Crop Type</u>	<u>Acres</u>	<u>Crop Type</u>	<u>Acres</u>
Barley	815	Other Forage	1532	Tomatoes	383
Corn	126	Silage	617	Nursery	17
Oats	47	Sugar Beets	532	Apples	94
Wheat	982	Cantaloupes &		Apricots	241
Alfalfa Hay	4989	melons	68	Berries	112
Other Hay	535	Watermelons	76	Cherries	308
Pasture land	980	Onions (Dry)	90	Peaches	836
Corn Fodder	70	Potatoes (late)	305	Family Gardens	610
Mixed Orchard	665				

Source: Reclamation, *Project History, The Ogden River Project, 1964-8*, 20.

The Ogden River Project irrigated 12,000 acres in 1937. Over the years the acreage irrigated increased some, but never exceeded 20,000 acres. The project irrigated over 17,000 acres in 1946. The acreage irrigated stabilized over the next several decade. The project irrigated an approximate average of 15,000 acres between 1950 and the mid 1980s.⁴⁰

Utah Power and Light Company uses Ogden River Project water for power generation. Around the turn of the century Utah Power and Light built Pioneer Dam on the Ogden River as the company's hydroelectric power source. Construction of Pineview Dam necessitated breaching Pioneer Dam, so Utah Power and Light entered a contract with Reclamation for project water. Reclamation extended a pipeline from Pineview Dam to Pioneer Powerplant for Utah Power's use. Pineview Dam and the new pipeline gave the power company more water capacity than Pioneer Dam.⁴¹

Recreation uses of Pineview Reservoir make up a large part of the uses of project water. A wide variety of activities take place on and around the reservoir. Camping, swimming, boating, picnics, water skiing, fishing, and boat racing constitute most of the recreation in the area. Trout, bass, and walleyed pike are the common fish found in the reservoir. Pineview

39. Reclamation, *Project History, 1933*, 30. – *Project History, 1938*, 26, 29.

40. Reclamation, *Project History, 1937*, 73. – *Project History, 1946*, 31. – *Project History, 1950*, 37. – *Project History, 1964-68*, 5. – *Project History, The Ogden River Project, 1985*, Record Group no. 115, Box 121, 27.

41. Reclamation, *Project History, 1933*, 28.

Reservoir hosted the 1948 Pacific Powerboat Association championships.⁴²

Conclusion

The Ogden River Project is not large compared to many Reclamation projects. It did not add acres of irrigable land to the Ogden Valley. Its significance lay in the impact it had on a small geographic area in Northern Utah. Prior to construction of the Ogden River Project scarce water sources, especially in the late summer months, caused conflict between the various water users in Weber County. Those nearer the source of the Ogden River took what water they could, depriving the lower water users from obtaining the water needed for irrigation. After construction of the Ogden River Project and Pineview Dam and Reservoir, stored water made it possible for all concerned to get equal amounts of water, if not always the amount necessary. This decreased the amount of conflict and improved relations between water users.

About the Author

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42. Reclamation, *Project History*, 1983, 24, 30.

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J. A. Terteling and Sons Co.	7, 8
Knudson Construction Co.	10
Lee Moulding Construction Co.	11
Mormons	3
Morrison-Knudsen Co.	4, 6-8
National Recovery Act	4
Ogden	
Canyon	9
city of	2, 3, 6, 7, 12, 13
River	3, 14, 15
Valley	3, 15
Ogden River Project	2, 4, 10, 12, 13, 15
Ogden Canyon Conduit	2, 5, 7, 10
Ogden Canyon Siphon	2, 9
Ogden-Brigham Canal	2, 7-9, 13
Pineview Dam	2, 4, 6, 7, 10, 11, 13-15
Pineview Reservoir	2, 4, 10, 11, 13, 15
South Ogden Highline Canal	2, 8, 9, 13
Ogden River Water Users' Association	10, 13
Ogden, Peter Skene	2
Orem, city of	12
Perry, city of	12
Pioneer	
Dam	3, 4, 14

Powerplant	6, 7, 14
Plain City Irrigation Co.	3
Provo, city of	12
Reclamation	
Bureau of	2, 4, 6, 8-10, 12-15
Weber Basin Project	10
Salt Lake City, city of	3, 12
South Ogden Conservation District	13
U.S. Forest Service	10
Utah	
Box Elder County	2, 7, 10, 12
state of	2, 11
Weber County	2, 3, 12, 15
Utah Construction Co.	4, 5, 7, 8, 10
Utah Power and Light Co.	3, 14
Utah-Idaho Sugar Co.	13
Weber County Commission	13
Weber River	4
Weber-Box Elder Conservation District	13
West Valley City, city of	12
Willard, city of	10, 12
World War II	12