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# Historical Overview of Territorial, State, and Federal Legislation Impacting Utah Lake

A detailed timeline of legislation that has impacted Utah Lake's ecological status

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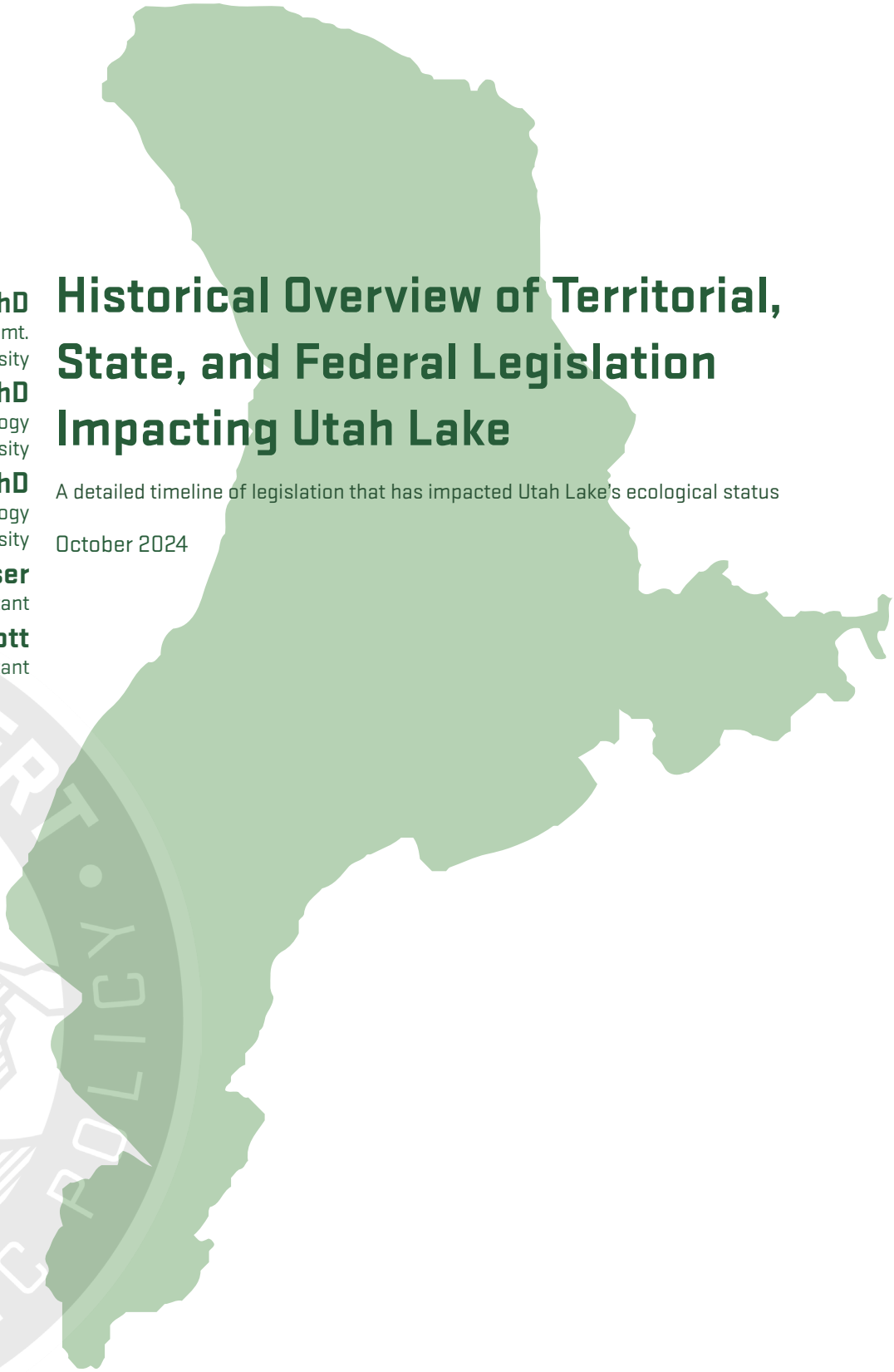

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## Introduction

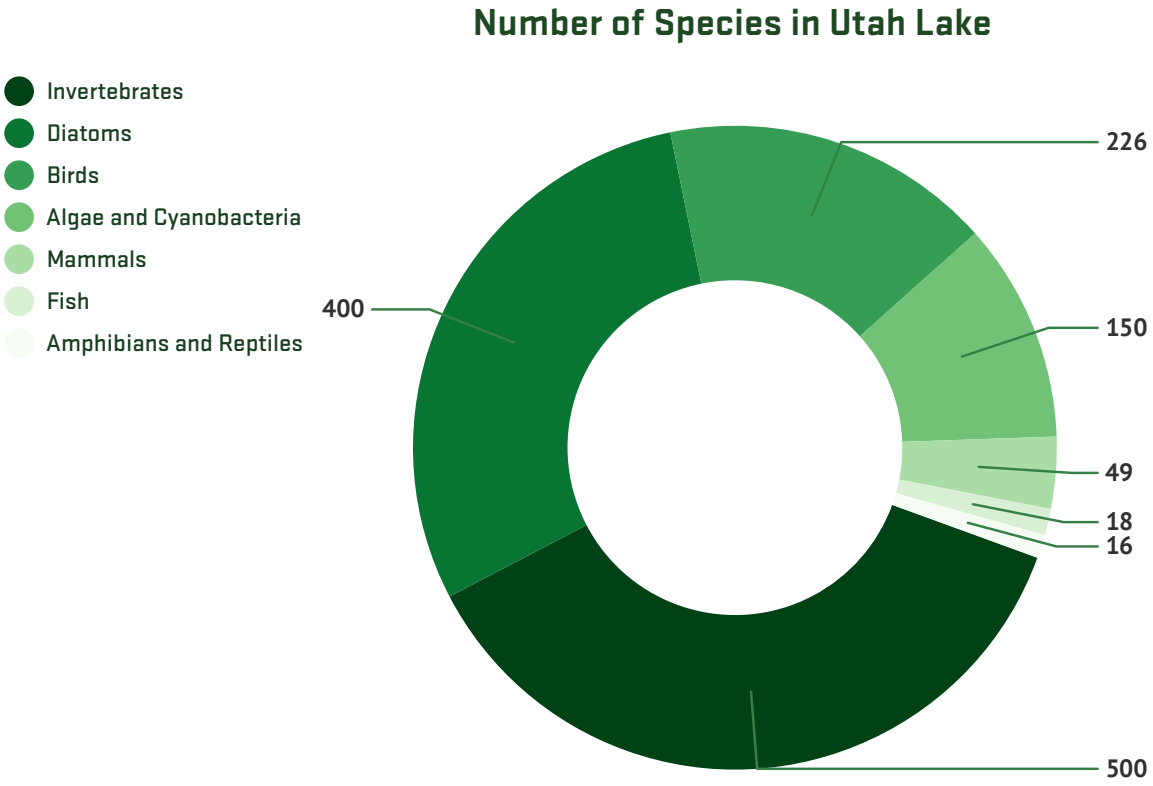
Utah Lake is one of the largest freshwater lakes by surface area west of the Mississippi River and is a main tributary for the Great Salt Lake through its single outflow, the Jordan River.[1] Covering 145 square miles and averaging a depth of nine feet, Utah Lake is part of a watershed that is home to approximately 600,000 residents[2] and is used for irrigation, recreational fishing, shoreline leisure activities, and watersports. Utah Lake provides critical habitats for numerous species, including 226 species of birds, 49 species of mammals, 18 species of fish, 16 species of amphibians and reptiles, among others. Approximately 10 million total fish reside in the lake, equal to the number of migratory birds that stay at the lake each year as a major part of the Pacific Flyway.[3-4]

Utah Lake was at its healthiest before settlers of European descent (hereafter 'settlers') arrived in the region. The Indigenous Timpanogos people were historic stewards of the lake. They celebrated its unique ecosystem by attending an annual spring fish festival with various Shoshone clans from across the region where they would trade and build community with each other.[5] Since the 1800s, human interference and legislative actions have impacted the lake's water, wildlife, and land resources. Certainly, some legislative actions have helped to prevent maltreatment of Utah Lake. However, other legislative actions have led to further ecological decline and possible irreversible ecological transitions. The following sections focus on territorial, state, and federal legislation impacting Utah Lake's water, wildlife, and land. This overview will provide insight into connections between legislation and Utah Lake's current and future ecological condition.

## Water: Territorial Legislation

Osborne Russell, a fur trapper who visited the valley prior to settlement described Utah as, "a beautiful and fertile valley intersected by large numbers of fine springs which flow from the mountain to the lake and could with little labour and expense be made to irregate [sic] the whole valley."[6] Because Utah's dry climate does not provide sufficient precipitation to support agriculture, irrigation is required. Settlers successfully irrigated their land by damming and redirecting Utah Lake and other tributaries to their farmland. Industrial and domestic use of Utah Lake and its tributaries was also necessary to support the growing population. However, pollution resulting from sewage disposal and industrial/agricultural runoff have contributed to Utah Lake's decline in water quality. Early legislators strove to reduce contamination of the lake's tributaries that were used for domestic purposes. Even so, the legislation still permitted the disposal of most pollutants, such as raw sewage, directly into Utah Lake. Over time, this negligent behavior significantly decreased the health and functioning of the lake's ecosystem.

Legislation began regulating the use of Utah Lake's tributaries in 1853 which permitted the Provo Canal and Irrigation Company to redirect half of all the water in the Provo River (one of Utah Lake's main tributaries) to farmland.[7] In 1865, the territory allowed counties to form irrigation districts and redirect natural channels, including the smaller tributaries of Utah Lake.[8]




Source: Data from BYU College of Life Sciences, Getting to Know the Utah Lake Ecosystem, (2022). https://pws.byu.edu/utah-lake/about-utah-lake

Legislation gave ditch and canal owners right-of-way in 1866, enabling them to maintain and direct their waterways over public lands.[9] In 1872, Salt Lake County placed a dam at the Jordan River Narrows, the only river outflow of Utah Lake, for the purposes of irrigating land in Salt Lake County, functionally turning Utah Lake into a storage reservoir.[10] The dam was a source of contention between Utah County and Salt Lake

County as flooding would occur in Utah County during high inflow periods. This eventually led to the 1885 Compromise Agreement specifying the maximum elevation of the lake to be 4,515 feet above sea level.[11]

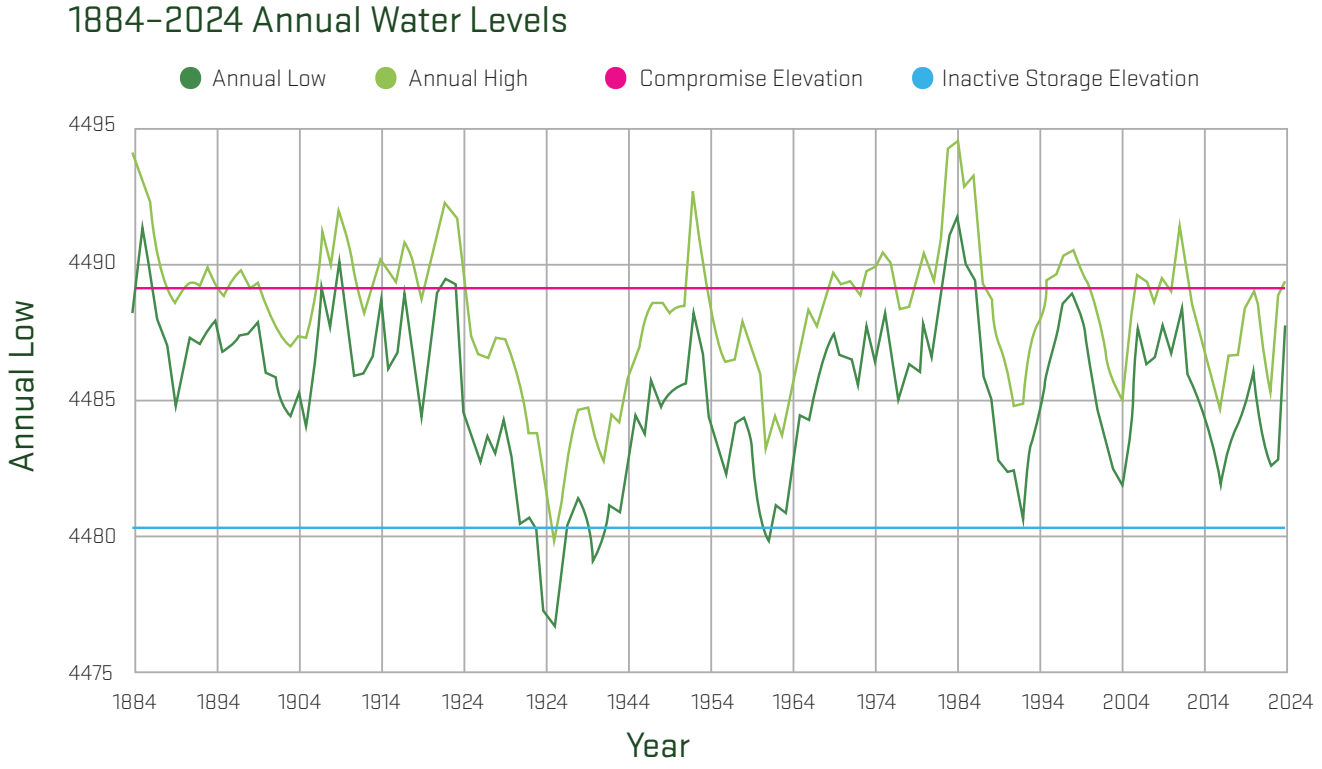
Utah Lake had unfortunately been prone to severe contamination after settlement. Some legislative acts indirectly aided in reducing the contamination of Utah Lake in early territory history. For example, an act in 1872 banned fishing with harmful chemicals.[12] Another similar act in 1876 prohibited fishing with explosives.[13] These acts were initially created to prevent the overharvesting of fish. Other acts passed by the Utah Legislature directly protected Utah's water sources from contamination. For example, in 1876, legislators mandated the removal of unburied dead animals to at least a quarter mile away from any water supply.[14] In 1880, an act was passed criminalizing the introduction of harmful substances into water sources to ensure their safety for both fish and household use.[15] In 1886, an act preventing the polluting of water prohibited the erection of animal structures where their waste would drain into nearby waterways used for domestic purposes.[16] If corralling loose animals or depositing substances like trash or manure near waterways would have similar results, it was also

prohibited. Additions to the act preventing the polluting of water were made in 1892 that prohibited washing sheep in areas close to domestic water sources.[17] It further mandated to corral, camp, or bed animals seven miles away from any water source used for domestic purposes to avoid contamination.

### Water: State and Federal Legislation

Following statehood in 1896, the Utah Legislature wouldn't enact any legislation directly linked to Utah Lake for nearly fifty years. In 1945, the Utah Legislature authorized surveys to collect data on water use, drainage, and reclamation to support water conservation across the state.[18] This prompted considerable public conversation about the environmental conservation of Utah Lake. In 1947, state legislation funded flood-control projects aimed at preventing pollution and obstructions in Utah's natural waterways.[19] That same year, the Utah Water and Power

# Utah Lake Historic Lake Levels




Source: Utah Lake, "Water Levels - Utah Lake," Utah Lake Authority, June 17, 2024, https://utahlake.gov/water-levels/.

**1972 Clean Water Act (Federal)**

- Implemented pollution control programs
- National water quality criteria
- Now Illegal to discharge pollutants into navigable waters

**2018 America's Water Infrastructure Act (Federal)**

- Improves drinking water and water quality
- Deepens infrastructure investments
- Enhances public health

Board Act declared all water within the state as public property, per Utah Code and the public trust doctrine, organizing bodies of water into various districts, with Utah Lake designated as part of the "Provo River District."[20] This act was also among the first to address the decades of raw sewage disposal into Utah Lake. In 1948, the United States Surgeon General was authorized to cooperate with other government agencies to establish programs aimed at eliminating or reducing pollution in the nation's waterways. This legislation was known as the Federal Water Pollution Control Act.[21] That same year, a study conducted by Dr. Dean Anderson of Brigham Young University determined that "the waters in multiple areas of Utah Lake were being seriously polluted."[22] Shortly after, Utah County cities began surveying locations to build sewage treatment plants. By the late 1960s, all major cities that were discharging sewage into Utah Lake had built wastewater treatment plants and by 1967, raw sewage was no longer being directly discharged into Utah Lake.[23]

Years of excessive nutrient loading from untreated sewage and agricultural runoff entering Utah Lake have led to its eutrophication. Eutrophication is caused by the overgrowth of naturally occurring cyanobacteria (also known as blue-green algae) found in fresh water. These microorganisms are an important part of nutrient cycling within the lake's ecosystem. Cyanobacteria photosynthesize and produce oxygen, cycle carbon and nitrogen and other nutrients, where they thrive in the warm, shallow, nutrient dense waters of Utah Lake. During periods of optimal temperature and increased nutrient loading, they may experience exponential growth, called an algal bloom. After blooming, cyanobacteria eventually die off causing the production and release of cyanotoxins that can be harmful in large quantities to humans and wildlife.[24] The decomposition of dead cyanobacteria by other microbes also substantially decreases oxygen levels in the lake, negatively affecting aquatic wildlife.[25] Habitat health as related to harmful algal blooms (HABs) have been a priority of many proposals related to Utah Lake such as dredging the lake or using chemicals to prevent them, but the only scientifically supported solution that has seen long-term benefits thus far has been restoration of the wetland habitat and native fisheries. Scientists warn against ecological disturbances, such as dredging or removal of shoreline wetlands, in the lake would cause further harm through cascading effects in the ecosystem.[26]

The Utah Legislature expanded the powers of the state's conservancy districts in 1949 with the Water Conservancy Act Amendments. This further enabled districts to construct, operate, and maintain water projects, and to collaborate with state and federal agencies on water conservation initiatives.[27] Following this act, the latter half of the twentieth century marked a time of environmental protection and action, particularly at the federal level. The federal Watershed Project and Flood Prevention Act of 1954 authorized the Secretary of Agriculture to work with states and local agencies to plan projects that would help improve and conserve soil and water.[28] The federal Land and Water Conservation Fund was established in 1965 to be used for water conservation and to improve the surrounding natural areas so they could be used for recreation without being environmentally diminished.[29] The 1966 Clean Water Restoration Act provided federal funding for states and local agencies to initiate projects aimed at reducing and controlling water pollution.[30] A 1967 state law prohibited the disposal of human waste into recreational waters and adjacent lands, ensuring cleaner water quality.[31] As discussed in the previous paragraph, this period of time encouraged the building of wastewater treatment plants to further protect the water quality of the lake.

The 1970 Water Quality Improvement Act granted federal executive agencies authority to set water quality standards and further regulate pollutants.[32] One of these executive agencies was the Environmental Protection Agency (EPA). It was established to oversee coordinated, comprehensive government action that would protect the environment.[33] In 1972, significant amendments to the Federal Water Pollution Control Act introduced stricter regulations on pollutant discharge and established new standards for maintaining water quality in US water bodies, marking the emergence of what became known as the Clean Water Act.[34] In 1973, the state passed the Water Pollution Act, expanding the powers of the Water Pollution Committee to meet federal standards, and requiring the reporting of pollutant spills and discharges.[35] The 1976 Resource Conservation and Recovery Act further strengthened federal environmental protections by giving the EPA sole authority to manage hazardous (but not nuclear) waste and oversee its disposal in natural areas.[36] This federal act allowed for the EPA to regulate and remove the waste that Geneva Steel and other local manufacturers were discharging into Utah Lake and nearby tributaries.

Geneva Steel operated a steel mill from 1944 to 2001, in what is now Vineyard, Utah. Resting on the banks of Utah Lake, Geneva Steel originally manufactured and enhanced national steel production during World War II. In the late 1980s, students and

community members began to protest Geneva's contamination of the air[37] and water quality in Utah County.[38] In 1989, Geneva Steel was issued a Resource Conservation and Recovery Act closure permit that required the company to evaluate the plant site and surrounding area for any resulting hazardous waste. Thirty different contaminants were found to be in the ground water and soil that surrounded the plant, including heavy metals like arsenic and lead.[39] According to a study done by the Environmental Working Group, just between 1990 and 1994, Geneva Steel released 266,468 pounds of toxic chemicals—ammonia and phenol—into Utah Lake.[40] The steel mill permanently closed in 2002.[41] Now, the Geneva site is used largely for urban development. Work to improve the area is still underway and progress is gradual.[42-43]

The EPA published water quality standards in 1983 and updated them in 1994 to establish guidelines for maintaining the quality of water intended for public use.[44] The 1996 federal Safe Drinking Water Act Amendments ensured public access to safe drinking water.[45] While Utah Lake is not used as drinking water, this act helped clean up its water quality by requiring owners and operators of public water systems to abide by the standards outlined in these amendments.[46]

The last years of the twentieth century and the beginning of the twenty-first century saw more local conservation involvement as well as the enactment of some important federal legislation. The federal Water Resource and Development Act of 1986 overhauled the management of water resource projects, emphasizing infrastructure improvements, cost-sharing, and environmental protections, laying a foundation for more efficient project implementation.[47] In 1987, the Water Quality Act was passed as a quasi-amendment to the Clean Water Act, enhancing its regulatory framework by addressing issues such as pollution control, toxic pollution, and nonpoint source pollution, while also reinforcing the financial systems supporting water quality projects across the United States.[48] In 2004, the Provo River Transfer Act transferred ownership of the Provo River and related water sources from the federal government to the State of Utah, empowering local governments to oversee conservation and pollution control efforts for tributaries feeding into Utah Lake.[49] The 2014 Water Infrastructure Finance and Innovation Act followed, establishing a federally backed credit program administered by the EPA to support eligible water and wastewater infrastructure projects.[50] Building on these efforts, the 2018 America's Water Infrastructure Act was passed, enhancing the Safe Drinking Water Act with over thirty additional programs designed to improve water quality, ensure access to safe drinking water, and prioritize public health.[51] These federal acts were instrumental in helping to improve Utah Lake's water quality.

In 2006, the Watershed Restoration Initiative (WRI) began operating underneath Utah's Division of Natural Resources and became officially codified during the 2022 legislative session. The WRI was established to improve Utah's watershed health and biological diversity, improve water quality and yield, and identify opportunities for sustainable use of natural resources.[52] Stemming from the creation of the WRI, many projects for Utah Lake and its tributaries have been completed, improving the lake's overall ecosystem both in riparian/aquatic environments as well as upland landscapes.

**Objectives of the Watershed Restoration Initiative**

- Improve the quality of Utah's watersheds and biological diversity
- Improve water quality and yield
- Improve opportunities for sustainable use of natural resources

More Utah Code was written in 2022 to include standards for water quality throughout the state.[53] In 2024, the Water and Irrigation section of the Utah Code was also updated to include comprehensive laws governing all water resources within the state.[54] Also in 2024, the Utah Lake and Great Salt Lake Study Amendments mandated a study by the Utah Division of Forestry, Fire, and State Lands to assess water quality and conservation strategies for Utah Lake.[55] And again in 2024, the Water Efficient Landscaping Requirements were enacted in Utah, restricting government agencies from using overhead spray irrigation near the lake or in areas designated for recreational use, further safeguarding water resources.[56]

The legislative management of water resources has evolved over time, having a profound impact on the health of Utah Lake. Utah Lake's health has improved as existing water acts were reinforced, and comprehensive additions were made. Initially, legislative efforts focused on preventing the contamination of tributaries. Legislators also created a lasting managerial framework involving districts. However, as the lake continued to grow more polluted, legislators authorized its surveying, disclosing much of the gross pollution. Soon after, legislation began regulating the disposal of raw sewage into the lake. The building of sewage treatment plants followed shortly, which helped to address the lake's nutrient loading. In the twentieth century, federal legislation further refined regulations to protect water resources from industrial pollution and mandated the cleanup of severe pollution sources, like Geneva Steel. The most significant legislation impacting the health of Utah Lake in the twenty-first century is the creation of the WRI which has improved the quantity and quality of the water at Utah Lake and in the surrounding watersheds.

### Wildlife: Territorial Legislation

Settlers were initially unrestrained in the utilization of Utah Lake's fish resources. During periods of crop failure, the settlers

# Utah Lake Index Map


Index map showing Utah Lake and its surrounding regions, including core locations, streams, metal process plants, and wastewater treatment plants

significantly relied on fish as a food source. Due to the extent and standard of fish at Utah Lake, settlers eventually commercialized their sale.[57] Many destructive and unsustainable fishing methods were used that were later legislatively prohibited.

The earliest legislation impacting the wildlife at Utah Lake was enacted in 1853. The act granted county courts jurisdiction over fisheries, allowing them to establish policies intended to prevent the "needless destruction of fish."[58] In 1862, another act made it so the county courts could designate the location of fish traps in water bodies and provide permits for their placement. However, fish traps were prohibited in the Jordan River (Utah Lake's only outflow).[59] Legislation regulated the harvesting of fish and fowl in 1872 by banning certain species from being harvested completely or by setting seasonal limits. Throughout territorial history, changes were made as needed to fishing seasons or species bans. The act also specified appropriate sizes for the seines used to catch fish in an effort to prevent trapping young fish fry. The 1872 act also prohibited using harmful chemicals for fishing and safeguarded fish migration and spawning routes by requiring fishways to be placed in dams used to divert water from tributaries. Legislators also tried to incentivize private owners to establish private fisheries on their own land in exchange for being tax exempt for a period.[60] In 1874, additions to the 1872 act further defined how to create fishways and manage private fisheries. This act also specified that redirecting water sources, like streams, from their natural course for purposes other than irrigation or mechanical use was prohibited to help support natural fisheries.[61]

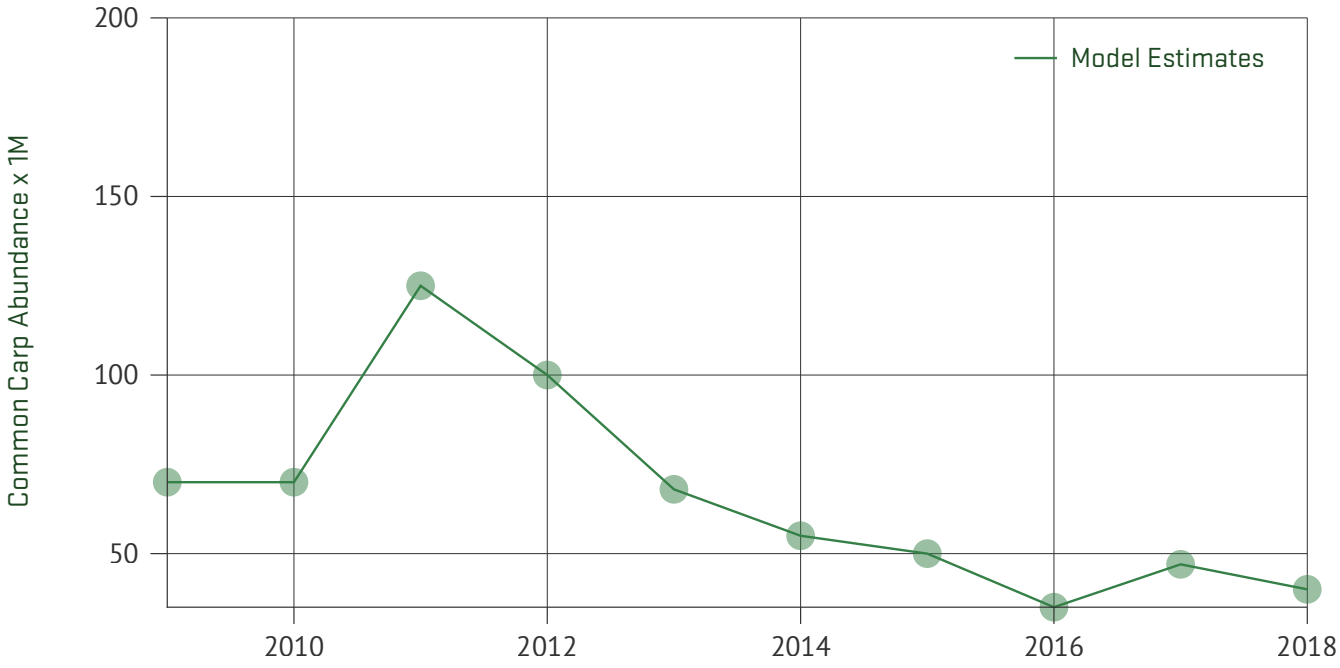
Also in 1874, legislation led to the appointment of the first county fish commissioners. The commissioners' job was to enforce legislation related to the environment and create policies at the county level that helped protect natural resources.[62] In 1880, legislation required the placement of screens to prevent fish from entering artificially diverted waterways.[63] In 1890, legislation allowed the appointment of the first territorial fish and game commissioner. The territorial commissioner performed duties like those of county commissioners mentioned earlier but with jurisdiction over the entire territory.[64]

### Wildlife: State and Federal Legislation

A pivotal moment of change for Utah Lake was when common carp were introduced to the lake in the 1880s by the federal government to provide another source of food for the settlers of the Utah territory.[65] The introduction of non-native species like carp significantly disrupted the ecology of native fish. A combination of the above, habitat destruction, overharvesting, and the 1930s dust bowl ultimately led to the extinction of the Utah Lake Sculpin and extirpation of eight other fish species.[66] Today, only three native fish remain—the June Sucker, Utah Sucker, and Utah Chub. By 2010, carp represented 90% of Utah Lake's total fish biomass.[67]

In 1896, one of the first pieces of official state legislation created the positions of state and county fish and game wardens. These are responsible to enforce laws and ordinances regarding wildlife and are given authority to manage the "collection, propagation,

## Common Carp Abundance




Source: Walsworth, Timothy, Kevin Landom, and Jereme Gaeta. "Compensatory Recruitment, Dynamic Habitat, and Selective Gear Present Challenges to Large-scale Invasive Species Control." ResearchGate. Ecosphere, June 2020. https://www.researchgate.net/publication/342496457_Compensatory_recruitment_dynamic_habitat_and_selective_gear_present_challenges_to_large-scale_invasive_species_control.

culture and distribution" of fish in the state.[68] In 1899, legislation created the position of state fish and game commissioner, also designated as the commissioner of hatcheries. The commissioner was responsible for supervising all bodies of water within the state and regulating all fish and game within the state.[69-70] In 1915, the Fish and Game Law was passed to regulate wildlife management and hunting within Utah. This law established requirements for hunting and fishing licenses, set hunting seasons for a broader range of species, and limited the number of fish and wildlife harvested in each period.[71] Fishing and hunting licenses were required beginning in 1919.[72] In 1923, the state legislature repealed the 1919 law regarding fishing and hunting licenses to pass a more comprehensive version. This version specified who qualified to acquire a hunting license, further regulated how to fish or hunt, and set a window for the sale of catches.[73]

**1915 Fish and Game Law (State)**

- Protection of wildlife from exploitation
- Strict controls on hunting and fishing seasons

**1934 Fish and Wildlife Coordination Act (federal)**

- Requires assessment of impacts on wildlife for proposed water projects
- Protects wildlife from modifications of natural bodies of water

In 1934, the Fish and Wildlife Coordination Act allowed the United States Fish and Wildlife Service to evaluate and reduce the impact of water resource development projects on fish and wildlife. It also provided federal assistance for states to research the impact of municipal utilities on fish and wildlife.[74] In 1939, a state law was passed granting the fish and game commissioner the authority to conduct wildlife restoration projects with the federal government.[75] A few years later in 1941, the law established a fish and game commission to be run by a director. This expansion in management is evidence of an increasing awareness of environmental needs. Authority was transferred to the fish and game commission originally given to the state fish and game warden to enforce the rules and regulations established by the state.[76] The 1950 Dingell-Johnson Act provided federal funding for fish management and restoration projects, which helped improve water quality in areas used for recreational fishing.[77]

In 1973 the Endangered Species Act was passed to protect endangered species and their habitats.[78] Due to the existence of fewer than 1000 individual fish, the June Sucker was declared endangered in April 1986 soon after the act's passage. Initial attempts to propagate June Suckers were not successful, the turning point being in 1999 when nine government organizations united to coordinate recovery efforts. The following organizations were a part of this agreement: Central Utah Water Conservancy District, Utah Department of Natural Resources, US Fish and Wildlife Service, Utah Reclamation Mitigation and Conservation Commission, US Department of Interior, US Bureau of Reclamation, Provo River Water Users Association, Provo Reservoir Water Users Company, and Outdoor and Environmental Interest. After years of hard work by these dedicated organizations, the June Sucker was removed from the endangered list and placed on the threatened list on February 3, 2021, by the US Fish and Wildlife Service.[79]

Following the 1973 Endangered Species Act, state governments, especially Utah, started to do more to protect wildlife of all kinds within their state. The same year, Utah updated its Wildlife Resource section of the Utah Code. This update prohibited the unauthorized release of wildlife onto state lands or into state waters, preventing the unlawful introduction of non-native species into sensitive ecosystems.[80] In 1998, county legislative bodies were given the authority to make regulations to protect and rehabilitate wildlife that fall outside of the state's jurisdiction, so long as they do not interfere with state laws.[81] This was a prudent change as each county may have more of an insight into the specific habitat or animal that resides in their boundaries, which can lead to better conservation outcomes.

Jumping into the next century, the Wildlife Resources Conservation Easement Restricted Account was created in 2007. This fund was created to monitor, manage, and acquire conservation easements, further protecting wildlife habitat.[82] In 2010, the Utah Legislature made the "wanton destruction" of protected wildlife or their habitat a third-degree felony, stressing the importance of preserving these species.[83] Recently, in 2023, the Wildlife Resources Act was passed and added to the Utah Code. This act specified that wildlife that existed in the state and were not held by private entities were classified as property of the state.[84] This approach benefits all wildlife across the state, both endangered and non-endangered. It also clearly established jurisdiction, ensuring that protective measures are efficiently implemented without confusion over authority.

Overall, it didn't take long for early settlers to notice the negative consequences resulting from the poor management of Utah Lake's wildlife resources. As the fish resources began to deplete, legislators addressed destructive fishing techniques, protected fish habitat, and tried to re-establish native fish populations. Over the years, to improve the situation and to address the nation's food crisis, several new fish species were introduced into the lake's ecosystem, including the common carp. Unfortunately, the 1930s' dustbowl further accelerated the issue which led to the extinction of the Utah Lake Sculpin and the extirpation of other native fish. Largely due to the Endangered Species Act and the increased fed-

eral enforcement for the protection of endangered species in the latter half of the twentieth century, Utah was compelled to take better care of their wildlife resources. As the legislation directing the management of wildlife evolved, local leadership was prioritized to increase the effectiveness of conservation efforts.

### Land: Territorial Legislation

Upland management has strong implications for how ecosystems function downstream. Historical overgrazing in upland areas has negatively impacted indigenous vegetation, much of which serves as foliage or habitat for wildlife. Consistent overgrazing of indigenous vegetation allowed woody plants and invasive plant species to outcompete and replace them in many upland areas. In some cases, indigenous vegetation remains present but never fully recovered from the effects of overgrazing. This has resulted in sparse ground coverage, exposing the soil to erosion and adding to runoff into Utah Lake. The establishment of woody plants also increased the severity of wildfires which diminished the ability of vegetation to regenerate, further contributing to runoff. The establishment of invasive species also led to their spread throughout Utah, specifically along the bank of Utah Lake. Runoff increases the rate of sediment buildup of an already shallow lake. Eventually, legislators recognized the need to protect Utah's land and in effect, Utah Lake.

In 1854, territorial legislation made it the responsibility of a surveyor to designate herd grounds for domestic livestock. The act gave authority to probate judges to license and collect bonds from herdsman who were given responsibility to care for animals specified on their designated grounds.[85] From 1855 to 1857, legislation granted several herd grounds to various people, but all herd grants were repealed in an 1859 act that transferred the responsibility to designate and grant herd ground to county courts.[86-91]

### Land: State and Federal Legislation

In 1862, the Homestead Act was passed to allow any citizen or intended citizen to claim up to 160 acres of land in the western United States for the purposes of living and cultivating the land to grow crops, raise livestock, or otherwise build land improvements.[92] This legislation encouraged westward expansion and agricultural development. The 1866 Mining Act, like the Homestead Act, allowed people to claim unused land for mining exploration. This mining act was specific to unmined areas and those taking advantage of this law were required to do labor on the mine to qualify. The act also gave "first in time, first in right" to the surrounding water to be used for mining operations.[93] Some parts of the act were later repealed by the Federal Land Policy and Management Act of 1976 (discussed later).[94] In 1877, the Desert Land Act was created, which was similar to the Homestead Act of 1862, but was focused on irrigation and agriculture in more arid regions.[95] All three acts, the Homestead Act, the Mining Act, and the Desert Land Act were instrumental in the settlement and economic development of the western United States, including Utah. These acts, however, did not include environmental regulations that protected Utah's natural resources from destructive use.

Years later, in 1892 the Supreme Court decided Illinois Central Railroad v. Illinois, setting a national standard for land held in public trust .[96] The state of Illinois had given land to Illinois Central Railroad hoping to establish a new train depot, among other things. As public opinion of Illinois Central Railroad began to decline, however, the state desired to adjust land rights previously granted to Illinois Central Railroad. Debate on who possessed rights to surrounding riparian water and to land submerged by navigable waters erupted, leading to a lawsuit. Illinois won the case, reaffirming the doctrine of public trust, stating that natural resources, such as shorelines, waterways, and air, are held in trust by the state government for public use and benefit. It was also ruled that rights to land held in public trust are exclusively the states' and that rights to land held in public trust granted to private entities are revocable. This principle ensures that the public will have continual access to resources such as Utah Lake, and it protects the state's natural resources from commercial exploitation.

We see public trust doctrine tested later in Utah Lake's history. The controversial Utah Lake Restoration Project proposal planned to dredge the lake and use the dredged sediment to build a variety of islands within the lake to be used for commerce and recreation. Legislators utilized H.B. 272 that allowed for the sale of public state land, to provide a foundation for their proposal. However, in 2022, Utah's Division of Forestry, Fire and State Lands declared the project unconstitutional and against the "public trust doctrine." For these reasons, along with the inconsistencies and incomplete permit applications to the US Army Corp of Engineers, the project was canceled.[97] In 1987, the *Utah Division of State Lands v. United States* Supreme Court case ruled that Utah has the right to the bed underneath Utah Lake under the equal footing doctrine.[98] This case arose as a result of the federal government attempting to lease Utah Lake land for commercial drilling operations. The equal footing doctrine affords the same rights to all US admitted states after year 1789, ensuring ownership of submerged land beneath navigable waters. Furthermore, the public trust doctrine supports that state resources remain accessible to the public, and protected from commercial exploitation.

In 1937, the Bank-Jones Farm Tenant Act was passed, allowing the US Secretary of Agriculture the right to claim damaged lands for rehabilitation and future farm use, with a focus on conservation. The act also provided credit to tenant farmers who desired to own farmland who otherwise would not have been financially eligible during the Great Depression.[99-100] The 1937 Pittman-Robertson Wildlife Restoration Act provided funding from Congress to support wildlife conservation efforts throughout the nation. The bill defines wildlife habitat areas around Utah Lake including water trails, water access, and water adaptable areas such as feeding, resting, or breeding grounds.[101] Funding received by the

state from this legislation has contributed to restoration work benefiting land and wildlife at Utah Lake.

**1937 Pittman-Robertson Wildlife Restoration Act**

- Funding for wildlife habitat restoration and conservation
- Funding for feeding, resting and breeding grounds

The 1976 Federal Land Policy and Management Act established rules and guidelines for the management of public lands by the Bureau of Land Management. The act requires that resources be sustainably managed for multiple uses including recreation, grazing, and wildlife use. Additionally, the act details procedures for the disposal and acquisition of public lands with a focus on retaining lands in federal ownership unless disposal aligns with the national interest.[102] The Bureau of Land Management received direction from an executive order signed in 2021 to take steps to conserve at least 30% of public lands by 2030.[103]

**1976 Federal Land Policy and Management Act**

- Moved management of public lands to Bureau of Land Management
- Provides provisions for environmental resource protection
- Encourages public involvement in land use planning

### Effect of Invasive Plants

Invasive plant species have had significant impacts on the decline of Utah Lake's ecosystem structure and function. *Phragmites australis subsp. australis*, known as phragmites or the common reed, are a non-native plant species that made the shoreline and surrounding wetlands of Utah Lake their home. These tall, dry reeds were accidentally introduced to the region in the nineteenth century. For much of Utah Lake's history, the seventy-five-mile shoreline was inaccessible because of dense non-native phragmites growth. In recent years, as much as 70% of phragmites have been reduced to make way for native plants.[104] To protect Utah from invasive species and prevent their spread, in 2013 the Utah Legislature passed the Noxious Weed Mitigation Act. This act appropriated funds to the Utah Department of Agriculture and Food (UDAF) to coordinate with federal and private partners on projects. In 2018 the Utah Lake Phragmites project, initiated by the UDAF, treated invasive Phragmites autralis and other noxious weeds to improve wetlands around Utah Lake.[105-106]

In recent years, many pieces of legislation have been passed, debated, and repealed in regard to natural resources and land affecting Utah Lake. In 2017, the Utah House passed a concurrent resolution that acknowledged the state of the lake and stressed the importance of making efforts to restore it.[107] The next year, the Utah Lake Amendments were passed that allowed the Division of Forestry, Fire, and State Lands to sell state lands to private entities for projects that would further restore Utah Lake.[108] In 2022, a bill was passed that modified the 2018 amendments to make it harder for the Division of Forestry, Fire, and State Lands to dispose of Utah Lake land by requiring approval from the State Legislature and the governor.[109] Ultimately, the 2018 amendments were repealed in 2024.[110]

Land surrounding Utah Lake is home to a variety of indigenous vegetation that serves as foliage and habitat for diverse wildlife. Overgrazing in upland and lowland areas around Utah Lake was largely unregulated by the territory, degrading Utah's landscape, and made way for establishment of woody plants and invasive plant species. Federal legislation encouraging western expansion did not include environmental protections and further harmed the environment. Eventually, federal and state legislators began protecting wildlife and their habitats and created ongoing funding for their conservation. The removal of invasive plant species and the rehabilitation of treated land has been a key part of these efforts. The management of land for multiple uses also ensures that projects benefit the public and wildlife.

### Management of Utah Lake

Responsibility for management of Utah Lake has changed hands several times over the years. Initially, the Division of Forestry, Fire, and State Lands (FFSL) oversaw the lake as a state resource. In 2007, the state passed a concurrent resolution to establish the Utah Lake Commission (ULC).[111] However, the ULC had limited authority; it could only make plans and recommendations and needed to coordinate with other agencies (such as FFSL) to implement them. In 2022, the Utah Lake Authority (ULA) was established to replace the ULC and cooperatively manage the lake with FFSL acting as the lake trustee.[112–113] The ULA was given greater authority to make independent decisions and implement plans without relying on other agencies. Its responsibilities include managing the lake's resources, ensuring recreational opportunities, and maintaining the lake's ecological health. The ULA was amended the following year to solidify the requirements for serving on its board.[114] Unlike the ULC, the ULA can also raise funds independently rather than depending solely on state and federal grants.[115] While changes in management have caused setbacks and delayed improvement projects, having a dedicated entity focused on Utah Lake brings hope for future restoration efforts. The ULA continues to cooperate

with other government entities and community members to achieve its goals.

## Conclusion

Utah Lake's history reflects a complex interplay between human activity, policy and legislation, and natural ecosystems. Significant ecological changes have occurred due to human activities, and Utah Lake is far from pre-settlement conditions. The arrival of permanent settlers in 1847 marked the beginning of large-scale offenses to the lake's ecosystem, including the overharvesting of native fish species; the introduction of non-native plant and fish species; and pollution from agricultural, industrial, and domestic activities. These actions, combined with early legislative efforts that often lacked the foresight to protect the lake, led to severe ecological degradation.

Over time, the territorial, state, and federal governments of the United States have implemented various policies aimed at managing and restoring Utah Lake. While early efforts were often reactive and limited in effectiveness, more recent legislation has been guided by scientific and policy research and a better understanding of the lake's environmental challenges. The passage of the Endangered Species Act and the listing of the June Sucker on the endangered species list brought unprecedented attention and resources to Utah Lake. The creation of the Utah Lake Authority and the implementation of comprehensive water management laws underscore a growing commitment to restoring and preserving the lake's ecological health.

Today, the focus for Utah Lake is on balancing human development needs while protecting its natural resources. Continued efforts to control pollution, restore native species, and manage water resources are crucial for the lake's future. As Utah Lake faces ongoing challenges, like the impacts of climate change and a growing population, it remains a vital resource that requires vigilant stewardship with decision-making being supported by careful scientific and political study to ensure its health and sustainability for future generations.

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