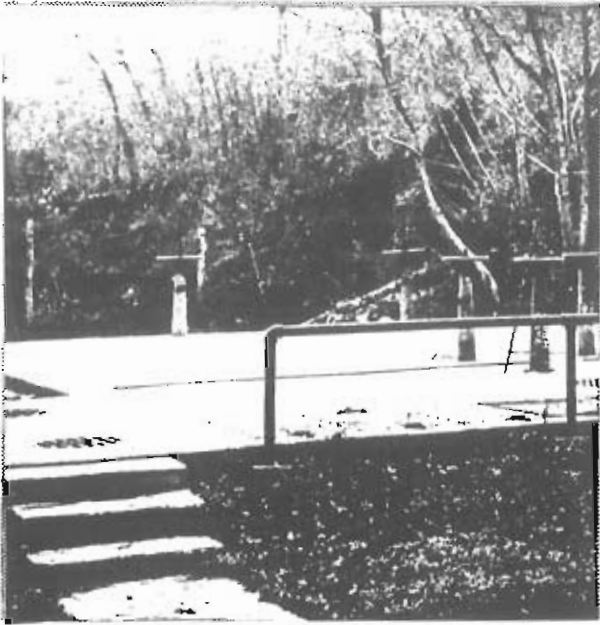


City Creek

"The Beginning"



Circa 1905-13

By LeRoy W. Hooton, Jr.

THE BEGINNING: CITY CREEK

By LeRoy W. Hooton, Jr.

Introduction

City Creek Canyon, located northeast of Salt Lake City, collects water from a 19.2 square mile watershed that feeds into the 14.5 mile-long City Creek stream. This water supply has been used by the inhabitants of the City since the earliest record of the pioneer settlers. It played a significant role in the valley's history, as the Mormon settlement was based on agriculture through artificial irrigation of the desert soil. City Creek was designed as the pioneer's first source of water providing both irrigation and domestic supply.

The Mormon settlers, led by Brigham Young, were seeking a sanctuary, free of outside influences; thus they chose a land isolated and inhospitable, bordering the arid waste lands of the western Great Basin. The survival of the settlement, from the beginning, was doubtful. Jim Bridger, western explorer, upon meeting Brigham Young enroute to the Salt Lake Basin, expressed his belief that the land would not support crops and, offered \$1000 for the first ear of corn that ripened in the valley.¹

Early descriptions of the Salt Lake Valley varied. Some wrote of the beauty--while others the desolation and barren landscape. Wilford Woodruff wrote "the most fertile valley spread out before us for about twenty-five miles in length and sixteen miles in width, clothed with a heavy garment of vegetation," while William Clayton noted the number of rattlesnakes and very large black crickets making the ground seem to be literally alive. Historian Orson F. Whitney sometime later wrote "Aside for its scenic splendor, which was indeed glorious, magnificent, there was little to invite and much to repel in the prospect presented to their (pioneers) view. A broad and barren plain hemmed in by mountains, blistering in the burning rays of the mid-summer sun." Further, "...on all sides a seemingly interminable waste of sagebrush bespangled with sunflowers--the paradise of the lizard, the cricket, and the rattlesnake...."

Brigham Young's plan for Mormon colonization of the western desert lands established a concept of land and water distribution to the church members. No land was to be bought or sold, but given to the Saints as an inheritance; moreover, the colony's existence was dependent on agriculture through the

¹ Journal of History, L.D.S. Archives

communal use of water to irrigate the land.

City Creek has special significance as it was the first water to be diverted onto the land for irrigation, and further, as the population grew and the city took on an urban character, it became the first of the valley's, water sources to be diverted into pipes and distributed to the city's inhabitants. Later it would be the site for the State of Utah's first water purification plant.

The history of Salt Lake City can be described as a continuous search for water; each generation has faced water crises, thus causing further development of new water supplies with the construction of dams, canals, ditches and pipe lines to transport water to the needed location.

The early pioneer government and its water-related functions established water rights and water law in Utah. The evolution of water practices and law parallels the history of water development by Salt Lake City from the first diversion of City Creek to the creation of the Central Utah Project 120 years later.

Significant events that lead to the City's ownership and use of City Creek are as follows:

- Mormon settlement of the Great Salt Lake City and diversion of City Creek water for culinary and irrigation uses. 1847
- Ecclesiastical government of the church formed and empowered the "High Council" jurisdiction over municipal affairs and the authority to regulate and appropriate the water in City Creek. Brigham Young issues an "Epistle of the Council of the Twelve Apostles" empowering the High Council to construct water facilities to use City Creek to meet the settlement's needs, 1847-1848.
- Mormon doctrine which provided the church's "Saints" an inheritance of land to build upon and farm. Water went with the land to irrigate crops, 1847-1867.
- The "High Council" relieved of municipal duties and this authority placed in the hands of the "Ward Bishops" in each of the City's nineteen wards, 1848-1851.
- The incorporation of Salt Lake City, 1851.
- The transfer of municipal authority from the ward bishops to the elected City Council. The control of water was transferred from the Church to the

elected City Council, 1851.

- Territory of Deseret legislation giving the County Courts control over the distribution of water, 1852.
- An Act of Congress, March 2, 1867, entitled, "An Act for the Relief of the Inhabitants of Cities and Towns Upon the Public Lands", 1867.
- Land patent, No. 710, from the United States to Salt Lake City, placing the public land and water thereon in trust of the corporate authority, 1872.
- An Ordinance establishing the City Water Works. Taxes and fees paid for the cost of this municipal service, 1876.

City Creek

The pioneers found the original stream flowing out of City Creek Canyon divided into two branches. One branch of the stream passed across what is now known as the City & County Building Square, through the location of the Sears & Roebuck store at 8th South Street, and finally joining with the canyon streams of Red Butte, Emigration and Parleys creeks to the Jordan river

at approximately 9th South and West Temple Streets. The second and main branch flowed west across the block west of the Temple to near the corner of the block immediately across from the Union Pacific Station, toward North Temple Street and west to the Jordan River.¹²

Diversions were made on the City Creek stream for irrigation and domestic purposes by the pioneers and were the City's main source of water until 1882 when the Jordan-Salt Lake Canal conveyed Utah Lake water to the City's inhabitants in 1879. This canal later enabled the city in 1888 to enter into exchange agreements with the farmers who to use the waters from the other canyon streams for the benefit of the inhabitants of the city. The concept of the exchange of low quality water from Utah Lake for the purer mountain water provided the City water to grow well into the twentieth century.

Pioneers First Divert City Creek

The City's rights to City Creek water originated with the settlement of the Salt Lake valley in 1847 by the Mormon pioneers. The water flowing in City Creek was diverted by the advance party of pioneers, led by Orson Pratt on July 23, 1847 to soften the soil in preparation for cultivation. Subsequent diversions were made to irrigate the planted crops and to provide domestic water to the settler's camp. When Brigham Young and the main party of pioneers arrived in the Great Salt Lake Valley, five acres of potatoes had already been planted,

¹² Heart Throbs of the West, Kate C. Carter, Volume 9, p. 158-159

thus begun the reliance on water for irrigation in the settlement. The modern concept of irrigation, as practiced by the Mormon pioneers, was the first such practiced by white men in this region of North America. The necessity was obvious, as the valley in late July reflected the harsh desert climate with the landscape covered with sage brush and void of greenery.

The designation of City Creek water as the settlement's water supply, both for irrigation and domestic purposes, constitutes, in a sense, part of the fulfillment of Mormon doctrine. The doctrine proclaimed that all the Saints were to have an inheritance of land, which was given free of charge, save a surveyor's fee; water to irrigate the land was diverted from City Creek and was appropriated and controlled first by the secular High Council, then the Church Ward Bishops, and finally by the elected City Council.

The appropriation of City Creek water for the beneficial use of the Saints was established in an "Epistle" to the church membership on September 9, 1847, wherein the High Council was empowered by Brigham Young to appropriate the water of City Creek and encouraged the members "...to prepare churns, vats, tanks, reservoirs, and ditches for irrigation, and City Creek would yield an abundance of water for that purpose."

Clearly the inheritance of land was accompanied with water to irrigate it. The following is a chronological listing of events pertaining to the original diversions and uses of City Creek water as recorded in the LDS Archives, Journal of History:



Brigham Young's leadership established land and water distribution that lead to settling of the Great Basin. His 1847 "Epistle" to the Saints guided the early pioneers in the settlement of the Salt Lake valley.

July 22, 1847:

Orson Pratt, George A. Smith, and several others were sent ahead of the main pioneer party into the Salt Lake Valley. Orson Pratt's description of the valley included the following description of the water: "Streams from the mountains and streams were very abundant, the water excellent and generally with gravel bottoms. The valley is surrounded with mountains, except on the north thus, the tops of some of the highest being covered with snow. Every one or two miles streams were emptying into it (valley) from the mountains on the east, many of which were sufficiently large to carry mills and other machinery." In a letter to Brigham Young taken from a synopsis

of the valley's advanced party, "They reported some beautiful creeks north of this about three miles, whence we proposed to move in the morning and prepare for planting. A short distance from point, the soil becomes barren; warm, hot poison and a variety other springs abound." A statement of Orson Pratt.

July 23, 1847:

A committee was formed to attend to different branches of business, particularly to putting in crops. Thus, Shadrach Roundy, Sath Taft, Steven Markham, Robert Crow, and Albert Carrington were appointed a committee to look out a place for planting potatoes, corn, beans, etc. At 12:00 noon or about two hours after the arrival of the advance party in their new campground over the banks of City Creek, plowing was commenced. A short distance northeast of the camp, three plows having recorded for that purpose.

William Carter, George W. Brown, and Shadrach Roundy took part in plowing the first furrows ever made by white men in the valley of Great Salt Lake. This plowing was done where Main Street (East Temple Street) now intersects First South Street.

At 2:00 P.M: Some of the men who had been appointed for that purpose, commenced to build a dam across City Creek, in order to convey the water from the stream onto the land which was being plowed. The land was irrigated to soften the earth and to aid the pioneers in the plowing. Note: on this date, President Young's rear company left their

encampment on East Canyon Creek and crossed the Big Mountain.

July 24:

In the afternoon they began planting potatoes and again irrigated them until they had a good soaking.

July 31, 1847:

The cultivation and planting of crops continued, and at this time, three lots of land containing fifty- three acres was plowed, two - thirds of a lot of 35 acres was planted with buckwheat, corn, oats, etc., another lot of eight acres with corn, potatoes, beans, etc, and four acres of a lot of ten acres with garden seed. About two acres of corn was already up two inches above the ground.

August 3, 1847:

Fifteen men commenced building a dam in the creek a short distance above the camp in order to bring water around and inside the camp. In the afternoon a diversion was made and a pleasant stream of cold water was flowing on each side of the wagons and around the camp. (This would represent the first diversion of City Creek water for domestic or culinary use).

August 3, 1847:

During the evening the twelve sent to the place in City Creek where the party had built their dam and Heber C. Kimball baptized 55 members of the camp for the remission of their sins; and were confirmed under the hands of President Young, Orson Pratt, William Woodruff,

George A. Smith, and Asasa M. Lyman;
President Young being mouth.

August 7, 1841:

"We have selected a site for a city which, for beauty and convenience, we have never been seen equal, It is on a gentle declivity where every garden, house, lot or room may be abundantly supplied with cold water from the mountains at pleasure: the site is now under survey, 10 acres being reserved for a temple lot," (quote from Brigham Young).

August 22, 1847:

A meeting was held; President Young moved to call this place the "Great Salt Lake City of the Great Basin of North America." Heber C. Kimball moved, "I move that we call the river west of this place the Western Jordan. Further, I recommend, there are some creeks that have no name." Brigham Young again said, "I move that this creek that we are encamped on be called City Creek. I move that the large creek running south a few miles south of here be called Mill Creek, that the creek a little south of the camp be called Red Butte Creek, that the next creek south be called Canyon Creek (Emigration) and the next Big Cottonwood Creek" (now Canyon Creek or Parleys Creek).

Pioneer Government Structure - High Council City of Zion

When the pioneers arrived in the Great Salt Lake Valley, the territory was then under Mexican control. The governmental functions, in the beginning were not civil but ecclesiastical with the Mor-

mon leadership acquiring both the religious and civil responsibilities. The Treaty of Guadalupe Hidalgo was signed in February of 1848 and Utah became a territory of the United States.

During the initial period of the settlement, the High Council was the first form of government in the valley, George Smith was sustained president and Charles C. Rich and John Young as counselors in October 1847. The High Council had jurisdiction over municipal affairs, with authority given to the Council to divide the city into wards, to issue permits, to build saw mills, to control the mountain streams and to stand as a jury for all offenses.

In addition to the governing of the settlement, the Council approved special acts granting privileges to particular individuals: mill sites, herding grounds timber grants, etc. Here, also, a precedence was established for legislatures of the State of Deseret and the Territory of Utah.

The first such acts seem to have occurred on October 4, 1847. At a High Council meeting President Smith asked for President Brigham Young's view in regard to building a grist mill on City Creek. Orenzo D. Young said that Brother Brigham wished to have the privilege of building a mill on City Creek for his own use and that if any one else should build a mill there he would satisfy them for it. Brother Henry G. Sherwood coincided. Ira Eldredge said that the mill that they wished to build on Mill Creek and that they had no means to spare to build on City Creek as they perhaps would have to break up and move to Mill

Creek next year. So members of the Council inferred that to build on Mill Creek would be going too far south, until they knew more about the disposition of the Indians. General Charles Colson Rich and others spoke in favor of indemnifying the Mill Creek Company against all losses. The Company then proposed to sell the mill property to the Council but the Council replied that they were not able to buy it.

On October 13, 1847 the committee reported they had found a good site on City Creek where Charles Crismon might erect a mill. Two other mill sites were granted at Warm Springs and on a creek eight to ten miles north of the city and the petitioners were granted permission to that creek to timber for building purposes if they could not find dry timber.

Ward Bishops

The High Council was relieved of municipal duties on January 6, 1849 and the municipal authority was placed in the hands of the ward bishops.

From Tullidge's History of Salt Lake City:

"Under the government of the bishops Utah grew up, and until the regular incorporation of Great Salt Lake City in 1851 they held what is usually considered the secular administration over the people. Brigham Young was their director, for he formulated and con-

structed everything in those early days. Each of the nineteen wards developed during the first period before regular incorporation of the city, like so many municipal corporations over which the bishops were chief magistrates or mayors. Under their temporal administration, cities were built all over Utah as in Salt Lake; lands were divided off to the people, roads and bridges were made, water ditches were cut, land became irrigated and society was governed. In fact, under the bishops, all the revenue was produced and work done in founding Great Salt Lake City."

The City Begins

During the first winter, the settlement was nearly confined within the fort. The city was surveyed laying out the "Saints' inheritances." On November 22, 1848 Thomas Bullock completed his plat of the city and the farming lands.¹³ The City earlier had been laid out according to the dictates of Brigham Young at meeting of the Quorum of Twelve.

"After our return to camp (from inspection of valley) President Young called a Council of the Quorum of Twelve. There was present: Brigham Young, Heber C. Kimball, Willard Richards, Orson Pratt, Wilford Woodruff, George A. Smith, Amasa Lyman and Ezra T. Benson. "We walked from the north camp to about the center between the two creeks, when President Young waved his hand and said: Here is the forty acres for the temple. The city can be laid out perfectly square, north and south, east and west. It was then moved and carried that the

¹³Journal of History, L.D.S. Archive

temple lot contain forty acres on the ground where we stood. It was also moved that the city be laid out into lots of ten rods by twenty each, exclusive of the streets, and into blocks of eight lots, being ten acres in each block, and one and a quarter in each lot."⁴

August 7, 1847: History of Utah, Whitney, Volume 1:

"In the afternoon of that day the Apostles repaired to Temple Block and selected their "inheritance". Brigham Young took the block east of the temple site running southeast, upon which to settle his family and friends. Heber C. Kimball took the block north of the temple, Orson Pratt a block south, and Wilford Woodruff a block cornering on the temple grounds. George A. Smith chose one on the west and Amasa M. Lyman one near Wilford Woodruff's."

On Monday, February 19, 1849, the people began to move their houses out of the fort onto their land lots. "Due to the consequence of a public notice given the day before, the president's office was flooded with brethren who came to secure their lots and pay surveyors' fees."⁵

By May 1, 1848, according to the Bishops' Report, 435 houses had been erected outside the fort on City lots.⁶ As the city grew, a network of ditches along the streets provided each city lot with irrigation and culinary water. The

culinary water was dipped from the open ditch and carried into the houses.

The control of the ditches within each of the nineteen wards was the responsibility of the wards' bishops. On April 28, 1849, with President Young and the Council it was voted that "each bishop in the city be required to run furrows and ditches around their wards to keep the water from flooding the streets or public roads. The bishops should build or cause to be built a sufficient bridge over ditches, and in case of neglect, a fine of \$25 should be assessed upon such ward for every occurrence of water running across the public roads and not having a bridge over it."⁷

A description of the City during the period in 1850 was contained in a report submitted by Captain Stansbury to the United States Government, as a result of his survey of the Great Salt Lake:

"A city has been laid out upon a magnificent scale, being nearly four miles in length and three in breadth, the streets at right angles with each other, eight rods, or one hundred and thirty-two wide with sidewalks of twenty feet; the blocks forty rods square, divided into eight lots, each of which contain an acre and a quarter of ground. By an ordinance of the city, each house is to be placed twenty feet back from the front line of the lot, the intervening space being designed for shrubbery and trees. The site for the City is most beautiful; it

⁴ History of Salt Lake City, Tullidge, p.46-47

⁵ Journal of History, L.D.S. Archives

⁶ Ibid

⁷ Ibid

lies at the western base of the Wasatch Mountains, in a curve formed by the projection westward from the range of a lofty spur which forms its southern boundary. On the west it is washed by the waters of the Jordan, while to the south for twenty-five miles extends a broad, level plain, watered by several little streams, which flowing down from the eastern hills form the great element of fertility and wealth to the community. Through the city itself flows an unfailing stream of pure, sweet water, which, by an ingenious mode of irrigation is made to traverse each side of every street, whence it is led into every garden spot, spreading life, verdure and beauty over what was heretofore a barren waste.

The facilities for beautifying this admirable site are manifold. The irrigation canals, which flow before every door, furnish abundance of water for the nourishment of shade trees, and open spaces between each building and the pavement (sidewalk) before it when planted with shrubbery and adorned with flowers, will make this one of the most lovely spots between the Mississippi and the Pacific."

State of Deseret

After the Treaty of Guadalupe Hidalgo, the land became a territory of the United States, and the formation of a "new state" was initiated. An election of officers for the new state took place on March 12, 1849 at Salt Lake City. The following men were elected: Brigham Young, Governor; William Richard, Secretary; Newel K. Whitney, Treasurer; Heber C. Kimball, Chief Justice; John Taylor and Newel K. Whitney, Associate

Justices; Daniel H. Wells, Attorney General; Horace S. Eldredge, Marshal Albert Carrington, Assessor and Collector; and Joseph L. Heywood Surveyor of Highways.

The bishops of the different wards were elected as magistrates.

The General Assembly held its first meeting in Salt Lake City on July 2, 1849 and was dissolved on March 5, 1851. During this interim of time the general assembly passed ordinances pertaining to the control of the various canyons around the valley, established counties, incorporated cities, e.g. Salt Lake City, Ogden, Provo, Manti, and Parowan; incorporating the University of Deseret ; prohibited the sale of arms, ammunition, or spirituous liquors to Indians etc.

The following ordinance pertained to the control and regulations of the timber and water in the various canyons. The intent of these ordinances appears to be of a protective nature, and ownership was not intended. These ordinances granted to those of high authority in the church and community the control of these canyon resources:

- January 15, 1850 - The Assembly met and granted the petition of William Crosby and three others the control of the canyons south of Big Cottonwood.
- January 15, 1850 - An ordinance was passed for taking water of the

Big Cottonwood and other creeks and John D. Lee appointed overseers of the works, and that \$2000 shall be appropriated out of the public treasurer for the purpose of taking water out of the channels of Big Cottonwood, Mill Creek, and Little Cottonwood Creek for the purpose of irrigating the farming lands east of the city.

- December 9, 1851 - The General Assembly granted Ezrith Benson exclusive privilege of controlling the water in Tooele County.
- January 7, 1851 - An ordinance granting Little Cottonwood Canyon to Bishop Milclapp and Charles Drown for mill purposes.
- January 8, 1851, An ordinance granting North Mill waters to Heber C. Kimball.
- January 9, 1851 - An ordinance granting exclusive control of the timber in the canyons on the east side of the range on the west side of the Jordan River in Salt Lake County to George A. Smith who has been

authorized to control timber in said canyon, and to erect roads and to direct where and when and by whom timber may be taken.

The above-mentioned ordinances are typical of the canyon resources legislation passed by the Assembly of the State of Deseret. Again, these acts or privileges appear to have an administrative connotation and were passed to establish a protective overseer of these resources.

In this vein, it appears Brigham Young petitioned the Assembly permission for control of City Creek Canyon on November 23, 1850.

The petition read as follows:

"Gentlemen: The undersigned, humbly prays your Honorable Body to grant unto him the exclusive control over the timber, rocks, minerals and water, in the City Creek Canyon, as your jurisdiction extends in order that the water may be continued pure unto the inhabitants of Great Salt Lake City; and he agrees to pay to the Treasury of the State, such sum as shall be an equivalent for the timber, rocks, and minerals, between the dividing ridges running down to said Creek, as shall be the valuation of the same; to be decided by a Committee of three, or such other Committee as shall be agreed upon by your Honorable Body And your petitioner will ever pray, that justice and judgment may by in you all continually. BRIGHAM YOUNG

G. S. L. City, November 23, 1850."

The granting of the petition reads as follows:

"AN ORDINANCE, granting the petition of Brigham Young. Passed, December, 4, 1850

Section 1

Be it ordained by the General Assembly of the State of Deseret, that the petition of Brigham Young, praying for the privilege and control of City Creek, and Canyon: be granted as set forth in said petition. And, that he pay into the Public Treasury the sum of five hundred dollars therefor.

Jedediah M. Grant, speaker of the House of Representatives, Heber C. Kimball, Speaker of the Senate. Approved, December, 9, 1850, Brigham Young, Gov. Thomas Bullock, Clerk."

Further reference to the intent of this act has not been found by the author. Other than the documentation of the petition and ordinance, the only reference to these acts by other authors have been found; therefore, the exact intent of Young's exclusive right to City Creek are not known. It is assumed that this act is similar to the same category as other ordinances of that period, which placed guardianship of the valley's resources in the hands of prominent church leaders. Also, it must be assumed by the wording of the petition that the preservation of City Creek water for the inhabitants of Salt Lake was the major consideration of this act; further, Brigham Young, at this time, was both president of the church and governor of the state and his petition could be understood to be an

act in behalf of the people. The control and maintenance of City Creek was in the authority of Brigham Young until at least 1855 as indicated from the minutes of the City Council meeting of September 21, 1855. In a City Council meeting on September 21, 1855, Brother Brigham Young reported to the council "that he had employed a number of hands in cleaning out City Creek up in that canyon. They had hauled logs, leaves, bark, and removed dams caused by falling trees. Eight or nine miles had already been cleaned and the waters when the work was completed by running much deeper in the creek would be much colder and more pure." This would leave the matter with the council as to compensation for this public benefit. J. M. Grant represented that from his knowledge of removing of obstructions of like nature that a creek could not be cleaned under \$700. He considered that if the council appropriated half its costs or \$400 or \$500 it would be doing some liberal benefit where upon it was moved, seconded and carried that \$500 be appropriated for the city treasurer to Governor Brigham Young to aid him in the prosecution of cleaning the water of the City Creek.

The Assembly of the State of Deseret passed an ordinance incorporating the city of Great Salt Lake on January 9, 1851, thus paving the way for a municipal government which would represent both the members and non-members of the church in governing the city, a condition necessary to meet acceptance as a state in the United States. The General Assembly also passed a law incorporating the Church of Jesus Christ of

Latter Day Saints, approved February 8, 1851, thus separating church and state.

Territory of Utah

The State of Deseret government petitioned the U. S. Congress for admittance to the Union in the latter part of 1849. On December 17, Stephen A. Douglas presented the memorial and State admission as a "state" with the alternative of admission as a territory.

The boundaries of the State of Deseret embraced a territory of about 700,000 square miles, bounded by Oregon, east by the Rio Grande del Norte, south by the United States border with Mexico, and west by the sea coast and California Mountains. The boundaries of this area were reduced as established in the Omnibus Bill which was passed by the U. S. Congress on September 9, 1850, and created the Territory of Utah.

The Act of Congress creating the Territory of Utah was signed by the President of the United States, Millard Fillmore, on the 9th of September, 1850. The news of it, owing to the great distance and the almost utter absence of mail facilities between the frontier and the Great Basin did not reach Deseret until January, 1851.

President Fillmore made appointments in the month of September follows:

Brigham Young, Governor; B. D. Harris, Secretary; Joseph Bluffington, Chief Justice; Perry C. Brocchus and Zerubabel Snow, Associate Justice; Seff N. Blair, United States Marshall.

18 Legislation Regarding Water Rights, O.W. Israelsen, 1918

Water regulation was altered during the early period of territorial status, the territory legislature as stipulated in the Territorial Laws of Utah, Chapter 1, Section 38, approved February 4, 1852, reflected the early philosophy of public ownership of natural resources, including water; this act provided that the County Courts had jurisdiction over water resources within the Salt Lake Valley.

"The County Courts shall ... have control of all timber, water privileges, or any water course or creek, to grant mill sites, and exercise such powers as in their judgment shall best preserve the timber and serve the interests of the settlements in the distribution of water for irrigation or other purposes. Grants of rights held under legislative authority shall not be interfered with."

"Under this law the court granted rights to the use of the streams of Salt Lake County, and appointed commissioners to enforce them when there was doubt as to the advisability of granting any petition the court took testimony, visited the region in question and satisfied themselves as to the conditions, and either grant or refuse the rights, as the facts justified." ¹⁸

Salt Lake City Incorporated

The City was incorporated under a charter of January 19, 1851 and re-incorporated on January 20, 1860. Included in the charter were ordinances establishing a watermaster, and to control and regulate irrigation water within the corporate limits of Salt Lake City.

The first municipal council of Salt Lake City was formed with Jedediah M. Grant elected mayor; Nathaniel V. Jones, Aldermen; Vincent Shurtliff, Benjamin L. Clapp, Zera Pulsipher, William G. Perkins, Harrison Burgess, Peter Clinton, John L. Dunyon, and Samuel W. Richards, counselors.

Section 15 of the State of Deseret Act of Incorporating Cities, granted the city the authority "to provide the city water to dig wells, lay pump logs, and pipes, and to erect pumps in the streets for the extinguishment of fires and the convenience of the inhabitants."

The City Council granted licenses for various individuals and business establishments; for example, a license to establish taverns, butcher licenses; distilleries' licenses, brewery licenses; a grant to Parley C. Pratt of a portion of land of Block No. 6, plat of GSLC, adjoining to the northwest corner of the five-acre lot of Big Field consisting of ten acres; a license for a ferry across the Jordan River; an auctioneers' license, for the sale of merchandise; a grant of water power off of Mill Creek; a beer license; a store license; a license to keep a bar, and a grant for portions of water in City Creek to Samuel C. Snider for mill purposes.

One of the first ordinances passed by the City Council was for the removal of the Old Fort on January 13, 1851. Shortly thereafter there was an ordinance dividing the city into wards on January 30, 1851.

A series of ordinances which established the city's authority to regulate and

control the flow of water within the corporate limits were passed commencing on February 3, 1851.

The first such ordinance provided for the regulation of ditches and sidewalks:

Section 1

Be it ordained by the City Council of Great Salt Lake City that all persons are hereby forbidden to dig ditches in any of the streets of the city except they dig them twenty feet from wide of their lots and further they are hereby forbidden to dig ditches or water courses across the sidewalks or streets unless they are stoned or culvert the ditches across the sidewalks and pave or culvert the ditches across the street under the direction of the city supervisor and any person or persons infringing upon the ordinances except by permission from the City Council shall forfeit and pay a sum not less than \$20 nor exceed \$50. This was passed February 3, 1851.

An ordinance for the prevention and removal of filth from the water courses was passed March 21, 1851:

Section 1

Be it ordained by the City Council of Great Salt Lake that no person or persons shall be allowed to build cow yards, privies, or deposit any filthy substance in or near any of the streams running through this city so as to affect the water thereof.

Section 2

Any person or persons having filth of yards, pens, privies, or any hides or

other filthy substance on the banks or in the waters of any of the streams of the city are hereby required to remove the same forthwith.

Section 3

Any person or persons neglecting or refusing to comply with the foregoing ordinances shall be liable to pay a fine of not less than five nor more than \$50 for each offense.

Section 4

This ordinance can be enforced from and after its passage; passed March 21, 1851:

The office of watermaster was established by the City Council on July 9, 1853. This ordinance formed a cooperative tie between the City Council as represented by the watermaster and his assistant watermasters who were appointed from within the bishops' wards as set forth in Section 2. Further, the inhabitants were charged with the responsibility of maintaining the distribution ditches within the wards as specified in Section 5.

The full text of the ordinance reads as follows:

An ordinance creating the office of the watermaster and defining the duties thereof:

Section 1

Be it ordained by the City Council of the Great Salt Lake City that there shall be and is hereby created the office of watermaster whose duty it shall be to

see to the erection and repair of said gates, locks, and sluices as may be necessary to admit into the city the waters of City Creek, Red Butte, and Emigration Canyons and divide the same to the city as shall be served the public interests for irrigation, domestic and other purposes.

Section 2

It shall be the duty of the city watermaster to appoint one or more assistant watermasters in each of the bishops' wards above the city who shall act under his direction; any assistant watermaster shall distribute the water to the inhabitants of their respective wards as they may deem necessary and just.

Section 3

Any person or persons who shall remove brick or otherwise injure or destroy any dam, gate, or sluice way shall be liable to pay a fine of not less than nor more than \$100.

Section 4

Any person or persons who shall take or alter the course of water intended for irrigation and other purposes without consent of the watermaster or the person then holding the right of said water shall be liable to a fine of less than one nor more than \$5 for every such offense.

Section 5

It shall be the duty of the inhabitants of each bishops' ward to make and keep in repair such dam, gate or sluiceway as may be necessary to omit a fair and equal distribution of water to them-

selves, to their several wards, to be under the control of the watermaster in each ward.

Section 6

It shall be the duty of the city watermaster to adjudicate all the difficulty arising from the distribution of water in the several wards.

Section 7

It shall be the duty of the city watermaster to make a report of his proceedings quarterly to the City Council and lay before them such designs for improvements as may be necessary for their action.

Section 8

This ordinance shall be in force from and after its publication: passed July 9, 1853, J. M. Grant, Mayor.

An ordinance enforcing the making of water ditches was passed May 6, 1854:

Section 1

Be it ordained by the City Council of Great Salt Lake City that all owners or occupiers of lots within the limits of said city are hereby required to make good and sufficient water ditches in front of their lots and keep them in good repair.

Section 2

Any person or persons violating this ordinance after a reasonable notice from the assistant watermaster shall be liable to pay the expense of making or repairing the said ditch.

Section 3

An ordinance to be enforced from and after its passage, passed May 6, 1854. J. M. Grant, Mayor.

An ordinance relating to the water and water ditches for the farming lands in Great Salt Lake City was passed March 16, 1855.

Section 1

Be it ordained by the City Council of Great Salt Lake City that all owners or occupiers of farming land within the limits of said city are hereby required to make their proportion of good and sufficient water ditches for irrigating and keeping the same in repair under the direction of the watermaster having jurisdiction who shall be required to give reasonable notice of the time and place such work is to be done.

Section 2

That all persons are hereby forbidden to run water or dig ditches across any of the public roads or streets within limits of this corporation for the purpose of conveying water for irrigation or other purposes unless they stone, pave, or culvert the same under the direction of the supervisor and no person shall be allowed to turn the water upon or across the land owned or occupied by others unless by permission by the owner or occupants thereof or the watermaster having jurisdiction.

Section 3

Any person or persons infringing upon this ordinance or refusing to com-

ply with any of the requirements shall be liable to pay any damage arising therefrom and any fine not exceeding \$100 that may be assessed by anyone having jurisdiction.

Section 4

This ordinance is to be enforced from and after its publication, passed March 16, 1855.

The transfer of authority from the bishops to the City during the first months of the City Council is not documented; however, a clue to the events that took place during that period are found in the minutes of the City Council meetings. Apparently, either a dispute or a relinquishment of the control of waters within the city by the ward bishops, resulted in this being handed over to the City Council. In the Council meeting minutes of January 30, 1851, in response to a discussion of passing ordinances pertaining to the flow of waters. "Alderman expressed himself doubtful as to the jurisdiction of this board (City Council) over the waters of the city, as an infringement upon the legislative powers of the bishops, who had prior rights of control before the city organization. The Mayor contended "...that the bishops virtually resigned their jurisdiction over the waters, and it is now thrown upon us."

Subsequently, passage of the various regulatory water ordinances and the establishment of first, the city supervisor on March 10, 1851 and then the ordinance creating the watermaster posi-

tion on July 9, 1853 consummated the City's authority and control over the flow of water within the city and farm lands.

Land and Water Ownership

The pioneers settled in the Great Salt Lake City without legal title to the land. The area at that time was under Mexican control, and not until the Treaty of Guadalupe Hidalgo, signed on February 2, 1848, did the land become a territory of the United States. The inhabitants of the valley then had to wait until 1869 to gain title to the land from the federal government.

The pioneers, to insure the right to their land, in the absence of legal title devised means of establishing their ownership. In order to maintain a claim to surveyed lots and farms, the territorial government passed an act in 1853, providing that all such claims must be fenced within one year, all lands not complying with the rule at the expiration of the year, again became public domain, and thereby open to any person who made application for them. The idea behind this act was to clearly define ownership of the land.

Earlier, in March of 1852, the territory legislature passed an act which stated that when a piece of surveyed land was sold, the seller should "make and execute to the purchaser, a full and written quit claim...and acknowledge the same before the County recorder where the premises are situate."⁹

⁹ Brigham Young, the Colonizer, Milton R. Hunter

The territorial government made numerous attempts to petition the federal government for consideration to qualify for land title under then existing legislative acts; the Preemption Act of 1841, which was an act to encourage the settling of Oregon, and the Homestead Act of 1862. However, the territorial government failed to qualify under these two acts.

The following memorial from the territorial legislature was sent to the federal government in 1859:

"Memorial: To the Congress for the Preemption of irrigation lands. To the honorable, the Senate and the House of Representatives in congress assembled: Your memorialist, the governor and the legislative assembly of the territory of Utah would respectfully represent that in the settlement of this wild and desert country, it was found necessary against the savages, and to enable the settlers to irrigate the land, they were under the necessity of surveying and enclosing small tracks from one to forty acres each; very few, however, exceeded 20 acres. By this means, in locating almost every settlement from fifty to one-hundred farmers cultivate the same section, which is watered by a canal owned by each agriculturist, in proportion to the area of his farm, meadow, or garden; the waters of the said canal being distributed to each man in separate water ditches; a hundred or more of these streams water every section cultivated."

The memorialist would therefore respectfully pray your honorable body to pass a law enabling the occupants of such portions of land, to appoint one of their number as agent, who shall be authorized to preempt and enter said lands in a body, and distribute the same by giving title to the proper claimants.¹⁰

The federal government opened a land office in Salt Lake City in 1869, and as a matter of convenience, adopted the suggestion as laid out by the memorial of 1859. The settlers claims were entered in quarter sections as homesteaders, as trustees, and the trustees in turn deeded the soil and small lots to the proper claimants. In town sites, the mayors of the towns entered the town site claims, and later issued deeds to the actual residents.¹¹

On March 2, 1867, Congress approved an act entitled, "An Act for the Relief of the Inhabitants of the Cities and Towns upon the Public Lands." As a result of this act, a land patent certificate No. 710 was issued to Daniel H. Wells, Mayor of Salt Lake City in trust for the personal use and benefit for the inhabitants of the city. The patent, dated June 12, 1872 granted the public lands included within the corporate limits of Salt Lake City to the inhabitants and "Placed in the mayor's trust and to his successors the said tracts of land described, to have and to hold the same together with all the rights, privileges, communities and appurtenances of whatsoever nature onto belonging unto the said Daniel H.

¹⁰ Journal of History, L.D.S. Church Archives, January 12, 1859

¹¹ Brigham Young, The Colonizer, Milton R. Hunter

Wells, and aforesaid entrust as the aforesaid to any invested and accrued water rights for mining, agricultural, manufacturing or other purposes and right to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local custom laws and decisions of the courts and also subject to the right of the proprietor of vein or lode to extract or remove therefrom should the same be found to penetrate or intersect the premises hereby granted as provided by law, also, the foregoing patent to the contrary notwithstanding and to his successor and assigns and trusts aforesaid."

At this point in the city's history, the waters of City Creek were appropriated and used by the inhabitants within the corporate limits of Salt Lake City (Plat "A" and Plat "B") the land within these plats was irrigated by the water from City Creek and was likewise by the public lands described in the land patent. It is assumed that the city fathers viewed City Creek water as an appurtenance to Plats A and B, as upon conveying the land title to each property owner, the deed excluded the water rights, thus, they were retained by the City.

Legal Opinion

The City Council on May 31, 1882, requested that the City Attorney issue an opinion concerning the city's water rights.¹² "Councilman Riter moved City Attorney be instructed to report to the Council whether any party not enti-

tled to water rights be entitled to the benefits and use of water flowing the watermains, also, to give such other or further information pertinent to water questions."

The report was received on June 14, 1882. This the only legal opinion or document that the author has been able to locate regarding the city's legal right to City Creek. In essence, the city attorney based his opinion on the Act of Congress, July 26, 1866, Section 9, which grants the right of use of public land for constructing canals and ditches for beneficial use, and when rights exist, they should be protected, and further, upheld by the Supreme Court (Broden v. Natoma Water Company). "It is the established doctrine of the court that...the rights of persons who had constructed canals and ditches ...for agriculture irrigation was recognized and bound to protect before the Act of 1866."

The City Attorney further wrote, "that the act of Congress of June 22, 1838, exemplified sites for cities and towns on the public lands - an act of March 2, 1867 entitled, "An Act for the Relief of the Inhabitants of Cities and Towns Upon the Public Lands,---provided that all water rights vested in the corporate authority was subject to their disposal." The issuance of Land Patent No. 710 to the city from the federal government conveyed these rights to the city, and "These rights attach to the land and is an inclusive right existing by reason of physical and climatical conditions and

¹²Salt Lake City Recorders Office, Book "I", page 423

are beyond the power of control of courts or legislation."¹³

Summary of Basis for Salt Lake City Acquiring the Ownership of City Creek Water Rights

The Mormon Pioneers settled the Salt Lake valley and diverted the waters of City Creek to irrigate their crops and provide culinary water for the settlement. Others spread out from the main settlement to the lands to the south. They dug ditches to divert the waters from the other valley streams. These individuals would form cooperative irrigation companies and appropriated the water for their use. This was accomplished before laws existed to govern water. In the absence of laws, the settlers developed their own system of laws.

In the main settlement of Salt Lake City, the High Council and then the Ward Bishops were empowered by Brigham Young to organize the digging of ditches and distribute the water. Under this ecclesiastical system early water law began to evolve based on a priority system that recognized the first in time had the first right. Beneficial use also became an important part of Utah water law.

When Salt Lake City was incorporated in 1851, the City Council passed ordinances regulating the flow of water through its corporate limits, established the position of water master and regulation prohibiting the filthing of the water.

When the State of Deseret was formed by the United States it legislated regulations governing water and timber resources.

City Creek was the settlement's main water supply providing both irrigation land domestic water for the inhabitants. Water was also diverted from Red Butte and Emigration creeks to be used in portions of the city. The City's use and ownership of City Creek pre-dates modern water right laws established after statehood in 1896. Therefore, the City's water rights were acquired through the early history of Salt Lake City. It's difficult to point to any one event that lead to the City's ownership of City Creek; most likely it was a chain of events, evolving as government leadership passed from the church to elected officials climaxed by the issuance of Land Patent No. 710 to the Mayor of Salt Lake City in trust for the inhabitants of the City. The patent covered the same land area as City Plats A and B including water rights attached thereto. Apparently, when deeding the property to the individual property owner, water rights were not conveyed and thus retained by the City.

The City Council, on May 31, 1882, requested a legal opinion regarding the City's water rights in City Creek. The City Attorneys' opinion seemed to support that all water rights vested in the corporate authority and was subject to their disposal; therefore, the City had the power of control and distribution of water having been vested in the City by its charter; therefore, city has right to

¹³ Salt Lake City Records Office, Book "I", page 426

use water attached to land patent No. 710 for beneficial purposes.

Perhaps the chain of events is better described in the Mayors Message and Annual Reports of Departments of Government of Salt Lake City, Utah, published in 1907:

"On the banks of this beautiful mountain stream the pioneer settlers of Utah pitched their first permanent camp. Following the laying out of the City, the water of City Creek was diverted by means of the unique system of ditches, which for many years served to distribute the water for both irrigation and domestic uses, and which still serves the purposes of irrigation.

The water supply, however, was not appropriated by the corporation, but by the individual lot owners, who dug the diverting and distributing ditches and controlled and regulated the water supply independent of the municipality. Subsequently, the City assumed control of these ditches and of the work of cleaning and repairing the same, as well as of the distribution of the water, while the lot owners remained in control, and attended to the cleaning and repairing of the diverting channels, one of which takes water from the right and one from the left bank of the stream.

Later a pipe system was installed, which was intended to serve the business district and at the same time provide added protection against fire. The pipes, however, extended beyond the business district and afforded accommodation for a limited number of citizens who were not slow to avail themselves

of the opportunity to provide their homes with modern plumbing conveniences.

Some opposition was made to the turning of the water owned by the individuals into the municipal pipe system, but the popular demand for additional accommodations soon resulted in a general waiver of the original rights, and absolute control of the water by the City and its ownership of the ditch system as well as the pipe system is now universally acknowledged. In order to protect the water supply from pollution the City purchased the greater portion of the watershed and has since prohibited the grazing of live stock and other practices likely to pollute the water. The City thus acquired the exclusive right to the use of the water and to the land contiguous to the sources of City Creek."

City Searches for New Water Supplies

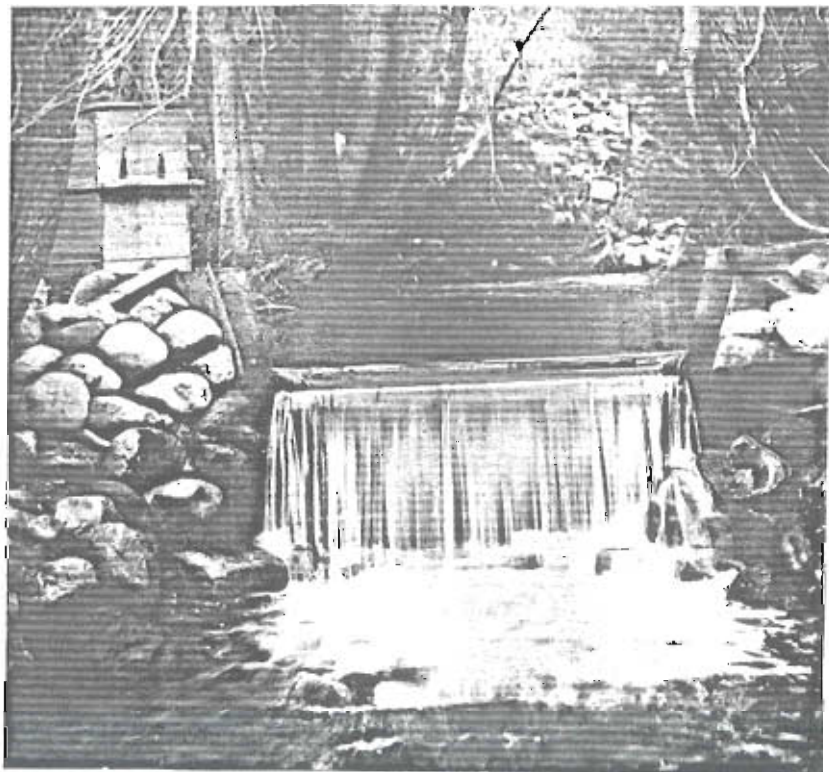
The main body of the Mormon settlement centered in Salt Lake City, but many moved out to settle the rest of the valley and divert the waters of Mill Creek, Big and Little Cottonwood creeks. The following description was written in Heart Throbs of the West: "It was during this period of time that many of the ditches in the Salt Lake Valley, some of which are still being used, were dug. The "Big Ditch," for example was begun in 1848, the "Big Cottonwood - Tanner Ditch" and "Green Ditch" during 1849 and the "Hill Ditch" in 1851. By 1860 the farmers had appropriated nearly all the waters of the mountain streams in the sections where they had been located."

During this same period Salt Lake City used the waters of City Creek, Red Butte and Emigration. City Creek was the main source of water supply for the city, including the southern and southwestern districts. The water of Red Butte was used in the City's 11th and 21st Wards until 1862 when Fort Douglas was established by the United States Government, and they appropriated the water for their use, ignoring the prior rights of the City. The eastern and southeastern parts of the City were supplied from Emigration Creek, and included the East Bench, Plat C, and the First, Second and Tenth Bishop's Wards.

Two ditches were used to divert the waters of City Creek. The one diversion on the east side of the canyon, provided water to the 20th Ward and was called the 20th Ward Ditch and was high enough to deliver water to 4th Avenue and "B" Street and extended easterly to "K" Street and First Avenue. The diversion point was below the present brick tank at an elevation of approxi-

mately 4,550 feet USGS and the ditch was located on the steep easterly slope of the canyon. The 20th Ward Ditch from "B" Street in an easterly direction fed smaller ditches which were built to convey the water southerly and in a southeasterly direction for domestic and irrigation purposes. This diversion point was 645 feet South more or less and 3,250 feet West more or less from the Southwest corner, Section 29, Township 1 North, Range 1 East, Salt Lake Base and Meridian.

The second diversion, the 19th Ward diversion from City Creek conveyed



City Creek rating station circa 1913.

water from the west side of the creek at a point near the present reception center at sufficient elevation to deliver the water to First North and State Street; this ditch running through the property of Dr. John R. Park at State Street just below First North, continuing northwesterly crossing Main Street near First North into Center Street. This stream was used for domestic purposes.¹⁴ The diversion point was located 2,142 feet South more or less and 3,482 feet West more or less from the Southwestern corner, Section 29, Township 1 North, Range 1 East, Salt Lake Base and Meridian.

The municipality itself was almost entirely dependent on these diversions from City Creek to provide the water for growth and to sufficiently supply the City during drought periods. The City began in the 1960's to search for more water to meet its growing needs.

Inasmuch as the other canyon streams in the valley had already been appropriated, the City looked to the Jordan River and Utah Lake. On August 9, 1864, Alderman Sheets reported that he had inquired into the propriety and practicality of introducing a greater supply of water to meet the pressing wants of the citizens in watering their lots. He said that the "waters of the Jordan River were almost entirely unavailable for irrigation purposes, but might be rendered available by raising a dam at its headwaters and bringing a canal from thence around to the city, which though requiring great expenditure, would be at-

tended with great results in saving our gardens in times of drought."

Subsequently, in 1882 the Jordan and Salt Lake City Canal was completed, bringing the waters of Utah Lake to the City. Later the canal would lead to exchange agreements with the appropriators of the waters of Parleys, Mill Creek and Big and Little Cottonwood creeks.

Creation of the City Water Works

The City began to consider constructing a water system to convey the waters of City Creek at a City Council meeting of December 17, 1870. The Council considered the question of financing the works and decided to form a committee to contact local businesses to see if they would be willing to pay for such a piping system through subscription; subsequently, however, the early water works was paid for from license fees and City taxes.

This means of financing however proved unsatisfactory in that taxes were assessed against those who were not benefiting from the water system. On January 15, 1878, in response to a petition from Heber P. Kimball and 29 other property owners of the 17th, 18th, and 19th Wards, a Council committee on water works recommended that "...the only just and equitable plan for the extension of water mains is by levying a local tax on all property where the mains are laid, and by hydrants erected for fire protection, that the tax so levied and collected should be used exclusively for

¹⁴ H.K. Burton's notes

the extension of watermains to other parts of the city..."

On January 22, 1878, the City Attorney reported that the City did not have the authority under the city charter to levy a local tax for water works construction, and it was necessary to have the territorial legislature pass legislation granting the city additional powers for providing revenue; the act passed on March 5, 1878 and became an ordinance on March 12, 1878.

The City's water system began with the construction of the headwork on September 24, 1872. These tanks were in

two sections and were to be the headwork for the pipe system for the city.

The first attempt to construct the piped system failed as the City contracted for ten tons of laminated pipe at \$225 per ton to be shipped from Rochester, New York; however, upon shipment it was found that this type of pipe was not suitable. On March 24, 1874, Waterworks Superintendent McKan was authorized by the City Council to dispose of the laminated pipe to the Deseret Agricultural Manufacturing Company Society, on the best terms possible. The next day Superintendent McKan was authorized to go east to find suitable pressure pipe.



City Creek Highline intake structure (circa 1950) diverted water from the creek to the upper avenues and Capitol Hill Reservoir. In 1953 this diversion was eliminated.

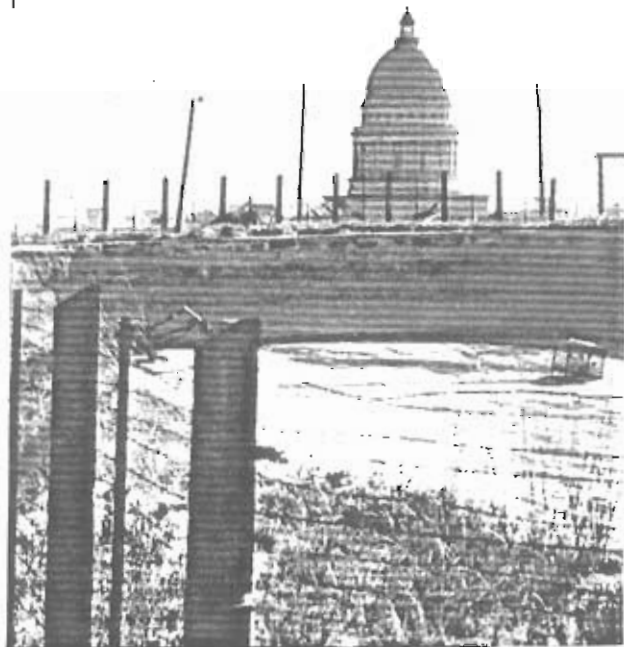
Nearly two years later on February 9, 1875, a City Council Committee on water works recommended that the superintendent be authorized and required to take the earliest steps to obtain the right of way to lay pipes for conveying water from the waterworks tanks in City Creek Canyon to the streets in the city, and for purchasing sufficient pipe of 20-inch diameter to reach from the tanks to Eagle Gate on First "B" Street, and piping of 12-inch diameter to reach two blocks south from the center of South Temple and to negotiate the purchase of said piping at best possible rates, and favorable dates for payment of lowest obtainable rate of interest.

The pipe was purchased from a firm in Louisville, Kentucky and between 600 and 800 tons of cast iron pipe were delivered during the latter part of July 1875.

Apparently the City was having difficulty in financing the installation of pipes, and it was necessary to borrow money from Mr. Thomas Wardel, who loaned the City \$50,000 payable in two years at one percent interest per month.

The following was published in the Deseret Evening News on September 2, 1875:

The Water Works - The excavation for the water pipes in the City Creek Canyon are progressing under the immediate direction of the supervisor. This portion of the work has been completed a distance of 1500 feet from the head of the works down the canyon, and in that distance there are alternate tun-



Capitol Hill Reservoir constructed in 1890.

neling and open excavations, some of which are nearly twenty feet deep from the surface of the ground. In visiting the locality this morning we were not a little surprised to find so much of the work already done, it having been mainly accomplished by prison labor".

Work progressed through the winter and in the spring of 1876, the Deseret Evening News, reported of the trial test:

"The Water Works - At 3 o'clock this afternoon, the water had been let down and was flowing through pipes and the waterworks so far, were proven to be a success."

With the completion of the piped water system from City Creek, the Deseret

Evening News, in a October 6, 1876 editorial reported:

"Pure water running into your own house. Good creek water being perhaps the best of all water for general purposes, especially one filtered, causes the people of this city to be favorably situated for a water supply, as City Creek is an excellent stream, and constantly abundant for all domestic uses for a much more densely populated city than is. The fall of the stream is rapid, and sufficient, without artificial pressure, to take it into the highest rooms in the main portions of the city, which is a great advantage.

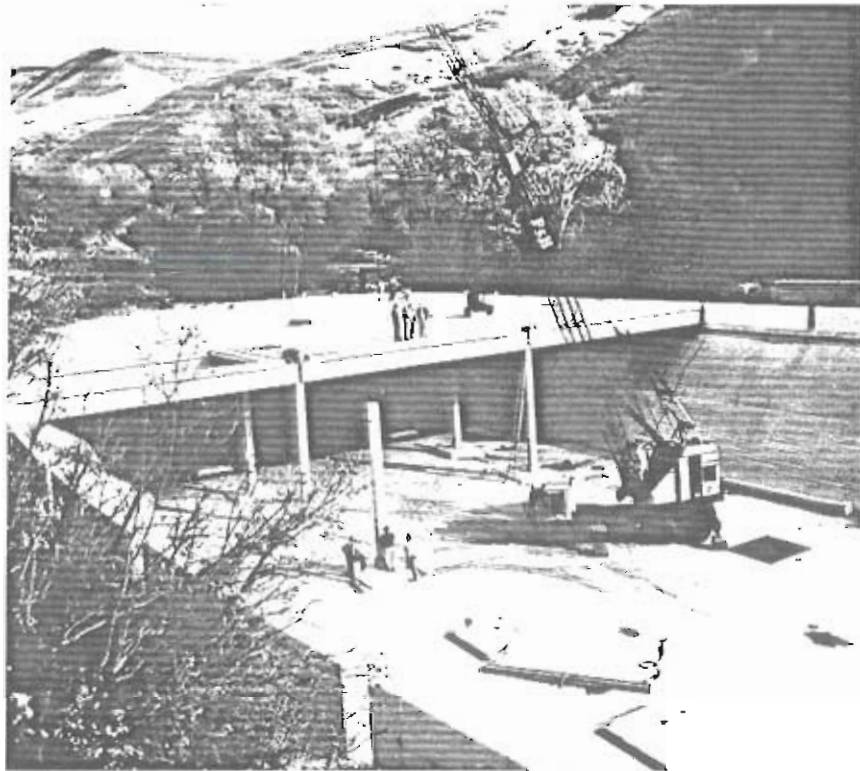
It now remains for the citizens, who reside where the pipes are laid, to take advantage of these circumstances and have service pipes laid to take the water into their houses, so that they may enjoy the inestimable boon of good, clean water constantly at hand and in their very rooms, as many of them as they may wish, and in quantity and quality at all that can reasonably be desired."

The City, in order to regulate the flow of water

through the water pipes and establish water rights, rules and regulations, passed an ordinance on June 30, 1876 establishing the Salt Lake City Waterworks.

By June 22, 1877 the last of the main pipe purchased for the waterworks was laid. Superintendent T. W. Ellerbeck work was virtually finished and he resigned his office of superintendent of waterworks; the Council accepted his resignation with a thank you for his efforts.

The initial waterworks installation grew each year as more mains were extended through the city. By 1892, the length of pipe mains amounted to



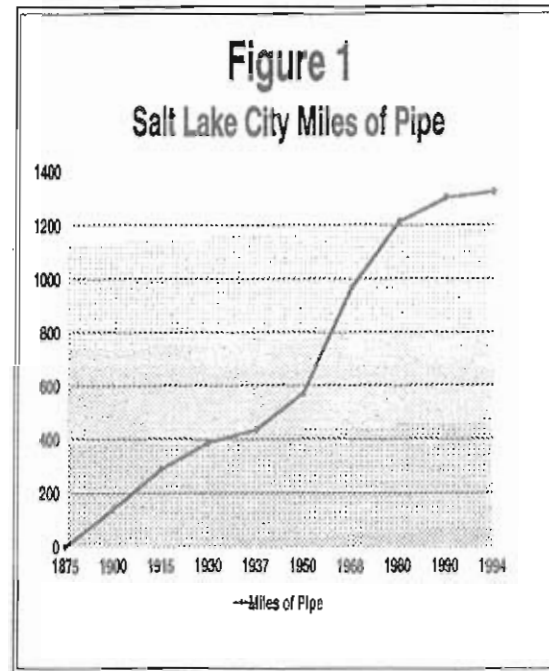
Five million gallon Pleasant Valley Reservoir originally constructed in 1915. It was covered in 1957 and taken out of service in the 1987 due to structural problems.

120,397 feet within the City and 19,165 in City Creek Canyon. This increased by 1915 to 257.22 miles of distribution mains and 36.89 miles of supply lines from City Creek and water sources. The miles of distribution mains doubled by 1949, to 504.29 miles and supply lines and conduits to 56.5 miles. The system nearly tripled by 1995 to 1380 miles of mains (See Figure 1).

City Purchases City Creek Watershed Lands

The City Council first considered buying the private lands in City Creek Canyon when on November 27, 1883, Mayor Sharp reported that more ground in City Creek and Dry Canyon could be purchased from the new Union Pacific Railroad. The purpose for purchasing more land was the need to extend the City Creek supply main further up canyon in order to serve the growing number of city residents connecting to the water system and to protect this source of supply from pollution. On October 22, 1885, the joint committee on waterworks and public grounds stated as part of a discussion, *"That the corporation should possess absolute control of the lands occupied by the bed of City Creek, and the waters of said creek, admits of no question. From this source the city looks for pure water for drinking purposes as well as water for extinguishing fires and irrigating portions of the city not supplied by the canal (Jordan and Salt Lake City Canal).*

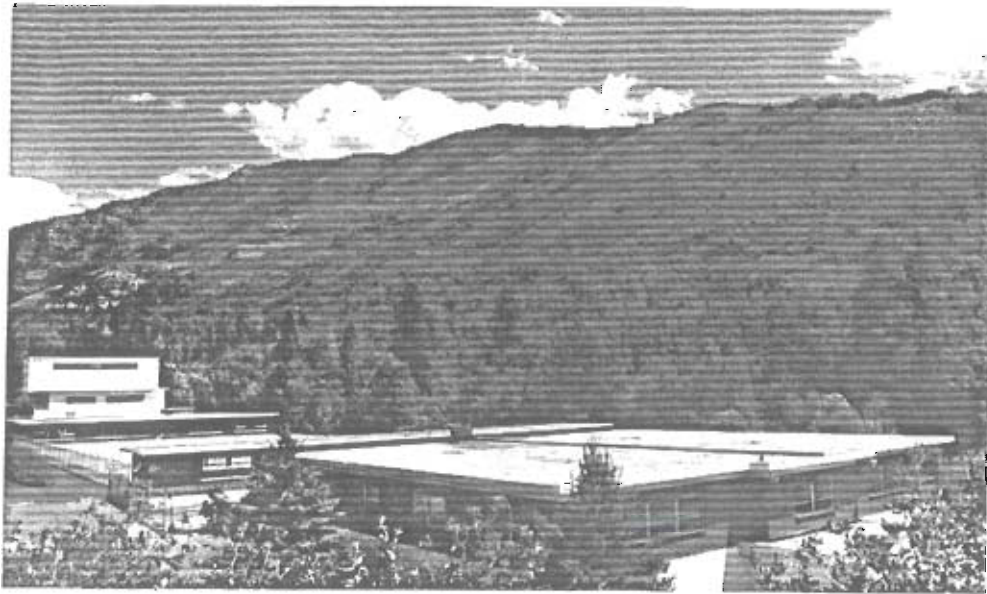
As a result of this policy, throughout the following years, either the City or the federal government acquired most of the lands in the City Creek drainage.



The City made substantial purchases in 1907, 1911, 1913, 1916, 1926 and 1947.

Those lands owned by the federal government, are administered by the Secretary of Agriculture, who has placed them under the management of the United States Forest Service. The United States Congress passed legislation in 1914 that mandates that the Secretary of Agriculture manage the forest lands for the purpose of storing, conserving and retracting from pollution the said water supply.

This legislation has formed a partnership between the City and the federal government to mutually manage the City Creek watershed in a manner that will protect Salt Lake City's water supply from pollution.



City Creek Water Treatment Plant located about 3 miles above Bonneville Loop Road. Built in 1953, it was the first treatment plant in the State.

Modern Water Quality Protection and Treatment

The City began chlorinating City Creek water in 1920. Eventually chlorination facilities would introduce chlorine into the drinking water supply at three points: 1) The 20th Ward Station which delivered water directly into the downtown area, 2) Pleasant Valley Reservoir mid-way up canyon. Water from this facility would be delivered to the downtown area, or to the Capitol Hill Reservoir and 3) The Upper Highline intake structure (now the location of the water treatment plant) that delivered water to the Highline conduit to the upper avenues through the Morris Reservoir.

Chlorination of public drinking water supplies became the state of the art treatment for most of the nation's water supplies about this same time; although some communities did filter their water supplies. It would nearly four decades

before the City would begin fully treating the water in City Creek.

Pollution levels in City Creek, as measured by Coliform Bacteria were considered low, and with the introduction of chlorine as a disinfectant, the water met drinking water standards of that time. However, by 1950, the Coliform Bacteria counts began to dramatically increase from an annual average of less than 10 colonies per 100 millimeters to over 100. By 1950, the count had reached an annual average of over 130. These elevated pollution levels were attributed to the heavy public use of the canyon watershed consisting of only 17 square miles. In 1950, City Creek pollution levels were much higher than any other of the City water supplies.

The Metropolitan Water District of Salt Lake City hired a board of engineers comprised of J. A. Carollo, J. M. Montgomery and N. T. Veatch to con-

duct a sanitary survey of all of the City's water sources, including City Creek.

The September 1950 findings and recommendations were contained in their "Report on Investigation of Water Quality of Water Supplies." Their recommendations included closing the canyon above the Highline intake, installing screens and constructing a new filtration plant with a capacity of 7.0 million gallons per day. Pre and post chlorination was further recommended. The report recommended watershed sanitation improvements in all of the City's watersheds, and concluded that only City Creek would require a filtration plant based on the then Public Health Standards and the observed Coliform levels in the other sources of supply.

Eventually, all the City's surface water sources would be treated with conventional treatment plants and filtration. The City Creek Water Treatment Plant was under construction in 1953, with filters added in 1966. The final plant was constructed to treat 15 million gallons per day with four rapid sand filter beds rated at three gallons per minute per square foot.

City Creek Canyon was totally closed to the public from 1952 to 1965, when public access was permitted below the water treatment plant. Beginning in 1975, public access was allowed above the water treatment plant.

1986 City Creek Master Plan

During April 1986 the City published the results of the "City Creek Master Plan," that addressed the land use and traffic

circulation in City Creek Canyon including Memorial Grove Park. The planning goal was to designate the canyon "...as a valuable watershed and recreation/open space amenity of city-wide significance."

The upper canyon above Bonneville Loop Road was designed to be preserved as a watershed and limited public recreation area. Further, the plan recommends the policy that the entire canyon be maintained in its natural state, with only minimal improvements to enhance recreation opportunities, stabilize hillsides and define public/private property boundaries in areas near the mouth of the canyon

The canyon during the next decade became a popular jogging and bicycling area, with hundreds of people on the narrow road daily.

The challenge will be to protect this invaluable resource for future generations.

City Creek's Future

City Creek will continue in the future to be an important part of Salt Lake City's water supply and an unique and beautiful amenity appended to the state's capital city.