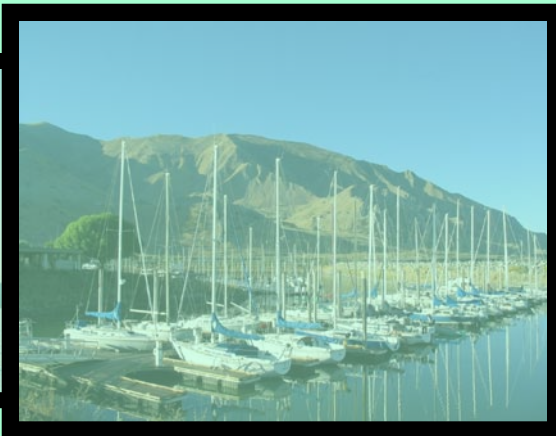


Great Salt Lake State Marina



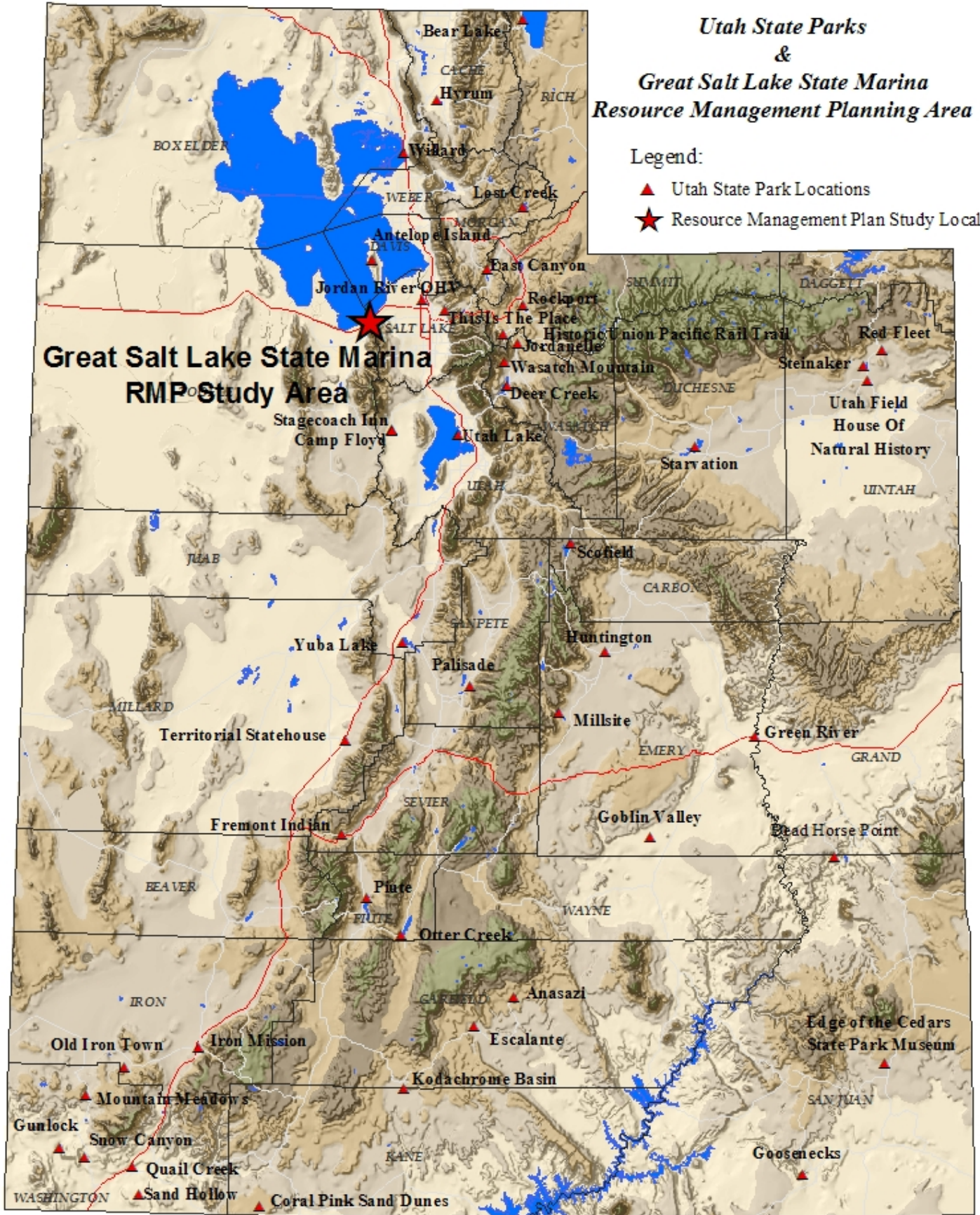
**Resource Management Plan
April 2007**



*Utah State Parks
&
Great Salt Lake State Marina
Resource Management Planning Area*

Legend:

- ▲ Utah State Park Locations
- ★ Resource Management Plan Study Locality



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Executive Summary

In October 2005, representatives from the Utah Division of State Parks and Recreation met with community stakeholders from northern Utah to initiate a resource planning effort for Great Salt Lake State Marina (GSLSM). The planning process was based on public input and involvement. The Great Salt Lake State Marina Resource Management Planning Team - a citizen-based team representing community leaders, interested users, local residents, Neighbors, and agency representatives – was at the core of the process. The recommendations contained in this document represent several months of work by the Team as well as direct public input.

The plan provides recommendations founded upon eight primary vision elements that will guide future management of GSLSM. These elements focus on the following:

- Developing, maintaining and enhancing facilities that offer safe and suitable water and land-based recreational opportunities for visitors
- Providing access to the marina, shoreline and lake for users at all water levels
- Providing management that preserves traditional recreational experiences, while being open to appropriate new activities
- Being a positive factor for local and state economic stability and tourism development
- Planning and cooperating with residents, civic groups, businesses and governmental agencies to accomplish the GSLSM's mission
- Protecting and preserving GSLSM resources and the greater Great Salt Lake (GSL) environment by exercising good stewardship practices
- Offering interpretive and educational programs that provide visitors the

opportunity to develop an appreciation of the GSLSM and the GSL's ecological, cultural and heritage resources

- Ensuring the GSLSM has adequate funding, staff, equipment and support

These objectives are geared towards improving and expanding the GSLSM's recreational opportunities, protecting its resources and providing the visitor with a safe, enjoyable experience. Achievement of these vision elements will require the continued support of users, legislative and community leaders, and the Division of State Parks and Recreation.

The Planning Team issued a number of specific recommendations in support of the plan's vision elements. Seven issue areas form the basis of the Team's recommendations. Each issue area with its accompanying recommendations is outlined as follows:

Facilities and Development

- Improve opportunities and associated facilities for current users and potential visitors to GSLSM.
 - ≈ Improve facilities for small vessels.
 - ≈ Enhance general boating facilities and access.
 - ≈ Offer non-boating access to the lake, beaches and other surrounding lands. Consider partnerships to manage some beach areas.
 - ≈ Develop public contact and interpretive/educational facilities.
- Improve water, sewer, and electric service.
 - ≈ Find a permanent water source and improve water system.
 - ≈ Upgrade current sewer system.
 - ≈ Find solution to electric service problems.

Interpretation and Education

- Develop interpretive and educational facilities and programs to educate visitors and others about the GSLSM's history, and natural and cultural resources.
 - ≈ Develop and implement an interpretive plan for the GSLSM.
 - ≈ Seek partnerships to provide interpretation.
 - ≈ Have staff available at a visitor center for interpretive opportunities.
 - ≈ Develop websites about the GSLSM.

Image and Marketing

- Improve public image of the GSL and GSLSM.
 - ≈ Develop partnerships to promote GSLSM.
 - ≈ Participate in regional Marketing.
 - ≈ Educate public about the natural history significance of perceived nuisance species.
 - ≈ Promote special events at GSLSM.
 - ≈ Make visits positive experiences by offering activities, and a clean, friendly atmosphere.
- Market GSLSM to attract additional visitors.
 - ≈ Market concession opportunities.
 - ≈ Develop a marketing plan for GSLSM.
 - ≈ Capitalize on public knowledge of the GSL.
 - ≈ Market to increase visitation only if additional facilities and opportunities are developed.

Concession Services

- Provide a variety of land and water-based concession services.
 - ≈ Provide convenience store with snack bar.
 - ≈ Variety of boat tour options.
 - ≈ Beach concessions if GSLSM has management role.

- ≈ Provide boat and kayak rentals and sailing, kayaking and rowing lessons.

Resource Management

- Protect resources in GSLSM and on adjacent lands.
 - ≈ Partner to provide cooperative management of south shore area to encourage proper use.
 - ≈ Provide signage to explain resource management and regulations for protection.
 - ≈ Develop spill and HAZMAT plans for Marina.
 - ≈ Provide enforcement patrols in GSLSM and surrounding areas.
 - ≈ Establish management practices for wetlands areas.
 - ≈ Collaborate to improve the appearance of areas near the GSLSM.

Land and Property Qualities and Limitations

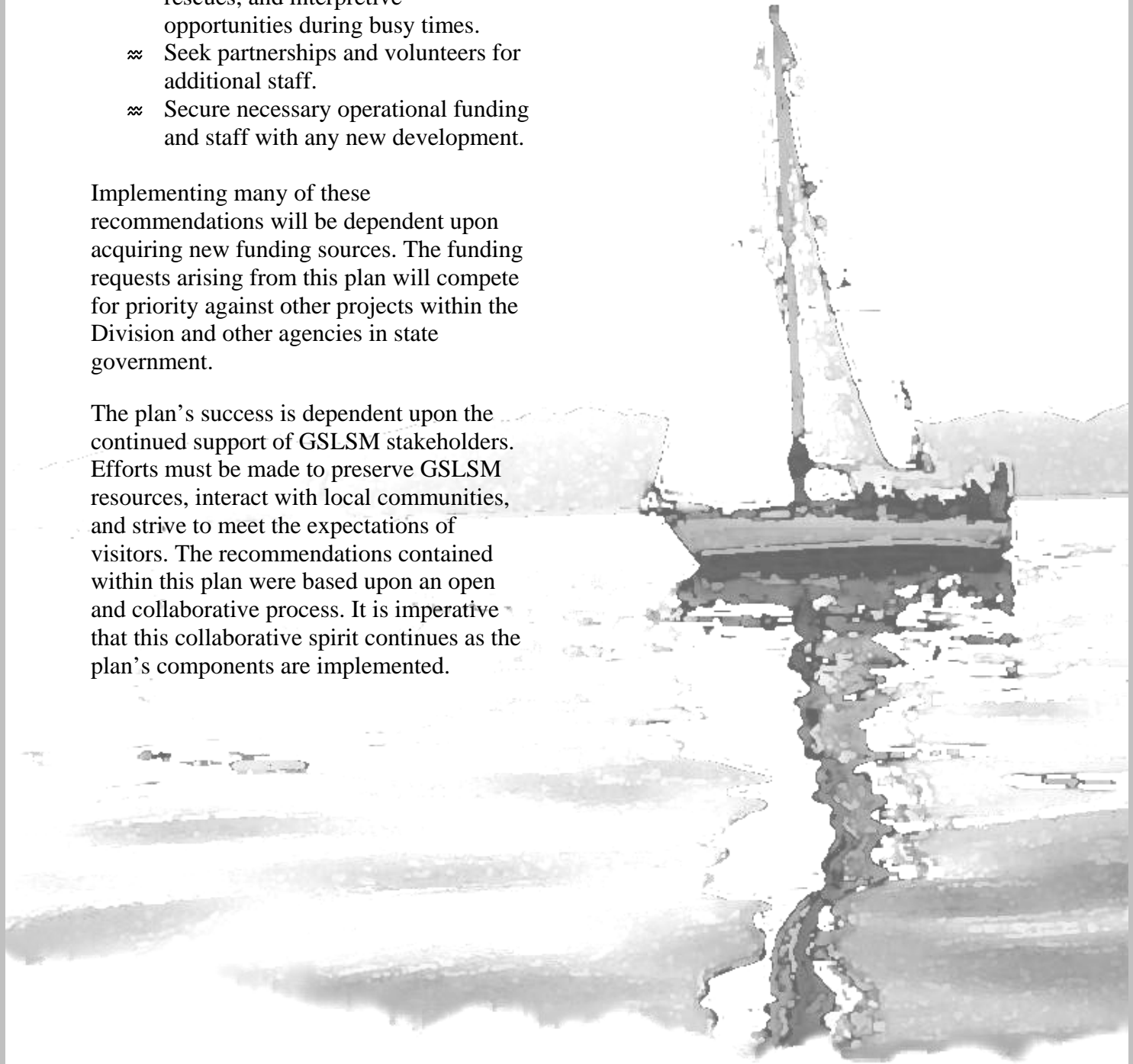
- Fluctuating lake levels.
 - ≈ Develop a contingency plan for high and low water levels.
 - ≈ Keep facilities modest and, perhaps, moveable because of changes in lake level and extreme weather.
- Protect GSLSM, visitors, and staff from severe weather events.
 - ≈ Design facilities for severe conditions.
 - ≈ Place signs warning of possible extreme conditions.
 - ≈ Monitor weather and warn visitors as appropriate.
 - ≈ Develop an extreme weather warning system.
- Find ways to fit more visitors and opportunities in GSLSM's limited land base.
 - ~ Create a site plan for GSLSM.

Staffing and Funding

- Adequately fund and staff the GSLSM to dispense information and provide safety and security to visitors, staff and property.
 - ≈ Add a harbor master position to the GSLSM.
 - ≈ Provide enough staff to supply safety education, weather warnings, rescues, and interpretive opportunities during busy times.
 - ≈ Seek partnerships and volunteers for additional staff.
 - ≈ Secure necessary operational funding and staff with any new development.

Implementing many of these recommendations will be dependent upon acquiring new funding sources. The funding requests arising from this plan will compete for priority against other projects within the Division and other agencies in state government.

The plan's success is dependent upon the continued support of GSLSM stakeholders. Efforts must be made to preserve GSLSM resources, interact with local communities, and strive to meet the expectations of visitors. The recommendations contained within this plan were based upon an open and collaborative process. It is imperative that this collaborative spirit continues as the plan's components are implemented.



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Mission and Vision

Mission Statement

Mission Statement

The mission of the Great Salt Lake State Marina is to provide and manage facilities for a variety of safe and desirable water and land-based recreational and educational opportunities, protect and enhance park resources, and have a positive impact on local and state economies.

Team Members developed the mission statement recognizing that the GSLSM is an important provider of recreational opportunities in northwestern Utah. The Team also recognized that the GSLSM has many unique features and facilities that need to be protected and preserved for the future, while being enjoyed by visitors.

Vision Statement

A vision statement is like a compass; it charts a destination, sets the Team and GSLSM on the correct course of action, and provides the means to determine how closely the Team's recommendations follow that charted course. Utilizing the basic principles developed in the mission statement, the Team created a vision to guide the development of the plan's recommendations and GSLSM management for the next few years. The vision statement provides the foundation for recommendations that balance recreational demands with preservation of the GSLSM's resources, offer new and varied opportunities, and encourage community involvement.

Vision Statement

Great Salt Lake State Marina will accomplish its mission by:

- ≈ Developing, maintaining and enhancing facilities that offer safe and suitable water and land-based recreational opportunities for visitors
- ≈ Providing access to the marina, shoreline and lake for users at all water levels
- ≈ Providing management that preserves traditional recreational experiences, while being open to appropriate new activities
- ≈ Being a positive factor for local and state economic stability and tourism development
- ≈ Planning and cooperating with residents, civic groups, businesses and governmental agencies to accomplish the Park's mission
- ≈ Protecting and preserving park resources and the greater Great Salt Lake environment by exercising good stewardship practices
- ≈ Offering interpretive and educational programs that provide visitors the opportunity to develop an appreciation of the Park and the Great Salt Lake's ecological, cultural and heritage resources
- ≈ Ensuring the Park has adequate funding, staff, equipment and support

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Resource Management Plan Purpose and Process

Purpose of the Plan

This resource management plan (RMP) is intended to help guide the Utah Division of State Parks and Recreation's (Division) stewardship obligations for Great Salt Lake State Marina (GSLSM). Planning for the GSLSM is essential, given the unique and fragile character of the area's natural and cultural resources, viewshed, and the large numbers of people visiting the Marina.



Great Salt Lake State Marina

GSLSM is located on the south shore of the Great Salt Lake, 17 miles west of Salt Lake City on I-80, Exit 104. GSLSM provides the only public facilities on the south shore of the Lake. Its placement on highway maps of the State, and its location on a major east-west travel route attract many tourists and other visitors seeking to experience the famous Lake. In the past, the GSLSM managed the marina and adjacent beach areas with a variety of public facilities. Its current land base includes only the marina and a small amount of surrounding land.

A number of issues ranging from facility development to staffing and funding were identified from various sources including input from planning team members, and the general public through a public meeting and

a visitor survey. Team members aggregated the issues into seven distinct categories or issue areas addressing: facilities and development; interpretation and education; image and marketing; concession services; resource management; land and property qualities and limitations; and staffing and funding. This plan and its recommendations address each of the issue areas. It provides flexible guidelines for the management and development of the GSLSM over the next five to ten years. More importantly, the plan is based on a foundation of public input and consensus of the key stakeholders rather than by the unilateral direction of the Division of State Parks and Recreation.

The Planning Process

Planning for an outstanding recreational resource such as GSLSM is required for the protection of this unique area and to ensure the efficient and effective expenditure of state and local funds. It is necessary for the long-term protection and public enjoyment of the GSLSM's many opportunities and resources. This RMP is required by the Utah State Legislature and the Board of the Utah Division of State Parks and Recreation to guide short and long-term management and capital development.

The Division's long-range strategic plan, Vision 2010, outlines the required planning actions needed to effectively meet customer recreational and leisure needs for the next five to 10 years. Vision 2010 identifies resource management planning as essential to the effective administration and operation of all parks in the agency's system. Under the guidance of Vision 2010, each RMP is developed around one core concept: meeting the needs and expectations of customers, visitors, and the citizens of the state of Utah,

while protecting each park's unique resource base. In short, the process is "customer driven and resource-based."

The planning process recommends limits of acceptable change or modification and a future vision for the GSLSM. Specifically, the process: (1) recognizes impacts will result from use and enjoyment of the site; (2) defines how much and what types of impacts may be accommodated while providing reasonable protection of the resources for future visitors; (3) incorporates values of resource sustainability, quality facilities, education and interpretation for visitors; and (4) seeks to determine the conditions under which this can be attained.

In November 2005, Division representatives met with community stakeholders to familiarize them with the planning process and the need for creating a resource management plan for GSLSM. During this meeting, the Division solicited the names of community members and various users with an interest and expertise in the GSLSM to serve as members of a Resource Management Planning Team. Team members were selected from the list generated by the stakeholders.

All team members participated on a voluntary basis and expressed a willingness to sacrifice a significant portion of their time and expertise to the process. Eleven individuals were selected to serve on the Planning Team and two representatives from the Division served as staff to the Team.

The Team participated in a public meeting in Salt Lake City that was facilitated by Division planners. This meeting was an opportunity for the public to provide input for the Planning Team to consider as they developed issues and recommendations for the GSLSM. The Team met five times

between January and August 2006 to develop issues and recommendations for the GSLSM.

About the Great Salt Lake State Marina

GSLSM History

The first developed recreation site was established on the south shore of the GSL in 1870. Since that time, the south shore has been the on-and-off again home to seven different resorts in seven different locations (Lake Point, Garfield, Black Rock, Sunset, Silver Sands, Sand Pebble, and Saltair). Only three of these resorts remained at the time the Great Salt Lake State Park (Marina) was established in 1975. The park and marina initially included all the shore between Black Rock and the original Saltair resort site. This seven-mile stretch within the park encompassed most of the historical beaches.



Saltair Resort 1960s

Under lease from Utah State Parks and Recreation, a new Saltair resort was built at Sand Pebble Beach in 1981. The building was an aircraft hanger that was relocated to the site and remodeled “as a smaller recreation of a grand Moorish pavilion”. Soon after both the resort and marina were flooded during the lake’s high water years from 1983 to 1987.

GSLSM was reopened in 1987. The marina breakwaters were raised and strengthened. Improvements were made to parking and the boat launch. Additional docks were added to the north end of the marina. The Great Salt Lake Yacht Club helped to establish a

clubhouse at the marina in 1992 and now shares the building with GSLSM staff.

Beaches to the east of the new Salt Air building were reopened in 1987 with some success but Utah Parks and Recreation relinquished these lands to the Utah Division of Forestry, Fire and State Lands, which has management authority over state sovereign lands, in 1997. The beaches are no longer actively managed for recreation. The beaches between Black Rock and the marina where not reopened. According to GSLSM staff, the beaches were damaged during the flood years in the 1980s, with mud and silt mixing with the oolitic sands that made the beaches attractive.

Physical Setting and Facilities

GSLSM is located on the south shore of the Great Salt Lake in Salt Lake County near the Tooele County border, 17 miles west of Salt Lake City on I-80, Exit 104. The GSLSM contains approximately 162 acres that include the marina proper and some area along the access road and shoreline.

Amenities at the GSLSM include year-round boat launch, 320 boat slips, restrooms, GSLSM office, and scenic viewpoint.

Climate

The climate at GSLSM is temperate and semi-arid, with annual precipitation averaging about 17 inches. From June through early September thunderstorms advance from the Pacific Ocean off the coast of Mexico and Southern California. Frontal-type storms out of the Northwest move through the area from October through June.

The highest amount of precipitation occurs in the spring from March through May. Summer temperatures vary approximately 20 degrees F, with highs in the 80s and 90s

and lows in the 60s. Winters at GSLSM have a temperature range of about 15 degrees F; with highs in the upper 30s or low 40s and lows in the 20s. Annual snowfall at the GSLSM generally averages 23 inches.

The south shore of Great Salt Lake is known among the boating community for its sudden, strong winds referred to as the “Tooele Twister”. GSLSM has suffered damage due to high winds on a number of occasions.



GSLSM Visitation

Visitation to GSLSM had been relatively steady from the late 1990s to 2003 at approximately 130,000 visitors per year. Since 2003, there has been a decline in annual visitation to around 58,000 (Figure 1), possibly due to low lake levels, caused by years of drought or construction at the GSLSM.

Figure 1: Great Salt Lake State Marina Visitation 1999-2005

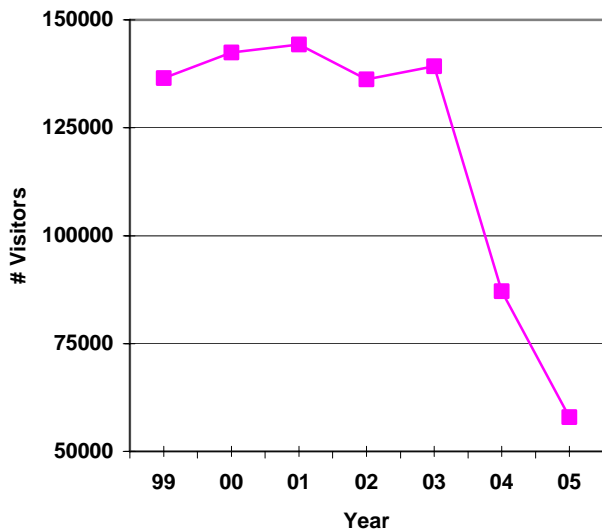
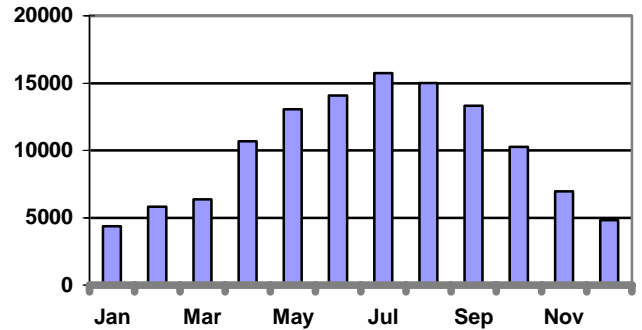


Figure 2: Average Monthly Visitation 1999-2005



Visits are seasonal, with most visits occurring from April through October. However, the GSLSM does receive an average between 4,000 and 7,000 visitors per month during the off-season months of November through March. (Figures II) This level of visitation is a fraction of what was reported prior to the flooding of the 1980s, when the GSLSM was much larger in size.

Demographic and Socioeconomic Information

According to the 2000 census report, Salt Lake County had a population of 898,387. Salt Lake City, with a population of 181,743, is the largest city in the State. It accounted for 20 percent of the county's population. While Salt Lake County is Utah's 24th-largest county in terms of land area, it is the State's most populous, accounting for 40 percent of the State's total population. In 2000, the County had a population density of 1,176 persons per square mile, and a housing density of 407 housing units per square mile.

In 2000, the U.S. Bureau of Census reported that Salt Lake County had a per capita income of \$20,190, compared to \$18,185 for Utah as whole. The unemployment rate in the County was 3.2 percent, compared to 3.4 percent for the entire state.

The largest industry segment providing employment was the education, health and social services segment providing 17.3 percent of employment in the County. The retail trade segment was next providing 12.2 percent of jobs. Manufacturing accounted for 11.3 percent of total employment.

The 2000 census showed that Tooele County had a population of 40,735. Tooele County's largest city, Tooele City, had a population of 22,502, accounting for 55 percent of the County's total population. Tooele is Utah's second largest county by area, but only ranks eighth in population. According to the census, the County had a population density of 5.9 persons per square mile, and a housing density of 2.0 housing units per square mile.

In 2000, Tooele County had a per capita income of \$16,321. The unemployment rate in the County was 3.8 percent.

The largest industry segment identified for Tooele County in the 2000 census was the Manufacturing segment, accounting for 13.7 percent of total employment. Retail trade accounted for 10.6, while the public administration segment provided 10.5 percent of total county employment.

A visitor survey conducted at the GSLSM in the summer of 2006 indicated that most visitors (60 percent) came from outside of Utah. Only four percent of all respondents came from outside the United States.

Park Resources

One of the GSLSM Planning Team's primary vision elements is protecting and preserving GSLSM resources and the greater GSL environment by exercising good stewardship practices. To do this, the planning process calls for an inventory and analysis of GSLSM resources. It is essential that management decisions affecting the GSLSM's natural environment be based on reliable scientific information. This section provides an analysis of GSLSM's geological, biological, and cultural resources. A natural hazards analysis is also included.

Geological Resources

The GSL averages approximately 75 miles long by 35 miles wide at a surface elevation of about 4,200 feet. At this elevation, the lake covers an area of 1,034,000 acres, and has a maximum depth of about 33 feet. It is reported to be the 33rd largest lake (by surface area) in the world, and the largest fresh or saltwater lake in the United States with exception of the Great Lakes. Its size and depth, however, vary both seasonally and over the long term. The magnitude of these changes depends on the balance between the total amount of water entering and evaporating from the lake.

On average, the lake level fluctuates one to two feet annually, rising to its highest level during May through July (following the melting of the mountain snow pack) and dropping to its lowest point during October through November (after the hot summer months).

In historical time (1847 to present), fluctuations of the lake level have varied over a range of 20 feet from a low of 4,191.35 feet in 1963 to a high of 4,211.85 feet in 1986-1987. The historical average elevation of the lake is about 4,200 feet.

Because of the very shallow nature of the lake, even modest changes in its elevation result in relatively large changes in the lake's area and volume.

GSL receives water from four main rivers and numerous small streams (66 percent), direct precipitation into the lake (31 percent), and from ground water (3 percent). The total average annual inflow to the lake is about 2.9 million acre-feet of water.

The main rivers entering the lake are the Bear River from the north, the Weber and Ogden Rivers from the east, and the Jordan River from the south. The drainage basin of the lake covers an area of about 21,500 square miles.

The GSL is a terminal lake because it has no surface outlet (rivers flowing from it). Water is lost from the lake mostly through evaporation. Evaporation rates are highest during the hot summer months and lowest during the winter. An average of about 2.9 million acre-feet of water evaporates from the lake annually. When inflow equals evaporation, the level of the lake remains constant. If inflow is greater or less than evaporation, the level of the lake will rise or fall, respectively.

The chemical composition of GSL is similar to that of typical ocean water. Sodium and chloride are the major ions in the water, followed by sulfate, magnesium, calcium, and potassium.

The lake contains 11 recognized islands, although this number varies depending on the level of the lake. Seven islands are in the southern portion of the lake and four in the northwestern portion. The large islands in the southern portion are named Antelope, Stansbury, Fremont, and Carrington. The

smaller islands are named Badger, Hat (Bird), and Egg. The four small islands in the northwestern portion are Dolphin, Gunnison, Cub, and Strong's Knob.

Paleontological Resources

The ground surface of the GSLSM is either lake sediment or fill material. There are no known paleontological resources in the GSLSM.

Biological Resources

The GSL is internationally recognized as an important body of water for wildlife, in particular, migratory shorebirds.

The Western Hemispheric Reserve Network (a network of international governmental and private agencies working together for shorebird conservation) has designated the GSL as a "Hemispheric Reserve." This designation shows the GSL's importance in a bird migration corridor that stretches from the Arctic to the tip of South America.

Hundreds of thousands of Wilson's and red-necked phalaropes, American avocets, black-necked stilts, and eared grebes use the GSL as a refueling station in their migrations. The Lake also has the world's largest nesting populations of California gulls and white-faced ibis.

The Lake attracts these phenomenal numbers and species of birds because of its unique aquatic biology. Nutrients flow into the lake where algae and bacteria utilize them. The algae and bacteria are consumed by brine shrimp and brine flies, that provide a tremendous food supply for birds and other species that birds feed on.

The GSL ecosystem has a variety of habitat types, all of which can be found in the

GSLSM vicinity. Each of these is important to the variety of wildlife using the area. Fresh and salt water interfaces are created where flowing fresh water intrudes directly into the lake such as at the outflows of several small streams entering the lake from the east shore. These areas provide important foraging areas for breeding and brooding summer shorebirds and for staging shorebirds.

Mud and sand flats, beaches, and salt playas occur in many places along the Lake's shoreline. These locations support the huge numbers of brine flies, and provide important nesting habitat for snowy plovers, as well as vital foraging and staging areas for numerous shorebirds.

Geographic location and man-made structures cause variances in salinity throughout the lake. These variances provide habitat to the plants and animals that have adapted to exploit them.

There are four species from the State's Sensitive Species List that use the Lake and may occasionally use GSLSM.

Threatened Species:

- ▶ **Bald Eagle, *Haliaeetus leucocephalus***
The bald eagle is the only eagle unique to North America. Decreasing populations caused the U.S. Fish and Wildlife Service to list the eagle as endangered in 1965. Populations have been increasing and the species designation was changed to threatened in 1995. Despite the recovery, only a few nests have been found in Utah. In the GSL, the fresh water/salt water interface areas, where fish and waterfowl prey are found, are important habitat for these eagles. The area around GSLSM is not known to be important habitat for this species.

Species of Concern:

- ▶ **Short-eared Owl, *Asio flammeus***
This ground nesting owl is found in open grasslands, and occasionally salt marshes. It is found statewide, but populations have been decreasing, possibly due to loss of habitat. They have been identified at Farmington Bay, but not in the GSLSM area.
- ▶ **Long-billed Curlew, *Numenius americanus***
This large shorebird nests in dry grasslands where sufficient cover exists. The shoreline of the GSL is an important breeding area for this species. Loss of habitat, especially along the eastside of the Lake, has caused decreases in population of this bird.



American White Pelicans

Photo courtesy of the Division of Wildlife Resources and Great Salt Lake Ecosystem Project

- ▶ **American White Pelican, *Pelecanus erythrorhynchos***
Gunnison Island in the GSL is one of only four breeding colonies for this bird in North America, and is the only one remaining in the GSL complex. The pelican's low reproductive potential and high sensitivity to disturbance have caused reductions in populations.

These four species are not known to nest or breed in the vicinity of GSLSM, but some may forage in the area. The GSLSM will consult with Division biologists and/or the Utah Division of Wildlife Resources to determine impacts on wildlife species prior to any new development.

Cultural Resources

Humans have inhabited and used the shoreline of the GSL for at least 10,000 years. The earliest people were hunter-gatherers, surviving by hunting game and collecting wild plants. Evidence shows that the Fremont culture began farming in the vicinity of the lake around 2,000 years ago. The Fremont period ended about AD 1300.

Around AD 1000, other people moved into the area from the west and northwest. The Northwestern Shoshone lived in what was to become northern Utah and southeastern Idaho. The Northern Utes ranged throughout the area, and the Goshute lived in the area southwest of the GSL.

There are no known cultural resources located in the GSLSM, but any development activities must follow Division guidelines and state law with regards to cultural resources.

Natural Hazards Analysis

The Utah Division of Emergency Services and Homeland Security conducted a natural hazards analysis for GSLSM during the summer of 2006. This study discussed the risks associated with flooding, severe weather, drought, earthquake activity, and drought.

The wet-year rise of the GSL (as in the early 1980s) is now controlled by pumping water

into the west desert. So high water flooding should no longer be a problem.

The Division of Water Resources maintains the pumps and pumping operation. GSLSM management should work closely with Water Resources to monitor the level of the lake.

A significant earthquake in the Salt Lake Valley could cause some damage to GSLSM buildings and infrastructure due to ground shaking and liquefaction. A large earthquake could also have a financial impact on the park due to reduced recreation activity.

The GSLSM has had severe weather events in the past that have produced high winds that have damaged state and private property. Severe storms can also produce lightning, heavy rain, and hail that can injure people and damage property. A storm in 2005 lifted a dock from the water and deposited it in a parking lot 100 yards away. It also turned vessels upside down, blew fencing out of the ground, and lifted a restroom roof and set it back down on the structure askew.

The GSLSM should monitor weather and disseminate critical weather situations to GSLSM visitors. Facilities should be constructed to withstand severe weather.

Drought can lower water levels to a point that the marina can no longer support boating and recreation activities.

Natural hazards can create safety concerns for visitors and staff, damage GSLSM facilities, and have detrimental effects on the economy of the GSLSM and area by interrupting access and use of the GSLSM.



American Avocets

Photo courtesy of the Division of Wildlife Resources and Great Salt Lake Ecosystem Project

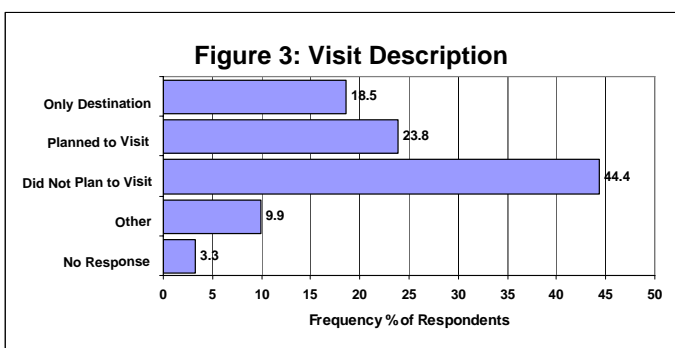
Visitor Survey

Summary of Results

The Division of State Parks and Recreation administered a visitor survey from May 28 to September 6, 2006. The survey was conducted to achieve a better understanding of GSLSM visitors, their satisfaction with existing facilities and services, and their opinions about development and recreation at GSLSM. Survey results were incorporated into the planning process in the development of recommendations. It is important to note that the survey results reflect visitor use patterns during the study period only. Moreover, several factors contributed to a lower than normal response rate. Consequently, a non-response bias may exist. One must be careful in using the results to draw generalized conclusions about the population of users who visited GSLSM during the study period. With these limitations in mind, respondents noted several items of interest that are summarized below. This information provides important insight about visitor use patterns, activities, needs and concerns.

MARINA NOT A DESTINATION PARK

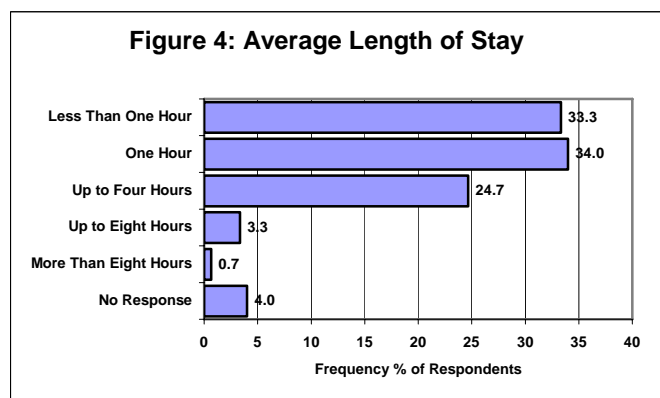
Less than 19 percent of respondents indicated that GSLSM was their main destination. Twenty-four percent listed the GSLSM as one stop in several made during their trip. Nearly half of those responding (44.4 percent) indicated that the Marina was an unplanned stop.



MOST VISITORS DISCOVERED THE GSLSM BY ACCIDENT

Twenty-eight percent of respondents said they heard about the GSLSM by word of mouth. Twenty-two percent indicated that they discovered the GSLSM by seeing highway signs. Nearly 11 percent of respondents said they found out about the GSLSM from publications or tour guides. Nine percent indicated they knew about it because they had boats in the marina.

SHORT VISITS



Most visits (67 percent) to the GSLSM were one hour or less in duration.

MOST VISITORS LIVE OUTSIDE OF UTAH

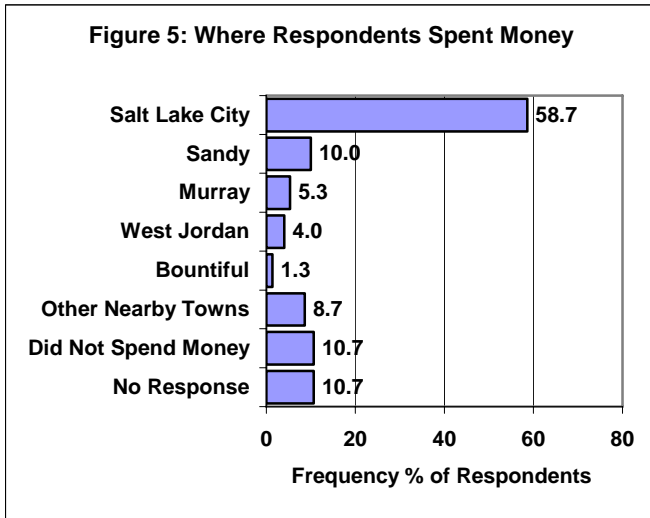
Only 40 percent of respondents were from Utah. Ten percent were from pacific coast states, and eight percent were from mountain states other than Utah. Only four percent of respondents were international visitors.

SIGHTSEEING THE TOP ACTIVITY

Sixty-four percent of respondents said they participated in sightseeing, with 53 percent listing it as their primary activity. Other primary activities included rowing and

boating (8.7 percent), sailing (6 percent), and swimming and wildlife viewing (4 percent each).

MOST RESPONDENTS SPENT MONEY IN NEARBY COMMUNITIES



Note: The total may exceed 100% due to multiple responses.

Respondents provided information on their groups' expenditures for motels/hotels, campgrounds, restaurants, vehicles, activities, and supplies. Eighty-eight percent indicated that they made such purchases in nearby towns. Almost 59 percent spent money in Salt Lake City.

Other towns where respondents spent money included Sandy, Murray, West Jordan, Bountiful, Tooele, Grantsville, Park City, Magna, Provo, and West Valley.

ECONOMIC IMPACT

The contributions of Great Salt Lake Marina to the economies of Salt Lake and Tooele Counties were estimated using IMPLAN, a software program developed to assist in economic analysis. Visitation between 2005 and 2006 were markedly different (approximately 60,000 in 2005 in contrast to almost 140,000 in 2006 after a new visitation methods had been implemented). Therefore, two versions were run for Great

Salt Lake State Marina with both the visitation counts. Expenditures come from a 2006 survey done at Great Salt Lake State Marina. This same survey data estimates that about 60% of visitors to the state marina are from out-of-state, another 20% are local users on a casual visit and the final 20% are day users who use marina facilities. Per person expenditures for each of these groups is calculated as \$33.31, \$10.26 and \$26.06 respectively.

The model using 60,000 visitors to Great Salt Lake State Marina show the contribution of these visitors to be approximately \$1.5 million in direct expenditures and \$2.3 million in direct, indirect and induced impacts. (Estimates are in 2003 dollars). Total employment from all rounds of spending is approximately 35 part or full time jobs, with taxes (including income, social security, property and sales taxes) calculated to be \$630,000.

Running the model with the assumption of 140,000 visitors estimate the contribution to be 3.5 million and \$5.4 million in direct, indirect and induced impacts. Total employment in this scenario is 85 part and full time jobs, with taxes calculated at \$1.4 million.

Marina slip rental fees, operational funding, and employee salaries were not included in these calculations.

Issues and Recommendations

A number of issues ranging from enhancing facilities and visitor opportunities at the GSLSM, to staffing and funding, were addressed in the plan. Issues relating to natural resource management, concession services, interpretation and education, and marketing were also addressed. Each of these issues was identified by various means including input from planning team members, the public-at-large through a public meeting, and by a visitor survey. Team members and the public identified eleven major issues that were aggregated into seven distinct categories. An analytical technique used to determine the GSLSM's strengths, weaknesses, opportunities and future threats (known as a "SWOT" analysis) helped in the development of these issues. A specific description or statement summarizing each issue was constructed to clearly identify and articulate each problem or challenge.

A number of constraints (i.e.: available funding, sufficiency of staff, facility location and design, and federal regulations, etc.) will need to be addressed prior to issue resolution. Team members, planning staff and division experts identified some of the limiting factors that may hinder implementation of a specific team recommendation.

The Planning Team developed specific recommendations for the identified issues. The Team's recommendations were arrived at by consensus of opinion. The Team also emphasized that recommendations be consistent with the mission and vision statements.

The six issue areas forming the basis of the Team's recommendations include: (1) facilities and development; (2) interpretation and education; (3) image and marketing; (4) concession services; (5) resource



management; (6) land and property qualities and limitations; (7) staffing and funding.

Facilities and Development

The public and Planning Team identified a number of ways to enhance opportunities for current and potential users of the GSLSM. Most of the use at the GSLSM is either boating related or very short sightseeing visits. The GSLSM's current land base and facilities limit visitor opportunities. To attract new, and return visitors, the GSLSM needs to provide additional recreational facilities and opportunities.

Issue Area: Facilities and Development

Key Issues:

-  Improve opportunities and associated facilities for current users and potential visitors to park.
- ≈ Improve facilities for small vessels.
- ≈ Enhance general boating facilities and access.
- ≈ Offer non-boating access to the lake, beaches and other surrounding lands. Consider partnerships to manage some beach areas.
- ≈ Develop public contact and interpretive/educational facilities.
- ≈ Improve telephone and Internet service.
-  Improve water, sewer, and electric service.
- ≈ Find a permanent water source and improve water system for culinary and fire suppression needs.
- ≈ Test current water line for water loss and repair as necessary.
- ≈ Upgrade current sewer system.
- ≈ Find solution to electric service problems.

Issue: Improve Opportunities and Associated Facilities for Current Users and Potential Visitors to the GSLSM

Other than basic boat-launching facilities, rental slips, and a static viewing platform, there is little to offer current visitors to the GSLSM, and to attract new visitors. The Planning Team identified a number of improvements to enhance opportunities for visitors. The Team felt that the GSLSM should develop facilities that accommodate different intensities of visits, including groups, casual sightseers, water-based use, and nature enthusiasts.

Recommendations

1. Improve facilities and access for small vessels (rowing and kayak).

- A. Improve access from small vessel storage area to docks.
- B. Provide more parking near the small vessel storage area to alleviate bottlenecks.
- C. Install wider docks and put hose bibs closer to docks near small vessel area.

2. Enhance general boating facilities and access.

- A. Dredge marina mouth, main fairway and E-dock fairway to accommodate large boats with a 7-foot draft at a lake level of 4195.
- B. Provide a mast-rigging station and crane station to improve access and convenience for larger boats.
- C. Develop overnight facilities for marina users, including showers, rinse station and designated areas for overnight parking for motorhomes of boaters (should not take up parking near docks and day-use facilities).
- D. Increase number of slips by adding another dock in the rear portion of the marina.

3. Offer non-boating access to the lake, beaches, and other surrounding lands.

- A. Manage in partnership with the Utah Division of Forestry, Fire and State Lands (DFFSL), the beach between Black Rock and the Marina, and provide day-use facilities including showers, sandy beach, boardwalks, restrooms, and possibly concessions. Work with DFFSL to determine the status and conditions of their lease at Black Rock (with the improvements to the marina at Antelope Island, would the lessee give up lease?).



Beach use near Marina in 1970s

- B. Manage in partnership with the DFFSL, the beach between Saltair and the Marina, and provide day-use facilities including showers, sandy beach, boardwalks, restrooms, and possibly concessions.
- C. Provide paths, stairs ramps, etc. down to beaches from the Marina along with showers or rinse-off stations.
- D. Build facilities that accommodate changing water levels, such as facilities on boardwalks or raised platforms, or fixed facilities above 4217 in elevation.
- E. Build, or encourage the construction of, trails for a variety of use types;

including hiking, bird watching (boardwalks into wetlands areas), nature study, and biking. Due to the limited size of the GSLSM, this may require partnering with nearby land managers. With partners, consider ways to provide safe bicycling on the frontage road from the International Center to the GSLSM.

- F. Consider developing campsites along the south shore.
- G. Develop facilities for group use (consider amphitheater and group picnic facilities).
- H. Determine if GSLSM can be linked to Tooele County by trail system.
- I. Develop a visitor center with interpretive displays and sheltered vending machine area.
- J. Develop more attractive concession facilities (souvenir, convenience items, food, boat rentals and tours).
- K. Install better signage directing visitors to the GSLSM.

4. Develop public contact and interpretive/education facilities.

- A. Develop a visitor/information center with interpretive displays and sheltered vending machine area. Consider having the Salt Lake Convention and Travel Bureau or others partner in the operation.

5. Improve landline and cellular telephone service to the GSLSM, and consider installing a wireless Internet system for visitor use.

Issue: Improve Water, Sewer and Electric Service

The GSLSM has a number of potential utility and infrastructure problems. The Stansbury Improvement District (SPID) supplies water to the GSLSM through an eight-mile pipeline. The line is buried deep

(due to construction of Interstate 80). Consequently, major repairs could be costly and difficult. In May 2006, SPID tested the line for leakage and found the degree of water leakage or loss to be normal for a line of this size.

The SPID supply is based on a temporary source from an agreement signed in 1978. While SPID has no intention of cutting the water off in the short term, the GSLSM has no permanent water source. In addition, the GSLSM lacks sufficient water storage. Water resource experts estimate that approximately 400,000 gallons of storage may be needed to fully meet the water demands of the GSLSM and Saltair. While the marina can operate and function without large quantities of water storage, it is a more pressing issue at Saltair given the peak capacities the venue is required to support.

SPID indicated that they might not be able to supply the GSLSM with water indefinitely. They may need the water used at the GSLSM to supply their rapidly growing community; also they are worried about possible problems and potential liability with the water supply line.

Sewage is removed from the GSLSM via an approximately five-mile long pipeline, with five pumping stations, that ends in several sewer ponds. The Department of Environmental Quality, Division of Water Quality (Water Quality) recommended sizing the sewer system for the current use. The current system is designed for much more effluent than the GSLSM and Saltair currently produce, and the lines and pump stations are old enough that they require frequent repairs.

The state conducted exploratory work in spring 2006 to video camera portions of the sewer line. The effort showed the line to be

in reasonably good condition, particularly under areas of concern where large riprap embankment was placed during the flooding events of the 1980s. However, there are concerns that the costs to upgrade the current systems to meet Water Quality standards are excessive. State Parks partnered with DFFSL and sought Division of Facility and Construction Management (DFCM) improvement funds in fiscal year 2005 to improve the system. Several approved designs have been proposed and funded by State Parks, DFFSL and DFCM. DFCM solicited contractors for the project in 2005 and 2006. None of the bids received were within the current budget.

The water and sewer lines also service the Saltair Resort. Saltair is a private business that operates by contract on DFFSL property. Saltair's main feature is a large building that is currently used for holding rock concerts. The contract with Saltair was issued by State Parks when they managed the area surrounding the resort. The contract may obligate the Division and the DFFSL to maintain water and sewer at the Saltair site.

The GSLSM staff has indicated that they have had problems with the electric service in the form of frequent power outages.

Recommendations

- 1. Find a permanent water source and develop sufficient storage and conveyance infrastructure for culinary needs and fire suppression at the GSLSM and for any contractual obligations.**
- 2. Test current water line for water loss, and repair as necessary.**
- 3. Upgrade the current sewer system servicing the GSLSM and Saltair.**
- 4. The GSLSM staff needs to work with their electric service supplier and the**

State Park Development Section to find a solution to the electric service problems.


Interpretation and Education

The GSL is awash with interesting natural and cultural history stories that could be interpreted at the GSLSM, but visitors are currently offered few opportunities to learn about the area. The GSLSM has a number of challenges that interpretation and education could help with, including vandalism and damage to resources, lack of community and other support, and a negative image of the Lake.

The geology and geography of the Lake and surrounding area is complex and interesting. The Lake and its shoreline has a rich human history, from prehistoric people hunting along the shoreline, to early European explorers, Mormon settlers, and recreational use. Providing interpretation and education at the GSLSM and in surrounding communities can increase visitor enjoyment, boost visitation, and develop needed support for the GSLSM.

Issue Area: Interpretation and Education

Key Issues:

-  **Develop interpretive and educational facilities and programs to educate visitors and others about the Park's history, and natural and cultural resources.**
- ≈ **Develop and implement an interpretive plan for the Park.**
- ≈ **Seek partnerships to provide interpretation.**
- ≈ **Have staff available at a visitor center for interpretive opportunities.**
- ≈ **Develop websites about the Park.**

Issue: Develop Interpretive and Educational Facilities and Programs to Educate Visitors and Others about the GSLSM’s History, and Natural and Cultural Resources

There is a need for the GSLSM to provide educational, interpretive and informational programs and materials that enhance visitor experiences, provide visitors an appreciation of the GSLSM and instill the need to preserve resources for future users.

The GSLSM needs a comprehensive interpretive plan to determine themes, goals and objectives for the GSLSM’s interpretive efforts. The plan would identify customers and their needs, problems areas, and the methods of interpretation to deal with these demands. Having a clear plan identifying objectives and methods will help the GSLSM compete for funding of the plan elements.

Lands managed by other governmental and private entities surround the Marina. Partnerships for interpretation and education that share staff and costs should be pursued. Coordination with these entities would also reduce duplication of efforts.

Recommendations:

1. **Develop and implement a comprehensive interpretive plan for the GSLSM. The plan may consider:**
 - A. Providing an interpretive description of the viewshed.
 - B. Developing interpretive exhibits explaining the GSL ecosystem.
 - C. Providing information on the lake’s bird life and lake’s importance to hemispheric migration.
 - D. Interpreting folklore involving the GSL.
 - E. Providing information about prehistoric use of the lake and shoreline.

- F. Explaining the industrial use of the lake
- G. Interpreting historic and current commercial and recreational boating on the GSL.
- H. Developing interpretive media describing the native plant communities (halophytic) along the lakeshore.
- I. Interpreting the exploration, pioneer and resort history of the GSL.
- J. Describing the geology of the lake including isostatic rebound, and basin and range.
- K. Providing interpretive materials about floods, pumps, droughts, and lake level fluctuations.
- L. Including geographic information about watershed and basin history, including Lake Bonneville.
- M. Providing weather information such as current forecast, hazards, and historic events (Tooele Twister, waterspouts, sudden weather changes).
- N. Training all GSLSM personnel to answer basic questions about GSL and its environs.



2. **Develop partnerships to provide interpretive information and activities.**
 - A. Partner with DFFSL; Division of Wildlife Resources, Local Audubon, Inland Sea Shorebird Reserve, Friends of the Great Salt Lake, etc. to provide interpretive information, materials, and activities. These partnerships would allow for pooling resources, and ensure that interpretive activities of different entities compliment, rather than duplicate, each other.
 - B. Develop partnerships with schools to use the GSL as part of their curriculum.
 - C. Partner with industries like Kennecott for interpretation and other opportunities.
3. **Have staff available on site at a visitor center for interpretive opportunities at busy times. The use of volunteers should be investigated.**
4. **Develop web sites to educate people about the GSL, and to provide information to potential volunteers about how they can help with activities at the GSLSM and adjacent lands.**

Image and Marketing

Visitation figures, visitor surveys, and statements from GSLSM staff indicate that the GSLSM is currently underutilized and is not reaching its potential to positively impact the local economy. There is a lack of knowledge about the GSLSM and its opportunities among potential users. Though in the past, the lakeshore was a major recreation destination, the public now has a generally negative image about the Lake and its shoreline (“smelly,” “buggy,” etc.). The



GSLSM needs to be promoted and marketed to attract more visitors and to reduce the negative public image. The Planning Team thought that more opportunities should be provided for visitors before heavily marketing the GSLSM.

Issue: Improve Public Image of the Great Salt Lake and Great Salt Lake State Marina

The negative public image of the Lake is primarily an issue along the Wasatch Front area of northern Utah. Efforts to improve the image should be directed mostly to the Wasatch Front. The Division should work with travel industry partners and others to market existing opportunities and to develop special events that attract visitors back to the south shore of the Lake. Clean up of some locations near the GSLSM is needed to make the area more attractive.

Issue Area: Image and Marketing

Key Issues:

-  Improve public image of the Great Salt Lake and Great Salt Lake State Marina.
 - ≈ Develop partnerships to promote Park.
 - ≈ Participate in regional Marketing.
 - ≈ Educate public about the natural history significance of perceived nuisance species.
 - ≈ Promote special events at the Park.
 - ≈ Make visits positive experiences by offering activities, and a clean, friendly atmosphere.
-  Market Park to attract additional visitors.
 - ≈ Market concession opportunities.
 - ≈ Develop a marketing plan for Park.
 - ≈ Capitalize on public knowledge of the Lake.
 - ≈ Market to increase visitation only if additional facilities and opportunities are developed.

Recommendations:

- 1. Develop partnerships with Salt Lake and Tooele Counties to encourage visitation.**
- 2. Increase public awareness by working with Utah Travel Council. Include reaching non-residents.**
- 3. Survey bus tour operators and passengers to see what we can offer to improve visits, and perhaps, lengthen stays.**
- 4. Clean up trash and other debris where necessary along the south shore. Make this a public special event.**
- 5. Marketing to hotel industry and associations to get them to promote the area to their customers.**
- 6. Participate in the Division's regional marketing efforts with Tooele County, Davis County, Weber County, and Salt Lake County.**
- 7. Educate the public about the natural history/ecosystem importance and seasonal nature of perceived nuisances (such as brine flies) to improve the public perception of the lakeshore.**
- 8. Promote special events such as days dedicated to different users—kite day, sail day, bird day, rowing day, and/or kayak day.**
- 9. Link marketing to Antelope Island and other recreation opportunities along Wasatch front.**
- 10. Advertise on-going GSLSM events, identifying the GSLSM as the host.**
- 11. Arrange for the GSL Yacht club to provide sailing seminars.**

- 12. Investigate public opportunities to watch sail races from shore (if possible get races to come closer to shore).**
- 13. Make visits positive experiences by offering activities, and a clean and friendly atmosphere. Provide daily clean up the dead flies/spider webs in public areas of the GSLSM.**
- 14. Develop programs and marketing to increase public stewardship of lake ecosystem.**
- 15. Use special interest groups, such as bird watchers, to develop and promote GSL opportunities.**

***Issue:* Market GSLSM to Attract Additional Visitors**

The Team felt that the GSLSM should support the concessionaire's marketing efforts, as long as they are compatible with the GSLSM's mission and vision. A marketing plan is needed that recognizes target populations, and identifies short and long-term marketing goals. To avoid visitor dissatisfaction, recreational opportunities should be expanded before marketing to increase visitation.

Recommendations:

- 1. Concessionaire should market their activities in a way compatible with GSLSM mission and vision. GSLSM should support and integrate with, where possible, concessionaire's efforts.**
- 2. Develop a marketing plan that determines which populations to direct marketing towards. Develop short and long-term marketing goals (for GSLSM with current boundaries, and for future, if GSLSM expands to include beach areas).**


3. **Marketing should capitalize on existing knowledge, history, and curiosity about the GSL.**
4. **Market to increase visitation only if additional facilities are developed to accommodate new or shore-based visitors. Impacts on existing GSLSM users should be considered.**

Concession Services

Recommendations were suggested to provide concession services and amenities for both water and land-based activities. The current concession operation offers an assortment of boat tours and cruises on the Lake. They provide a limited amount of services for visitors engaged in other types of recreation. The Planning Team felt there are unmet visitor needs. They identified a number of potential concession services that could meet the needs of users.

Issue Area: Concession Services

Key Issues:

-  Provide a variety of land and water-based concession services.
- ≈ Provide convenience store with snack bar.
- ≈ Variety of boat tour options.
- ≈ Beach concessions if Park has management role.
- ≈ Provide boat and kayak rentals and sailing, kayaking and rowing lessons.

Issue: Provide a Variety of Land and Water-based Concession Services

The Team recommended concessions that provide convenience items (snacks, food, ice, sunscreen, etc.) as well as souvenir items for tourists and casual visitors. The GSLSM should support the existing concessionaire to the degree possible. Also, concessions may provide support for

existing recreation activities at the GSLSM, such as sailing, kayaking, and rowing.

Recommendations

1. **Provide a store offering convenience items such as water, coffee, snacks, ice, sunscreen, and prepared food (snack bar). The store should have regular posted hours (vary seasonally).**
2. **The boat tour concession should offer a variety of tour options, including shorter tours (perhaps on a smaller boat) for walk-up visitors.**
3. **The GSLSM should support the boat tour concession to the degree possible because of its attraction to bus tours and casual visitors.**
4. **Provide concessions at beach areas, if, in the future, the GSLSM has a role in beach development and management.**
5. **Coordinate with nearby businesses to insure that the GSLSM concessions and businesses do not compete unnecessarily. Services that can be provided locally outside of the GSLSM may not be needed within the GSLSM.**
6. **Place tables and shelters near concessions for visitor convenience.**
7. **Provide boat and kayak rentals, and sailing, rowing and kayaking lessons.**

Resource Management

Though the GSLSM currently has limited acreage, most of which is developed, there are some natural areas with native plants and animals, and potential for finding cultural resources. These areas need active management and protection. The quality of the lake water is also a concern, and the GSLSM should do all it can to avoid being a source of pollution.

The GSLSM manages a small portion of a much larger area with a variety of ecosystems and visual resources. Activities at the GSLSM, and people attracted to the area because of the Marina, can impact areas outside of the Park. In addition, the area surrounding GSLSM needs management to improve the condition of visual resources, and to stop activities that damage all resources and negatively affect visitor experiences. Staff can help to limit these impacts.

Issue: Protect Resources in the GSLSM and on Adjacent Lands

Issue Area: Resource Management

Key Issues:

- 🚧** Protect resources in the Park and on adjacent lands.
 - ≈ Provide cooperative management of south shore area to encourage proper use.
 - ≈ Provide signage to explain resource management and regulations for protection.
 - ≈ Develop spill and HAZMAT plans for Marina.
 - ≈ Provide enforcement patrols in Park and surrounding areas.
 - ≈ Establish management practices for wetlands areas.
 - ≈ Partner to improve the appearance of areas near the Park.

The GSLSM should cooperate with surrounding landowners and agencies to offer cohesive management of the south shore that protects resources and educates the public about proper use. GSLSM staff can help to protect areas adjacent to the GSLSM.

Recommendations

- 1. Cooperate with surrounding landowners and agencies to provide management that protects area resources, while encouraging proper recreational use.**
- 2. Provide interpretive and regulatory signs that explain resource management and protection, and indicate controls on use that protect GSLSM and area resources.**
- 3. Limit motorized vehicles to existing roads. Prohibit vehicles in natural areas and on beaches.**
- 4. Develop spill and HAZMAT plans for the Marina. Monitor water quality in the Marina, and take appropriate steps to mitigate any water quality problems caused by GSLSM activity.**
- 5. Provide enforcement patrols in the GSLSM and surrounding areas to promote proper use.**
- 6. Ascertain what constitutes “wetland” habitat, and identify the areas that meet the criteria. Establish management practices for the identified wetland areas.**
- 7. Encourage, partner, and work with neighbors to facilitate improving the appearance of areas near the GSLSM to enhance and protect visual resources and to give visitors a greater sense of security (in particular, the Black Rock and Saltair areas).**




Land and Property Qualities and Limitations

Due to its location on the south shore of the GSL, the GSLSM is subjected to severe weather events, and fluctuations in lake levels. Heavy winds have caused damage to property, and have the potential to injure GSLSM visitors and staff. In the past, changes in lake level have both flooded GSLSM facilities, and caused low water levels that have limited boating use at the Marina.

The small size of the GSLSM limits the opportunities that can be provided to visitors.

Issue Area: Land and Property Qualities and Limitations

Key Issues:

-  **Fluctuating lake levels.**
 - ≈ Develop a contingency plan for high and low water levels.
 - ≈ Keep facilities modest and, perhaps, moveable to account for changes in lake level and extreme weather.
-  **Protect park, visitors, and staff from severe weather events.**
 - ≈ Design facilities for severe conditions.
 - ≈ Place signs warning of possible extreme conditions.
 - ≈ Monitor weather and warn visitors as appropriate.
 - ≈ Develop an extreme weather warning system.
-  **Find ways to fit more visitors and opportunities in Park's limited land base.**
 - ≈ Create a site plan for Park.

Issue: Fluctuating Lake Levels

During the early 1980s, heavy spring runoffs caused the level of the GSL to rise to a level that flooded the facilities and access road at the GSLSM. As a result, the GSLSM was closed from 1983 to 1987. A drought lasting from 1998 through 2003 lowered the level of the Lake making it difficult for large boat to launch and negotiate in and out of the Marina.

Recommendations

- 1. Develop a contingency plan for high and low water levels. Plan may consider:**
 - A. Dredging to maintain boating opportunities at low-water levels.
 - B. Marking channels from Marina to deeper water.
 - C. Determine at what level the Marina will be closed to large boats or closed to all boats.
- 2. Facilities should be modest (and, perhaps, moveable) due to changes in lake level and extreme weather.**

Issue: Protect GSLSM, Visitors and Staff from Severe Weather Events

The southern part of the GSL is known for its sudden high winds, locally called the "Tooele Twister." These winds knock over sailboats on the water, and have caused damage to property on land. In the GSLSM, winds have picked up gangways, and other objects, hurling them into boats, buildings, and fences causing thousands of dollars in damages to GSLSM and personal property. The potential for personal injury during these events is high.

Recommendations

1. **Design and construct buildings and other facilities (docks, walkways, etc.) to meet building codes for severe (not average) conditions.**
2. **Post signage that educates and warns visitors of general weather hazards and warning signs of impending severe conditions.**
3. **Monitor weather reports and current conditions to inform visitors of possible severe weather events.**
4. **Develop a warning system for current hazardous conditions.**
5. **Supply more staff to educate visitors, monitor current conditions, implement warning system, and provide rescue services.**
6. **Marina rules should be reviewed, and should include standards for secure docking (tie up) of boats. Docks and boats should be inspected for rule compliance. Training for proper docking procedures should be made available.**

Issue: Consider Solutions to the GSLSM's Limited Land Base that Allow for Increasing Opportunities for Visitors

The GSLSM's small size limits its ability to increase visitation and provide additional recreational opportunities for visitors. It has already been suggested in this document that the GSLSM partner with surrounding landowners and agencies to provide additional opportunities. The Team also made suggestions about how to use the existing GSLSM lands to maximize potential.

Recommendations

1. **Investigate placing new facilities on pilings to increase useable land.**
2. **Complete a site plan for best use of existing space in.**
3. **Utilities should continue to be placed underground, and existing light poles should be relocated to maximize useable land.**

Staffing and Funding

The GSLSM shares management and personnel with the Jordan River Off-highway Vehicle Park. This dilutes available funding for GSLSM, leaving it under funded and understaffed, making it difficult to supply basic management oversight, needed security functions, and information and interpretation to visitors.

Issue Area: Staffing and Funding

Key Issues:

- **Adequately fund and staff the Park to dispense information and provide safety and security to visitors, staff and property.**
 - ≈ Add a harbor master position to the Park.
 - ≈ Provide enough staff to provide safety education, weather warnings, rescues, and interpretive opportunities during busy times.
 - ≈ Seek partnerships and volunteers for additional staff.
 - ≈ Operational costs and staff must be supplied with new development.

Issue: Ensure adequate funding and staffing to dispense information and provide safety and security to visitors, staff and property.

The Team believes that a specialized position is needed to oversee marina operations. More personnel are needed to increase security for visitors and property, and to be available to provide needed safety, recreational, and interpretive/educational information. The Team also felt strongly that any development should include sufficient operational funding and staffing.

Recommendations

- 1. Add a harbor master position to the GSLSM staff to provide accounting, education, inspections, response to emergencies, and improve compliance to rules.**
- 2. Provide enough staff to supply safety education, weather warnings, and rescues during busy times.**
- 3. Increase staff size to supply visitors with interpretive opportunities at busy times.**
- 4. Seek partnerships to find funding for additional employees. Perhaps cost share employees (GSLSM employees may patrol surrounding lands for partners).**
- 5. Seek and use volunteers to increase staff size.**
- 6. All new development should include operational and staffing funding to manage improvements.**

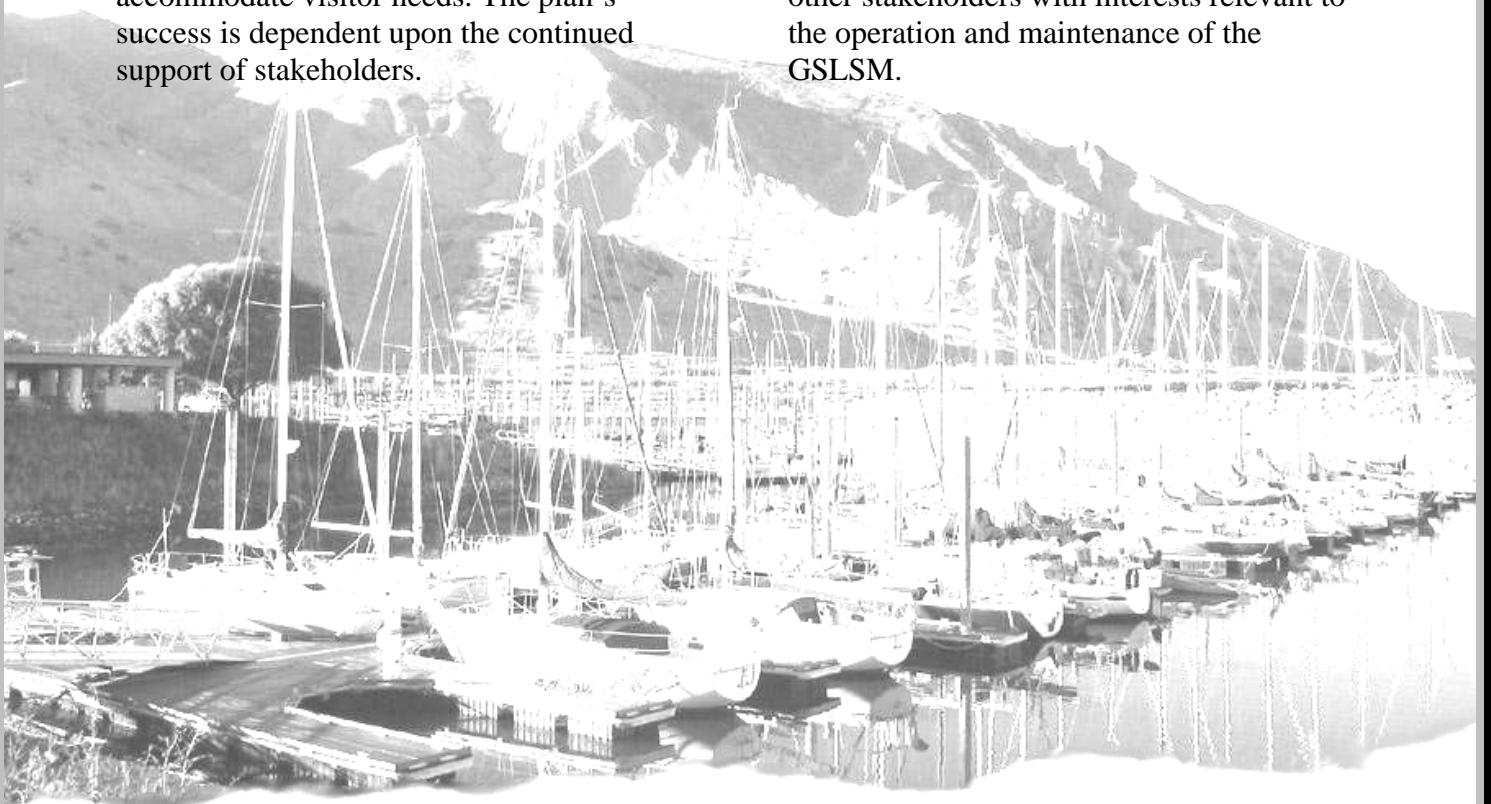
Conclusion

This plan is a blueprint to help implement the Planning Team's recommendations. As such, it outlines the initial steps to be taken in concert with GSLSM visitors, local communities and other interested users to: properly develop facilities to meet diverse visitor needs; ensure adequate staffing and funding; protect the natural resources of the GSLSM; enhance the GSLSM's impact on the community, and the state and local economies; and educate visitors and community members about the GSLSM and its resources.

The recommendations contained in this plan conform to the Team's mission of providing visitors a wide variety of safe and satisfying recreation experiences. The plan's recommendations effectively address the current needs for facility development, resource protection, GSLSM operations, land management, and cooperative efforts. However, it is crucial that adequate funding be received to implement these goals and accommodate visitor needs. The plan's success is dependent upon the continued support of stakeholders.

Stakeholders must continue their efforts to support GSLSM improvements, preserve resources, interact with local communities and strive to meet the expectations of visitors in the midst of a rapidly growing community of recreation-oriented citizens. The recommendations contained within this plan were based upon an open and collaborative process. It is imperative that this collaborative spirit continues as the plan's components are implemented.

It is also imperative that the document be reviewed on a regular basis to ensure its viability, relevance and usefulness. This document has sufficient flexibility to be amended in response to changing resource conditions, visitor needs and expectations, community needs, and agency priorities. Such amendments may occur under the auspices of the Division of State Parks and Recreation. Any such changes will include input from visitors, local citizens, community leaders, GSLSM management or other stakeholders with interests relevant to the operation and maintenance of the GSLSM.



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References

- Evans, Sonja. (2003). *Utah State Parks Cultural Resource Overview Great Salt Lake State Park*. (Salt Lake City, UT: Antiquities Section. Utah Division of State History).
- Miller, D.E.. "Great Salt Lake: A Historical Sketch", *Great Salt Lake: A Scientific, Historical and Economic Overview*, edited by Wallace Gwynn, Utah Geological and Mineral Survey Bulletin 116, June 1980.
- Morgan, Dale L.. *The Great Salt Lake*, University of Utah Press, 1947.
- Simms and Stuart, "Ancient American Indian Life in the Great Salt Lake Wetlands: Archeological and Biological Evidence." *Great Salt Lake, An Overview of Change*, edited by J. Wallace Gwynn, Utah Department of Natural Resources, 2002.
- State Of Utah. (1996). *Commonly Asked Questions About Utah's Great Salt Lake and Ancient Lake Bonneville*. (Utah Department of Natural Resources, Utah Geological Survey, PI 39, 1996, J. Wallace Gwynn).
- State of Utah. (1999). "Biology." *Great Salt Lake Comprehensive Management Plan*. (Utah Department of Natural Resources, Great Salt Lake Planning Team).
- State Of Utah. (1997). *Great Salt Lake Management History from the Perspective of the Utah Division of Parks and Recreation*. (Salt Lake City, UT: Department of Natural Resources. Division of State Parks and Recreation, T.E. Green).
- State of Utah. (2006). *Great Salt Lake State Marina Hazard Mitigation Plan*. (Salt Lake City, UT: Division of Emergency Services and Homeland Security).
- State of Utah. (2006). *Great Salt Lake State Marina Visitor Survey Results*. (Salt Lake City, UT: Department of Natural Resources. Division of State Parks and Recreation).
- State of Utah. (2000). *Profile of General Demographic Characteristics: 2000, Geographic Area: Salt Lake County*. (Governors Office of Planning and Budget). Internet Website. <http://www.governor.state.ut.us/dea/census/CountiesSF3/SaltLake.pdf>
- State of Utah. (2000). *Profile of General Demographic Characteristics: 2000, Geographic Area: Tooele County*. (Governors Office of Planning and Budget). Internet Website. <http://www.governor.state.ut.us/dea/census/CountiesSF3/Tooele.pdf>
- State of Utah (2004). Salt Lake County's Largest Employers Annual Average 2004. (Utah Department of Workforce Services). Internet Website: <http://jobs.utah.gov/opencms/wi/regions/eastern/grand/grandme.pdf>
- State of Utah (2004). Tooele County's Largest Employers Annual Average 2004. (Utah Department of Workforce Services). Internet Website: <http://jobs.utah.gov/opencms/wi/regions/eastern/sanjuan/sanjuanme.pdf>
- State of Utah. (2005). *Vision 2010, A Strategic Plan for the Utah Division of State Parks and Recreation*. (Salt Lake City, UT: Department of Natural Resources. Division of State Parks and Recreation).
- State of Utah. Utah Conservation Data Center. Internet Website. <http://dwrcdc.nr.utah.gov/ucdc/>
- Travous, K.E. "Recreation on Great Salt Lake", *Great Salt Lake: A Scientific, Historical and Economic Overview*, edited by Wallace Gwynn, Utah Geological and Mineral Survey Bulletin 116, June 1980. (Salt Lake City, UT: Department of Natural Resources. Division of Wildlife Resources).
- The Center for Land Use Interpretation, "Tour of the Monuments of the Great American Void: A Bus-Centered Circumnavigation of the Great Salt Lake," *The Lay of the Land*, Spring 2005, Volume 28.

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Maps

Map 2: Great Salt Lake State Marina and Vicinity

Map 3: Great Salt Lake State Marina Detail

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Great Salt Lake State Marina and Vicinity



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Great Salt Lake State Marina



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Appendices

Appendix A: Summary of Public Comments and Responses

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Appendix A

Summary of Public Comments and Responses

The draft Great Salt Lake Resource Management Plan was open for public review and comment from March 5, 2007 through April 9, 2007. The draft Plan was available on the Utah Division of State Parks and Recreation website, and hardcopies were accessible at the Great Salt Lake State Marina office on the south shore of the Great Salt Lake, and the Utah Division of State Parks and Recreation main office at 1594 West North Temple in Salt Lake City. Press releases advertising the Plan's availability for review were placed in the two statewide newspapers, and in local papers in northern Utah. Additionally, notices that the plan was available for review and comment were mailed to all participants of the public stakeholders and scoping meetings.

No public comments were received.

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