

US EPA ARCHIVE DOCUMENT

## **GREAT SALT LAKE WETLANDS MANAGEMENT AND CONSERVATION PLANNING**

The U.S. Environmental Protection Agency (EPA) is partnering with local, state and federal agencies, non-governmental organizations (NGOs), the private sector and academia to begin the Great Salt Lake Wetland Goals Project (Goals Project). The Goals Project will establish a long-term vision for the health and sustainability of the Great Salt Lake wetlands and associated habitat.

As part of the Goals Project, organizations involved in management and conservation of Great Salt Lake wetlands—Goals Project partners—will work together to establish broad-scale goals to guide future wetland conservation activities and ventures. As the Goals Project partners learn more about the effectiveness of current management of the wetlands and future conservation needs, they can begin to establish goals.

This summary report provides information on current Great Salt Lake wetland management and conservation efforts: who is involved, what kinds of efforts they are leading, how they are working together, and what kinds of challenges and opportunities exist for wetlands conservation planning. The purpose of this summary report is to provide background for the Goals Project. Information contained in the report is summarized from conversations held with individuals involved in Great Salt Lake wetlands efforts and activities, and a review of current Great Salt Lake wetland and bird conservation efforts and management strategies.

This summary report (1) provides information on who is involved in Great Salt Lake wetlands management and conservation efforts, (2) presents what kinds of things they are doing related to wetlands conservation, (3) discusses some of the challenges and opportunities for Great Salt Lake wetland conservation planning, and (4) recommends some ideas for follow-up.

### **Who is Involved in Wetlands Conservation?**

Many organizations are involved in wetland conservation efforts around the Great Salt Lake. Appendix A contains a starter list of the various organizations and how they are involved in Great Salt Lake wetlands management and conservation. The organizations range from local decision-making agencies to international bird conservation efforts and from NGOs to private sector organizations. While this list is an attempt to compile the many entities involved in Great Salt Lake wetland management and conservation, some organizations and efforts may have been inadvertently overlooked. These should be added to the list as they are discovered.

The subsequent sections of this summary report present information found through review of the management plans and conservation planning strategies of the organizations listed in Appendix A, and from conversations with individuals from some

of the organizations listed in Appendix A. Conversations were held over a period of about one month. While there was only time for discussion with a handful of individuals to inform this summary report, additional discussion with Great Salt Lake wetland managers, decision-makers, conservation groups, and other interested parties will be ongoing to inform the design of the Goals Project. Appendix B contains a starter list of contacts for each of the Great Salt Lake wetland entities listed in Appendix A.

Information from discussions with individuals from the following organizations is included in this summary report. Individuals from additional entities were contacted but were not available for conversations.

- Bear River Migratory Bird Refuge, U.S. Fish and Wildlife Service (USFWS)
- Ducks Unlimited
- FRIENDS of the Great Salt Lake (FRIENDS)
- Important Bird Areas (IBA) Program
- Intermountain West Joint Venture (IWJV)
- National Audubon Society (Audubon)
- Utah Department of Environmental Quality (DEQ), Division of Water Quality (DWQ)
- Utah Department of Natural Resources (DNR), Division of Forestry, Fire and State Lands (DFFSL)
- DNR, Division of Wildlife Resources (DWR)
- Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission)
- Utah Waterfowl Association
- Wasatch Front Regional Council (WFRC)

### What is Going On Related to Wetlands Conservation?

Organizations involved in Great Salt Lake wetlands management and conservation are leading a wide variety of wetland efforts from management of waterfowl areas and wetland preserves to conservation planning to wetlands outreach and education. Appendix A lists the major, overarching wetlands initiatives and management areas around the Great Salt Lake. This section highlights some of the more specific efforts organizations are undertaking in relation to Great Salt Lake wetlands conservation and coordination.

- **Bear River Migratory Bird Refuge.** The Bear River Migratory Bird Refuge is managed by USFWS for the protection and restoration of wildlife habitat. The refuge manages wetlands, restores habitat and provides education. The refuge actively uses an annual management plan to determine how to allocate water to manage priority habitat and also uses the IWJV 2005 Coordinated Implementation Plan for Bird Conservation in Utah to determine priority habitat. The refuge's Wildlife Education Center provides opportunities for the public to learn about the uniqueness and benefits of wetlands.

- **Great Salt Lake Shorelands Preserve.** The Nature Conservancy manages the Great Salt Lake Shorelands Preserve and maintains a visitor center that allows the public to experience wetlands first-hand. The Nature Conservancy also partners with other entities on wetlands conservation planning and land acquisition. The Nature Conservancy manages Utah Mitigation Commission lands within the preserve, and recently worked with Davis County communities and Envision Utah to implement innovative strategies to promote balanced growth while preserving wetlands and associated habitat.
- **South Shore Ecological Reserve.** The National Audubon Society manages the South Shore Ecological Reserve together with adjacent Mitigation Commission wetlands. The reserve is planning restoration efforts with a goal of simulating natural conditions of an historic delta of the Jordan River. Audubon is looking at ecosystem approaches to managing wetlands and associated habitat.
- **Inland Sea Shorebird Reserve.** Kennecott Utah Copper restored, enhanced and created wetlands along the south shore of the Great Salt Lake as mitigation. Kennecott currently manages the reserve for wetland and habitat conservation. The reserve invites school groups to the reserve to witness first-hand the wetlands and their biological diversity.
- **DWR Waterfowl Management Areas (WMA).** DWR maintains at least nine WMAs along the shores of the Great Salt Lake. The WMAs manage wetlands for conservation, wildlife habitat and public use. Although each WMA is managed as a separate unit, the DWR 2005 Comprehensive Wildlife Conservation Strategy serves as a guide for WMA management priorities. WMAs are also involved in IWJV efforts, and WMA managers use the IWJV 2005 Coordinated Implementation Plan for Bird Conservation in Utah in considering habitat management priorities.
- **Great Salt Lake Comprehensive Management Plan.** Although the Great Salt Lake Comprehensive Management Plan does not seem to play an active role in wetlands management, the plan provides a valuable long-term, overall management perspective for the Great Salt Lake. The Great Salt Lake Technical Team grew out of the plan and could provide an ongoing forum for the interchange of information on monitoring, research, ideas and programs that affect the natural systems of the Great Salt Lake.
- **Phase III Great Salt Lake North American Wetlands Conservation Act (NAWCA) Grant.** Ducks Unlimited, IWJV, Audubon, Ambassador Duck Club and other Great Salt Lake wetland partners are currently in the planning process to apply for a NAWCA grant for the Great Salt Lake wetlands. Two NAWCA grants—Great Salt Lake Phase I and Phase II—were previously awarded and used for wetlands restoration around the Great Salt Lake. The Phase III grant will be used for some state acquisition of wetlands and other smaller scale projects at various wetlands, including duck clubs and The Nature Conservancy. Ducks Unlimited had a

meeting for all stakeholders in the Phase III NAWCA grant planning process in May and will continue to coordinate with wetland managers.

- **Ducks Unlimited Hydrologic and Food Availability Study.** Ducks Unlimited is partnering with Oregon State University on a hydrologic and food availability study for the Great Salt Lake area. The study aims to determine how many birds the Great Salt Lake can support and how much water is needed to do so. The results of the study could be used in justification for water needs for Great Salt Lake wetland conservation. Study results should be completed around the fall of 2007.
- **Wasatch Front Regional Council (WFRC) Alternative Futures Study and Open Space Planning.** The WFRC partnered with Utah State University and Swaner Design to conduct alternative futures and open space planning studies for the regional area containing Davis, Morgan, Salt Lake, Tooele and Weber counties. The alternative futures study used a population growth trend scenario, public survey and various future alternatives scenarios of regionally significant open space to determine where development and open space are compatible and where they may conflict. The conclusions of the alternative futures study informed the development of the open space plan for the region. Counties and local governments have used the study and plan in development of local master plans and shorelands strategies. Although the studies were not limited to wetlands, the model may be helpful for planning and decision-making for the Goals Project.
- **Special Area Management Plans (SAMP) and Local Wetlands Plans.** Box Elder, Salt Lake and Tooele counties are partnering with state agencies, the U.S. Army Corps of Engineers (USACE), landowners and other interested groups to develop SAMPs in their respective counties. Davis County partnered with The Nature Conservancy and Envision Utah to develop a wetlands plan for the county.
- **Legacy Preserve Collaborative Design Team (CDT).** The Legacy Preserve CDT has been formed and will meet regularly to plan procedures for ongoing and future management of the preserve. The Legacy Preserve will provide wildlife habitat and wetland protection along the east side of the Great Salt Lake.
- **Intermountain West Joint Venture (IWJV).** IWJV incorporates and coordinates with the various bird conservation plans and efforts (see Appendix A) as well as local Great Salt Lake wetland and bird managers to implement conservation strategies on a local Great Salt Lake level. IWJV is involved in helping establish wetland and associated habitat conservation priorities for the Great Salt Lake wetland management areas and actively pursues projects on many of the wetland management areas.

Not only did various wetland and bird managers from the Great Salt Lake area collaborate on the 2005 IWJV Coordinated Implementation Plan for Bird Conservation in Utah, but managers also use the plan to set priorities for their wetland and wildlife management areas.

- **Great Salt Lake Alliance.** The Great Salt Lake Alliance brings together Great Salt Lake wetlands management entities, organizations involved in Great Salt Lake resource conservation and other experts to discuss Great Salt Lake issues and find common solutions to challenges. The Great Salt Lake Alliance is bringing people together in July to discuss issues with Great Salt Lake water quality.
- **Great Salt Lake Water Quality Steering Committee.** Working with a stakeholder committee, the Utah DEQ is establishing numeric water quality standards for the Great Salt Lake. Many Great Salt Lake organizations are involved in this process.
- **Utah Department of Environmental Quality (DEQ), Division of Water Quality (DWQ).** Working with multiple wetland partners, the DWQ is developing a suite of monitoring and assessment tools, including a reference wetland network, nutrient criteria, a rapid assessment method, and a multi-metric index of wetland condition. These activities will be described in a new section of the Utah Monitoring and Assessment Program Strategy, which will focus on the Great Salt Lake ecosystem, including wetlands. These tools will enable the DWQ, as well as other wetland partners, to monitor, assess, and report on wetland condition at multiple scales and for multiple objectives.
- **Utah Waterfowl Association (UWA).** UWA is an association of waterfowlers that seeks protection of Utah's waterfowl and waterfowl habitat. The association focuses on local regulatory and conservation issues, participates in wetland projects, and is emphasizing the need for duck clubs to come together more for wetlands conservation.
- **Utah Wetlands and Riparian Center.** The University of Utah, through the Utah Engineering Experiment Station (UEES), established the center in order to promote understanding of wetlands issues, provide guidance for sensible development and management of wetlands and riparian resources, and promote research beneficial to wetlands and riparian areas. The center focuses on developing design and technical approaches that can fulfill these goals.
- **Annual Great Salt Lake Bird Festival.** The Great Salt Lake Bird Festival, held annually in the spring, provides workshops and field trips that allow people unique bird viewing opportunities and the occasion to learn about the Great Salt Lake's exceptional resources.
- **Biennial Great Salt Lake Issues Forums.** FRIENDS of the Great Salt Lake organizes the Great Salt Lake Issues Forums every two years. Each forum is planned around a different theme to garner interest and support from various groups and individuals. For example, this year's forum focused on the Great Salt Lake's role in linking bird conservation partnerships in the western hemisphere, a previous forum focused on comprehensive management of the Great Salt Lake, and another forum linked the lake and science to art. The forums help bring

together and inform a variety of individuals and groups interested in Great Salt Lake resources.

- **FRIENDS of the Great Salt Lake Quarterly Newsletter.** FRIENDS publishes a quarterly newsletter that contains articles related to various Great Salt Lake issues and raises awareness of Great Salk Lake events.
- **Project SLICE – a Salt Lake Initiative for Conservation Education.** Project SLICE is a FRIENDS initiative designed to assist teachers in educating students to better understand and appreciate the fragile Great Salt Lake ecosystem and understand their connection to it. The project provides a fourth grade curriculum, teacher training, a lakeside learning program, and presentation materials.
- **Utah Division of Wildlife Resources (DWR) Educational Resources.** DWR provides and assists fourth grade teachers with the Wonder of Wetlands curriculum and provides wetlands education to professionals so they can make more informed decisions.
- **Utah Wetlands Interpretive Network (UWIN).** Because UWIN believes the best way for more people to understand the value of wetlands is first-hand experience, UWIN provides information about wetlands of the Great Salt Lake ecosystem to the public and directs people to places where they can easily access and learn about the wetlands.

### **What Challenges and Opportunities Exist for Wetlands Conservation?**

Although a lot of great work is going on with the Great Salt Lake wetlands, a number of challenges also exist related to management of the wetlands and future conservation planning. During conversations, individuals involved in Great Salt Lake wetland efforts talked about some of the challenges as well as opportunities to address challenges and move forward with wetland conservation planning. A few themes emerged from the conversations. Main themes are presented here with a brief discussion of challenges and opportunities for each.

#### **Coordination**

Coordination among organizations involved in wetland management and conservation efforts around the Great Salt Lake is challenging. Various reasons contribute to the challenge—there are a large number of organizations involved, organizations manage wetlands for different goals (e.g. wetland conservation, mitigation, duck habitat, biodiversity), people are busy, and there is no one individual or organization responsible for active coordination of all Great Salt Lake wetland organizations.

Although coordination is challenging, many individuals expressed that coordination does occur at certain levels. Coordination occurs often among managers of wetlands on a case-by-case or trouble-shooting basis. A manager of one wetland area might talk to a

manager of another wetland area to see how he or she has dealt with a certain invasive species problem, for instance. Coordination also occurs around common issues like water quality, priority bird species conservation, invasive species, and other current issues. For example, several organizations came together recently to discuss avian flu issues, many organizations are working together to establish water quality standards for the Great Salt Lake, and organizations coordinate as part of the IWJV to determine priorities for bird species.

Many individuals expressed that even though coordination is good at some levels, coordination among all organizations involved in Great Salt Lake wetland efforts could be vastly improved. Individuals with the Utah DNR and DEQ indicated that communication could improve within and among state divisions. Others thought that coordination should improve with cities and counties as well as landowners and industry. Many individuals noted that coordination would likely improve if there were one individual or organization actively pursuing coordination efforts.

Many additional ongoing efforts already bring organizations together and present opportunities for improved coordination, including the following.

- Great Salt Lake Alliance
- Biennial Great Salt Lake Issues Forums
- Intermountain West Joint Venture
- Great Salt Lake Water Quality Steering Committee and the Effort to Establish Water Quality Standards
- Great Salt Lake Habitat Goals Project

#### **Comprehensive or Ecosystem-level Management**

During conversations about wetlands conservation planning for the Great Salt Lake, many individuals expressed the need for more comprehensive management of the Great Salt Lake ecosystem. Some individuals talked about more comprehensive management of the immediate Great Salt Lake wetlands area, while others described the need for a broader, watershed approach. A few individuals noted that wetlands along the shores of the Great Salt Lake are being well conserved but that the upper watershed outside of the managed areas need more attention because problems in the upper watershed are affecting the wetlands in the lower watershed.

Much of the current wetlands management and conservation planning is fragmented and narrowly focused on individual management areas. The challenge to a broader focus is much the same as the challenge for greater overall coordination—management areas are discrete and managed, in some cases, for different goals. In addition, management and conservation planning resources are limited and the thought of planning for the entire ecosystem can seem overwhelming.

Opportunities exist for at least moving toward a more comprehensive management approach. The bird focus of Great Salt Lake management offers opportunities for comprehensive management in that management entities and conservation efforts focus



around priority bird species and priority habitat, which includes wetlands as well as associated upland habitat. The IWJV could serve as a basis for more comprehensive management. Several groups have also already initiated discussions and research related to a watershed approach, including FRIENDS and the Great Salt Lake Alliance. Ongoing efforts to establish numeric water quality standards may have implications for more holistic management as well as the Ducks Unlimited hydrology and food availability study. The Goals Project also has great potential for beginning to focus management more comprehensively.

### **Public Outreach and Education**

A major challenge for Great Salt Lake wetlands conservation is a lack of public understanding of the value and significance of the wetlands. In almost all of the conversations with individuals involved in wetland conservation, the individual recognized a need for more public outreach and education. The public, landowners and decision-makers need to better understand the value of the Great Salt Lake wetlands so they can make more informed decisions in relation to wetlands conservation.

One opportunity for increasing public support for wetlands conservation is to emphasize the connection between wetland conservation and bird conservation. In conversations with some of the wetland managers, some individuals said that they thought the public related well to the significance of the Great Salt Lake as important bird habitat. They said that focusing on birds and helping the public understand the significance of the wetlands to birds might help the public gain appreciation for the wetlands.

Also, the alternative futures scenarios project that will be part of the broader Goals Project might help the public better understand the need for wetlands conservation. If the public could see potential future states of the wetlands through various future scenarios and understand the consequences of the different scenarios, they might be able to make a connection to what they would need to do now to end up with a desired future state.

Other opportunities are ongoing for education and outreach, including education and interpretive centers at wetlands reserves and refuges, FRIENDS and DWR educational resources, and efforts of the Utah Wetlands Interpretive Network.

### **Water Quantity and Water Quality**

When asked what the biggest challenge to wetlands management is around the Great Salt Lake, many individuals involved in wetland management and conservation responded that it is water quantity and water quality. With a rapidly growing population along Utah's Wasatch Front, the demand for water continues to stretch and increased urbanization continues to impact water quality in the Great Salt Lake. Determining how to manage wetlands with a limited quantity of water and dealing with water quality issues will continue to present challenges to wetland conservation.

Organizations involved in wetland conservation are already grappling with the challenges produced by a limited amount of water and water quality issues. Wetland management areas develop annual management plans to prioritize water use for wetland units

depending on the annual projected flow of water. Wetland partners are also coming together on water quality issues. Many organizations are involved with the Great Salt Lake Water Quality Steering Committee in setting numeric water quality standards for the Great Salt Lake, and the DEQ works with a Technical Advisory Committee to address nutrient issues in Farmington Bay. As mentioned in the discussion above about more comprehensive management of the Great Salt Lake, many wetland organizations are also starting to come together to think about addressing water quality issues from a watershed perspective. In addition, alternative futures studies by the Wasatch Front Regional Council of Governments and planned alternative futures studies as part of the Goals Project could contribute to better understanding of how to balance development and water conservation and quality.

### **Follow-up Recommendations**

While this summary report provides initial background information on Great Salt Lake conservation efforts, there are several additional areas that should be followed-up on.

- Gather more detailed information on the various SAMPs or local government wetlands/shorelands plans underway, determine a contact person for each, and find out what the progress is of each SAMP or plan.
- Obtain information on where wetland mitigation banks are located and who manages the mitigation banks.
- Get better information on the duck clubs—where they are located, who is responsible for wetland management at each of the duck clubs, and how they manage their properties. Tom Aldrich at DWR or Jack Ray at the Utah Waterfowl Association might be able to provide contacts for some of the duck clubs.
- Find out if Utah Department of Transportation projects are planned, in addition to Legacy Parkway, that might affect wetlands.
- Salt Lake County and possibly other Great Salt Lake counties will be undergoing Clean Water Act, Section 208 review for sewage treatment planning. Find out more information about this effort and coordinate where applicable. Wayne Martinson at the National Audubon Society may have more information about the Section 208 review.
- Complete a GIS database showing the location of wetland management areas, preserves, refuges, mitigation banks, duck clubs and other Great Salt Lake wetland areas. Tom Slabe and Karl Herman at EPA region 8 have begun this effort. Coordinate with Tom and Karl for completion of the GIS database. Tom and Karl could coordinate with the Utah Automated Geographic Reference Center (AGRC) for data as needed.

- Create a Web site for Great Salt Lake wetlands conservation information. Coordinate with Jill Minter and Rich Mylott at EPA Region 8. Jill and Rich sketched out initial plans for the creation of a Web site. The Web site could be a clearinghouse for Great Salt Lake wetland information, which could start with information provided in this report and grow to house information on the Goals Project, Wetlands Program Development Grant information related to the Great Salt Lake, and related Great Salt Lake wetlands efforts and activities.

**Appendix A**  
**Efforts Related to Great Salt Lake Wetland Conservation**

**Federal**

**Natural Resources Conservation Service**

- **Wetlands Reserve Program**

A voluntary program offering landowners the opportunity to protect, restore, and enhance wetlands on their property. The Natural Resources Conservation Service (NRCS) provides technical and financial support to help landowners with their wetland restoration efforts.

**U.S. Army Corps of Engineers**

- **Sacramento District Regulatory Program**

Administers day-to-day activities for Section 404 of the Clean Water Act, including individual and general permit decisions; conducts or verifies jurisdictional wetland determinations; develops Section 404 policy and guidance; and enforces Section 404 provisions.

- Bountiful Office
  - Flood Plain Management Services Study for Davis, Box Elder, Tooele and Weber Counties, and Salt Lake City: 100-year Flood for the Great Salt Lake, 1996

**U.S. Environmental Protection Agency**

- **Wetlands Program**

Develops and interprets Section 404 policy, guidance and environmental criteria used in evaluating permit applications; reviews and comments on individual Section 404 permit applications; has authority to elevate certain cases; enforces Section 404 provisions.

**U.S. Fish and Wildlife Service**

- **Bear River Migratory Bird Refuge**

Wildlife refuge located at the northern tip of the Great Salt Lake. 74,000-acre refuge consisting of marsh, wet meadows, ponds, mudflats and upland and supporting habitat for millions of shorebirds and waterfowl.

- **Bear River Migratory Bird Refuge Habitat Management Plan 2004**

Guides the management, protection and restoration of wildlife habitat on the refuge while integrating goals and objectives with other pertinent landscape scale plans.
- **Bear River Migratory Bird Refuge Annual Habitat Management Plan 2005**

Contains specific, detailed prescriptions for management of specific habitat as outlined in overview in the 2004 Habitat Management Plan.

- [Utah Partners for Fish and Wildlife](#)

Partners with local watershed teams, working groups, government agencies, non-governmental organizations (NGO), landowners and other interested organizations to set priorities for and complete riparian, wetland, in-stream and rangeland restoration projects.

### [Utah Reclamation Mitigation and Conservation Commission](#)

An executive branch agency of the federal government authorized under the Central Utah Project Completion Act to design, fund and implement projects to offset impacts to fish, wildlife and related recreation resources caused by the Central Utah Project and other federal reclamation projects in Utah.

- [Great Salt Lake Shorelands Preserve](#) (partner with The Nature Conservancy)

Wetlands preserve and visitor center on the east shore of the Great Salt Lake managed by The Nature Conservancy.

- [South Shore Ecological Reserve](#) (partner with National Audubon Society)

Wetland preserve on the south shore of the Great Salt Lake, containing a remnant of a historic delta of the Jordan River and the Lee Creek area. Owned by Audubon and Mitigation Commission and managed by Audubon.

## State of Utah

### [Department of Environmental Quality](#)

- [Division of Water Quality](#)

Protects, maintains and enhances the quality of Utah's surface and underground waters for appropriate beneficial uses.

- [Great Salt Lake Water Quality Steering Committee](#)

Stakeholder committee working with the Division of Water Quality (DWQ) to establish numeric water quality standards for the Great Salt Lake.

- Farmington Bay Technical Advisory Committee

Stakeholder committee working with the DWQ on water quality issues in Farmington Bay.

- Great Salt Lake Wetlands Monitoring and Assessment Strategy (to be completed)

### [Department of Natural Resources](#)

- [Division of Forestry, Fire and State Lands](#)

Manages all sovereign lands in Utah, including the sovereign lands of the Great Salt Lake.

- [Great Salt Lake Comprehensive Management Plan 2000](#)

A coordinated natural resources management plan for the lands and resources of the Great Salt Lake.

- **[Division of State Parks and Recreation](#)**

Manages many of Utah's natural and heritage resources, including Antelope Island State Park, Willard Bay State Park, and the Great Salt Lake Marina on the Great Salt Lake.

- **[Antelope Island State Park](#)**

The largest island in the Great Salt Lake. Located in the southeast portion of the lake. Managed for wildlife/habitat protection and preservation, and public recreation and education. Contains wetland habitat.

- **[Antelope Island State Park Wildlife Management Plan 2001](#)**

Contains comprehensive policies and programs for balancing habitat and wildlife management with increased visitation.

- **[Final Antelope Island Access Management Plan 2004](#)**

Defines visitor opportunities, emphasizes the protection of resources and preserves the values of solitude and openness.

- **[Great Salt Lake Marina](#)**

Located on the south shore of the Great Salt Lake. Provides views of and marina access to the Great Salt Lake.

- **[Willard Bay State Park](#)**

Fresh water reservoir located on the Great Salt Lake Floodplain east of Willard Bay.

- **[Division of Water Resources](#)**

Promotes the orderly and timely planning, conservation, development, utilization and protection of Utah's water resources.

- **[Utah's Water Resources: Planning for the Future 2001](#)**

Guidance and direction for local water planners and managers as well as the general public to meet future water-related planning and decision-making needs in Utah. Estimates Utah's available water supply, makes projections of water need, explores how these needs will most efficiently be met, and discusses water quality and the environment. Wetlands are included.

- **[Bear River Basin: Planning for the Future 2004](#)**

Guidance from Utah's Water Resources specific to the Bear River Basin.

- **[Jordan River Basin: Planning for the Future \(to be completed\)](#)**

- **[Weber River Basin: Planning for the Future 2004](#)**

Guidance from Utah's Water Resources specific to the Weber River Basin.

- **[Division of Water Rights](#)**

Administers the use of Utah's water based on established law and water rights. Administers Section 404 permit program for stream alterations.

- **[Division of Wildlife Resources](#)**

Manages Utah’s wildlife resources through protection, conservation and education.

- Five-year Waterbird Survey (to be completed)
- [Brine Shrimping](#) on the Great Salt Lake
- Northern Region Wetlands Conservation Strategy 2000  
 Contains information on essential wetlands and mitigation opportunities in the Northern Region; descriptions of wetland conservation issues and recommendations for each county in the Northern Region; and information on properties desirable for acquisition from willing sellers. Strategy may be obtained from Pam Kramer, DWR, Northern Region.
- [Utah Comprehensive Wildlife Conservation Strategy 2005](#)  
 Outlines Utah’s wildlife conservation priorities as required by the USFWS State Wildlife Grant Program. Identifies priority fish and wildlife species and their habitat, assesses threats to their survival, and identifies long-term conservation actions.
- Utah Wetland Conservation Strategy 1995  
 Comprehensive plan and strategies for management of Utah wetlands.
- Waterfowl Management Areas  
 Manage wetlands and associated habitat for conservation, wildlife habitat and public use.
  - [Farmington Bay Waterfowl Management Area](#)
  - [Harold Crane Waterfowl Management Area](#)
  - [Howard Slough Waterfowl Management Area](#)
  - [Locomotive Springs Waterfowl Management Area](#)
  - [Ogden Bay Waterfowl Management Area](#)
  - [Public Shooting Grounds Waterfowl Management Area](#)
  - [Salt Creek Waterfowl Management Area](#)
  - [Timpie Springs Waterfowl Management Area](#)
  - Willard Bay Upland Game Wildlife Management Area

**[Department of Transportation](#)**

- **[Legacy Parkway and Nature Preserve](#)**

Four-lane highway extending from I-215 at 2100 North in Salt Lake, northward to the junction of I-15 and U.S. 89 near Farmington, and mitigation wetland preserve along the east shore of the Great Salt Lake.

- Legacy Preserve Collaborative Design Team (CDT)  
 Plans procedures for ongoing and future management of the preserve.
- [Final Supplemental Environmental Impact Statement for Legacy Parkway](#)

NEPA document for construction of the Legacy Parkway.

**County**

**[Box Elder County](#)**

- [Box Elder County Comprehensive Wetlands Management Plan 1999](#)  
Sets wetlands goals for Box Elder County based on the county’s wetland ecosystem and socioeconomic needs and a desired future outcome.

**[Davis County](#)**

- [Davis County Shore Lands Vision](#)  
A comprehensive and collaborative vision for the nine communities bordering the east shore of the Great Salt Lake in Davis County to guide growth and development while preserving agricultural land and wetlands.

**[Salt Lake County](#)**

- [Salt Lake County Shorelands Plan 2003](#)  
Identifies areas suitable for development and critical for conservation as well as a desired future of the Great Salt Lake shorelands in Salt Lake County to provide a foundation for future planning.

**[Tooele County](#)**

- [Tooele Valley Wetlands SAMP](#) (process underway)  
Process to preserve, restore and enhance wetlands in Tooele Valley while allowing for responsible urban development.

**[Weber County](#)**

- [West Central Weber County General Plan 2003](#)  
Guidance document to help decision-makers evaluate development proposals and implement the desired future of the community.

**Local**

**[Salt Lake City](#)**

**Sewer Districts**

**[Wasatch Front Regional Council](#)**

- [Alternative Futures for Utah’s Wasatch Front](#)  
Alternative futures studies for the regional area containing Davis, Morgan, Salt Lake, Tooele and Weber counties. Use of population growth trend scenario, public survey and various future alternatives scenarios of regionally significant open space to determine where development and open space are compatible and where they may conflict.



- [Wasatch Front Regional Council Open Space Plan](#)

A conceptual, comprehensive plan that defines and identifies open space resources for the Davis, Morgan, Salt Lake, Tooele and Weber county region, and sets long-term goals for a desirable pattern of growth and protection of open space. Guidance for community refinement and implementation.

## NGOs

### [Ducks Unlimited Utah](#)

Conserves, restores and manages wetlands and associated habitat for North America’s waterfowl.

- [Great Salt Lake Wetlands Project](#)

Various projects for the conservation, restoration and management of Great Salt Lake wetlands funded through NAWCA grants—completed Phase I and II, and in the planning process for Phase III.

### [Envision Utah](#)

Public/private partnership to support a Quality Growth Strategy for Utah—a vision to protect Utah’s environment, economic strength and quality of life for generations to come.

### [Friends of the Bear River Refuge](#)

Partners with the USFWS to promote and conserve wildlife and habitat of the Bear River Migratory Bird Refuge.

### [Friends of the Great Salt Lake](#)

Organization that seeks to preserve and protect the Great Salt Lake ecosystem and to increase public awareness and appreciation of the lake through education, research and advocacy.

### **Great Salt Lake Alliance**

Brings together Great Salt Lake wetlands management entities, organizations involved in Great Salt Lake resource conservation and other experts to discuss Great Salt Lake issues and find common solutions to challenges.

### [National Audubon Society](#)

Conserves and restores natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth’s biological diversity.

- [South Shore Ecological Preserve](#)

Wetland preserve on the south shore of the Great Salt Lake, containing a remnant of a historic delta of the Jordan River and the Lee Creek area. Owned by Audubon and Mitigation Commission and managed by Audubon.

- [Utah Important Bird Areas Program](#)

A program to identify, monitor and conserve important bird areas in Utah, across

the United State and throughout the world. BirdLife international, based in England, is the worldwide organizer, and National Audubon Society is the BirdLife International partner for this effort in the U.S.

### **The Nature Conservancy Utah**

Seeks to preserve the plants, animals and natural communities that represent the diversity of life on earth by protecting the lands and waters they need to survive.

- **Great Salt Lake Shorelands Preserve**

Wetlands preserve and visitor center on the east shore of the Great Salt Lake.

### **Utah Waterfowl Association**

An association of waterfowlers that seeks protection of Utah's waterfowl and waterfowl habitat.

### **Utah Wetlands Foundation**

## **International Bird Conservation**

### **North American Waterbird Conservation Plan**

Provides an overarching continental framework and guide for conserving waterbirds and their habitat.

- **Intermountain West Waterbird Conservation Plan 2005**

Regional plan designed to implement the North American Waterbird Conservation Plan in the intermountain west region.

### **North American Waterfowl Management Plan**

An international strategy (Canada, Mexico and the U.S.) to restore waterfowl populations through habitat protection, restoration, and enhancement. International in scope but implemented at the regional level through public/private partnerships called joint ventures.

- **Intermountain West Joint Venture**

Public/private partnership formed as part of the North American Waterfowl Management Plan but committed to implementing the habitat goals of all major North American bird conservation initiatives in the intermountain west.

- **Intermountain West Joint Venture Coordinated Implementation Plan 2005**

Coordinates the needs of all priority birds in the IWJV with planning focal points on key geographies where priority birds and priority habitats come together (Great Salt Lake is one of these focal areas). Summary of the eleven state coordinated bird habitat conservation plans in the in the IWJV area.

- **Coordinated Implementation Plan for Bird Conservation in Utah 2005**  
(Utah Steering Committee for Intermountain West Joint Venture)

All bird implementation plan for Utah that contributes to the overall IWJV Implementation Plan and assists the IWJV Management Board in

considering and ranking various habitat protection, restoration and enhancement.

**Partners in Flight**

A public/private cooperative effort to combine the resources of public and private organizations in North and South America to coordinate hemispheric bird conservation.

- [Utah Partners in Flight Conservation Strategy 2002](#)  
 Prioritizes bird species and their habitat, sets objectives designed to determine which are most in need of immediate and continuing conservation efforts, and recommends appropriate conservation actions.

**U.S. Shorebird Conservation Plan**

A conservation strategy for migratory shorebirds and their habitats to ensure that adequate quantity and quality of habitat is maintained at the local level, and to maintain or restore shorebird populations at the continental and hemispheric levels. Designed to complement other existing bird conservation efforts.

- [Intermountain West Regional Shorebird Plan 2006](#)  
 Local implementation plans for the U.S. Shorebird Conservation Plan, including a focus on the Great Salt Lake.

**Colleges and Universities**

**University of Utah**

- [Utah Wetlands and Riparian Center](#)  
 Promotes understanding of wetlands issues and provides guidance for sensible development and management of wetlands and riparian resources, and promotes research beneficial to those resources.

**Utah State University**

- [Utah Wetlands Interpretive Network](#)  
 Provides information about wetlands of the Great Salt Lake ecosystem to the public and directs people to places where they can easily access and learn first-hand about the wetlands.

**Private**

**Duck Clubs**

**Kennecott Copper Corp.**

- [Inland Sea Shorebird Reserve](#)  
 Mitigation wetlands on the south shore of the Great Salt Lake. Managed for wetland and habitat conservation.

**Appendix B  
Great Salt Lake Partners Contact Information**

**Federal**

**Natural Resources Conservation Service**

**Wetlands Reserve Program**

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**State of Utah**

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**Department of Natural Resources**

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**Division of Water Rights**

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**Department of Transportation**

**Legacy Parkway and Nature Preserve**

**County**

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**Local**

**Sewer Districts**

**Salt Lake City**

**Wasatch Front Regional Council**

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**NGOs**

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**Utah Wetlands Foundation**

**International Bird Conservation**

**[North American Waterbird Conservation Plan](#)**

**[North American Waterfowl Management Plan](#)**

**[Intermountain West Joint Venture](#)**

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**[Partners in Flight](#)**

**[U.S. Shorebird Conservation Plan](#)**

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**[University of Utah](#)**

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**[Utah Wetlands Interpretive Network](#)**

**Private**

**Duck Clubs**

**[Kennecott Copper Corp.](#)**

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