

Metropolitan Water District of Salt Lake City - Master Plan for the 21st Century
Rotary Club - Marriott Hotel, September 1, 1998

LeRoy W. Hooton, Jr. (part of the program)

INTRODUCTION

Thank you for the opportunity to speak today. I'm going to talk about the early water development history of Salt Lake City leading up to the City's decision to form the Metropolitan Water District of Salt Lake City in 1934. Nick Sefakis will then take over and continue with his presentation on the Metro District.



In doing my job, I often think back, and I'm thankful, for those in the past that made it possible, for us today to have the water supply we enjoy here in the Salt Lake valley. Our past water leaders have provided us with a great water legacy.

Therefore, as part of my presentation today, I'd like to recognize some of those early individuals who made it possible.

EARLY WATER DEVELOPMENT

Water development played an important role in our history and will continue to, into the future. The Salt Lake valley receives about 16-inches of precipitation annually, with very little during the summer growing season; therefore irrigation is necessary to grow crops and sustain greenery.

Irrigation had its birth here in 1847, when the Mormon Pioneers first arrived in the valley. The early settlers had to survive on what crops they could grow; and through their industry, faith and organization, they overcame the hostile desert environment.

They developed a system of water management and distribution that would later be adopted by others, including the federal government, and in a substantial way helped in the building of a nation.

With the first diversion of water from City Creek, the process began by which the arid west could sustain a large population by growing crops through artificial irrigation.

Brigham Young was the leader and architect of this early water development. Under his leadership and water policy, 435 communities were settled in the Great Basin.



IRRIGATION PRACTICES IN THE WEST

This slide shows how much of the west was first irrigated. Individuals, groups, or later mutual irrigation companies dug the ditches that conveyed the irrigation water to their crops.

It is estimated that the early settlers -- in just such a manner-- dug 1000 miles of ditches.



THE JORDAN & SALT LAKE CITY CANAL

By 1879, settler farmers had diverted and appropriated the Wasatch Canyon streams south of Salt Lake City. The City needed additional water for a growing population and Utah Lake was the only alternative available at that time.

With the vision that a canal could provide enough water for 100,000 residents, the Jordan & Salt Lake City Canal was authorized by a bond election – and subsequently, it would be the most important water project of the pioneer era.

Jesse Fox, shown here, was responsible for the engineering and construction of the canal. During his lifetime he would be involved with all of the major canals within Salt Lake County. Also, his early survey work on the Weber and Provo Rivers would later become part of the Provo River Project.



JORDAN & SALT LAKE CITY CANAL –1882

Here is a view of the canal at the turn of the century at about 1200 South and 1100 East. The canal carried 150 cubic feet/second of water. The canal is used today.



SALT LAKE CITY EXCHANGE AGREEMENTS

The Jordan & Salt Lake City Canal, as it turned out, was the means for the City to acquire the rights to the waters flowing from Parleys, Mill Creek, Big and Little Cottonwood Canyon streams.

The City needed the high quality mountain water for municipal uses, and in turn, the farmers needed stored water to mature their crops during the hot and dry summer months, when the canyon streams diminished in flow. These mutual needs drew the two together to agree to exchange their respective waters.



The Parleys exchange in 1888 was the first such exchange, followed by other canyon streams during the next forty years or so.

A. F. Doremus, made his contribution to our water legacy, by building the water works to implement the 1888 Parleys Exchange and also laid the groundwork for the Big Cottonwood exchanges at the turn of the century. Later, as State Engineer he would play a role in the federal Strawberry Project.



PARLEYS RESERVOIR – PARLEYS EXCHANGE 1892

This is the Parleys Reservoir in 1892. Mountain water was stored in the reservoir and delivered to City residents for municipal use and was replaced downstream with Utah Lake irrigation water from the Jordan & Salt Lake City Canal to the farmers.

BIG COTTONWOOD DIVERSION DAM – 1907

This slide is of the Big Cottonwood diversion works in 1907. It was a great event when the Big Cottonwood Creek water was diverted to the City's inhabitants.



1902 FEDERAL WATER RECLAMATION ACT

Lessons learned from the pioneers would later be incorporated into federal reclamation of the west. President Theodore Roosevelt introduced legislation in 1902 that congress passed as the Water Reclamation Act.



This Act, for nearly a century enabled the building of 348 reservoirs, and irrigation of 10 million acres of farmland in 17 western states, including Utah.

31 million people receive their drinking water from these federal projects, including Salt Lake City.

The Mormon Pioneer experience in irrigation had a profound impact on the nation, as much of their irrigation experience, laws and engineers would guide the Bureau of Reclamation in building the west.



FEDERAL RECLAMATION STRAWBERRY PROJECT 1909

Here is the Strawberry Project one of the early

reclamation projects benefiting Utah. This slide shows a peach orchard near Spanish Fork, Utah.

1924 WATER SHORTAGE

With the drought of 1924, water officials such as H. K. Burton, Water Superintendent from 1920 to 1952 began to worry about the City's future. After several years, the foundation for needed action was built.



1928 WATER ADVISORY BOARD

By 1928, Salt Lake City's Mayor, John Bowman, was convinced that the City's future was in doubt without developing new water supplies. Challenged by the words, "A city can never be greater than its water supply," the most ambitious water development program ever undertaken by the City was initiated.



In an effort to identify new sources of water, Mayor Bowman on May 15, 1928 formed a Water Advisory Board to study the matter.

He instructed the Board to acquire an adequate water supply for a minimum population of 400,000.

WATER ADVISORY BOARD



The Water Advisory Board consisted of the following members:

Left to Right: George M. Bacon, State Engineer, he would later withdraw from the Board
Sylvester Q. Cannon, Past City Engineer

William Peterson, geologist, and Professor at Utah State Agriculture College in Logan

A. Z. Richards, Private Engineer, in the consulting business

Right Bottom: J.C. Jessen, then City Engineer and chair of the Board



WATER BOARD'S RECOMMENDATIONS

Within a year, the Board made its recommendations.

Local Sources: Increase the use of local canyon streams and artesian wells. The first priority was to build the Argenta Dam in Big Cottonwood Canyon.

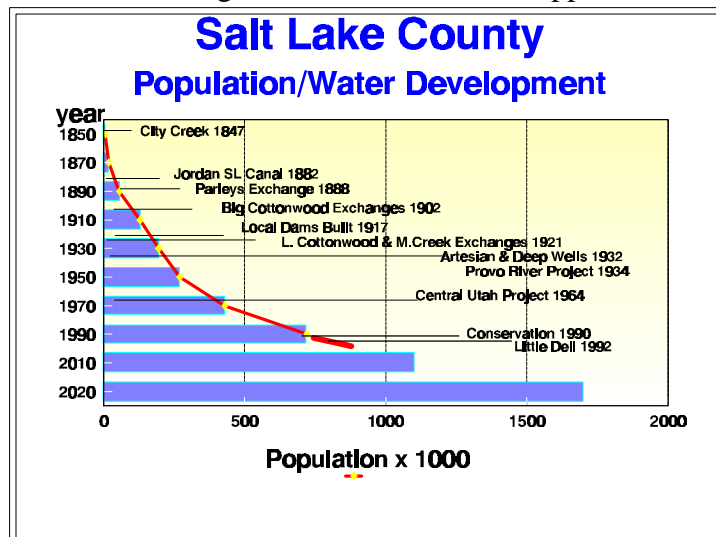
Outside Sources: Nine projects were recommended, including deep wells. The first priority was to purchase 40,000 acre-feet of water in the proposed Deer Creek Reservoir.

WATER DEVELOPMENT ACTION

- The administration immediately began to explore the purchase of capacity in Deer Creek Reservoir; however, it was estimated that it would not be available for 7 to 10 years, forcing the City to implement the local sources recommendations first.
- A \$2 million bond was passed by an election on July 1, 1931 to finance the local measures.
- As the drought of the early thirties deepened, deep wells were also drilled.
- The Argenta Dam bond election was defeated.
- As the City worked toward acquiring rights in Deer Creek, it found that it did not have the authority under state law as a city, to participate in the federal irrigation water project, nor the bonding capacity if it could.
- Thus the beginnings of the Metropolitan Water District of Salt Lake City. Once the decision was made to form the District, legislation was drafted and passed by the Legislature and an election was held on August 15, 1934 for citizen approval.

SUMMARY

In summary, this chart shows the development of water from 1847 to the present time. The chart graphically depicts the relationship between water development and population growth, and the historic quest for new water to meet the growing needs of Salt



Lake. Nearly every generation has been asked to build on existing supplies and conveyance systems to ensure future generations an adequate water supply.

To grasp the magnitude of the Water Advisory Board's study and recommendations, the City's water supply was increased 2-1/2 times over the supply available in 1928; increasing the potential population served from 270,000 to well over 400,000 when including Salt Lake City's service area, Sandy City and surplus sales to the Salt Lake County Water Conservancy District.

Clearly, the results of the Advisory Board and the subsequent action produced much of the water supply we have today.

Today the County's population is 831,000, and it is expected to increase to 1.1 million by the year 2010. Water today is as important to our future, as it was to those who preceded us.

CONCLUSION

To conclude my remarks:

The settling of the Salt Lake valley resulted in the birth of irrigation and the building of the west.

Each generation, since the pioneers arrived, has had to seek, and develop water supplies and construct conveyance systems.

Today, Salt Lake City, as one of the great cities of the west is prepared for the future, fulfilling the 1928 statement, "A city can never be greater than its water supply."

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