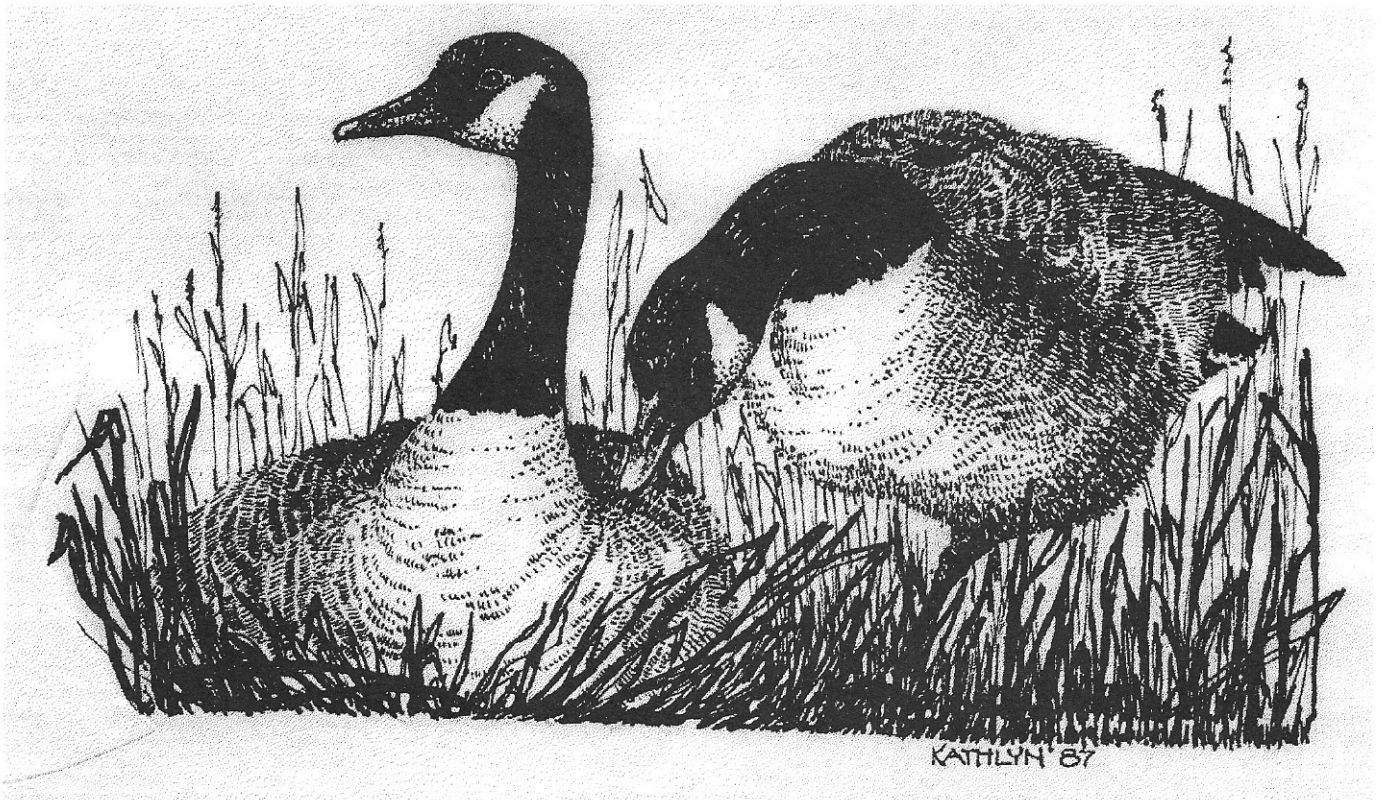


FRIENDS OF GREAT SALT LAKE

P.O. Box 2655, Salt Lake City, Utah 84110
Volume 3 Number 3

FOGSL@xmission.com

(801) 485-2394
Spring 1997



Contents

Calendar	2	Wasatch Front Forum	10
President's Message	3	Guidelines for Submitting Material	12
Coming Attractions	4	Recycle Aluminum Cans for FGSL	13
Field Notes	5	FoGSL Tshirts	14
Historical Lake Levels	7	From Our New Education Director	15
Citizens Against Chlorine Contamination	8	Membership Application	16
Other Friends	9		

The mission of Friends of Great Salt Lake is to preserve and protect the Great Salt Lake ecosystem and to increase public awareness and appreciation of the Lake through education, research, and advocacy.

CALENDAR

April						
Sun	Mo	Tue	We	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	32	

Board meeting - Salt Lake County Bldg. Room S2019 7-9 pm

Adopt A Highway

Deadline for May Flier - Lynn LeMaster 294-4517

General meeting - Sugarhouse Garden Center 7-9 pm

May						
Sun	Mo	Tue	We	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Board meeting - Salt Lake County Bldg., room S2019 7-9 pm

Antelope Island Workshop and Campout - Fielding Carr Ranch

General Meeting - Sugarhouse Garden Center 7-9 pm

Deadline for June flier - Lynn LeMaster 294-4517

June						
Sun	Mo	Tue	We	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Board meeting - Salt Lake County Bldg. Room S2019 7-9

Great Salt Lake Circumspection June 14-15

Adopt A Highway

Deadline for Summer Newsletter Jim 484-8271

General Meeting - Sugarhouse Garden Center 7-9 pm

July						
Sun	Mo	Tue	We	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Deadline for April Newsletter - Jim and Reda 484-8271

Summary of Activities

- April 3 Board Meeting 7 pm Salt Lake County Bldg.
- April 19 Adopt a Highway
- April 22 General Meeting 7 pm Sugarhouse Garden Center
- April 28 deadline for May flyer
- May 1 Board Meeting 7 pm Salt Lake County Bldg.
- May 2-4 Antelope Island Workshop and Campout
- May 26 deadline for June flyer

- May 27 General Meeting 7 pm Sugarhouse Garden Center
- June 5 Board Meeting 7 pm Salt Lake County Bldg.
- June 14-15 Great Salt Lake Circumspection II
- June 16 Deadline for Summer newsletter
- June 21 Adopt a Highway
- June 24 General Meeting 7 pm Sugarhouse Garden Center
- July 28 deadline for August flier

General Meetings are held at the Sugarhouse Garden Center, Located in Sugarhouse Park next to Highland High School. Board meetings are held at the Salt Lake County complex on 2100 S. State St. room S2019 (South Bldg.)

Cover Drawing by Kathlyn Collins 1987



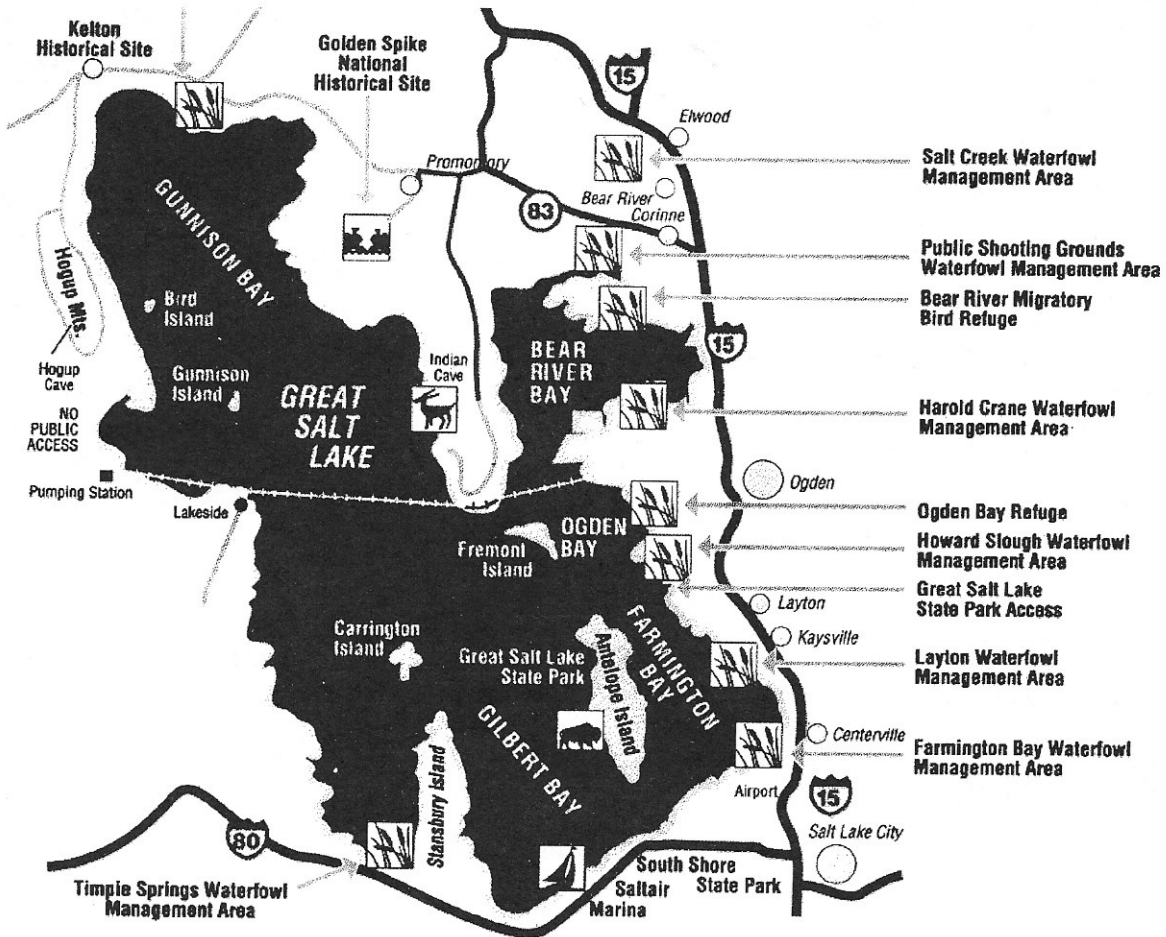
FRIENDS OF GREAT SALT LAKE

President's Message

Welcome to our spring, 1997, newsletter. I'm excited to report that the Wasatch Front Forum engagement was a *smash!* I looked for the Academy Award nomination of Best Forum but they seemed to have inadvertently left it out of the program. So, if you pardon my indulgence, I am nominating all of you Friends of Great Salt Lake as best forum supporters, and will accept this (tiny) bronze brine shrimp for all of you. I'd like to thank Howard Gross, our esteemed co-Friend and volunteer-of-the-month for organizing speakers and making all the other arrangements that pop up; thanks to Steve Lewis and Joyce Maughan of the Wasatch Front Forum for making it all possible; thanks to Jim Woolfe, Salt Lake Tribune, for moderating the event; and an especially warm thanks to our speakers, without whom our forum would have been rather quiet and boring; thanks to Lynn de Freitas and Anne Dick for your volunteer support for t-shirt sales (hey, you really need a FOGSL t-shirt to be in style this summer) and for the fabulous refreshments; and to those I've omitted, a sincere thanks.

If you missed the premiere (and only) showing, it was a positive discussion about the Lake's brine shrimp--zoology, abundance, their importance to birds, and its importance to Utah businesses and global markets. Although some speakers feared tomatoes, none were thrown and the discussion remained constructive and informative. With the exception of the Academy, thanks for all of the positive feedback we have received.

I'm out of time but while I'm at the podium, I want to add a plug for the volunteer opportunities available to you in Friends of Great Salt Lake. We have a few open board positions that need to be filled immediately, including President Elect, for which we want to seriously foster nominations (nominate yourself). **So march right up; there's a place for you here.**



Coming Attractions

May 2-4, 1997

1997 Antelope Island Workshop and Camp Out

Sign up now for the 3rd annual Antelope Island Workshop and Camp out on **May 2 to 4**.

The Saturday, May 3rd sessions this year include:

- The latest research findings of the island's bison and pronghorn antelope herds plus radio tracking antelope and the newly introduced bighorn sheep with Dr. Sue Fairbanks.
- The world of plant biogeography, the distribution and ecological functions of plants as related to soils and climate with Dr. Chuck Wullstein.
- Lake ecology experienced from the canoe point of view with naturalist Captain Joel Peterson.
- A naturalist's hike up a remote canyon with Park Manager Tim Smith.
- Farmington Bay wetlands tour with Don Paul, Division of Wildlife Resources biologist.
- Island birding at its finest with Terry Sadler.

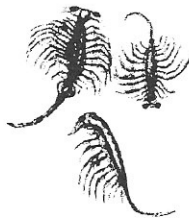
The workshop and camping will be at the historic Fielding Garr ranch. There will be a Saturday evening potluck and Sunday morning we will work on a special service habitat project for the park. The activity fee is \$15. Children under 12 are free. Spaces are limited so sign up early. Send in your sign up form (mailed separately) or call Kathlyn Collins for more information at **355-5226**. Hope to see you there!



June 14-15, 1997

Great Salt Lake Circumspection

1997 Great Salt Lake Circumspection set for June 14-15. Features of this year's auto tour include Farmington Bay Waterfowl Management Area, Layton Marsh, Golden Spike National Historic Site and the old Central Pacific Railroad grade, Lone Rock and Spring Bay, Locomotive Springs, ghost town of Kelton, Hogup Cave archeological site, Lucin Cutoff, Bangerter Pump Station, and the Lakeside Mountains. Plan to join us for this spectacular Father's Day weekend tour. Look for the sign up form in our next mailing or check the activities page on our web site, <http://www.xmission.com/~fogsl/>.



Field Notes

The Lake is on the Rise
Joel Peterson

March 16--Another sunny, unseasonably warm day. Snow is mostly melted from the foothills of the Wasatch Mountains. The lake looks higher than this time last spring. Survey of my car windshield as I approach the lake shows that brine flies have begun to hatch. In the South Shore Marina ponds, common goldeneyes look half-dressed--almost in their breeding plumage. California gulls are making their claim for breeding sites on the Sunset Beach spit. The rising lake level has almost made an island of the high spot of the spit...

The Great Salt Lake is noted for its propensity to rise and fall in response to climatic change. From our greater than average snowpack this year, will the lake rise again to the point of causing concern? It normally rises in this time of year, but what will the lake level ultimately be? The answer may be in the spring rains or next winter's snowfall. The seasonal rise of the lake this year has brought back the subject of the 'lake floods of the 1980's' in many conversations, so I read the U.S. Geological Survey Water-Supply Paper 2332, Hydro-logic Characteristics of the Great Salt Lake, Utah: 1847-1986, written by Ted Arnow and Doyle Stephens in 1990 to learn from the past. The account of the rising lake between 1982-1986 reads like a suspense thriller!

The water level of Great Salt Lake is measured in terms of elevation above mean sea level. The historic low lake elevation was 4191.35 feet above sea level in 1963, covering about a 950 square mile area and the historic high level reached 4211.85 feet in 1986, covering about 2,300 square miles! The historic average lake level has been around 4200 feet, which has been the typical observation lately, and now looks much as it did when the Mormon pioneers arrived in the valley. In fact, John C. Fremont, one of the first explorers of the lake preceding the pioneers, reported that the lake was "4,200 feet above the sea" (Miller, 1980, Great Salt Lake--A historical sketch, in Gwynn, J.W., ed., Great Salt Lake, A Scientific, historical, and economic overview: Utah Geological and Mineral Survey Bulletin 116, p. 1-14).

The Great Salt Lake levels follow a seasonal pattern. With changes in precipitation and temperature, it rises from the fall and winter precipitation, peaks from spring runoff, and falls again in the summer-autumn months when evaporation from the lake exceeds inflow to it. The water budget can be simply described as level =

inflow minus outflow (evaporation). The evaporation rate is influenced by temperature and the size of the lake surface area.

From Arnow and Stephens, 1990, here is a synopsis of what happened the 1980's leading to the Great Salt Lake's record high level:

September 18, 1982: The lake begins rising from storms earlier in the month. It is the wettest September on record for Salt Lake City. Average annual rainfall is 15.75 inches, but 1982 precipitation was 22.86 inches!

Fall and winter, 1982: Cool weather and continued precipitation. Greater than average snowfall.

Spring, 1983: Unseasonably cool, low evaporation, snowmelt begins about a month later than usual.

Memorial Day, May, 1983: Heat wave increases snowmelt.

June 30, 1983: Evaporation exceeds inflow and lake level peaks at 4,204.75 feet. Largest seasonal rise of recorded in history--5.1 feet!

Summer, 1983: Precipitation greater than average. Low evaporation rates yield a small decline in the lake through the summer.

Fall-Winter, 1983-1984: Seasonal rise begins again in September. This is coupled with the wettest December on record for Salt Lake City. (Precipitation in January through June, 1984 is greater than average.)

May, 1984: Snowmelt begins with high water content in snowpack. Record-breaking flows enter the lake.

July, 1984: Lake level begins to decline from the seasonal peak of 4209.25 feet.

August, 1984: Railroad causeway is breached to allow greater flow to the north arm of the lake.

October, 1984: Seasonal low level of lake is measured at 4207.85 feet. 1984 was the third successive year for higher than average precipitation.

May, 1985: Seasonal rise of the lake peaks at 4209.95 feet.

Summer, 1985: One of the warmest summers on record, evaporation brings the lake down 1.6 feet.



November, 1985: One of the wettest, snowiest months on record.

January, 1985-March, 1986: Unusually warm temperatures and lower than average precipitation.

Winter-spring, 1986: February is a wet and stormy month and April precipitation is 150% of normal. The months of April and May are the third wettest on record and snowpack is loaded with a very high water content. The lake level rises to 4211.65 feet!

May 14, 1986: Utah State Legislature appropriates \$71,700,000 for dikes and pumps to move water into the Newfoundland Basin, west of the lake. This project begins the creation of a new lake roughly 500 square miles in size, with an average depth of 2.5 feet. (It is sarcastically named '[Governor] Bangerter Lake').

June 3, 1986: Great Salt Lake ultimately peaks at 4211.85 feet. Net rise from September, 1982 to June, 1986 is 12.2 feet!

June 7, 1986: winds develop 5 foot waves causing a breach in the AMAX Magnesium Corporation's outer dike. This lowers the water level in the south arm 5 inches by June 10.

Although this scenario outlines the highest historical rise of Great Salt Lake, history indeed repeats itself. Between 1862 and 1873 the lake rose about 12 feet to about 4,211.5 (just short of the historic high in 1986) and caused quite a bit of concern at that time until the lake began to recede again. In June, 1976, the lake rose a total of 11 feet from 1964, threatening transportation and other infrastructure built on the lake floor. In terms of long-term climatic changes, the lake will certainly rise again, possibly exceeding the capabilities of pumping solutions.

I must admit that there is an element of excitement to see the lake expand in its basin, although the damage can be expensive. I agree that it would not be practical to plan our city on a geologic time span. The prehistoric Lake Bonneville would put us nearly a thousand feet underwater if the lake were to return to that size! However, when we ignore the imminence of the lake rising a dozen feet again by planning major infrastructure within the 100-year flood plain, we are ignoring the nature of this unique lake we live beside.

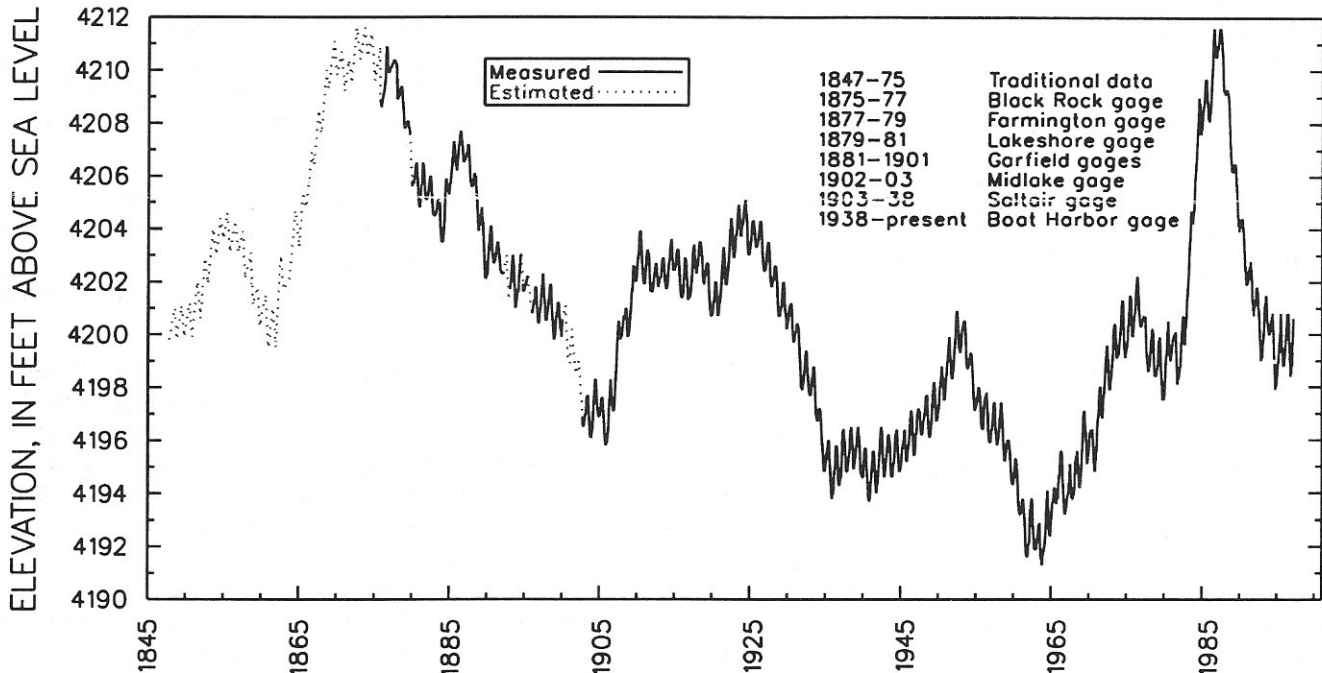
(See the graph of historical Great Salt Lake levels on the following page.)



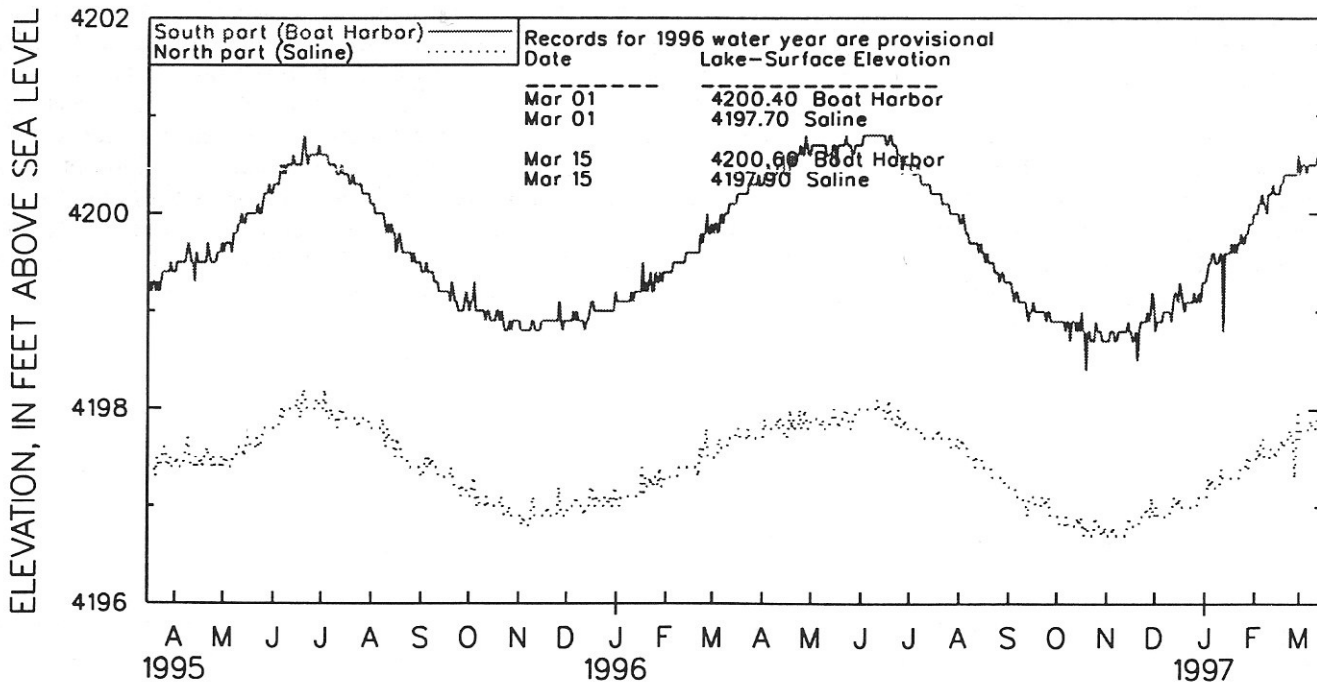


United States Department of the Interior

U.S. GEOLOGICAL SURVEY
 Water Resources Division
 Administration Building Rm 1016
 1745 West 1700 South
 Salt Lake City, Utah 84104



Fluctuations of south part of Great Salt Lake, 1847 to present.



Fluctuations in elevations of both parts of Great Salt Lake during last two years.



Citizens Against Chlorine Contamination

CACC Update
by Howard Gross

Against Chlorine Contamination (CACC) joined together in June of 1996 to ensure that the Utah Division of Air Quality (UDAQ) properly regulates The Citizens and monitors air pollution emissions by the Magnesium Corporation of America (MagCorp), located on the southwest side of Great Salt Lake at Rowley. MagCorp is responsible for 83% of all point-source chlorine emissions to the atmosphere in the United States (source: EPA 1994 Toxic Release Inventory data). In addition, CACC is also concerned about the possible emission of dangerous chlorinated hydrocarbons from MagCorp's facility, such as dioxins and furans, which have been the focus of much scientific study in recent years.

Due to comments submitted by CACC and the public to UDAQ in August 1996, UDAQ is currently preparing to test for the emission of chlorinated hydrocarbons from MagCorp's facility. CACC provided input into the testing design in February 1997. UDAQ has stated they recognize that incorporating public input into the testing design is important in adding to the credibility of such tests. Also to ensure credibility of the tests, UDAQ will be collecting the samples to be analyzed, not MagCorp.

CACC has raised other points over the last two months with UDAQ about UDAQ's regulation of MagCorp's operations. These comments focus of UDAQ's easement, at the request of MagCorp, of the limitations in MagCorp's Approval Order (AO) dated September 30, 1996 on the number of IG Farben cells that MagCorp may operate. UDAQ will now allow MagCorp to use 88 instead of 83 IG Farben cells. The increase in magnesium production under the recent modification to MagCorp's AO was to "be accomplished by installing eight new sealed cells." UDAQ has previously stated that no better technology is known than sealed cell technology for controlling chlorine emissions. Now UDAQ has agreed to ease the requirements on the IG Farben cells, which allow for the release of greater amounts of chlorine gas and are not the best available control technology by UDAQ's own admission. Increased magnesium production at MagCorp using IG Farben cells instead of sealed cells will lead to a greater increase in emissions of pollutants (such as Cl) than was stated in the MagCorp AO modification. This raises concerns about what are the actual quantity of pollution emissions from the MagCorp facility. In addition, this change to the AO was made without public comment.

Additionally, CACC has notified UDAQ of concerns relating to MagCorp's chlorine pollution control device known as the Chlorine Reduction Burner (CRB). The current AO does not reflect the accurate emission rate of chlorine for the CRB. Instead, it reflects a much higher rate, while the CRB is capable of functioning at a much lower rate of Cl emission. Thus, MagCorp is out of compliance with their AO. CACC has also suggested that MagCorp install a second CRB, since much of their chlorine emissions occur when the one CRB they do have is down for maintenance and/or repair, which is frequently. MagCorp has redundancy throughout their facility so that when a piece of production equipment breaks down, back-up equipment can be used during repairs and magnesium production (and chlorine emissions) can continue 24 hours per day. However, they have not seen a need to build the same redundancy into their pollution control technology. A second CRB would go a long way toward reducing chlorine emissions from their facility. If you have interests pertaining to these issues, please call Scott Endicott (596-1325) or Howard Gross (486-4565).



Other Friends

April 19, 1997 Lincoln Allen Earth Day Presentation

World renown wildlife photographer, lecturer, and naturalist, **Lincoln Allen** will be giving a special **Earth Day** presentation (slide show and lecture) on April 19 (Saturday), 6:30 p.m., Kingsbury Hall, University of Utah. The Utah Museum of Natural History is sponsoring this free multi-media presentation and lecture that will celebrate our wondrous but fragile environment, and will cover the Earth's diverse ecosystems with special emphasis on Great Salt Lake and Amazon ecosystems.

The theme of the presentation is the evolution of our environment's prehistory, the present, and our future. Through the use of photography, filmmaking, and innovative multi media techniques, Lincoln lets the audience learn and experience this treasured planet and the species it sustains. Lincoln wants the audience to feel as if they were actually in the middle of Great Salt Lake on Gunnison Island observing the White Pelican nesting colony or in the Amazon rainforest.

Lincoln will also introduce many noted scientists, biologists, conservation leaders, educators, etc. To name a few: Tim Smith, Antelope Island Park Manager, Don Paul, Biologist, Clayton M. White, Ph.D., Prof. of Zoology, BYU, Stellanie Ure, V.P. Utah Wildlife and Rehab. Inc., Dr. William Behle, Prof. Emeritus of Biology and Ornithology, U of U Biology, etc.

Lincoln Allen is a National Geographic photographer and president of the World Environmental Society, a non-political, scientific organization dedicated to wildlife/ecology education and conservation. For more information or for special free seating invitations and programs for those individuals who RSVP their reservations, call the World Environmental Society at 801/484-0857.

May 10, 1997 Wild Wings Over Wetlands Migratory Bird and Wetlands Day

Experience the wonders of wetlands and the beauty of birds! On Saturday, May 10, the Utah Division of Wildlife Resources and Utah Partners in Flight are celebrating the return of Spring with our 4th Annual Migratory Bird and Wetlands Day. Naturalists, spotting scopes, and information will be available from 8 a.m. to 5 p.m. with hourly birdwalks at most locations.

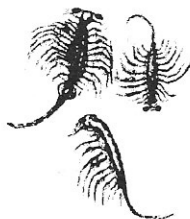
The event will be celebrated at the following locations across the state:

- ◇ City Creek, Salt Lake City
- ◇ Cutler Marsh, Logan
- ◇ Ogden Nature Center, Ogden
- ◇ Jordanelle State Park, Rock Cliff Nature Center
- ◇ Matheson Wetland Preserve, Moab
- ◇ Mathis Park, St. George
- ◇ Layton Wetland Preserve/Farmington Bay WMA
- ◇ Provo Wetlands Interpretive Park
- ◇ Ouray National Wildlife Refuge, Ouray (April 26)

Contact Frank Howe (801) 538-4764 or Cecile LeBlank (801) 538-4864 for more information and watch your paper for updates and details. Bring your boots and binoculars and come out to enjoy our wetlands and Wildlife

MAY 17, 1997 BEAR RIVER MIGRATORY BIRD REFUGE OPEN HOUSE.

You are encouraged to attend the Bear River Migratory Bird Refuge Open House on May 17. The Open House is in celebration of Migratory Bird Week and wetlands month. It also is the kick-off for more public involvement at the refuge. The tentative schedule includes breakfast, activities from 10 to 4 at the Refuge, concession lunch on the Refuge, and barbecue in the evening in Brigham City. In the evening a meeting is planned regarding future public use program for the Refuge as well as the first organizational meeting for Friends of Bear River Refuge. For further information contact Wayne Martinson at 355-8110 or the Bear River Refuge at 723-5887.



WASATCH FRONT FORUM

March 11, 1997

FOGSL and Save Our Canyons co-hosted a forum examining the ecological and economic niches of brine shrimp on Great Salt Lake. The event was part of the Wasatch Front Forum series, which is coordinated by Save Our Canyons. Over 130 people attended, representing brine shrimp harvesters, environmentalists, researchers, natural resource agency employees, and the general public.

The forum provided an opportunity for people with both diverse and also common interests to share information about the growth and regulation of the brine shrimp industry, and about the ecological importance of brine shrimp in the Great Salt Lake ecosystem. Many good questions were asked by the public. While it would be impossible to recount the information which was presented during the forum, we will provide abstracts here which were written by the forum's panelists. FOGSL extends a sincere thanks to them for taking the time to participate in the forum.

Ella Sorensen, National Audubon Society:

Great Salt Lake is important to millions and millions of birds. Thirty-six different species of shorebirds have been recorded on the lake, eight with sizable breeding populations and many others which stage in large numbers during migration. Here they feed and fatten on the abundant invertebrates, including brine shrimp and brine flies. Then they disperse, often flying thousands of miles non-stop to wintering grounds. A healthy Great Salt Lake is critical to the survival of the world population of many of these shorebird species.

My concerns about human caused impacts to the lake's food chain are legion, ongoing, and escalating. Humans have greatly altered this lake. Ecosystems are fragile and human caused changes more often than not weaken them. I am concerned about how little we know about the interaction of life on the lake. It is mind-boggling that Great Salt Lake may host the world's largest staging populations of marbled godwit, yet the natural history of this 18" shorebird is so poorly understood.

I am concerned because human logic does not always lead down the path of truth. Humans have great intelligence but are scientifically naive about Great Salt Lake, and it is this very lack of information which allows us to speculate. Humans are prone to filling in the vacant spots in our knowledge with words that reflect not reality but our desires of the moment. And the burden of our hasty errors fall on those who come after us.

If maintaining a healthy Great Salt Lake ecosystem is the goal of all of us here tonight, then we must show



restraint. Gathering of knowledge needs to be accelerated significantly.

Great Salt Lake is a masterpiece not of human creation, and it should be preserved as is, left to the natural processes. So many people have told this lake what it should be and what it should do for us, and so few have ever listened to what the lake is. Those who listen hear a soft seductive melody. The lake speaks a special language.

Many want to preserve that wildness. A wildness that words can not define. For wildness knows no definition. It is around us and in us. We can kill it, but we can not tame it, nor cultivate it, nor domesticate it. For wildness dwells within us. We are part of it. And when we stop talking and listen, we know.

Wayne Wurtsbaugh, Dept. of Fisheries & Wildlife, Utah State University:

In Great Salt Lake, the brine shrimp is the dominant invertebrate because so few other organisms can tolerate the salty waters. The brine shrimp have a very high reproductive potential and alternative life cycles that help sustain their population. At high temperatures and food levels, brine shrimp can grow from an egg to a reproductive adult in about 10 days, and then begin producing as many as 25 eggs/day. In cooler water or with low food levels, population growth rates are, however, much slower. In mid-summer and fall, driven by shorter pho-



toperiods and low food levels, the shrimp change from producing eggs that hatch immediately to producing resting cysts that float on the lake surface. The following spring, these cysts hatch and the brine shrimp begin to repopulate the lake again. During the fall and winter, floating cysts are collected onto boats by the harvesting industry, and then dried, packed in cans, and sold to aquaculturists worldwide, who rehydrate and hatch the cysts into juvenile brine shrimp that are fed to prawns and fish. In 1994-95, we estimated that the industry harvested 40% of the 1,650 trillion cysts were produced in the lake.

To feed, brine shrimp filter microscopic plants (phytoplankton) from the lake water, and the amount of these plants determine the carrying capacity for the shrimp in the lake. By May or June, the shrimp populations increase to the point that they overgraze the phytoplankton, thus reaching carrying capacity. If cyst harvesting reduces that starting population size in the spring, it takes more generations, and hence a longer period, for the shrimp to reach the carrying capacity. Preliminary calculations indicate that large proportions of cysts can be harvested without seriously affecting the amount of time to reach carrying capacity. More research, including field validation, is needed before we can reliably estimate the number of cysts that can be harvested without seriously affecting population dynamics of the brine shrimp.

In addition to commercial harvesting, there are other threats to the brine shrimp and the ecosystem dependent upon them. Habitat destruction from causeway and salt-pond construction has already removed a sizable portion of the lake from brine shrimp production. More inter-island diking would exacerbate this. Water use for agriculture and urban use in the Great Salt Lake drainage has already caused the salinity of the lake to increase, and future water development could cause salinity to increase to the point where brine shrimp could not reproduce. Lacking a "water right," the Great Salt Lake is thus vulnerable to this threat.

Clay Perschon, Utah Division of Wildlife Resources:
The Division of Wildlife Resources has organized the Great Salt Lake Project and funded it from receipts of commercial licenses to harvest brine shrimp on Great Salt Lake. This project will conduct research and management based on an ecosystem concept. The key personnel are: Clay Perschon, Project Leader; Don Paul, Wildlife Biologist; and Paul Birdsey, Aquatic Biologist. Research is also being done by Dr. Gary Belovsky at Utah State University and Dr. Doyle Stephens with the United States Geological Survey. The primary goal of the GSL Project is to determine what brine shrimp populations are in the lake under different environmental conditions. Bird populations and their need for brine shrimp as a food base will also be studied. From that knowledge, the amount of brine shrimp that can be commercially harvested and still protect the shrimp and birds will be determined. It will take several years of research to make this determination. DWR will continue to do law enforcement on GSL to ensure harvest regulations are complied with.

Don Leonard, Utah Artemia Association:

The Utah Artemia Association (UAA) includes most of the companies that harvest brine shrimp eggs from Great Salt Lake. Its purpose is to support policies that preserve and protect the brine shrimp resource and that equitably regulate the industry, recognizing the significant capital and human resource investment of existing companies.

UAA member companies have a proven track record of support for preservation principles. We advocated the moratorium on issuance of harvest permits, endorsed early closure of the harvest season, funded expansion of research, recommended a peer review committee for state research, supported designation of a no-harvest area along the East shore to prevent industry interference with avian use of brine shrimp, etc.

The UAA is also seeking to inform the public about the industry and to dispel myths and misunderstandings. Currently, the industry is facing challenges related to increased costs and depressed prices, imposition of a new royalty by the state, concerns about declining salinity and other challenges.



Friends of Great Salt Lake 1997

BOARD OF DIRECTORS

Joel Peterson - president
485-2394

Kathlyn Collins - past president
355-5226

Debbie Roberts - secretary
468-8427

Howard Gross - treasurer .
486-4565 hgross96@aol.com

Lynn de Freitas -582-1496
patrick.de-freitas@m.cc.utah.edu

Ann Dick -
359-5764 dick@mail.physics.utah.edu

Robin Hooten

Doug Howard
295-4395

Wayne Martinson -
355-8110 wmartinson@audubon.org

Margie Paul-Hus -
487-4383 skeletons3@aol.com

Jim Zinanti
484-8271 jzinanti@wasatch.com

Kevin Landis-activity organizer
972-7054

Lynn LeMaster - monthly flier
294-4517

ADVISORY BOARD

Bob Adler
John Kadlec
Dick Nourse
Steve Simms
Ella Sorenson
Terry Tempest Williams
Wayne Wurtsbaugh

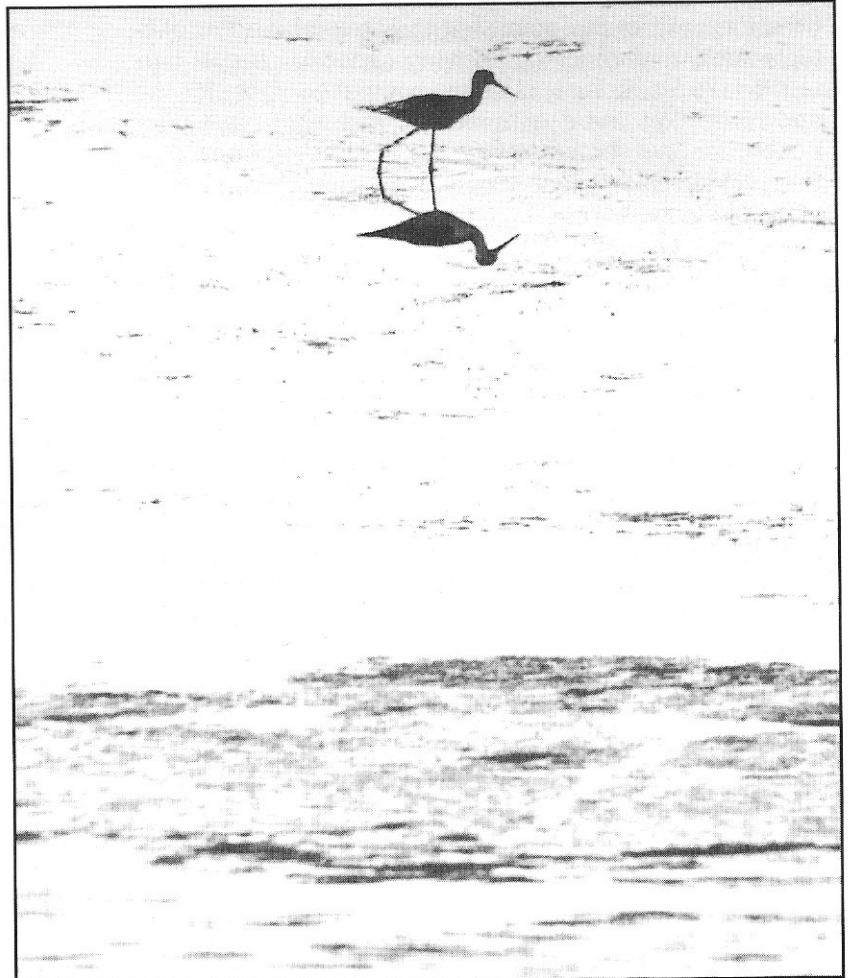


Photo: Howard Gross 1997

Submitting Material for Publication

1. **What To Submit:** original articles (historical, geological, geographical, biological, political, fiction, poetry, etc.) which pertain to Great Salt Lake also art work including sketches, photographs, etc.
2. **Submitting Material:** Mail or deliver to **2656 S. Chadwick St. SLC, UT 84106-3506**. Or e-mail it to jzinanti@wasatch.com or RedaHZ@wasatch.com
3. Please phone **484-8271** or **484-5799** to confirm receipt of e-mail, or with any other questions, suggestions, comments, or ideas
4. **Deadlines:** The deadlines are Sept. 16 (Fall), Dec. 16 (Winter), Mar 16 (Spring), and June 16 (Summer).



Recycle Aluminum Cans.

Please consider donating them to Friends. Can donations will be accepted at 1149 E. Browning Avenue Saturdays between 9 a.m. and 2 p.m. All proceeds will go to the FGSL general fund. Cans must be contained in plastic garbage bags. If you have cans to donate , but can't transport them, please call Margie Paul-Hus and arrangements will be made for a pick-up. If you don't

recycle aluminum. Please consider starting!! This will greatly benefit the Friends. Volunteers are needed for accepting aluminum cans in your neighborhood and/or taking cans to the recycling center.

Questions, please call **Margie Paul-Hus at 487-4383.**



Photo: The Sun Tunnels, near Lucin, by Mark Doman

Friends of Great Salt Lake wishes to thank Xmission.com for its generous donation of services to support the Friends of Great Salt Lake on the World Wide Web

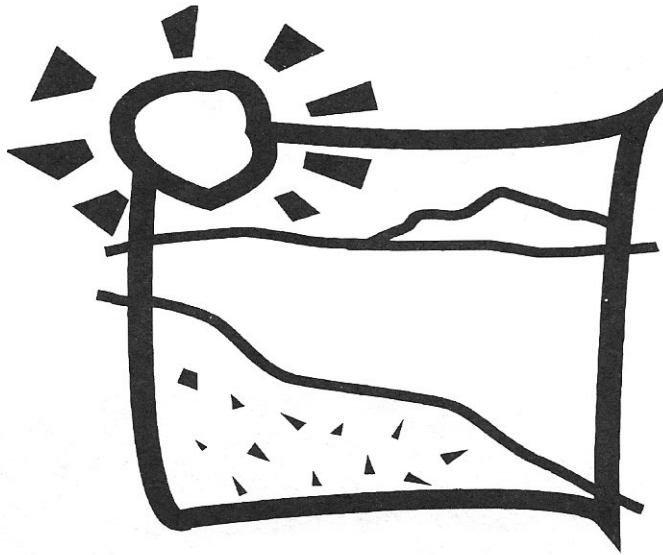
<http://www.xmission.com/~fogs1>

Kevin Landis: webmaster



Friends of Great Salt Lake T-shirts For Sale

Want to know a great way to show your support for Great Salt Lake and help FOGSL raise funds? Buy FOGSL T-shirts for yourself and friends. The T-shirt boasts the logo shown at the right, silk-screened in five-colors (sun-yellow, sky-dark blue, mtn.-grey, water-turquoise, sand-brown). The Joel Peterson catalog recommends you use this 100% cotton shirt to keep warm when making your way through ankle-high saltgrass during an exotic April dawn trying to spot Long-billed curlews. Your mud-mucking partner will be irrepressibly impressed! Available in the following colors & sizes: olive green (XL, L), blue (XL, L, S), light blue (child's M), tan (XL, L, S, child's M), white (XXL, XL, L). Use the order form below and specify 1st and 2nd color choices because some color and size combinations are limited. Use the order form below.



FRIENDS of
Great Salt Lake

Mail this FOGSL T-shirt order form to: FGSL, P.O. Box 2655, SLC, UT 84110-2655

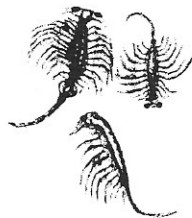
Name _____

Shipping Address _____

City _____ State _____

Phone number (eve) _____ (day) _____

# of shirts	Size	1 st color choice	2 nd color choice	price (members \$12/ea., non-members \$14/ea.)	price
Shipping costs (\$2.50 for first shirt, \$1.00 for each additional)					
Grand Total (check payable to Friends of Great Salt Lake, please do not send cash)					



From our new Education Director:

an Introduction , and a Request

Hello, Friends of Great Salt Lake! My name is Bruce Thompson, and I have been recently honored by being asked to assume the contract position of Program Director. During the next ten months it is my task to design, develop, and implement a public education process centered upon a live-narrated slide presentation. By mid-year, and with assistance from a few trained volunteers, we will target no fewer than fifty presentations of this slide program throughout the greater Salt Lake community, to enhance and inspire both knowledge about and care for our Great Salt Lake.

My working title for this endeavor is "The Lake Effect: living together on the shores of something big "While it may well change by project completion, I've selected this phrasing to begin a tone that emphasizes interrelationships, interdependencies, and diversity among humans and all life , and between these living things and their Great Salt Lake environment.

Of course, an effective slide presentation requires good slides. But more than that, it requires a meaningful script, which itself requires thorough research, which can best be guided by careful choices as to topics and information to include.

Might you consider yourself a resource in this endeavor? Your completion of the brief survey below will help us forge an educational program representative of our membership, and that best serves the mission of our organization. It will be greatly appreciated.

Bruce Thompson operates Ecotracs (Ecology-based Teaching Resources, and Curriculum Services) in Salt Lake City. Throughout the Intermountain West his work includes field and indoor programs for youth and adult, educator workshops instructional design and development, and educational research. Past faculty member and Director of Education for Teton Science School in Jackson Hole Wyoming, Bruce has also developed national science curriculum with the Biological Sciences Curriculum Study (BSCS), is author of the Roberts Rinehart publication, *Looking at the Wolf*, and has served as trainer and program consultant to Utah and national Project Wild. Bruce holds an MST degree in environmental science, a BS in mass communications, and has over twenty years experience in photographic instruction.

MEMBERS' SURVEY ABOUT THE GREAT SALT LAKE

You and other Friends of Great Salt Lake have opinions, experiences, and interests that can be of great value to this year's education initiative. What do you think should be included in a meaningful slide presentation about the Great Salt Lake? What resources and contacts can you recommend? Do you have slides that you could donate or offer for duplication?

To assist in this project, please complete that form below and mail it to me by April 7 at the address given. Thank you for your contributions!

1. There are literally hundreds, if not thousands of topics related to the Great Salt Lake, within a spectrum of science and cultural categories that include biology, ecology, geology, weather, history, recreation, economics, and government. What are three topics within these general categories that you believe are most important?
2. What are the names, addresses, and phone numbers of three contact people you believe have invaluable information to offer this project?
3. What groups or organizations should we consider including as a potential audience or sponsors for our eventual slide program?
4. Do you have plant, animal, industrial, recreational, aerial or landscape slides taken at or near the Great Salt Lake during any season that we might use or copy for use on our presentations? (Credit to contributors will be given)
5. Would you be willing to discuss serving as a volunteer to help organize and or presents our slide program in the Great Salt Lake region?

May be contact you? Your Name: _____

Daytime telephone number: _____

Please return this survey to **Bruce Thompson/ECOTRACS 937 E. Browning Ave., Salt Lake City, UT 84105.**



FRIENDS of Great Salt Lake
 P.O. Box 2655
 Salt Lake City, UT 84110

Non-Profit Organization
 U.S. Postage Paid
 Salt Lake City, UT
 Permit No. 6707

Yes! I want to join *FRIENDS OF GREAT SALT LAKE*. Here are my dues in the amount of (check one):

\$20 Regular Membership **Student** must be at least half time. **Senior** is 62 years or older. **Sustaining** is any corporation, institute, organization, or individual interested in financially supporting activities of *FRIENDS OF GREAT SALT LAKE*
 \$10 Student Membership
 \$10 Senior Membership
 \$500 Sustaining Membership

In addition to my dues, I would like to make a tax-deductible contribution in the amount of

\$10 \$25 \$50 \$100 \$250 other ____

Please make check payable to
FRIENDS OF GREAT SALT LAKE

Mail To

FRIENDS OF GREAT SALT LAKE
 P.O. Box 2655
 Salt Lake City, UT 84110-2655

NAME: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

PHONE: _____

MY SPECIAL INTEREST IN THE LAKE IS _____

