

CITY CREEK: SALT LAKE CITY'S FIRST WATER SUPPLY

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Introduction

City Creek Canyon, located northeast of Salt Lake City, collects water from 19.2 square miles of watershed that feeds the 14.5 mile-long City Creek stream. Since the arrival of the Mormon pioneers in 1847 this water supply has been used by first the settlers, and later the inhabitants of the City. It played a significant role in the valley's early history, as the settlement was based on agriculture through artificial irrigation of the desert soil. City Creek was designated as the pioneer's first source of water providing both irrigation and domestic supplies. Today it remains an important part of the City's water supply providing water by gravity flow to the Avenues, Ensign Downs and downtown areas.

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 wastelands 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 This cynicism was dispelled by the summer of 1848, when Parley P. Pratt wrote, "my Indian Corn was seven feet high before I watered; it looks as well as any I have seen in the state."²

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



City Creek stream.

Journal of History, LDS Archives

¹ Journal of History, LDS Archives

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 the 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 he wrote, "...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 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 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, resulting in further development of new water supplies with the construction of dams, canals, ditches and pipelines 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 led to the City's ownership and use of City Creek are as follows:

1. Ecclesiastical government of the church formed empowering the "High Council" jurisdiction over municipal affairs and the authority to regulate and appropriate the

² *Ibid*

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.

2. Mormon doctrine, which provided the "Saints" an inheritance of land to build upon and farm. Water went with the land to irrigate crops, 1847.
3. 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.
4. The incorporation of Salt Lake City, 1851.
5. The transfer of municipal authority from the ward bishops to the elected City Council - 1851.
6. Territory of Deseret legislation giving the County Courts control over the distribution of water, 1852.
7. 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.
8. 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.
9. An Ordinance establishing the City Water Works. Taxes and fees paid for the cost of this municipal service, 1876.
10. Legal Opinion by the City Attorney on City Creek water rights, 1882
11. City Creek fully appropriated and beneficially used by City. 1862
12. Summary of City Creek water rights.

1. City Creek - Ecclesiastical Government and Water

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.³

The pioneers diverted City Creek stream for irrigation and domestic purposes and it was the City's main source of water until 1879 when the Jordan-Salt Lake Canal began conveying Utah Lake water to the City's inhabitants. This canal later enabled the city in 1888 to enter into exchange agreements with farmers to use the waters from 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. On July 23, 1847, an advance party of pioneers led by Orson Pratt diverted the water flowing in City Creek 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, and this began the reliance on water for irrigating crops. 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 by sagebrush and void of greenery.

The designation of City Creek water as the settlement's water supply, for both irrigation and domestic purposes, in a sense constitutes 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.



Brigham Young empowered the High Council to appropriate City Creek water.

The appropriation of City Creek water for the beneficial use of the Saints was established in an "Epistle"⁴ 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."

2. Mormon Doctrine - Land and Water Inheritances

During the first winter, the settlement was nearly confined within the fort built to protect the pioneers until permanent homes could be built. The city was surveyed laying out the "Saints' inheritances," and on November 22, 1848 Thomas Bullock completed his plat of the city and the farming lands. The City earlier had been laid out according to the dictates of Brigham Young at a meeting of the Quorum of Twelve.⁵

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:

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 by
Orson Pratt:

Journal of History, LDS Archives—

⁴ Epistle of the Council of the Twelve Apostles, September 9th 1847

⁵ Tullidge, *History of Salt Lake City*, p. 46 - 47

"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."

July 23, 1847

A committee was formed to attend to different branches of business, particularly to putting in crops. Thus, Shadrach Roundy, Seth 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, 1847

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, 1847

"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).⁶

3. Pioneer Government - High Council City of Zion and Ward Bishops

When the pioneers arrived in the Great Salt Lake Valley, the territory was under Mexican control. In the beginning the governmental functions were not civil but ecclesiastical with the Mormon 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; such as 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 gristmill on City Creek.

At a general conference held during October 1848, President Young was sustained as president of the church and Heber C. Kimball and Wellard Richards as counselors. At about the same time, nineteen ecclesiastical wards were organized. A meeting was held soon after, and the High Council decided that it should be relieved of the municipal duties and the wards should be entrusted with these duties.⁷

Journal of History, LDS Archives

⁶ Journal of History, LDS Archives

⁷ Carter, Kate B. *Heart Throbs of the West*, p.20

The High Council was relieved of municipal duties on January 6, 1849 and the municipal authority placed in the hands of the Ward Bishops. Later the control of the ditches was transferred to the Ward Bishops when on April 28, 1849, with President Young and the High 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 have a bridge over it."⁸

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 constructed 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."

During the two years that water matters were in the hands of the bishops, the settlement developed the Mormon principles of communal construction of canals and ditches and the water distribution among the users. When a group of families needed additional water to irrigate their farms and gardens, the bishops arranged for a survey and organized the men into a construction crew. Each man was required to furnish labor in proportion to the amount of land he had to water. Upon completion of the project, the water would be distributed by the ward watermaster in proportion to his labor.⁹ In this manner, the irrigation ditches expanded through the cooperative labor of the pioneers, bringing more land under irrigation and expanding the productivity of the settlement. To quote an interesting observation of this early period, "The influence of the Mormon Church in shaping and promoting agricultural development has given to the irrigation system in Utah many interesting and unique features. In the early years of settlement there was no provision for acquiring legal titles to either land or water, and without the supervision of the church

authorities, acting as arbiters and advisers, there would have been no rule except that of force."¹⁰ Clearly, the unique control of the Mormon leadership and the devotion of the membership helped overcome great odds in settling the Great Basin.

A description of the City 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 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.

⁹ Arrington, Leonard J. *Great Basin Kingdom*, University of Nebraska Press - Lincoln, p. 53

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, and incorporated the University of Deseret.

The following ordinances pertained to the control and regulation 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 stewardship of these 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**

¹⁰ Mead Elwood. *Report of Irrigation Investigations in Utah*. Washington Printing Office, 1903. Bulletin No. 124, p.7

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 vain, 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. 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.

Signed 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."¹¹

Other than the documentation of the petition and ordinance, this author has found no further reference to the intent of this action, so the exact reason of Young's exclusive right to

City Creek is not known. It is assumed that this act is similar to other ordinances of that period, which placed guardianship of the valley's resources in the hands of prominent church leaders. It must also 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 request; further, at this time Brigham Young 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 under the authority of Brigham Young until at least 1855 as indicated from the minutes of the City Council meeting of 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 of \$400 or \$500, it would be doing some liberal benefit, where upon it was moved, seconded and carried that \$500 be appropriated by the city treasurer to Governor Brigham Young to aid him in the prosecution of cleaning the water of the City Creek.

4. Incorporation of Salt Lake City

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

¹¹ Legislative Journal of Utah, p. 63

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.

The State of Deseret Act of Incorporating Cities, Section 15, 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." With this, the City Council had the legal authority to pass ordinances establishing the position of water master, control the flow of water within the city and protect the purity of its water by prohibiting unsanitary activities.

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.

A series of ordinances, which established the city's authority to regulate and control the flow of water within the corporate limits, are as follows:

1. The regulation of ditches and sidewalks passed on February 3, 1851:

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.

2. The prevention and removal of filth from the watercourses 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 neither 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:

3. 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 bishop's 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 themselves, 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.

4. 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, May 6, 1854. J. M. Grant, Mayor.

5. 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 comply 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.

5. Transfer of Water Control to the City - 1851

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 is 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 responsibility 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 position on March 10, 1851 and then the ordinance creating the watermaster position on July 9, 1853 consummated the City's authority and control over the flow of water within the city and farmlands.

6. Territory of Utah - County Courts Given Jurisdiction Over Water

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 for 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 September 9, 1850, but the news did not reach Deseret until January 1851. President Fillmore made appointments in the month of September as follows: Brigham Young, Governor; B. D. Harris, Secretary; Joseph Bluffington, Chief Justice; Perry C. Brochus and Zerubbabel Snow, Associate Justice; and Seff N. Blair, United States Marshall.

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, and approved on 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. "¹²

7. Land and Water Ownership

When the pioneers settled in the Great Salt Lake City, under the direction of the Church, each settler received an "inheritance" of land on which to build a home and farm. This policy was clearly stated in September 9, 1847 Epistle, "We gave no land to sell to the Saints in the Great Basin, but you are all entitled to as much as you can till...and at a future day will receive your inheritance on the farming lands as well as a city lot..."¹³

The first selection was given to Brigham Young. on August 7, 1847. Next the Apostles; "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 Amasa M. Lyman one near Wilford Woodruffs."¹⁴ Later, on February 19, 1849, the others as promised began to move their houses out of the fort onto their land lots. "Due to the consequences of a public notice given the day before, the president's office was flooded with brethren who came to secure their lots and pay the surveyors' fee."¹⁵

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¹² Israelsen O.W., *Legislation Regarding Water Rights*, 1918

¹³ Epistle of the Council of the Twelve Apostles, September 9, 1847

¹⁴ Whitney. *History of Utah*, Volume 1

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 as squatters 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 a means to establish 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 situated."¹⁶

The territorial government made numerous attempts to petition the federal government for consideration to qualify for land title under the Preemption Act of 1841, (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

¹⁵ Journal of History, LDS Archives

¹⁶ Hunter Milton R. *Brigham Young, the Colonizer*, Peregrine Smith Inc., Santa Barbara and Salt Lake City, 1973, p 161

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.¹⁷

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 settler's claims were entered in quarter sections as homesteaders and 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.¹⁸

8. Salt Lake City Land Patent No. 710

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. 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."

Journal of History, LDS Archives—

¹⁷ Journal of History, LDS Archives, January 12, 1859

¹⁸ Hunter, Milton R. *Brigham Young, the Colonizer*, Peregrine Smith Inc. Santa Barbara and Salt Lake City, 1973, p. 162-163

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 water from City Creek irrigated the land within these plats and was likewise land described in the patent. It is assumed that the city fathers viewed City Creek water as an appurtenance to Plats A and B, but upon conveying the land title to each property owner, the deed was silent regarding the water rights. Thus, it is assumed the City retained them.

9. 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 piped system through subscription. However, the early water works system was paid for from license fees and City taxes.

This means of financing, however, proved unsatisfactory because 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 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 Council hired Herman Schussler, Civil & Hydraulic Engineer to design the water system to convey water from City Creek into a piped system to the business district of the City. In his report dated August 12, 1872, Mr. Schussler, wrote:

"The City Creek has for the present & many years to come an abundant supply for Salt Lake City, especially at its present volume will decrease but very little according to statements made to me by members of your council. By an approximate gauging I found the creek to deliver in the neighborhood of ten million gallons per diem of 24 hours, which amounts is far in excess of the water required. The average daily consume through the largest cities in the United States & Europe is 45 gallons per head. Salt Lake counting about 20,000 inhabitants, and a good deal of water being required for irrigation gardens & sprinkling streets, I will assume a daily supply of 100 gallons per head, that is for every man, woman & child, this aggregating a total daily supply of two million gallons. In order to make provisions for the future growth of the City, I propose to construct the pipe system of the City of such dimensions as to be capable of supplying five million gallons per diem."¹⁹

The report goes on to specify the length and size of pipe, fittings and fire hydrants. In regards to the type of pipe Mr. Schussler noted at this point that the City had already decided to use the laminated wood pipe (approved by the City Council on July 13, 1872), which he noted "is as fully strong and more lasting than Cast Iron, provided the joints are properly secured and made." He further described the inlet works and the need in the future for a distribution reservoir on a knoll west of City Creek in the vicinity of the old city wall. However, he recommended that for now, the reservoir is an unnecessary expenditure.

On August 24, 1872 the City and the Rochester Laminated Pipe and Package Company of Rochester, New York entered into an agreement to secure the pipe and fittings for the City Creek water system.

The City's water system began with the construction of the headwork on September 24, 1872. These tanks, later to be known as the Brick Tanks located at the 4578-foot elevation were in two sections and were to be the headwork for the pipe system for the city.²⁰

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¹⁹ City Council minutes, August 12, 1872 p.265

²⁰ The first diversion point for the piped water system is not known for sure. But based on Engineer Herman Schussler's August 12, 1872 report and a later map entitled, "Map of City Creek From The Brick Tank In City Creek Canyon To The Intersection of South Temple & West Temple Streets For Supply Distribution No.1." City Engineers Office, September 9, 1899, Frank C. Kelsey City Engineer, the approximate length of 16-inch pipe scaled from State Street & First Street is 2,050 feet and 20-inch pipe 1,430 feet or a total length of 3,480 feet to the Brick Tank, very close to the 2,000 feet of 16-inch pipe and 1,000 feet of 20-inch pipe contained in Schussler's report. The difference may be a matter accuracy of scaling the map, or the distance was changed between the time the report was made and when the work began 3 years later under a new superintendent. Another potential first intake is based on Schussler's statement of "available (continued)

The first attempt to construct the pipeline failed because the laminated pipe was not suitable for the purpose of constructing the water system. 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, in the best terms possible. The next day Superintendent McKan was authorized to go east to find suitable pressure pipe.

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. He was also to purchase sufficient 20-inch diameter pipe to reach from the tanks to Eagle Gate on First "B" Street, and 12-inch diameter pipe to reach two blocks south from the center of South Temple.

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

Apparently the City had difficulty financing the installation of the pipes, because 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 installation of the pipeline commenced, with the labor for trenching and backfilling the watermain done under the supervision of street supervisors. A portion of the labor was provided by prisoners who worked out fines at \$1 per day.²¹ Other labor was hired by the day. The pipe was caulked and fittings placed by pipemen from the gas company.

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 tunneling and open excavations, some

head of from 90 to 100 feet" would place the intake at an elevation corresponding to the drinking fountain in Memory Grove.

²¹Carter, Kate C. *Heart Throbs of the West*, Volume 1, p.158

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 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 an 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's 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.



Old High Line Intake (Capitol Intake) above Pleasant Valley Reservoir at the 5058-ft. elevation. Abandoned in 1953 when the water treatment plant was built.

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

The original City Creek diversion provided water to District 1. Diversions moved upstream to provide water higher on the Avenues. The 20th Ward Intake and 46,000 gallon tank at the 4712 ft. elevation provided water to District 2, followed in 1890 with the High Line Intake at the 5058 ft. elevation. A wooden tank with the capacity of 51,000 gallons was constructed as part of this facility. Water from this source was conveyed to the Capitol Hill Tanks that were constructed in 1892 providing water service to Districts 3 & 4. In 1953 this intake was removed when the water treatment plant was constructed.

In order to reach the high Avenues, the new Highline Intake and 50,000 gallon tank were constructed in 1910. Water diverted at this elevation was conveyed through an 18-inch pipeline to the Morris Reservoir and the upper Avenues. (See Figure 1)

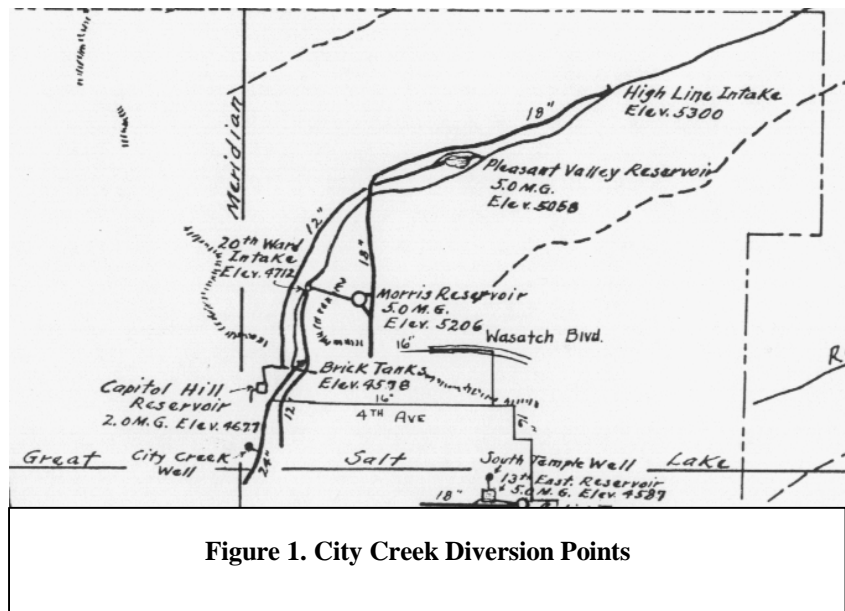


Figure 1. City Creek Diversion Points

10. Legal Opinion

On May 31, 1882 the City Council, requested that the City Attorney issue an opinion concerning the city's water rights.²² "Councilman Riter moved City Attorney be instructed to

report to the Council whether any party not entitled 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 is the only legal opinion that this 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 are beyond the power of control of courts or legislation. Attached to town lots and owner thereof - the power of control having being vested in the city by its charter, therefore, the city has the right to use water attached and to the land patent for beneficial purposes."²³

11. City Creek Appropriated and Beneficially Used by Salt Lake City

By 1864, the City began to look for additional water for its inhabitants. City Creek was no longer capable of meeting the city's water demand. On August 17, 1864 a mass meeting was held at the bowery to consider bringing water from the Jordan River at the point of the mountain and sinking artesian wells. As reported by the Deseret News, speeches were made by Hons. W. Woodruff, A.P. Rockwood and Z. Snow in which they argued the necessity

of increasing the water supply of the city. At this point City Creek was fully appropriated by the city and beneficially used by its inhabitants.

The City Seeks New Water Supplies

The main body of the Mormon settlement was located 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 City's southern and southwestern districts. The water of Red Butte was used in the City's 11th and 21st Wards until 1862 when the United States Government established Fort Douglas. The Army then appropriated the water for its use, ignoring the prior rights of the City. The eastern and southeastern parts of the City which included the East Bench, Plat C, and the First, Second and Tenth Bishop's Wards were supplied from Emigration Creek,



New High Line Intake and 50,000 gallon tank at elevation 5300-ft. The facility was removed in 1953 when the water treatment plant was constructed. Circa 1910.

Two ditches were used to divert the waters of City Creek. One diversion on the east side of the canyon provided water to the 20th Ward and was called the 20th Ward Ditch. It 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 approximately 4,550 feet USGS and the ditch was located on the steep easterly slope of the canyon. The 20th Ward Ditch, went from "B" Street in an easterly direction, fed smaller ditches which were built to convey the water southerly and southeasterly 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 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, continued northwesterly crossing Main Street near First North into Center Street. This stream was used for domestic purposes.²⁴ 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 meet its water needs.

Inasmuch as farmers had already appropriated the other canyon streams in the valley, the City looked to the Jordan River and Utah Lake. On August 9, 1864, Alderman Sheet 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



Water Department shops located on the west bank of City Creek at a location now known as Memory Grove. Circa 1911

dam at its headwaters and bringing a canal from thence around to the city, which though requiring great expenditure, would be attended 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 allow the City to enter into exchange agreements with the farmers to acquire the rights to the waters of Parleys, Mill Creek and Big and Little Cottonwood creeks.

City Purchases City Creek Watershed Lands

The City Council first considered buying the private lands in City Creek Canyon on November 27, 1883, when 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.

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 be 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 milliliters to over 100. By 1950, the count had reached an annual average of over 130. City Creek pollution levels were much higher than any of the city's other of water supplies. These elevated pollution levels were attributed to the heavy public use of this small canyon watershed, which consisted of only 17 square miles.



City Creek Water Treatment Plant located about 3 miles above Bonneville Loop Road. Circa 1985

Because of the concern over the pollution levels in City Creek, 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 conduct a sanitary survey of all of the City's water sources. 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 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 and filters were 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

In 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, stabilizing hillsides and defining public/private property boundaries in areas near the mouth of the canyon

During the next decade the canyon 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.

12. 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. Other settlers spread out from the main settlement to the lands to the south. They dug ditches to divert the waters from the other valley streams. Later these individuals formed cooperative irrigation companies and appropriated the canyon streams for their use.

During the early period the ecclesiastical government organized, managed and controlled water within the main settlement. 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.

Shortly after Salt Lake City was incorporated in 1851, there was an apparent dispute between the City Council and the Ward Bishops. Subsequently, the City Council passed ordinances regulating the flow of water through its corporate limits, established the position of watermaster and regulations to protect the purity 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 and 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 during the early history of Salt Lake City. It's difficult to point to any

one event that led to the City's ownership of City Creek. Most likely it was a chain of events that evolved 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.

On May 31, 1882, the City Council, 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 were 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. Thus the city has the right to use water attached to land patent No. 710 for beneficial purposes.

Perhaps Louis C. Kelsey, City Engineer, best describes the chain of events:

"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 corporation, however, did not appropriate the water supply, 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."²⁵

City Creek's Future

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