

WHO OWNS UTAH LAKE?

How Government Manages Utah Lake

This lesson plan has been created as a resource for seventh grade teachers to teach the new core standards to their students. It integrates language arts and social studies standards in a meaningful and fun way. To see which specific standards are addressed, please refer to them below.

OBJECTIVE:

Note to teacher: Several standards could be taught using these materials. We have provided ideas on how to apply them in the classroom. Familiarize yourself with the standards and teacher materials and teach accordingly. These materials could be used for one or multiple lessons.

STANDARDS ADDRESSED:

7th Grade Language Arts

7.RI.1 Reading Standards for Informational Text Standard 1:

Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

7.SL.1 Speaking and Listening Standard 1:

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.

7.SL.4 Speaking and Listening Standard 4:

Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.

7.W.1 Writing Standard 1:

Write arguments to support claims with clear reasons and relevant evidence.

7th Grade Social Studies – Utah Studies

Standard 1: Students will understand the interaction between Utah's geography and its inhabitants.

Objective 1: Investigate the relationship between physical geography and Utah's settlement, land use, and economy. Read and interpret a variety of maps.

- a. Identify the physical features and regions of Utah.
- b. Compare and contrast the relationship between physical features and regions to settlement, land use, and the economy.

WHO OWNS UTAH LAKE?

How Government Manages Utah Lake

- Objective 2:** Examine the interrelationship between Utah's climate, landforms, location, and life. Describe how latitude, elevation, and distance from the ocean influence Utah's climate.
- Explain how mountains, valleys, and bodies of water affect climate.
 - Assess how climate influences life in Utah.
 - Explain how natural forces shape the living environment and landscape.
 - Investigate how natural forces shape the local environments.
 - Predict how natural forces affect environments; e.g., earthquakes, volcanic action, mudslides, flooding, erosion.

- Objective 3:** Assess how natural resources sustain and enhance people's lives. Recognize the impact of water, minerals, wildlife, and forests on people.
- Distinguish between renewable and non-renewable resources.
 - Analyze how natural resources improve the quality of life.
 - Assess the importance of protecting and preserving natural resources.

- Objective 4:** Examine how people affect the geography of Utah. Identify Utah's counties and cities.
- Assess how people change the landscape.
 - Examine how altered landscapes affect people.

Standard 3: Students will understand the relationship between government and the people of Utah.

- Objective 1:** Examine Utah's struggle for statehood. Compare and contrast territorial and state government organization.
- Explain the benefits of statehood over territorial government.
 - Examine the unique relationship between the sovereign Native American Indian nations, the United States government, and the Utah State government.
 - Investigate how government services affect the residents of the state.

- Objective 2:** Examine the structure and function of city, county, and state governments. Explain the role of the legislative, executive, and judicial branches in state government.
- Assess the similarities and differences among the levels of local government.
 - Identify local officials and their responsibilities.
 - Research services that are provided by each level of government; i.e., city, county, township.

- Objective 3:** Assess the rights and responsibilities of citizenship. Compare and contrast the United States and Utah Constitutions.

WHO OWNS UTAH LAKE?

How Government Manages Utah Lake

- a. Explain the rights and responsibilities of good citizens.
- b. Investigate how individuals can be involved in the political process.

Standard 6: Students will understand the impact of major contemporary events that concern the land and people of Utah.

Objective 1: Identify and investigate major contemporary events that affect individuals, institutions, and society. Examine different points of view on important events; e.g., land, politics.

- a. Identify the impact each point of view may have on the state.
- b. Investigate the avenues available for individual or community involvement.

The student will:

Identify needs and uses of Utah Lake.

Understand the history and purpose of the Utah Lake Commission as an inter-local government organization to study and promote good uses of the lake.

Understand the interactions among different state, local, and volunteer agencies.

Differentiate between land ownership and water-use rights.

Apply historical legal decisions to possible future disagreements.

Summarize and analyze informational articles for main idea and bias.

TEACHER BACKGROUND:

Historically, ownership and use of Utah Lake has been difficult to understand. Overlapping and conflicting uses have created a hodgepodge of needs and rights for Utah Lake's land and water. Simply put, the state owns the lake bed, private property owners own the adjacent lands, and various parties own the water rights. Several networks of laws, regulations, and advisory bodies control and influence the use of the land and water. When the various needs and goals of Utah Lake come into play, the role of lake stakeholders becomes complicated. The Utah Lake Commission has been created to coordinate better the management and development of the lake to study the various needs and rights of different parties, agencies, and government organizations. The Utah Lake Master Plan looked at addressing many different issues the lake faces. Some of these ideas included:

Water quality and ecology

Feasibility of dredging

Control of invasive species

Access to the lake

Methods for reducing evaporative loss

Options for recreational access and promotion

Appropriate methods for re-establishing endangered or threatened species

Proposals for transportation enhancement including possible lake crossings

WHO OWNS UTAH LAKE?

How Government Manages Utah Lake

Shoreline development and preservation

Public perception

Ownership boundaries and protection of private and public property rights

Management of water levels and protection of private and public water rights

Finding different levels of interest, available data, and needs, the Utah Lake Commission works to promote communication and focus goals where various entities contribute. The Utah Lake Commission has identified numerous lake stakeholders — all of which have varying responsibilities in the management of Utah Lake. It is assisting their efforts to work together in working toward common goals. Each group has different responsibilities and influence (See Charts below).

Federal Agencies		
Agency	Responsibilities	Relevant Legal Authority
U.S. Fish & Wildlife Service	Protection of threatened and endangered species	Fish and Wildlife Coordination Act, Endangered Species Act, NEPA.
U.S. Bureau of Reclamation (USBR)	Management of withdrawn lands (reserved for USBR projects) adjacent to Utah Lake and USBR water rights associated with Utah Lake	Reclamation Act, 1902, NEPA
U.S. Bureau of Land Management	Management of BLM administered lands and Reclamation withdrawn lands adjacent to Utah Lake	Federal Land Policy and Management Act, 1976, NEPA
U.S. Army Corps of Engineers	Navigable waters and wetlands protection	Clean Water Act, NEPA, Harbors and Rivers Act
U.S. Environmental Protection Agency (EPA)	Protection of human health and the environment	NEPA, Clean Water Act
National Parks Service	Protection of archaeological and historical resources	Archaeological and Historical Preservation Act, NEPA
Utah Reclamation Mitigation & Conservation Commission	Management of Utah Lake Wetland Preserve and mitigation for Central Utah Project	Public Law 102-575, Titles II-VI, Central Utah Project Completion Act of 1992, NEPA

WHO OWNS UTAH LAKE?

How Government Manages Utah Lake

Utah State Agencies		
<u>Department of Natural Resources</u>		
Division of Forestry, Fire & State Lands	Planning, administration, protection and management of State-owned lake bed and shoreline	UC 65A, Article XX of the Utah Constitution
Division of Water Resources	Manages water resources of Utah Lake basin	UC 73-10-18
Division of Water Rights	Administers water rights of Utah Lake basin	UC 73-2-1
Division of Wildlife Resources	Manages and protects wildlife	UC 23-14-1
<u>Department of Environmental Quality</u>		
Division of Parks & Recreation	Regulatory authority over populated waterways. Manages Utah Lake State Park, law enforcement, search & rescue operations, & navigational hazards	UC 63.11.17.1, UC 73-18
Division of Water Quality	Protect water quality of Utah Lake and tributaries	Utah Water Quality Act 19-5
Division of Air Quality	Protect air quality of the state	Utah Air Conservation Act 19-2
<u>Department of Community and Culture</u>		
Division of State History	Preservation of historic and archaeological sites	National Historic Preservation Act, Sec. 106; Utah Annotated Code 9-8-404
Other Governmental Agencies		
Utah Lake Commission	Planning and coordination between agencies	Interlocal Agreement Creating ULC. HCR 1, 2007
June Sucker Recovery Implementation Program	Recovery of the endangered species, June sucker	Cooperative partnership
Central Utah Water Conservancy District	Management of water resources and water rights under its jurisdiction in Utah Lake	Central Utah Project Completion Act, PL 102-575
Utah County	Land uses adjacent to Utah Lake and enforcement of laws	
Municipalities	Land uses adjacent to Utah Lake and enforcement of laws and ordinances	Municipal statutes

WHO OWNS UTAH LAKE?

How Government Manages Utah Lake

TEACHER MATERIALS: (See links below or supplemental materials)

[Utah Lake Master Plan](#), including the history and goals.

History of the Utah Lake Commission (pg 4-5 of the Master Plan)

List of agencies with regulatory authority (pg 6-7 of the Master Plan and provided above).

Summaries of laws and statutes about the lake:

[Utah Division of Forestry, Fire & State Lands Intro Document](#)

[Utah Lake & Jordan River Water Rights and Management Plan](#)

[Map of Utah Lake](#) and the municipalities surround it.

STUDENT MATERIALS:

Copy of the scenarios below

Table of agencies responsible for areas of lake development and use

[Map of Utah Lake](#) showing municipalities

Articles from local newspapers about the history and issues of land and water use

Including Jordan River and flooding articles from 2011 (see links or supplemental materials):

[KSL.com](#) (with video clip or attached transcript below and in teacher materials)

[HeraldExtra.com](#) (See below and in supplemental materials)

[Deseret News](#) (See below and in supplemental materials)

[Flood Control History](#) by LeRoy Hooton, Jr.

[Chief Blackhawk, 1995](#), Melissa Bean, Deseret News and [Chief Blackhawk, 1996](#), Sharon Haddock, Deseret News

PROCEDURE:

Engage the students by getting students into groups. Have each group decide the ownership problem and possible solutions. Examples of ownership scenarios are:

A builder promises “beachfront” property for a homeowner’s backyard, but that was in time of drought. Now the yard is underwater. Does the homeowner own a part of the lake?

A neighboring state wants to buy the water to help boost a city’s growth. They need culinary water (as well as water to fill their swimming pools). Who can sell their water to the neighboring state? Is this sale even possible?

People along the Jordan River are complaining about the huge amounts of water coming from Utah Lake. Because it is causing huge flooding issues, people along the Jordan River want Utah Lake to keep the extra water, potentially flooding Utah County farmers. Who decides which side of the Jordan River Gate gets flooded?

WHO OWNS UTAH LAKE?

How Government Manages Utah Lake

A rich businessman wants to dredge a part of the lake to create a man-made island in the middle of Utah Lake. He will then create a resort for fishing and boating on the island. How would he seek permission to create his island? Will the developer own the land that he has created?

During a drought, part of Utah Lake's bed is exposed. Indian arrowheads and burial items are found, which a local university wants to dig up. This angers the Ute Indians, who lay claim on these things as being part of their ancestral heritage. Who gets to own the items?

The beach has disappeared around Lindon! Early settlers reported a sandy beach with clear water on Utah Lake's northern shore, but now it is overgrown with phragmites. Lindon wants to get rid of the noxious weeds, but doesn't want to pay for its removal. Private owners, including a country club, own property along the shore, and the city of Lindon wants the private owners to take care of the problem. If you own property along the shoreline, do you have to take care of the weeds?

Have the students report on what they have learned.

Have a class discussion on the following scenarios regarding Utah Lake's history, current issues, and its governing structure.

Review the history of land ownership around the lake when the territory became a state. What happened when Utah and the Federal Government both claimed the lake bed? Refer to the Supreme Court decision of 1985 that gave the lake bed ownership to Utah, which is referenced in the [Utah Division of Forestry, Fire & State Lands Intro Document](#).

Review water rights history and the "Compromise Level" of 1885 and subsequent renegotiation of the level in 1985. A good source is the Utah Lake and Jordan River Flood Control article (see supplemental materials) on flood control at Utah Lake.

Explain the problems of irrigation and water rights, particularly in Utah, where water was needed. Water rights' holders own the water rights to use the water diverted from the streams and rivers that flow into Utah Lake. Who manages these water rights? Go to the [Central Utah Water Conservancy District website](#) and click on the Utah Lake Drainage Basin Water Delivery System brochure (see link or teacher materials) and show the drainage and linkage among water sites (maps pages 3 and 5).

Tell the story of the "Compromise Level" legislation found in [Utah Lake & Jordan River Water Rights and Management Plan](#) (see link or teacher materials). Explain how the Jordan Gateway pumps monument no longer has a clear level marker, so new legislation was needed. Relate the need for coordination, as described in the Master Plan of the Utah Lake Commission. Then revisit the scenarios and have students pick an agency or department off of the chart that would

WHO OWNS UTAH LAKE?

How Government Manages Utah Lake

help solve the problem. Who is responsible for what?

Have students choose a scenario and write about the argument supporting their claims with clear reasons and relevant evidence.

ASSESSMENT:

Student involvement in their groups and discussion.

Written argument papers.

EXTENSIONS:

Have the students come up with potential future scenarios and explain the problem and possible solution with agencies that have jurisdiction. Have them write a short solution to the scenario.

Have students read a short newspaper article about flooding (see below) and summarize the article showing clear understanding of the main issues.

Issues of state's rights vs. private property rights can be reinforced from the history of Utah Lake "Compromise Level."

Have the students explain how the branches of Utah government interact to regulate Utah Lake, lands adjacent to it, as well as the water rights.

ADDITIONAL REFERENCES:

None

Utah Lake Comprehensive Management Plan

Introduction Document on Sovereign Land Management

Introduction

The bed of Utah Lake became state (sovereign) land on the date of Utah's statehood, January 4, 1896. The Division of Forestry, Fire and State Lands manages the sovereign land in accordance with the Public Trust Doctrine, state law and administrative rule. The purpose of this document is to summarize the management framework for the bed of Utah Lake.

The Origin of Sovereign Lands

Under English common law, the Crown held title to all lands underlying navigable waterways, subject to the Public Trust Doctrine. Following the American Revolution, title to such lands in the U.S. vested in the 13 original colonies. Under the Equal Footing Doctrine, fee title to those lands also vested in each state subsequently admitted to the Union, upon admission. Utah's public trust lands, known as "sovereign lands," lie below the ordinary high water mark of navigable bodies of water. Utah's sovereign land includes Utah Lake, Great Salt Lake, Bear Lake (Utah's half), Jordan River and portions of the Green, Colorado and Bear rivers.

Constitution, Statute and Rule

The framework for sovereign land management is found in the Utah Constitution (Article XX), state statute (primarily Chapter 65A-10), and administrative rule (R652). Article XX of the Utah Constitution accepts sovereign lands to be held in trust for the people and managed for the purposes for which the lands were acquired. Section 65A-2-1 of the Utah Code provides: "The division [of Forestry, Fire and State Lands, FFSL] shall administer state lands under comprehensive land management programs using multiple-use, sustained-yield principles." Briefly stated, the overarching management objectives of FFSL are to protect and sustain the trust resources of, and to provide for reasonable beneficial uses of those resources, consistent with their long-term protection and conservation. This means that FFSL will manage Utah Lake's sovereign land resources under multiple-use sustained yield principles, implementing legislative policies and accommodating public and private uses to the extent that those policies and uses do not compromise public trust obligations (Section 65A-10-1) and sustainability is maintained. Any beneficial use of public trust resources is subsidiary to long-term conservation of resources. Administrative rules address planning (R652-90) and land use authorizations including minerals (R652-20), special use lease agreements (R652-30), easements (R652-40), rights of entry (R652-41), grazing (R652-50), cultural resources (R652-60), exchanges (R652-80) and off-highway vehicles (R652-110).

Although sovereign land planning and management responsibilities lie with FFSL, other divisions of the Department of Natural Resources (DNR) also have management responsibilities for resources on and around Utah Lake. The Division of Wildlife Resources, for example, has plenary authority for managing wildlife in, on and around the lake. The Division of Parks and Recreation manages Utah Lake State Park and coordinates search and rescue and boating enforcement on the lake. The Division of Water Rights regulates the diversion and use of lake and tributary waters. The Division of Water Resources conducts

Utah Lake Comprehensive Management Plan

Introduction Document on Sovereign Land Management

studies, investigations and plans for water use. DNR divisions also regulate mineral extraction activities, conduct hydrologic research and identify and map geologic hazards around the lake.

The Public Trust over Sovereign Lands

Under A.D. 6th Century Roman law, and perhaps earlier, the air, sea and running waters were common to all citizens and the separate property of none. All rivers and ports were public and the right of fishing was common to all. Any person was at liberty to use the seashore to the highest tide, to build a retreat on it, or to dry nets on it, so long as they did not interfere with the use of the sea or beach by others. Although the banks of a river could be privately owned, all persons had the right to bring vessels to the banks, to fasten them by ropes and to place any of their cargo there. The influence of Roman civil law carries forward through English common law to today's Public Trust Doctrine, which recognizes the special public interest in rivers, lakes, tidelands and waters.

The Public Trust Doctrine "is founded upon the necessity of preserving to the public the use of navigable waters free from private interruption and encroachment" (Illinois Central R.R. Co. V. Illinois, 1892). Sovereign lands are held in trust by the state for the benefit of the public. The "trust" is a real trust in the legal sense of the word. There is a clear and definite trust corpus (the lands, waters and living resources therein), clear beneficiaries (the public), elected and appointed state officials with fiduciary responsibilities in managing the trust corpus and a clear purpose for the trust. The Public Trust Doctrine establishes the right of the public to use and enjoy these trust waters, lands and resources for a wide variety of recognized public uses. The original purpose of the doctrine was to assure public access to navigable waters for commerce, navigation and fishing. Protection of these resources remains paramount. The Public Trust Doctrine has evolved, in some states, to include modern uses such as recreation, environmental protection and preservation of scenic beauty. Implementation of multiple-use and other legislative policies for sovereign land is subject to consistency with public trust obligations. The Public Trust Doctrine has been, and will continue to be, flexible to accommodate changing demands for public trust resources.

There is no hierarchy of uses protected under the doctrine, but when there are competing public benefits, the public trust requires that those benefits that best preserve the purpose of the public trust under the circumstances should be given a higher priority. The Utah Legislature has assigned responsibility for management of sovereign lands, including Utah Lake, to FFSL. As trustee, FFSL must strive for an appropriate balance among compatible and competing uses while ensuring that uses protected under the Public Trust Doctrine, commerce, navigation and fishing, have primacy. It is desirable to maintain the option to adjust the allocation of public trust resources in response to changes in demand and changes in administrative and legislative policy. There are circumstances under which a lessee or grantee must be able to restrict public access to fully enjoy the rights granted under a lease, permit or sale. Examples include restrictions during mining operations, construction of improvements, harbor operations, military operations and access to personal property. The test of any disposition of an interest in sovereign land is that it must be done without affecting the public interest in what remains. This involves a judgment call on the degree of affect on the trust resources.

Utah Lake Comprehensive Management Plan

Introduction Document on Sovereign Land Management

Sale of sovereign lands is generally precluded by the constitutionally-imposed duty of the state to manage sovereign lands for the public. The general exception to this prohibition is if the disposition itself is in the furtherance of the public interest. Prior to 1988, state law limited the sale of sovereign lands to purposes that “promote a material public or quasi-public use or service, and then only in such quantity as may be reasonably necessary to promote such public or quasi public use or service; and provided further, that such use shall not unreasonably interfere with navigation” (Section 65-1-14). In 1988, state law was changed to allow the sale of sovereign land "only in the quantities and for purposes as serve the public trust and do not interfere with the public trust" [Subsection 65A-10-1(1)]. This change reinforced application of the Public Trust Doctrine and further restricted the purposes for which sovereign land may be sold.

The legislature has chosen to protect the public interest when sovereign land is sold or leased by requiring that “...the lease, contract of sale, or deed shall contain a provision that: (a) the lands shall be open to the public for the purpose of hunting, trapping, or fishing during the lawful season, except as provided by Section 65A-2-5; and (b) no charge may be made by the lessee, contractee, or grantee to any person who desires to go upon the land for the purpose of hunting, trapping, or fishing” (Section 23-21-4). Section 65A-2-5 reads: "The director of the Division of Forestry, Fire, and State Lands, in conjunction with the Wildlife Board, may restrict or limit public use of leased parcels of sovereign lands for hunting, trapping, or fishing: A. upon the petition of the affected lessee; B. after a public hearing; and C. upon a determination that unrestricted public use for hunting, trapping, or fishing substantially interferes with the primary activities authorized by the lease.”

The Utah Lake Boundary

In 1987, the United States Supreme Court reaffirmed the state’s ownership of the bed of Utah Lake, but the decision failed to establish the location of that boundary except as the “ordinary high water mark” of the lake at the time of statehood. For the ocean and most rivers and lakes, the ordinary high water mark is relatively constant, and can be identified reliably from year to year. Due to the gradual slope of Utah Lake’s shore, the fluctuating level of the lake and historical uses, the elevation of this “ordinary high water mark” is difficult to determine with certainty.

Section 65A-10-3 authorizes the Division of Forestry, Fire and State Lands to enter into agreements with owners of land adjacent to the lake to establish the sovereign land boundary. The division has been negotiating with willing landowners since 1994 to establish the boundary. There were approximately 225 landowners around the lake when the negotiations began. To date, the sovereign land boundary has been settled with 165 landowners covering approximately 80 percent of the shoreline. The division appreciates the cooperation of landowners willing to negotiate the boundary. The remaining shoreline is under litigation with upland owners. The division remains willing to negotiate during the litigation.

Utah Lake Comprehensive Management Plan

Introduction Document on Sovereign Land Management

Planning Unit

Lands subject to the Comprehensive Management Plan (CMP) are limited to sovereign lands where the upland boundary has been established (Map A). Disputed lands are not included. The Court has prohibited actions that would permanently affect disputed lands. When the ownership boundary is determined, lands that are sovereign land most likely will be classified and managed the same as surrounding sovereign land. Lands that are private will be under the control of landowners.

On March 24, 2004, sovereign lands were withdrawn from leasing and permitting for 18 months or the date of completion of the CMP, whichever occurs first. The withdrawal does not apply to uses associated with boundary settlements, improvement of access and trails, or activities associated with the protection of endangered species. The intent of the withdrawal is to ensure that development and use of the lake occur within the context of the CMP.

Sovereign Land Classifications

Division rule (Section R652-70-200) allows for classification of sovereign land based upon current and planned uses:

Class 1 - Manage to protect existing resource development uses.

Class 2 - Manage to protect potential resource development options.

Class 3 - Manage as open for consideration of any use.

Class 4 - Manage for resource inventory and analysis (a temporary classification).

Class 5 - Manage to protect potential resource preservation options.

Class 6 – Manage to protect existing resource preservation uses. To date, none of these classifications have been applied to Utah Lake.

Existing Leases and Permits

Existing leases and permits include six easements, five special use lease agreements, five general permits, one right of entry and one grazing permit (Appendix A and Map C).

Public Access to Utah Lake

At the onset of boundary negotiations with upland owners, public access to the lake was available at 12 locations. During boundary negotiations the division pursued opportunities to increase the number of public access points. To date, boundary negotiations have led to 19 additional access points (Appendix B and Map B). The Division appreciates the cooperation of landowners who were willing to include public access in the boundary negotiation process.

Utah Lake Comprehensive Management Plan

Introduction Document on Sovereign Land Management

Management of Utah Lake and the June Sucker

On April 30, 1986, the June sucker, a native endemic fish, was federally listed as an endangered species in Utah Lake. The fish, which once existed in the millions, was probably down to fewer than 1,000 individuals. The listing of the fish and designation of “critical habitat” in the lower 5 miles of the Provo River has had an on going impact on the lake’s management and the future of all users who might someday have an impact on the species—this was especially true of water users.

Most water development in Utah requires federal funding, permitting, licensing, or some other federal approval. Water development by its very nature removed or changed the timing of flow into Utah Lake both of which potentially impacted the endangered June sucker. Continuing confrontations between water user groups and federal and state biologists were not productive for either the users or the fish. Therefore, in the late 90’s a group of biologists and water users began a cooperative effort to insure added interest in the recovery of June sucker and resolution of water resource operation and development issues. Finally, on April 17, 2002, eight federal, state, local agency and private groups formalized the June Sucker Recovery Implementation Program (JSRIP).

The JSRIP is not only charged with recovering June sucker but is also committed to ensuring that water use and development for human needs occurs concurrently. The program is currently implementing a number of “recovery elements” that will impact Utah Lake and its uses. First, the program is focusing on restoration of the habitat of Utah Lake, both land and water, which will, hopefully, improve the lake’s ecosystem. As water quality and quantity improve, so will the ability of the lake to sustain and enhance fishing and recreational opportunities. Second, removal of non-native species will likely change fishing opportunities over the years as carp (now 90 percent of the fish biomass) are removed or excluded from specific areas and other beneficial fish become more predominant. Third, on-going research is providing useful facts, not only about June sucker, but about other fish movements, fishing use and possible areas where restoration of tributary flows will enhance public uses.

One unanticipated outcome of the JSRIP is the changing view local residents are taking with regard to Utah Lake’s values and importance. A book on Utah Lake’s legacy and a subsequent documentary showing the lake’s users, both historic and contemporary, has provided a number of residents with a positive view about Utah Lake and what the future could be. These important steps in getting public involvement in the lake’s care and protection will also be important in understanding the public’s role and interest in protecting and enhancing the values of the lake for future development and use.

Additional efforts of the program will focus on working with local and regional government with their ongoing need to comply with the Endangered Species Act. With the U.S. Fish and Wildlife Service as a program partner other lake issues including marinas, bridges, roads and such become a part of an overall discussion of how to protect and enhance the June sucker’s environment while balancing the need for continuing growth of the county and municipalities. The June sucker program, while

Utah Lake Comprehensive Management Plan

Introduction Document on Sovereign Land Management

not the focal point of lake restoration and development issues, is a balanced program, which recognizes competing needs of use and protection and tries to maintain good working relationships between the parties.

**Utah Lake Comprehensive Management Plan
Introduction Document on Sovereign Land Management**

Appendix A – Existing Leases and Permits

Easements and Rights of Way

<u>NUMBER</u>	<u>LESSEE/PERMITTEE</u>	<u>PURPOSE</u>
ROW 62	Provo City Corp.	road
ROW 1639	Utah Power & Light	distribution line
ESMT 140	Farm Management Company	intake canal
SOV-0001-400	Geneva Steel LLC	diffuser pipeline
40000064	Saratoga Springs Development	pool drain
40000014	Dyno Nobel Inc.	road

Special Use Lease Agreements

SULA 852	Timp Marina Club	harbor
SULA 897	Geneva Steel LLC	retention pond
30000001	Mark Cook	harbor
30000012	El Nautica Boat Club	harbor
30000037	Jeff Stubbs	agriculture

General Permits

SLGP 0013	Utah County Public Works	harbor road
70000001	Division of Wildlife Resources	
70000005	Division of Parks and Recreation	state park
72000013	Provo City Corp.	airport
72000024	American Fork City	harbor

Right of Entry

41000092	Utah Water Ski Club	dock and water ski course
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Grazing Permits

GP 22874	Lawrence Lavery	
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**Utah Lake Comprehensive Management Plan
Introduction Document on Sovereign Land Management**

Appendix B – Utah Lake Access Points

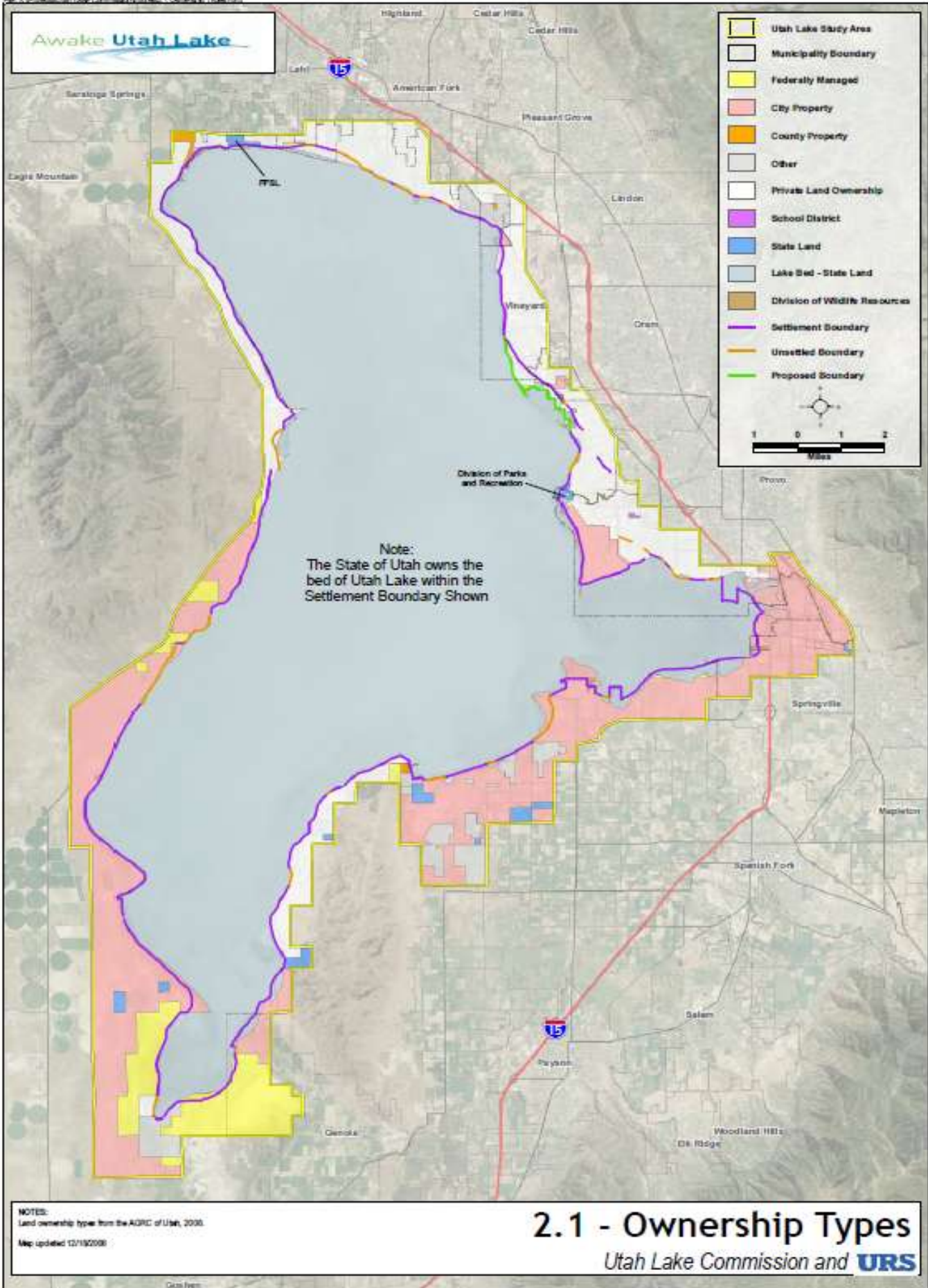
Before Boundary Negotiations

American Fork Boat Harbor
Powell Slough Sportsman Access*
Utah Lake State Park
Skipper Bay Trail*
Mill Run Sportsman Access*
Swedes Lane DWR Access*
Sandy Beach*
4000 West Sportsman Access*
LeBaron Point Sportsman Access*
Mile Marker 19 Access*
South Ireco Access
Lincoln Point County Marina
Pelican Bay Marina (new Saratoga marina)
Saratoga Public Trail
Access Lindon Marina
North Camelot (undeveloped)

Added During Boundary Negotiations

Subdivision Access Point
Vineyard Road Access Corridor
Southwest Airport Access
500 West Sportsman Access
Lincoln Point Sportsman Access
South Shore Farms Access
Mulberry Access
Goose Point North Access
Goose Point South Access
Weed Access Point
Lavery Access Point
Turf Farm Access Point (mile marker 13)
Eagle Park Access Point
Inlet Park Island
Swedes Lane North

* These access points existed before boundary settlements but were formalized by the settlements.



NOTES:
Land ownership types from the ADRC of Utah, 2008.
Map updated 12/19/2008

2.1 - Ownership Types

Utah Lake Commission and **URS**

UTAH LAKE AND JORDAN RIVER FLOOD CONTROL

Utah Lake and The Jordan River Flood Control

Flood control management of Utah Lake and the Jordan River established by a 1983 lawsuit settlement may be tested this year.

LeRoy W. Hooton, Jr.

June 27, 2011

At the time of this writing, the 2011 spring runoff is still in progress. Going into late May, the potential for flooding was very high. Record snowpack and delayed snowmelt were conditions conducive to severe flooding. However, the cooler weather regime of May has continued into mid-June, allowing a controlled snowmelt, which has moderated the stream flows. It's too early to say we've avoided flooding similar to that we experienced during 1983-85, but high flows have already affected Utah Lake and the Jordan River in conveying the snowmelt to the Great Salt Lake.

It is apparent that this winter's abundant snowpack in the Utah Lake-Jordan River Basin (203 percent of normal) will increase the amount of stored water in Utah Lake and high flows in the Jordan River and Surplus Canal.

The Utah Lake-Jordan River Hydrologic Basin consists of a watershed covering 3,039 square miles including all of Utah and Salt Lake Counties and portions of Wasatch and Juab Counties. The Basin is bounded on the west by the East Tintic Mountains and drains areas as far east as the western slopes of the Uinta Mountains. Most of the water inflow into the lake comes from the Spanish Fork, Provo and American Fork rivers. There are also transbasin diversions from the Weber and Duchesne Basins under the Provo River Project and Colorado River water under the Central Utah Project. The average annual inflow into the lake is 720,000 acre-feet. The average outflow is 346,000 acre-feet, with evaporation accounting for 380,000 acre-feet. The 2011 runoff is projected to be much above average.

The 50-mile Jordan River conveys water from the Utah Lake watersheds and canyon streams within Salt Lake County watersheds to the Great Salt Lake. The river flows south to north from Utah Lake to the Great Salt Lake. In order to irrigate the valley's benches, it was necessary to make diversions into the various canals at the Jordan Narrows (near the Point of the Mountain) where the elevation was high enough to allow gravity flow. Today, dams situated at or near the Jordan Narrows divert Jordan River water to seven canals (including Salt Lake City's Jordan and Salt Lake Canal) providing irrigation water to Salt Lake and Utah counties' farmland and secondary water systems. During the high runoff period the diversion of Jordan River water into these canals helps reduce the flows in the Jordan River in Salt Lake County.

In order to manage high runoff flows along the Jordan River through the populated area of Salt Lake City, in 1885 the Surplus Canal was constructed at 2100 South. The canal flows in a northwesterly direction to the Great Salt Lake. The North Point Canal connects with the Surplus Canal and covers a large area of the level lands lying between Salt Lake City and the lake. Before this year, the record flow conveyed through the Surplus Canal was 3,170 cfs on June 1, 1984.



The Surplus Canal near the Salt Lake International Airport is conveying high flows to the Great Salt Lake. Flows have already reached 4,000 cfs.

UTAH LAKE AND JORDAN RIVER FLOOD CONTROL

In the latter part of the nineteenth century conflict arose between Salt Lake and Utah county residents. In 1872 Salt Lake County farmers first constructed a dam near the Jordan Narrows. During the next spring the county court of Utah County asserted that the lake had risen, and the dam was blamed for flooding the farmlands around the lake.

It was suggested that the Utah and Salt Lake County Courts meet to resolve the problem. Apparently no resolution was forthcoming, and the dam was washed out for unknown reasons. According to the records of the court of Salt Lake County, "... the head gates washed out, being helped by persons unknown." The issue of a dam in the Jordan River continued to be a point of contention between the two counties. The dam was rebuilt in the spring of 1874. The landowners around the lake continued to complain about the dam, claiming that it was flooding their property. Their complaints were investigated by the county court of Salt Lake, with the finding that the dam had no effect on the elevation of Utah Lake. In 1880, the dam was raised, evoking even more outcry from the Utah County landowners. In 1885, after several years of dispute, an arbitration committee of prominent citizens, led by President John Taylor of the L.D.S. Church, established a compromise elevation of 4,515.799 City datum. The "Compromise Agreement" also provided for the operation of the lake's outlet gates to the Jordan River.

Subsequently, the Utah Lake and Jordan River Commission took over the burden of operations and deciding how the gates would be operated and to what extent they would be opened and closed. The Commission was composed of two members from Salt Lake County, two members from Utah County, and a fifth member who was a referee.

The 1885 "Compromise elevation" held for a century but the heavy precipitation and flooding occurring during the early 1980s changed it. The period between 1983-1985 was the wettest period on record.

On September 15, 1983, the Utah Lake Landowner's Association filed a class action suit. The complaint sought damages and injunctive relief relating to the flooding of lands adjacent to the lake. The plaintiffs alleged a breach of contract based upon the 1885 "Compromise Agreement," by Salt Lake County, the Associated Canal Companies and all others claiming any rights to the waters of Utah Lake.

During 1984, Utah Lake rose some five feet above compromise level, inundating many acres of valuable farm lands around the Lake. In 1984, the Legislature discussed the need to address the problem of flooding around Utah Lake and the Jordan River. At that time, \$1.5 million was appropriated to the Disaster Relief Board, of which \$500,000 was earmarked for engineering studies necessary to alleviate the flooding problems. The studies produced the "Utah Lake Jordan River Flood Management Program" with engineering and construction costing over \$10 million.

The construction program consisted of a new outlet structure at Utah Lake, dredging in the lake and the Jordan River and modification to five water control diversion structures. The operation of the lake sought to reduce the lake to compromise level by the end of runoff season, utilization of National Weather Service forecasts for Utah Lake inflow to determine flood releases and to continue the Utah Lake-Jordan River Dam Commission. However, one flood control manager from each county was added to the commission with the State Engineer or other agreed upon third party acting as a tiebreaker.



Utah Lake Pumping Plant located at the outlet of Utah Lake in Lehi, Utah. The water level in Utah Lake is rising and may reach 1984 levels of 5 feet above compromise.

UTAH LAKE AND JORDAN RIVER FLOOD CONTROL

With the operation plan in place and the construction projects planned, the lawsuit was settled. The parties stipulated on March 8, 1985 that the flood waters in Utah Lake and in the Jordan River shall be managed solely pursuant to the "Utah Lake and Jordan River Operating Procedures and Flood Management Plan," rather than the 1885 Compromise Agreement; and that the flow in the Jordan River would not exceed 3,400 cubic feet per second measured at 2100 South. The new compromise elevation of 4489.0455 above sea level (USGS Survey datum) was established in 1985.

When the lake is at compromise the storage capacity is 870,000 acre-feet, of which 128,300 acre-feet is inactive storage, occurring at about 9.2 feet below compromise. It further settled the long-standing belief that the Turner Dam was the cause of water backing into Utah Lake and flooding the surrounding property around the lake. The engineering study proved that a natural restriction at "Indian Ford," south of Camp Williams impeded the flow of the Jordan River.

The Plan protects the primary storage rights in Utah Lake, of Salt Lake City, the Utah and Salt Lake Canal Company, South Jordan Canal Company, East Jordan Irrigation Company, North Jordan Irrigation Company, Salt Lake County Water Conservancy District, Central Utah Water Conservancy District and Kennecott Utah Copper Corp. It dedicates the first 125,000 acre-feet of active storage capacity in Utah Lake to those who own primary storage rights. The remaining 616,700 acre-feet of active storage in Utah Lake, up to the compromise level, are to be used to supply the annual diversion requirements of both primary and secondary storage rights.

Once the inflow into the lake reached the new compromise level, the lake's outlet gates are to be opened to allow for the free flow of water from the lake. The lawsuit settlement also provides that once the flow reaches 3,400 cfs at the Surplus Canal, the lake's outlet gates are to be regulated to control the flow discharging into the Jordan River. The then excess inflow water will be stored in the lake.

The magnitude of this year's runoff is not for certain. There is still copious snow in the watersheds. For example on June 18, Trial Lake's SNOTEL still measures 35-inches of Water Snow Equivalent (SWE), which will continue to provide snowmelt to the Provo River and Utah Lake during the next month. The Snowbird SNOTEL measures 54-inches of SWE. Under normal conditions, at this time of year most of the snow would be already melted, so the extended runoff period will continue to keep water managers on alert well into the early summer months. The flow rate at the Surplus Canal in Salt Lake City has reached 4,000 cfs, 600 cfs above the maximum allowed under the lawsuit settlement agreement. Depending on weather conditions and temperatures, the storage in Utah Lake above compromise (now 2.15 feet above compromise) and flows in the Jordan River (have reached 4,000 cfs) may still reach new record values.



The Turner Dam located at the Jordan Narrows is a major diversion works on the Jordan River.

UTAH LAKE AND JORDAN RIVER



By LeRoy W. Hooton, Jr.

Utah Lake, Utah County Circa 1989

Introduction

Utah Lake is a major source of water for Salt Lake County, including Salt Lake City. The lake is situated in Utah County and covers 93,000 acres at compromise level. It is a fresh water lake; however, due to certain springs and the high evaporation rate of the lake, it tends to be slightly saline. However this has not prevented it from being a primary irrigation water supply for thousands of acres of farmland in Salt Lake County. At the turn of the century 50,628 acres of land was irrigated by the waters of Utah Lake and the Jordan River. Canals built during the early 1900s irrigated thousands of additional acres.

Most of the water inflow into the lake comes from the Spanish Fork, Provo and American Fork Rivers. The average inflow into the lake is 720,000 acre-feet. The average outflow is 346,000 acre-feet, and evaporation accounts for 380,000 acre- feet.

The Jordan River is the outlet for the lake, flowing in a northerly direction to the Great Salt Lake. It appears that the earliest dam in the Jordan River was constructed in the year 1859, by Ferimortz Little and others to irrigate land on the west side of the river. Over the years there have been various controversies and lawsuits over the placement of dams in the Jordan River. In 1885, a "Compromise Agreement" was negotiated which settled the elevation of the lake; however, in 1986 the district court finally determined the elevation of the lake. As part of the settlement agreement the "Utah Lake Jordan River Flood Management Plan" was adopted.

UTAH LAKE AND JORDAN RIVER

Today, there are two major dams, the Turner Dam at the Jordan Narrows and the Joint Dam about one mile downstream that diverts water into the Jordan & Salt Lake City and the South Jordan Canals. The Turner Dam diverts water to the East Jordan and Utah & Salt Lake Canals.

Compromise Level

In 1872 Salt Lake County constructed a dam at the Jordan Narrows. During the next spring the county court of Utah County asserted that the lake had risen, and it was suggested that the Utah and Salt Lake County Courts meet to resolve the problem. Apparently, no resolution was forthcoming, and the dam was washed out. According to the records of the court of Salt Lake County, "... the head gates washed out, being helped by persons unknown." The issue of a dam in the Jordan River continued to be a point of contention between the two counties. The dam was rebuilt in the spring of 1874. The landowners around the lake continued to complain about the dam, claiming that it was flooding their property. Their complaints were investigated by the county court of Salt Lake, with the finding that the dam had no effect on the elevation of Utah Lake. In 1880, the dam was raised, evoking even more outcry from the Utah County landowners. In 1885, after several years of dispute, an arbitration committee of prominent citizens, led by President John Taylor of the L.D.S. Church established a compromise elevation of 4,515.799 City datum. The "Compromise Agreement" also provided for the operation of the gates in the Jordan River.

Subsequently, the Utah Lake and Jordan River Commission took over the burden of operations and deciding how the gates would be operated and to what extent they would be opened and closed. The Commission was composed of two members from Salt Lake County, two members from Utah County, and a fifth member who was a referee.

1983 Lawsuit

The 1885 "compromise" elevation held for a century, but the heavy precipitation of the early 1980s changed it.



The "Old Dam" located at the Jordan Narrows was built by the County in 1872. Under the same project the County began construction of the Utah and Salt Lake Canal. The dam consisted of timber uprights set in cement, between which planks were inserted to raise water into the East Jordan and Utah and Salt Lake Canals.



The Turner Dam was constructed in 1914, and replaced the "Old Dam". On the left, water is diverted to the East Jordan Canal and on the right, water is diverted to the Utah and Salt Lake Canal. In the background is the Salt Lake County Water Conservancy District Pump Plant, and behind that facility is the Metropolitan Water District of Salt Lake City Pump Plant. The Salt Lake County Conservancy Pumping Plant provides exchange water to the Provo Reservoir Canal and the Metropolitan Water District exchange water to the Utah Lake Distribution Canal both on the west side of the Jordan River.

UTAH LAKE AND JORDAN RIVER

On September 15, 1983, the Utah Lake Landowner's Association filed a class action suit. The complaint sought damages and injunctive relief relating to the flooding of lands adjacent to the lake. The plaintiffs alleged a breach of contract based upon the 1885 "Compromise Agreement," by Salt Lake County, the Associated Canal Companies and all others claiming any rights to the waters of Utah Lake.



Observer inspects the Utah Lake Compromise Monument, Circa 1900

In 1984, the Legislature discussed the need to address the problem of flooding around Utah Lake and the Jordan River. At that time, \$1.5 million was appropriated to the Disaster Relief Board, of which \$500,000 was earmarked for engineering studies necessary to alleviate the flooding problems. The studies produced the "Utah Lake Jordan River Flood Management Program" with engineering and construction costing over \$10 million.

The construction program consisted of a new outlet structure at Utah Lake, dredging in the lake and the Jordan River and modification to five water control diversion structures. The operation of the lake sought to reduce the lake to compromise level by the end of runoff season, utilization of National

Weather Service forecasts for Utah Lake inflow to determine flood releases and to continue the Utah Lake-Jordan River Dam Commission. However, one flood control manager from each county was added to the commission, with the State Engineer or other agreed upon third party acting as a tiebreaker.

With the operation plan in place and the construction projects planned, the lawsuit was settled. The parties stipulated on March 8, 1985 that the flood waters in Utah Lake and in the Jordan River shall be managed solely pursuant to the "Utah Lake and Jordan River Operating Procedures and Flood Management Plan," rather than the 1885 Compromise Agreement; and that the flow in the Jordan River would not exceed 3,400 cubic feet per second measured at 2100 South. The new compromise elevation of 4489.0455 above sea level (USGS Survey datum) was established in 1985. When the lake is at compromise the storage capacity is 870,000 acre-feet, of which 128,300 acre-feet is inactive storage, occurring at about 9.2 feet below compromise.

It further settled the long-standing belief that the Turner Dam was the cause of water backing into Utah Lake and flooding the surrounding property around the lake. The engineering study proved that a natural restriction at "Indian Ford," south of Camp Williams impeded the flow of the Jordan River.

Major Diversions on the Jordan River

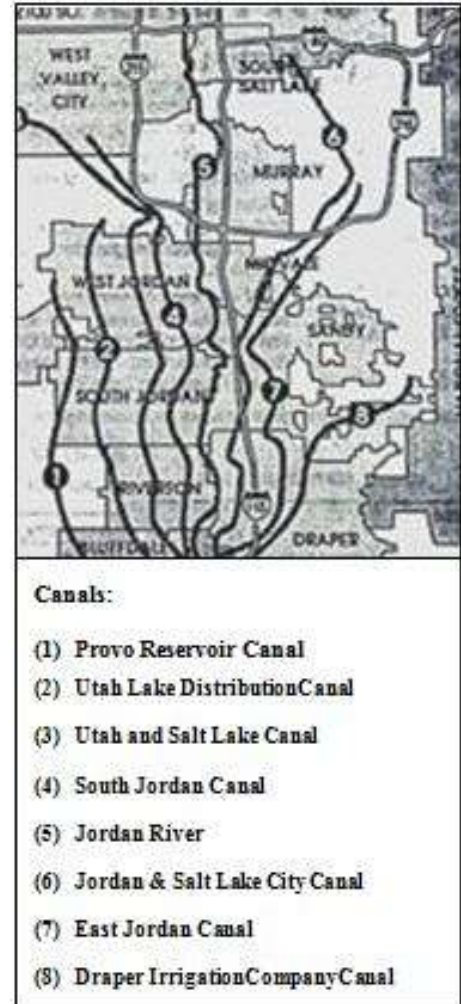
The earliest recorded diversions out of the Jordan River were in 1850 by the Bennion Mill at 5 cubic feet per second and the Gardner Mill Race at eleven cubic feet per second. In 1853, the North Jordan Irrigation Company extended the Gardner tailrace to a point near Taylorsville, enlarging the canal to carry 125 cubic feet per second to irrigate 8,000 acres of land. The canal was completed in 1881.

UTAH LAKE AND JORDAN RIVER

According to the 1901 Morse Decree, various other smaller canals were constructed to divert water from the Jordan River, but the next large canal built was the South Jordan Canal in 1870, with a capacity of 142 cubic feet per second.

Simultaneously, in 1870, the Utah and Salt Lake Canal was constructed at a capacity of 246 cubic feet per second to irrigate 9,000 acres of land. The canal works was completed in 1880. Salt Lake City completed the Jordan and Salt Lake City Canal in 1882, with a capacity of 150 cubic feet per second. The 28-mile canal provided irrigation and municipal water to Salt Lake City. The last large canal was constructed in 1877, when the East Jordan Canal Company constructed the East Jordan Canal with a capacity of 170 cubic feet per second to irrigate 16,000 acres of land along the southeastern portion of Salt Lake County.

Under the 1880 water legislation entitled, "Water Rights" an act providing for the recorded vested rights to the use of the water and regulating their exercise, the county court of Salt Lake deeded the water of the Jordan River to the five canal companies on April 14, 1883. The East Jordan Irrigation Company, the North Jordan Irrigation Company, the South Jordan Canal Company, the Utah and Salt Lake Canal and Salt Lake City, each received one-sixth interest in the County dam, leaving one-sixth to be disposed of later. On September 22, 1885, the Court agreed to deed the remaining one-sixth of the dam and river to the Hydraulic Canal Company. This company never built its canal, and in 1888, the court ordered that the interest in the rights formerly deeded to the Hydraulic Canal Company be deeded to Salt Lake City. These earliest priority rights in Utah Lake and are called "Primary Storage Rights."



In 1899, Salt Lake City, the Utah and Salt Lake Canal Company, East Jordan Irrigation Company and the North Jordan Canal and Irrigation Company entered into an agreement to dredge the Jordan River in order to gain more water out of Utah Lake during this drought period. This joint effort forged a beneficial relationship, which would lead to the joint construction of pumps at Utah Lake and shared operations and maintenance of the facility. The Associated Canal Companies including Salt Lake City jointly manage the pumping plant through the "Board of Canal Presidents."

Jordan River Diversions (1900)

Besides the East Jordan and Utah and Salt Lake Canals, diversions were at the present Turner Dam at the Jordan Narrows and at the Joint Dam, the South Jordan and Jordan & Salt Lake City diversions. Other diversions along the Jordan River were:

UTAH LAKE AND JORDAN RIVER

1. Mousley Ditch, a small ditch on the east side of the river about 2 miles downstream from the Jordan and Salt Lake City diversion. The ditch was about a mile long and irrigated about 100 acres.
2. Galena Ditch, a ditch about 2 miles downstream from the Mousley Ditch.
3. Beckstead Ditch, located on the west side of the Jordan River about 6 miles from the present Turner Dam. The ditch provided water to the South Jordan Mill and irrigated a small area of farmland.
4. Cooper Ditch, located on the east side of the Jordan River about 9 miles downstream from the present Turner Dam and about 1-mile above the North Jordan Canal diversion. Less than 2 miles long, the ditch conveyed water to the Sandy Roller Mill.
5. The North Jordan Canal diversion is on the west side of the Jordan River about 10 miles downstream from the present Turner Dam.
6. The Bennion Ditch diverts water from the west side of the Jordan River and provided water to a small amount of farmland and to a mill once located in Taylorsville.
7. The Brighton Canal diverts water on the west side of the Jordan River about 18 miles downstream from the present Turner Dam.
8. The Surplus and North Point Canal was built at a point where the Jordan River entered Salt Lake City in the 1890s. The Surplus Canal was built to relieve flooding along the banks of the Jordan River as it passed through Salt Lake City. The North Point Canal covered a large area in the northwest area to the Great Salt Lake.

Major Canals built after 1900

1. The Utah Lake Distribution Canal on the west side of the Jordan River. The company filed with the State Engineer on October 27, 1908, Application No. 2136, to appropriate water from Utah Lake at a rate of 135 cubic feet per second. The application was approved on January 27, 1931 and corrected May 8, 1944. A Certificate of Appropriation No. 1970 was issued, subject to prior rights and certain restrictions to use water from Utah Lake at the rate of 135 cubic feet per second from April 1 to October 31 of each year. This right is a secondary storage right in Utah Lake.
2. As part of Application No. 2136, the Draper Irrigation Company acquired 65 cubic feet per second of Utah Lake water rights subject to prior rights under WRNUM 59-5257, Application No. A2316a filed July 20, 1923. This is a secondary storage right in Utah Lake.
3. The Provo Reservoir Water Users Company owns water rights in the Provo River, Shingle Creek, Weber Basin through stock ownership in the Weber Water Users Association and high Uinta lakes. The Welby Jacob members (stockholders) of the company have the highest canal on the west side of the Jordan River. The company has no water rights in Utah Lake; however, in 1987, the Salt Lake County Water Conservancy District ("SLCWCD") purchased approximately 40,000 acre-feet of Utah Lake water rights from various canal companies. Using this water, they entered into an agreement with the Provo Reservoir Water Users Company whereby the SLCWCD would deliver Utah Lake water through a pumping plant located up-stream from the Turner Dam to the Provo Reservoir Canal on the west side of the Jordan River. A new company was formed called the Welby Jacobs Water Users Company and stock issued to the old Welby Jacobs members of the Provo Reservoir Water Users Company. In turn, the SLCWCD is entitled to Welby Jacob's share of the rights in the Provo Reservoir Water Users Company for culinary purposes.

UTAH LAKE AND JORDAN RIVER

Salt Lake City Exchange Agreements

Salt Lake City had constructed the Jordan and Salt Lake City Canal as a means of increasing its water supply. Limited to City Creek and Emigration stream flows, it needed more water to meet the growing population of the City. However, Utah Lake and Jordan River water proved unsatisfactory for domestic purposes because of its quality. As the City sought new water supplies from the Wasatch Canyons, farmers had already appropriated the water for irrigation.

In order to gain the rights to these waters, the City exchanged its Utah Lake water for the farmer's mountain water. In 1888, the City entered into its first exchange agreement with the Parleys Water Users. The City diverted Parleys Creek water into a reservoir and pipeline at Suicide Rock at the mouth of Parleys Canyon for municipal use within Salt Lake City. In exchange, the City provided the farmers water from the Jordan and Salt Lake City Canal in proportions that would ensure late season irrigation water to mature their crops. Subsequently, at the turn of the century, additional exchange agreements were made with the farmers owning Big Cottonwood Creek water rights. Eventually, by the end of the 1930s, the City entered into exchange agreements with nearly all the water owners of the canyon streams flowing along eastern Salt Lake County. In 1995 nearly 60 percent of Salt Lake City's culinary water supply came as a result of these canyon stream exchange agreements. Each exchange agreement differs, with some requiring only the exchange of irrigation water, while others require the City to exchange irrigation water, and in addition provide culinary water at City rates or a specified amount of water free of charge.



The Joint Dam located about one mile below the Turner Dam on the Jordan River is the diversion point for the Jordan & Salt Lake City Canals and the South Jordan Canal. This structure was replaced after the 1983 flood.

Utah Lake Pumping Plant

The plant, located east of Saratoga at the outlet of Utah Lake, is owned by the Associated Canal Companies, consisting of the Utah and Salt Lake Canal Company, the East Jordan Irrigation Company, the South Jordan Irrigation Company, Salt Lake City and the North Jordan Irrigation Company. In the beginning each company owned an undivided one-fifth interest in pump Nos. 1,2,3 and 4; the first four named above owned an undivided one-fourth interest each in pump Nos. 5, 6 and 7, and Salt Lake City owned the 130 horse power gasoline engine installed to meet the City's exchange obligations in the event of



The Utah Lake Pumping Plant, owned by the Associated Canals, is located at the outlet of the lake. In 1907 this was the largest pumping plant in the United States, capable of pumping 700 cfs or 452 mgd.

UTAH LAKE AND JORDAN RIVER

a power failure.



One of the pumps at the Utah Lake Pumping Plant as seen in 1995.

According to the "Salt Lake City 1907 Annual Report," the pumping plant was the largest plant in the United States consisting of seven Byron-Jackson 40-inch centrifugal pumps, each with a capacity of 100 cubic feet per second; five Westinghouse electric motors, of 150 horsepower each; two Fairbanks-Morse, of 150 horsepower each; one Jackson Twin Tandem gasoline engine, of 130 horsepower, and one fire pump having a capacity of 400 gallons per minute. The entire plant was capable of delivering for distribution 700 cubic feet per second, or 452 million gallons of water every 24 hours.

According to Brad Gardner, Utah Lake and Jordan River Commissioner, all of the horizontal pumps were replaced in about 1912. In 1947, pump No. 5 was replaced with a 230 cubic foot per second vertical pump. A new seventh 100 cubic foot per second pump was installed as part of 1953 Utah Lake

Irrigation Company agreement.

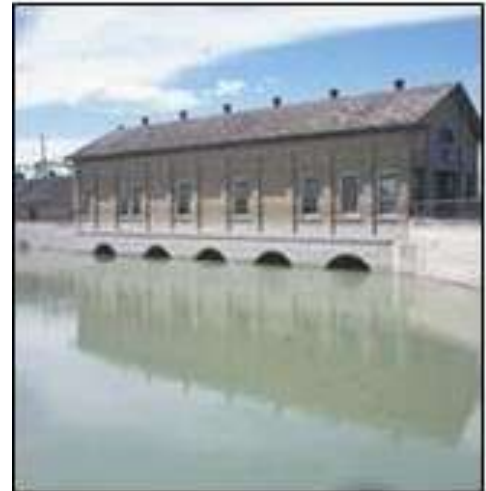
1901 Morse Decree

On January 14, 1901, litigation began in the District Court of the Third Judicial District, in an action, Salt Lake City, et al. v. Salt Lake City Water & Electrical Power Company, resulting in the Morse Decree, dated July 15, 1901.

Following are selected parts of the decree:

"That Salt Lake City, the Utah and Salt Lake Canal Company, the East Jordan Irrigation Company, the South Jordan Canal Company, and the North Jordan Irrigation Company, are entitled to a decree awarding to them, subject to the limitations hereinafter set forth, the right to the use of all the balance of the waters of the Jordan River, for municipal, irrigation, culinary, and domestic purposes, to the extent of the capacity of their several canals, and the right to impound and store all of the waters of said river in Utah Lake, and to have their title thereto quieted."

"Subject to these limitations and conditions contained in the agreement of compromise entered into in 1885, between Joseph W. Cooledge and others and said city and canal and irrigation companies, the said city and canal and irrigation companies, shall have the right at all times to shut off, impound, and store the entire flow of the Jordan River, and hold and save the same for further use to the



Intake view of the Utah Lake Pumping Plant as viewed in 1989.

UTAH LAKE AND JORDAN RIVER

extent which, in their judgment, their interests may require; and as between themselves, the said city, the Utah and Salt Lake Canal Company, the East Jordan Irrigation Company, the South Jordan Canal Company, and the North Jordan Irrigation Company, shall have an equal right to the use of all such water, to the extent of the capacity of their several canals, and while there is sufficient water for that purpose, may each take the full quantity of water their respective canals will carry, and when the water is insufficient to fill all the canals to their maximum capacity, then the city and canal and irrigation companies shall be entitled to an equal division thereof; provided, that if by such division one-fifth of the water should exceed the capacity of any of the canals, such excess may be used by such remaining canals as have the capacity to take the same, in equal proportions... ."

"Beneficial use shall be the limit of rights."

Supplemental Decree of March 12, 1902

"IT IS HEREBY ORDERED, ADJUDGED AND DECREED, That the four Canal Companies and the City are entitled to use all waters of Jordan River and Utah Lake which are not necessarily required and used by parties to whom water has been awarded in said decree, as prior appropriators, or to store and impound the same in Utah Lake, as provided by and according to the terms of said decree and under the conditions therein set forth, and the Commissioner is hereby ordered and directed not to permit, at any time, any water to flow down the channel of said Jordan River below the impounding dam, which is not necessarily required and actually used by said prior appropriators, for the purpose of their several appropriations, or by said City or Canal or Irrigation Companies."

Supplement Decree of May 31, 1906

"On a petition by the North Jordan to transfer to the Utah and Salt Lake Canal during the season of 1904 part of its decreed right, the commissioner refused to make the transfer, claiming that the North Jordan Canal Company had no right to make the transfer, and if the North Jordan Canal could not use all the water decreed to it that the unused portion should be equally distributed among the other canals." From 1901 to 1904, four pumps had been installed to pump water from the common reservoir belonging to them (the five canals), to wit, Utah Lake, and the cost of installation of the four pumps had been borne jointly and equally. The five companies, excepting the North Jordan had later installed a fifth pump, the water from which had been distributed to the City and Canal Companies excepting the North Jordan."

The court granted the right to install a sixth pump when the water was insufficient to supply the irrigation demands. The court granted the North Jordan Canal Company the right to join in the fifth and sixth pumps provided they paid one-fifth of the cost of said installation.

Decree, December 13, 1906

Sets out the quantity of water decreed to the five canals as follows:

UTAH LAKE AND JORDAN RIVER

Utah & Salt Lake Canal Company	246 cubic feet per second	East Jordan
Irrigation Company	170 cubic feet per second	Salt Lake City
Corporation	150 cubic feet per second	South Jordan
Canal Company	142 cubic feet per second	
North Jordan Canal Company	120 cubic feet per second	

The Booth Decree, Dated June 5, 1909

In the Supreme Court of the State of Utah

Salt Lake City et. al v. James A. Gardner and A.J. Events

The decision centered on the installation of the pumps at the outlet of Utah Lake and the irrigation requirements of the canal companies specifying a 3.0 acre-foot duty applied to the land then under irrigation. Also, it quantified Salt Lake City's rights in Utah Lake at 36,000 acre-feet.

The following represents select portions of the decree as it related to Salt Lake City's water rights in Utah Lake:

"That in the year 1902, in order to secure a greater flow of water from said Utah Lake than the natural gravity flow during years of less than normal precipitation, and to control and regulate the flow therefrom in any season to such quantity as from time to time during the varying irrigation seasons should be necessary for their use, plaintiffs installed pumps at the head of the Jordan River, the outlet of said lake and added to the number thereof until in the year 1905 a total of five were installed, each having a rated capacity of one hundred cubic feet of water per second, and at the time of the trial of this action seven had been installed, all having a total rated capacity of seven hundred cubic feet of water per second, and by means of said pumps the volume of the flow of water from said lake during the irrigation season when the level of the lake is at or below Compromise Point, has been, and can be controlled so as to meet and satisfy the needs and necessities of plaintiffs, as their needs may vary at different times during the same irrigation season."

"That the combined carrying capacity of plaintiffs' canals, as herein before described, is 828 cubic feet of water per second, but plaintiffs have not used or taken into their canals that quantity of water except at times during the early part of the high water season."

"That in order to supply a volume of 828 cubic feet of water per second, flowing naturally through said Jordan River, the waters of Utah Lake must stand at an elevation of over one foot above Compromise Point, as herein before described, and the volume of the flow from said lake through said river diminishes as the elevation of the level of the water in said lake recedes, until, at the elevation of Compromise Point the discharge from said lake through said river is of the volume of 505 cubic feet of water per second. That whenever the level of the lake is above Compromise Point plaintiffs' pumps are not available, and the quantity for use in plaintiffs' canals depends upon

UTAH LAKE AND JORDAN RIVER

the volume of the gravity flow, and when the elevation of said lake is at or below Compromise Point, if said pumps are used at all, all of the water taken into plaintiffs' canals must be drawn from said lake by and pass through plaintiffs' pumps."

"That prior to the installation of said pumps the greatest quantity of water available from said Utah Lake and said Jordan River during the irrigation season of any year for plaintiffs' use and the use of the owners, of rights to the use of water of said lake and river, prior to the rights of said plaintiffs, was 160,482 acre-feet, the same being equivalent of a continuous flow of approximately 445 cubic feet of water per second during a period of 150 consecutive days, and average yearly quantity of the flow of said river during the irrigation season, available for the use of the plaintiffs, was a quantity equal to 111,360 acre-feet, the same being the equivalent to approximately 307 cubic feet of water per second, flowing continuously for a period of 180 days."

"That the greatest quantity of water used by plaintiff, Salt Lake City, during any one year since the installation of said pumps has been 13,500 acre-feet, the same being equivalent of a flow of 37.5 cubic feet of water per second for a period of 180 consecutive days."

"That a quantity of water equal to 3 acre-feet per acre measured at the head-gates of plaintiffs' respective canals is a sufficient quantity of water to irrigate the lands of plaintiffs, and an aggregate of 147,000 acre-feet measured at the respective head-gates of plaintiffs' canals, other than the plaintiff, Salt Lake City, is a sufficient quantity of water to properly irrigate the 49,000 acres of land which have been brought under irrigation by said plaintiffs, when the volume of the flow of said 147,000 acre-feet can be controlled and applied to the land, as it can be by plaintiffs, at such times and in such quantities as the necessities of proper irrigation requires, which necessities vary with the varying climate conditions of different irrigation seasons."

"That 36,000 acre-feet, measured at the head-gates of its canal, and used in such volumes as from time to time may be necessary through the irrigation season is a sufficient quantity of water to satisfy all the needs and necessities of the plaintiff, Salt Lake City."

Utah Lake Irrigation Company & The Utah Lake Distributing Company

In 1908, the Utah Lake Irrigation Company (Company) filed an application to appropriate 135 cubic feet per second of water from April 1 to October 31 of each year. This right was certificated on January 27, 1931 and corrected on May 8, 1944. The Company constructed a pumping plant on the west side of Utah Lake and pumped water in two branches of a conveyance system. The lower branch served the Company's Utah County stockholders and the upper branch its Salt Lake County stockholders. However, during the 1934 drought, the Associated Canal Companies constructed a new pumping plant at Pelican Point and dug a canal through the Company's facilities, rendering the pumping plant useless. The Company's water rights were junior to those of the Associated Canal Companies. When the Provo River Project was developed, the Company subscribed to 15,200 shares of the 100,000 shares available. As part of the project, the Bureau of Reclamation in the late 1940s constructed a turbine and pump facility at the Jordan Narrows to deliver the Company's water to the two branch ditches. Water released from the newly constructed Deer Creek Reservoir was delivered to the Narrows through the

UTAH LAKE AND JORDAN RIVER

Provo Reservoir Canal.

In 1952, the Utah Lake Distributing Company acquired the rights of the Company. On December 16, 1952 the Utah Lake Distributing Company, as a means of resuming the use of 70 cfs and an additional 65 cfs under the Company's filings, entered into an agreement with the Associated Canal Companies to pump their junior Utah Lake water rights into the Jordan River through the Utah Lake Pumping Plant, not to exceed 70 cfs.

In an effort to enlarge the water supply, the Utah Lake Distributing Company entered into an agreement with the Metropolitan Water District of Salt Lake City (MWD) in 1958. The Company would receive up to 135 cfs of irrigation water delivered to its two branch ditches. The MWD would bear the expense of delivering said water in return for, and in exchange of, the Company's 15,200 shares of Provo River Project water. MWD could pump the specified water from the Jordan River or deliver Provo River Project water through the turbine and pump at the then newly constructed pumping plant up-stream from the Turner Dam. Under the agreement MWD would also bear the cost of pumping at the Utah Lake Pumping Plant, constructing a facility at the Narrows with back-up power generating capability and all the costs associated with the 15,200 shares of Provo River Project water.

Under this arrangement, MWD acquired an additional 15.2 percent of the Provo River Project, increasing its ownership to 61.7 percent. This increased the M & I supply available to MWD.

The Central Utah Project

The Central Utah Water Conservancy District (CUWCD) was formed in 1967 to construct projects that would ultimately capture a portion of Utah's share of the Colorado River. Utah Lake is a key feature in the development of the municipal and industrial water (M& I) supply for the Wasatch Front. Water diverted from the Uinta Basin that would otherwise flow into the Colorado River is conveyed through a collection system to the enlarged Strawberry Reservoir.

In order to bring this water to the Wasatch Front, it is released through Syar Tunnel, then flows to the Spanish Fork River, finding its way into Utah Lake. This water replaces water in Utah Lake that can be stored up-stream on the Provo River in Jordanelle Reservoir which is located northeast of Heber City. This stored water in Jordanelle is later released for treatment and distribution to municipal water users in Utah and Salt Lake Counties.



Central Utah Project Jordanelle Dam
located northwest of Heber City.

In an effort to enhance the water supply for the Bonneville Unit of the project, CUWCD purchased 25,000 acre-feet of MWD's Utah Lake and 57,073 acre-feet of Kennecott water rights in the lake. Through this transaction, Salt Lake City acquired additional municipal water in Little Dell and the CUWCD was able to convert the Utah Lake water into M & I water supply in Jordanelle Reservoir.

UTAH LAKE AND JORDAN RIVER

Since urbanization had eliminated much of the farmlands, the exchange and sale of water to the CUWCD converted irrigation water to municipal water that was needed by the growing Salt Lake County population.

1992 Utah Lake Water Distribution Management Plan

The Utah Lake Management Plan was prepared in response to significant growth along the Wasatch Front and major changes in the water usages in the drainage basin since the Morse and Booth decrees adjudicated the water rights. The 1935 Provo River Project imports water from the Weber and Duchesne basin, and stores surplus flood flows on the Provo River. The 1986 Central Utah Project began storing water in Deer Creek as a result of the Deer Creek-Strawberry Exchange. Diversions between the basins or sub-basins in 1992 amounted to over 300,000 acre-feet annually. As an introduction to the plan, the State Engineer stated, "...it appears that some direction is needed to better clarify the relationship between water rights in the basin; particularly between storage rights in Utah Lake and storage rights on the upstream tributaries." He further stated, "In simple terms, we need to begin to manage the water rights on the Provo River, Spanish Fork River, Utah Lake, Jordan River and other sources in the basin as one system."

The Plan protects the primary storage rights of Utah Lake, including Salt Lake City, the Utah and Salt Lake Canal Company, South Jordan Canal Company, East Jordan Irrigation Company, North Jordan Irrigation Company, Salt Lake County Water Conservancy District, CUWCD and Kennecott Utah Copper Corp. It dedicates the first 125,000 acre-feet of active storage capacity in Utah Lake to the above named primary storage rights.

The remaining 616,700 acre-feet of active storage in Utah Lake, up to the compromise level, which may be stored in Utah Lake or in upstream reservoirs (subject to call by Utah Lake water rights), shall be used to supply the annual diversion requirements of both primary and secondary storage rights.

The Essence of the Plan is as follows:

1. Early priority direct flow rights on the Jordan River, with priority dates of approximately 1850, have first call on water. Usually accretionary flow in the Jordan River is sufficient to satisfy these rights; however, if necessary, these rights may call for water from Utah Lake.

The annual diversion entitlement for both primary and secondary rights in Utah Lake, as set forth as follows, and are based on the irrigated acreage set forth in the Welby-Jacob memorandum decisions and a duty of 5 acre-feet per acre. The exceptions are (a) the rights owned by Salt Lake City Corporation, and the portion of such right acquired by the Central Utah Water Conservancy District (CUWCD) where the decree diversion entitlement is used and, (b) the secondary rights purchased by the CUWCD from Kennecott where the quantity of water set forth on the certificates is used.

Primary Storage Rights

UTAH LAKE AND JORDAN RIVER

Utah and Salt Lake Canal	35,319 af
SLCWCD	10,335 af
South Jordan Canal	24,355 af
SLCWCD	5,385 af
East Jordan Canal	40,465 af
SLCWCD	7,935 af
North Jordan Canal	5,350 af
SLCWCD	10,499 af
Salt Lake City	10,500 af
CUWCD	25,000 af
Total Primary Rights	175,558 af

Secondary Storage Rights

Utah Lake Distributing Co.	39,727 af
SLCWCD	3,439 af
Draper Irrigation Co.	10,500 af
SLCWCD	2,000 af
CUWCD	50,739 af
Total Secondary Rights	112,739 af

- When Utah Lake is lowered to a capacity of approximately 128,300 acre-feet, or 9.2 feet below compromise, it is no longer possible, at present, to deliver water (verbal communication, Brad Gardner, Utah Lake Jordan River Commissioner). Therefore, active storage will be defined and maintained by users of the lake as those waters between -9.2 feet and compromise.
- In order to protect the primary storage rights during consecutive years of drought, it proposed that 125,000 acre-feet of active storage capacity in Utah Lake be dedicated solely for the use of the primary rights when all other active storage has been depleted. Such storage is hereafter referred to as "primary storage". The remaining 617,000 acre-feet of active storage up to compromise capacity will be referred to as "system storage" and is addressed in the following paragraph.
- When system storage has been depleted, all secondary rights shall cease diversions. The primary storage is allocated to various companies in the following percentages and will be available on demand:

Utah and Salt Lake Canal	20.1%
South Jordan	13.8%
East Jordan	23.1%
North Jordan	3.0%
Salt Lake City	6.3%
SLCWCD	19.5%
CUWCD	14.2%

UTAH LAKE AND JORDAN RIVER

6. All storage rights will be allowed to store water under their respective priority dates and are subject to the following conditions and criteria:
 - 6.1) Storage rights junior to Utah Lake may store water before Utah Lake reaches compromise. However, this water will be considered as system storage and as such will be subject to call to satisfy rights served from Utah Lake. System storage water will not be used for any purpose but to satisfy water rights in Utah Lake.
 - 6.2) Whenever the total system storage, stored in the various reservoirs (including Utah Lake), exceeds the values in Figure 2, Utah Lake rights are considered to be satisfied. Therefore, any excess system storage may be converted to "priority storage." Priority storage is stored water considered as legal storage under a reservoir's water right. Water is converted from system to priority storage according to the priority dates of the respective rights, and in accordance with any other restrictions applicable to a particular water right.
 - 6.3) Any time the storage level in Utah Lake drops below the primary storage level, storage rights with later priority dates will not be allowed to store water. Junior rights shall not store until primary storage in Utah Lake has been restored.
 - 6.4) Calls on system storage by Utah Lake rights will be limited to the lesser of either the quantity of upstream system storage or the amount needed to satisfy the diversion entitlement and bring Utah Lake up to the primary storage level.

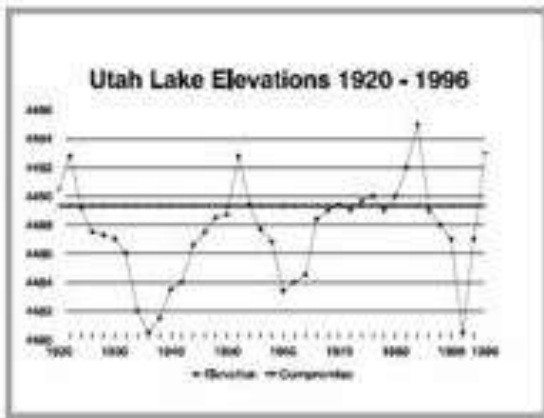
General Adjudication

On May 19, 1936 Salt Lake City and the Canal Companies filed the Salt Lake City et. al v. Tamar Anderson et. al lawsuit naming over 2000 plaintiffs. The lake had suffered during the drought of the first half of the thirties, and the complaint alleged that "...many thousands of acre-feet of water to the use of which the plaintiffs were and are entitled, were, during each of the years 1934 and 1935, wrongfully and unlawfully diverted by the defendants claiming water rights...and said wrongful and unlawful diversions of water have been continued and are now being continued by said defendants." The lawsuit further alleged that the plaintiffs were wasting water during a drought period by flooding land with excessive and unnecessary amounts of water.

UTAH LAKE AND JORDAN RIVER

The suit called for an adjudication of water rights because of the large number of defendants. The Court ordered the State Engineer to conduct a general adjudication of the water rights in the Utah Lake and Jordan River Drainage; however, this has yet to be accomplished. It is generally believed that the State Engineer has not had the resources available to undertake such a large endeavor. There has been some progress made, but it will be many more years before the task is completed.

Drought Years



The history of Utah Lake has periods of both flooding and periods of drought. When flooding occurs, conflict develops between the landowners in Utah County and the water users in Salt Lake County. When drought occurs, the water users in Salt Lake County suffer for the lack of water to irrigate their crops, and Salt Lake City is forced to meet its exchange agreement obligations from other sources of supply. Since 1920, the lake has experienced three flooding periods and likewise, three drought periods.

Flooding occurred in the 1920s, 1950s and 1980s; drought in the 1930s, 1960s and 1990s. During the drought of the 30s, culminating in 1935, and during the 90s, culminating in 1992, the lake dropped below the pumps at the Utah Lake Pumping Plant, leaving the canal companies without water.

In 1934 farming was a major business in Salt Lake County. The drought of this era was devastating to the area's economy. Salt Lake City and the farming community recommended to Governor Blood that the construction of Pelican Point Pumping Plant and conveyance canal be a "Drought Relief Project," and made eligible for state drought relief funds from the Utah Emergency Relief Administration. Gaining approval, the project moved forward at a rapid pace. It was completed by August 2, 1934, saving over one million dollars in lost crops. The pump plant and 12,000 foot conveyance channel cost \$183,000, of which \$150,000 was funded by the State Drought Relief Funds.



The Pelican Point Pump Plant was constructed in 1934 as part of a drought relief project. The plant was located along the west side of Utah Lake where the water was deeper. An 8-mile canal conveyed 52.3 cubic feet per second of water to the Associated Canal Companies in Salt Lake County, saving over a one million dollars in crops during this drought year.

Circa 1934

The most recent drought event of 1992 left the level of the lake 9.2 feet below compromise elevation, rendering the pumps useless. The Associated Canal Companies, including Salt Lake City dredged the inlet to the Lehi Pumping Plant at the outlet of the lake. However, on August 23, 1992 the water level dipped below the point that the lake could be pumped. This interrupted the flow of water to the various canals. For the irrigation companies this meant lost crop production; however, for Salt Lake City it meant that it could not fulfill its exchange obligations with Utah Lake water. Beginning on August 23,

UTAH LAKE AND JORDAN RIVER

Salt Lake City began releasing up to 38 cubic feet per second of drinking water into exchange irrigation ditches to meet its contractual obligations. The City's 280,000 culinary customers were asked to reduce their consumption by 20 percent in order to deliver irrigation water under the exchange agreements.

The lake will always be subject to flood and drought cycles. The State Management Plan will protect the primary water right holders against the extremes of drought events.

Today - The Importance of Utah Lake

Utah Lake has long played a significant role in the development of Salt Lake County. It has provided water through the various canals to irrigate thousands of acres of land and provided the exchange water for Salt Lake City to enter into agreements with east valley farmers to use their canyon water for municipal purposes. Its importance has not diminished through the years, and today with the need for more municipal water along the Wasatch Front, it's the hub of water development and speculation. Impacted by the Provo River Project in 1935, the Central Utah Project in 1967, the Deer Creek Strawberry Exchange in 1986 and the Welby-Jacob Exchange with the Salt Lake County Water Conservancy District in 1988, the demand on the lake has never been greater.

During the 1990s, the State of Utah has experienced a strong economy and growth in population. The demand for water in both Utah and Salt Lake Counties has created greater need for new water supplies. Within Salt Lake County, as farmland is subdivided, the Utah Lake water used for irrigating this land is no longer needed for agricultural purposes. However, there is a growing need for municipal water to serve the new urban population in both Utah and Salt Lake Counties. As a result of this change in land use, the value of the water rights in Utah Lake has risen sharply over the past decade. Water that sold for a nominal \$15.50 per acre-foot in 1986 is selling for over \$300 per acre-foot in 1996. The State Engineer has closed Utah County for new appropriations and is requiring either a surface or Utah Lake right to allow a change application for a well in this fast growing area. This, along with the fact that irrigated land is going into subdivisions, has created a market-driven water transfer environment where developers need water and farmers are willing to sell it in fear of losing it through forfeiture.

Secondary water systems provide water for lawn and garden watering, saving the higher quality drinking water for additional growth. However, the quality of this water for sprinkler irrigation has created some problems with ornamental shrubs, trees and flowers as they are sensitive to the high levels of salinity in the Utah Lake water. Treatment methods are currently being developed to make this water suitable for sprinkler irrigation. In the future treatment technologies will allow the direct treatment and delivery of Utah and Jordan River water to meet the drinking water needs of thousands of new customers who will reside along the Wasatch Front.

Salt Lake City has critical interests in Utah Lake:

1. Salt Lake City has decreed water rights in Utah Lake and ownership of stock in the East Jordan Irrigation Company. It is part owner in the Lehi Pumping plant, Turner Dam and Joint Dam and has

UTAH LAKE AND JORDAN RIVER

management responsibilities as a member of the Associated Canal Companies. These rights provide the means for exchanging Utah Lake water for water in Parleys, Mill Creek, Big and Little Cottonwood streams, providing 60 percent of the water supply within the City's service area.

2. Salt Lake City formed the Metropolitan Water District of Salt Lake City in 1935 to participate in the Provo River Project and the Deer Creek Reservoir. The 1958 agreement with the Utah Lake Distributing Company allowed MWD to acquire an additional 15,200 shares of Provo River Projects rights. This water is available to Salt Lake City as part of its preferential rights to MWD's water supply.

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1906: Supplemental Decree of December 13, 1906
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Municipal Review, 1934

SCENARIOS

1. A builder promises “beachfront” property for a homeowner’s backyard, but that was in time of drought. Now the yard is underwater. Does the homeowner own a part of the lake?
2. A neighboring state wants to buy the water to help boost a city’s growth. They need culinary water (as well as water to fill their swimming pools). Who can sell their water to the neighboring state? Is this sale even possible?
3. People along the Jordan River are complaining about the huge amounts of water coming from Utah Lake. Because it is causing huge flooding issues, people along the Jordan River want the Lake to keep the extra water, potentially flooding Utah County farmers. Who decides which side of the Jordan River Gate gets flooded?
4. A rich businessman wants to dredge a part of the lake to create a man-made island in the middle of Utah Lake. He will then create a resort for fishing and boating on the island. How would he seek permission to create his island? Will the developer own the land that he has created?
5. During a drought, part of Utah Lake’s bed is exposed. Indian arrowheads and burial items are found, which a local university wants to dig up. This angers the Ute Indians, who lay claim on these things as being part of their ancestral heritage. Who gets to own the items?
6. The beach has disappeared around Lindon! Early settlers reported a sandy beach with clear water on Utah Lake’s northern shore, but now it is overgrown with phragmites. Lindon wants to get rid of the noxious weeds, but doesn’t want to pay for its removal. Private owners, including a country club, own property along the shore, and the city of Lindon wants the private owners to take care of the problem. If you own property along the shoreline, do you have to take care of the weeds?

1985 court order could cause big rise in Utah Lake levels

The Associated Press | Posted: Monday, May 30, 2011 12:01 am

LEHI -- An obscure 1985 court order may push Utah Lake to its highest level in 25 years. With the lake already edging onto surrounding private property after an unusually snowy winter, it's expected to go even higher in coming weeks because the court order places a limit on the flow of the Jordan River.

If the Jordan's flow rises to 3,400 cubic feet per second at 2100 South in Salt Lake City, state officials are required to stop the river from rising more by shutting control gates at the lake's north end. "The court order tells me that I need to do that," said Kent Jones, Utah's state engineer.

The current flow there is 2,130 cfs, but it rose to nearly 3,000 cfs during a recent warm spell. Temperatures in the 80s and 90s could easily push the flow to 3,400 cfs, putting the spotlight on the court order for the first time in 26 years.

The Jordan River flows about 50 miles northward from its main source, Utah Lake, to the Great Salt Lake. Four of Utah's five largest cities, including Salt Lake City, border the river.

The court order was issued in the 1980s when there was a huge mountain snowpack. Utah Lake and Jordan River property owners got in a court battle, and the result was a negotiated court-approved settlement that dictates a compromise between lake and river levels.

"And I think that was a good compromise and I think it's going to work fairly well, trying to balance the protection to the landowners around Utah Lake while still giving protection to the landowners along the Jordan River," Jones said.

The lake is currently 1.7 feet above the compromise level agreed to in 1985, but that is trumped by the limit on Jordan River flows. If gates are closed to stop the river from rising, Utah Lake could rise another 2 feet.

Many farms and ranches bordering the lake in Utah County could lose acreage. The lake already has inched its way past the fence line of Stan Roberts's yard in a Saratoga Springs subdivision.

"This is the highest I've ever seen the lake level," Roberts said. "In fact, it's coming up into the lawn area. And so it's a little swampy down there below."

But his home is at least 20 feet higher than any conceivable major rise of the lake. Jones holds a generally optimistic view about the flooding outlook statewide. "I am quite confident that we're going to be able to get through this," he said. "I think we will see some problems, but I don't think it's going to be overly serious."

Deseret News

<http://www.deseretnews.com/article/705373548/Little-known-court-order-may-force-Utah-Lake-to-rise-higher-and-higher.html>

Little-known court order may force Utah Lake to rise higher and higher

Published: Saturday, May 28, 2011 11:59 p.m. MDT; By [John Hollenhorst](#), Deseret News

LEHI — A nearly-forgotten court order from 1985 may force the waters of Utah Lake to rise higher than they have in a quarter-century.

The lake is already unusually high, and it's edging onto surrounding private property. But in coming weeks, it's likely to go even higher because the court order places a limit on the flow of the Jordan River.

In essence, the court order trades off flooding in one area in favor of flooding in another.



[Ravell Call, Deseret News](#)

Snow tops Mount Timpanogos with a portion of Utah Lake showing at lower right, Friday, May 13, 2011.

A crucial measurement is made at the point where the Jordan River flows northward under 2100 South in Salt Lake City. If the flow rises to 3,400 cubic feet per second, state officials are required to stop it from rising further. And that will push Utah Lake even higher.

"The court order tells me that I need to do that," said Kent Jones, Utah's state engineer. As flood threats go, it's not the most significant worry in the state. But the situation illustrates how officials are trying to juggle huge volumes of water in various waterways and reservoirs in an effort to get snow out of the mountains with as little damage as possible. That task can be a difficult one since decisions have to be made in a complex legal framework designed to protect conflicting interests.

The Jordan River is a small piece of the puzzle, but in this case state officials say they have no flexibility.

Most of the water in the Jordan River comes from Utah Lake. Control gates at the lake's north end are currently wide open. The flow of the Jordan at the Salt Lake City measurement point is currently 2,130 cfs, well below the legal limit. During a recent warm period, though, melting snow entering Utah Lake and exiting through the gates pushed the Jordan's flow to almost 3,000 cfs. A few days with temperatures in the 80s and 90s could easily push the flow to 3,400 cfs, putting the court order front-and-center for the first time in 26 years.

Many landowners and even water officials are unaware of the court order, Jones said. It was issued in the 1980s when there was a big mountain snowpack. Utah Lake property owners got into a court battle with Jordan River property owners and water-users, and the result was a negotiated court-approved settlement that dictates a compromise between lake levels and a limit on river flows.

"And I think that was a good compromise and I think it's going to work fairly well," Jones said, "trying to balance the protection to the landowners around Utah Lake while still giving protection to the landowners along the Jordan River."

The lake is currently 1.7 feet above the compromise level agreed to in 1985, but that limit is trumped by the limit on flows in the Jordan River. If the gates are closed to stop the river from rising, Utah Lake could rise another 2 feet.

Many farms and ranches bordering the lake in Utah County could lose acreage. But the tradeoff is less flooding along the river in Salt Lake County.

The lake's rising surface has already inched its way past the fence-line of Stan Robert's yard in a Saratoga Springs subdivision.

"This is the highest I've ever seen the lake level," Roberts said. "In fact, it's coming up into the lawn area. It's infiltrated the lawn. And so it's a little swampy down there below."
tops Mount Timpanogos with a portion of Utah Lake showing at lower right, Friday, May 13, 2011.

Roberts' home, though, is at least 20 feet higher than any conceivable rise of the lake. "Not a worry," he said. "Not to me."

Jones, whose job as state engineer makes him one of the most important water officials in the state, has a generally optimistic view about the flooding picture statewide. He believes many lessons were learned during the high-water years of the 1980s and a huge amount of planning and preparation have set the state up for success in handling the snow-melt.

"I am quite confident that we're going to be able to get through this," Jones said. "I think we will see some problems, but I don't think it's going to be overly serious."

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Court order may force Utah Lake levels to rise

By John Hollenhorst

May 28th, 2011 @ 6:06 pm

SALT LAKE CITY -- A nearly-forgotten court order from 1985 may force the waters of Utah Lake to rise higher than they have in a quarter-century.

The lake is already unusually high and it's edging onto surrounding private property. But in coming weeks, it's likely to go even higher because the court order places a limit on the flow of the Jordan River. In essence, the court order trades off flooding in one area in favor of flooding in another.

The court order tells me that I need to do that. –Kent Jones

A crucial measurement is made at the point where the Jordan River flows northward under 2100 South in Salt Lake City. If the flow rises to 3400 cubic feet per second (cfs), state officials are required to stop it from rising further. And that will push Utah Lake even higher.

"The court order tells me that I need to do that," said Utah's state engineer, Kent Jones.

As flood threats go, it's not the most significant worry in the state. But the situation illustrates how officials are trying to juggle huge volumes of water in various waterways and reservoirs in an effort to get snow out of the mountains with as little damage as possible. That task can be a difficult one since decisions have to be made in a complex legal framework designed to protect conflicting interests.

I think that was a good compromise and I think it's going to work fairly well trying to balance the protection to the landowners around Utah Lake, while still giving protection to the landowners along the Jordan River. – Kent Jones

The Jordan River is a small piece of the puzzle, but in this case, state officials say they have no flexibility. Most of the water in the Jordan River comes from Utah Lake. Control gates at the lake's north end are currently wide open. The flow of the Jordan at the Salt Lake City measurement point is currently 2,130 cfs, well below the legal limit. During a recent warm period, though, melting snow entering Utah Lake and exiting through the gates has increased the Jordan's flow to almost 3,000 cfs.

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Many landowners, and even water officials, are unaware of the court order, Jones said. It was issued in the 1980s when there was a big mountain snowpack. Utah Lake property owners got into a court battle with Jordan River property owners and water-users and the result was a negotiated court-approved settlement that dictates lake levels and a limit on river flows.

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BOY SCOUT'S EFFORTS MAY HELP PUT TO REST BLACK HAWK MYTHS, REMAINS

By Melissa Bean, Staff Writer

Published: Monday, Sept. 4, 1995 12:00 a.m. MDT

In the early 1850s, Latter-day Saint settlers claimed a part of Ute territory as their own. Though eventually defeated, the Ute Indians, led by Chief Black Hawk, waged a war against the pioneers that lasted from 1865 to 1868.

The war cost the lives of 46 settlers and nearly \$1.5 million in damage. Because there are few records of the battles and little written on Chief Black Hawk himself, folklore has passed itself off as history.

Long ignored is that, despite his infamy, Black Hawk had a great part in restoring peace between the Ute tribe and the settlers.

Yet Black Hawk's remains, unearthed in 1911, still await reburial in accordance with the Native American Graves Protection and Repatriation Act.

His bones were kept in the basement of the LDS Historical Department for 60 to 70 years and are now stored at the Museum of Peoples and Cultures at Brigham Young University. They were recently recovered through the efforts of a Pleasant Grove Boy Scout named Shane Armstrong.

Armstrong was doing his Eagle Scout project on Black Hawk last year and started to wonder where the chief's remains were stored. His goal was to have the chief's remains registered with the U.S. Forest Service.

"I thought it was weird that no one had records on him," Armstrong said.

Armstrong said that neither the LDS Historical Department, nor the Brigham Young University museum knew where Black Hawk's remains were. Both places kept referring him to the other. But after repeated phone calls, the historical department eventually located the remains and immediately turned them over to BYU.

Now, a legendary warrior depends on bureaucracy for his bones to be put to rest.

Betsy Chapoose, director of Cultural Rights Protection Department of the Ute tribe, said the tribe is working with the Uinta National Forest Service and wants Black Hawk reburied as close to the original burial site as possible.

"I think sometimes you just have to take it in stride and say, 'We're going to right what's been wronged,' " she said.

In September 1870, Black Hawk died and was buried in the mountains behind Spring Lake in Utah County. For 41 years his grave, only a few miles from his birthplace, was left undisturbed. Then in 1911 several men working at the Syndicate Mine near Santaquin located the grave and removed Black Hawk's remains.

"It is curious how these icons of the past become everyone's property," said Charmaine Thompson of the Uinta National Forest. "There are different cultural ethics involved."

Thompson pointed out that in 1919, the Deseret Evening News ran photographs of Chief Black Hawk's remains and excavated burial site. A smiling excavator is shown holding up the chief's skull.

Perhaps Black Hawk's reputation as an outlaw led to the belief that his grave did not deserve respect.

A man named Josiah Rogerson Sr. interviewed Black Hawk before the chief's death detailing Black Hawk's desire for peace. Rogerson recounted how the chief went to Fillmore, set up his tent and found Bishop Thomas Callister to help him contact Brigham Young by telegraph.

Some time after, Black Hawk returned to many of the towns he had raided to make amends with the settlers. He reportedly told one man, "You need not be afraid of us anymore. I am sick of blood."

Albert Winkler, a BYU archivist with a doctorate in history, said even though Black Hawk was one of the more accessible American Indians, most of what was written about him were biased accounts by white settlers.

Winkler said his interest in the life of Black Hawk came from the stories his mother told him as a child.

"She got them all wrong," he said.

Reports of Black Hawk's involvement in the war, his success as a leader and the cause of his death are inaccurate, undocumented and disputable, Winkler said.

There were reports that Black Hawk died of a combination of tuberculosis and a war wound. The supposed war wound, Winkler said, was probably a fabrication. He said those who claimed they saw Black Hawk shot as he hid behind a horse had never met Black Hawk. And it is doubtful a gun of that era could penetrate a horse or anything behind the horse, he added.

Winkler said reports of Black Hawk's tuberculosis are unproven, something a tissue sample could confirm or deny.

Often, settlers blamed American Indian raids on the most famous American Indian they knew of, so Black Hawk bore responsibility for crimes he didn't commit, Winkler said. And, some accounts of the Black Hawk war describe the American Indians' efforts as futile and weak.

In reality, judging from the casualties among the settlers and the \$1.5 million in damages, the American Indians waged a successful campaign. Winkler said they did so with minimal losses.

Jim Young, a member of the Utah County Centennial Commission, said the county wants to honor Chief Black Hawk during the centennial celebration.

"There is an interest in having him brought back and buried in the area where he was chief," Young said. "We have to do it in a way that is sensitive to the Indian nations."

Young said a secure site, protected from vandalism is required as well as approval from American Indian tribal leadership.

Spanish Fork has ventured a tentative proposal for a burial site. Mayor Marie Huff said the city would bury Black Hawk in the Spanish Fork Cemetery.

"We're not going to make a move until we know exactly what they want," she said. "The Indians have many traditions, and we want to abide by those."

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TRIBES, MUSEUMS TOIL TO OBEY LAW

By Melissa Bean, Staff Writer

Published: Monday, Sept. 4, 1995 12:00 a.m. MDT

American Indian tribes and federally funded museums are struggling to fulfill the requirements set by the Native American Grave Protection and Repatriation Act.

Betsy Chapoose, director of the Cultural Rights Protection Department of the Ute tribe, said funding repatriation efforts and working with museums are the most difficult part of implementing the act. NAGPRA requires federally funded museums and agencies to inventory American Indian cultural items, funerary objects, sacred objects and items with cultural patrimony. If the items are proven to have cultural affiliation they must be returned to the tribe.

For Chapoose, this means she travels extensively, identifying items to be repatriated. She said it is difficult to work with museums that do not understand the significance of their holdings.

Chapoose said one museum had some sacred objects but thought they were worthless. The items were not on the inventory.

"Museum people sometimes don't know what they have," she said.

Chapoose said at times she has to deal with ignorance and museums who have an "attitude." NAGPRA is meant to return American Indian artifacts to the right tribes in a respectful manner, she explained.

"I think the spirit of the law is well-meant, but some don't take the spirit of the law," she said.

The government did not think about how much it would cost to implement NAGPRA, Chapoose said.

"I think federal agencies need to realize we want to take care of our people - our ancestors, and sometimes we need a little help," she said.

In the case of Chief Black Hawk, all parties involved are cooperating to bury his remains respectfully.

"All rights, all claims, all administrative authority belong to the Ute tribe," said Marti Allen, associate director of the Museum of Peoples and Cultures at Brigham Young University, where Black Hawk's remains are now stored.

Allen said NAGPRA is a challenge for museums.

"We're talking about a very large forest of politics here," Allen said. "It's very easy to take the wrong step."

The LDS Historical Department had Chief Black Hawk's remains for 60 to 70 years, said Steve Olsen, manager of operations for the LDS Historical Society. The chief's remains were kept in a protective environment, he said.

Olsen said he did not know action was being taken to bury Chief Black Hawk's remains but the department is committed to having the chief put to rest in a fitting manner. He said the museum has been trying to comply with NAGPRA.

"To repatriate, you have to interact with a certain tribal authority," he said. "We want to cooperate in any way possible with the conditions of the law."

Dedication for monument to Ute chief is Saturday

Published: Thursday, Sept. 25, 1997 12:00 a.m. MDT

A monument honoring Chief Black Hawk, a friend and foe of early Mormon settlers, will be dedicated Saturday morning in Spring Lake.

The 11 a.m. dedication ceremony will feature Black Hawk's descendants and a Ute song dedicated to the chief. A poem commemorating his life will be permanently etched on the monument. Local miners dug up Black Hawk's remains 85 years ago, and they remained in a museum until last year.

Under the 1991 Native American Graves Protection and Repatriation Act, the chief's remains were laid to rest in his hometown south of Payson. Several generations of Black Hawk's family, Ute tribe representatives and local townspeople honored the chief at a burial ceremony in May 1996.

Black Hawk originally befriended the Mormon settlers moving into the area. But competition for food and resources between the Utes and the settlers led to war. Black Hawk led a band of Ute warriors against the expansion of the white settlement in Utah from 1865 to 1867.

The chief surrendered in 1867.

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Deseret News

BLACK HAWK'S REMAINS TO REST AT SPRING LAKE

Published: Friday, May 3, 1996 12:00 a.m. MDT

The famous Ute Chief Black Hawk will come home to rest Saturday, May 4, in Spring Lake's town park.

Black Hawk's remains, dug up by miners in 1911 and most recently displayed in Brigham Young University's Museum of Peoples and Cultures, will be reburied near the grave in Spring Lake where his wives laid him to rest 85 years ago after he died of tuberculosis. His family will hold a memorial service at 11 a.m. in Spring Lake and bury him in a simple pine coffin amid traditional Ute tribal music, tribute and dance at a site two miles southwest of Payson, at 12240 South and Spring Lake Road.

The event will close a painful period for his brother's Mountain Family - Chief Black Hawk had no direct descendants - and opens up opportunity for the citizens of Spring Lake and historians to tell a more complete story of the chief who first lived with Mormon settlers but ultimately came to fear and attack them.

Uinta National Forest official Charmaine Thompson; Bureau of Indian Affairs representative Christine Sagendorf; Shane Armstrong, a Pleasant Grove Eagle Scout; and Marva Eggett, a Utah Valley State College instructor, worked to effect the reburial and will participate in the ceremonies.

Kaysville historian John Peterson, who has written a history of Antongeur (Chief Black Hawk), will pay tribute.

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Deseret News

WARRIOR BURIED ON LAND HE LOVED

By Sharon M. Haddock, Staff Writer

Published: Sunday, May 5, 1996 12:00 a.m. MDT

A Ute warrior of color and courage, Black Hawk was laid to rest Saturday beneath the mountain he loved in a community he protected, after a century and a quarter of displacement.

He was surrounded by family, descendants of his brother "Mountain" and residents of Spring Lake who welcomed him back "home" as a part of the town's heritage and as a friend. Known as "Chief Black Hawk" - although Ute tribes didn't have designated chiefs - the man buried in the simple pine box in the town park of Spring Lake has a fascinating and oft-disputed history.

He originally befriended the Mormon settlers moving into the area, even lived with a non-Indian family in Salt Lake City for a time after being taken prisoner in a battle in Pleasant Grove.

But as he watched his people go hungry as the game disappeared and agonized over the suffering they endured at the hands of more and more white people, he became a feared and cunning foe, raiding cattle and stealing food to help feed Indians in five states in two years of skirmishes and bloodshed.

"Any food Black Hawk took, he gave away," said Charmaine Thompson, U.S. Forest Service heritage program leader. "He was a very careful, excellent warrior, very powerful and strong, who suffered a lot of hardship and hunger, who had a wife and a family and the hopes and dreams that go with that."

"It's actually a real person we're laying to rest here. It's part of us, part of you," said Wayne Gardner, a member of the Ute tribe.

A pine bough, sage and berry bush bouquet graced the casket, tied with strips of red, white, yellow and white cotton cloth. Casket bearers gripped rope handles and lowered the box into the earth with rope.

John Peterson, historian and author of a book about the Black Hawk era, said Black Hawk - or Antongeur as he was known to his people - was the greatest single leader of resistance to the white expansion through Utah.

"His is a story of agony, he was the father of the hungry child," said Peterson. "His were desperate acts with the welfare of his people in mind."

Peterson explained that Black Hawk's attitude changed after he was sent in as a scout to assess damage done to the Indians after two days of fighting in the Provo River bottoms. He found a brave known as

Old Elk frozen and many dead. In Black Hawk's presence, Old Elk's head was severed and those of several of the nearby braves and "sent back east for study."

Peterson said that incident changed Black Hawk and for the next 15 months he plagued the white settlements, even forcing back the expansion for a time.

"He displayed extraordinary regionalism, fighting his war on two fronts," said Peterson, who noted the Black Hawk Wars were "secret wars" because Brigham Young did not want the United States militia to become involved. Therefore Black Hawk's name is not listed among those of other Indian patriots.

He eventually died on Sept. 26, 1870, of tuberculosis and from complications born of a gunshot wound to the stomach. His wives buried him on the mountain above Spring Lake dressed in a blue military jacket along with his prized possessions, a faded Eagle feather, a decorative bridle for his horse (and his horse), a set of sleigh bells, a spur, a clay pipe, an ax, a cup, a bucket and beaded clothing.

Miners dug his body up in 1911 and stored his remains with a local physician who eventually persuaded them to donate Black Hawk's bones to the LDS Church Museum of History.

They've remained in the possession of church museums until a Pleasant Grove boy decided to find out why Black Hawk's grave site wasn't registered with the Forest Service, which now owns the area where he was buried.

Shane Armstrong took on the double task of determining where Black Hawk's remains were for his Eagle project and getting an answer to his original question about the grave registration. He chased information until the bones were located at the BYU Museum of Peoples and Culture. He contacted the Forest Service.

Thompson then took on the task of working through the paperwork to get Black Hawk returned to his people.

Armstrong said he never expected to be taking part in a burial service for the ancient warrior. "I wanted to do something for my Eagle that would be a challenge and believe me, it was a challenge," he said.

"He was a very brave guy," said Armstrong. "I know a lot more about him now."

Thompson said the reburial in Spring Lake is "just the right thing to do. This is land where he would have walked and hunted. It feels very good to me to be here. This serendipitous journey began on this mountain and now gives him a chance to rest permanently and securely in a place that will not be disturbed."

Peterson added, "Today he returns to this sky, to this wind and to this soil."

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