

# FRIENDS OF GREAT SALT LAKE

P.O. Box 2655, Salt Lake City, Utah 84110  
Volume 4 Number 3

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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.

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## Calendar

April 2, Thursday	Board Meeting 7 pm
April 7, Tuesday	UDOT will recommend a choice of alignments for Legacy/West Davis Highway to Utah Transportation Commission. (10 am)
April 18, Saturday	Earth Day Celebration at Utah Museum of Natural History, University of Utah Campus (FOGSL Booth)
April 18, Saturday	Earth Day Celebration and Nature Walk on Jordan River - Gardener Village
April 25, Saturday	Adopt-A-Highway Cleanup (article p. 18)
April 28, Tuesday	General Meeting 7 pm, Bob Adler will speak about ISTEA, the laws and regulations which relate to the Legacy West Davis Highway planning process. (article p. 5)
May	Utah Prehistory Month (Utah State Historical Society)
May 1-3, Friday Sunday	Antelope Island Camp Out and Workshop (article p. 7)
May 7, Thursday	Board Meeting 7 pm
May 9, Saturday	Utah Wetlands and Migratory Bird Day
May 26, Tuesday	General Meeting 7 pm, Dick Rauschmeier will speak on Union Pacific R.R. operations around and over Great Salt Lake (article p. 5)
June 4, Thursday	Board Meeting 7 pm
June 6-7, Saturday and Sunday	Great Salt Lake Auto Tour (article p. 14)
June 27, Saturday	Adopt-A-Highway cleanup
August 6, Thursday	Board Meeting 7 pm

**NOTE:** 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 S3009 (South Bldg.) All members are encouraged and welcome to attend.

**Cover:** Steven Austin, Antelope Island in background - Photo by Lloyd Austin



## President's Message

I confess that I'm still swelling with pride over the success of our Second Great Salt Lake Issues Forum held in February. I am very grateful to our volunteers and generous sponsors, and presenters, who shared their expertise with our 110 participants. The events provided a provocative day of focus on the Lake.

As a result, some specific outcomes were achieved. Points that were raised in the context of the various presentations and by the audience were compiled and will be incorporated in the draft document of the Great Salt Lake Planning Project. Bob Adler's ***Proposal for A Comprehensive Watershed Restoration and Protection Program for Great Salt Lake*** has provided a springboard for thinking more seriously about the broader implications of the Lake's watershed which includes 35,000 square miles in parts of 3 states.

It's exhilarating to think of the potential these ideas could have on influencing the biotic integrity of the Lake's ecosystem. At our Friends Board Retreat in January, we identified the need to begin discussions with other groups to establish a Great Salt Lake Watershed/Ecosystem Council. With the interest generated from the Issues Forum and the inspiration from Bob Adler's proposal, it sounds like the timing is right.

Friends was "up on the hill" during this past legislative session. Not with a great deal of success I'm afraid. We were arguing against spending more money (\$27 million) on continued study of the Legacy West Davis Highway. No such luck. However, our April 28th meeting will focus on how we can prepare ourselves for effectively commenting on the EIS which will be available early this summer. Bob Adler will provide a citizen's guide to the Legacy Highway planning process. This will be an opportunity for us to get up to speed on the laws and regulations that govern whether the highway can be built, and if so, where. Please join us.

As a part of our spring tradition, Friends is once again sponsoring our Antelope Island Workshop and Camp out. The dates for this splendid outing are May 1, 2 & 3. Watch for the special mailing of the program brochure toward the end of March and plan on attending. Registration is limited and the deadline is April 29th.

Remember to take time to visit the Lake and welcome our migratory bird friends.

Lynn de Freitas

### ***Thank You*** Wilburforce Foundation...

The Wilburforce Foundation of Seattle Washington has generously donated \$6,000 for the continuation of the work of the Education Director in presenting the Great Salt Lake slide show program, ***The Lake Affect.***



***Thanks to Sponsors, Volunteers, and Presenters  
For Making  
the Second Great Salt Lake Issues Forum a  
Success***

FOGSL would like to thank all of the sponsors, volunteers, and presenters (listed below) who helped make the Second Great Salt Lake Issues Forum a success. Without their help and participation, the event would not have been possible. Over 110 people attended the Forum. The issues discussed were well covered with numerous viewpoints represented. Media coverage was also good, with three major Utah newspapers and two television stations covering the event.

Conference Coordinator... **Lindsey Oswald**

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Presenters...

<b>Howard Newman</b>	<b>Doyle Stephens</b>	<b>Gary Belovsky</b>
<b>Joel Flory</b>	<b>Byron Parker</b>	<b>Kent Hansen</b>
<b>Michael Schwinn</b>	<b>Roger Borgenicht</b>	<b>Ella Sorensen</b>
<b>John P. George</b>	<b>Scott Endicott</b>	<b>Dianne Nielson</b>
<b>James W. Carter</b>	<b>Robert Adler</b>	<b>Jayne Belnap</b>
<b>Tim Smith</b>	<b>John Bennett</b>	

Volunteers...

<b>Pat Albion</b>	<b>Lynn de Freitas</b>	<b>Rick Ford</b>
<b>Howard Gross</b>	<b>Taz Harrington</b>	<b>Reda Herriott</b>
<b>Robin Hooton</b>	<b>Ivan Weber</b>	<b>Doug Howard</b>
<b>Spencer Martin</b>		<b>Wayne Martinson</b>
<b>Margie Paul-Hus</b>		<b>Joel Peterson</b>
<b>Nick Van Pelt</b>		<b>Jim Zinanti</b>



*Robert Adler,*  
*speaker for the April 28th general meeting*

Bob Adler is an Associate Professor of Law at the University of Utah College of Law, specializing in environmental law. He has written articles and books on the Clean Water Act and watershed protection. Prior to his appointment at the University, Bob was Director of the Clean Water Project at the Natural Resources Defense Council. He received a degree in ecology from Johns Hopkins and a law degree from Georgetown University.

Bob is an Advisory Board member for Friends and has been actively involved in participating in the public process of the proposed Legacy West Davis Highway. The April program "ISTEA: is not a drink: A Citizen's Guide to the Legacy West Davis Highway Planning Process" is a timely one. As we look forward to the release of the EIS on the West Davis Highway and the opportunity to provide comments, we need to be prepared to make the most of our efforts. He will explain the various laws and regulations that govern whether the highway will be built, and if so, where, including an explanation of the alphabet soup of acronyms; an explanation of what public participation should occur; and some tips on how to participate effectively in this and any other government decisions.

*Dick Rauschmeier,*  
*speaker for the May 26 general meeting*

Dick Rauschmeier is Manager of Industry and Public Projects for the Union Pacific Railroad which has major transportation corridors by and on the Great Salt Lake. They have rail lines to the east and south of the Great Salt Lake as well as operating a train track over the Great Salt Lake on the Southern Pacific Causeway from Weber County to Promontory Point and to the western shore.

Dick Rauschmeier will discuss the operations of the Union Pacific Railroad throughout this area. A history of the building of the Southern Pacific Causeway will not be a part of Dick's presentation. This interesting information can be found in the book *Great Salt Lake: A Scientific, Historical and Economic Overview* edited by J. Wallace Gwynn.

The May 26 meeting will help us all better understand the current needs and actions of the Union Pacific Railroad by and on the Great Salt Lake.

Join Friends at the Sugarhouse Garden Center 1650 East 2100 South 7-9 PM.



# Citizens Against Chlorine Contamination

## MagCorp Admits Possibility of Dioxins Production

by Scott Endicott

As you may remember from previous "CACC Updates," Magnesium Corporation of America (MagCorp) operates a chemical plant on the southwestern margin of Great Salt Lake that extracts magnesium from the waters of the lake. This plant emits more toxic chemicals to the environment than any other industrial facility in the United States. Under pressure from the Citizens Against Chlorine Contamination (CACC), a Northern Utah citizens group, and within weeks of implementing testing planned by the Utah Division of Air Quality (UDAQ), MagCorp has admitted they probably are producing dioxins and has proposed a change in the testing plan.

In 1996 CACC brought to the State's attention the likelihood that MagCorp was producing dioxins and similar substances based on fundamental chemical principles and by comparison with a plant in Norway where large emissions of dioxins were documented in 1989. CACC worked with UDAQ, first to convince them of the need to test for dioxins, and later to advise them on testing procedures. Although air emissions are of primary interest to the UDAQ, CACC argued that the most efficient and reliable approach would be to measure dioxins on particles in the scrubber water. This was for the two following reasons: (1) in the Norway plant, 99% of the emissions were found on particles in scrubber water -- it makes sense to look first in the most likely spot; and (2) direct testing of stack gases would be highly unreliable, for technical reasons, and very expensive. Eventually, UDAQ agreed and proceeded with plans to test scrubber liquids at MagCorp. MagCorp refused to help pay for the testing and chided UDAQ for listening to the concerns of citizens.

Then, in February 1998, MagCorp surprised everybody by going to UDAQ and admitting that they are probably producing dioxins. They even offered to pay for testing, but insist on testing gas emissions. CACC applauds MagCorp's step towards openness, but is concerned that testing only for gas emissions will result in false negative results because of technical difficulties and because the gases probably only contain 1% of the dioxins being produced. The rest are probably on particles in the scrubber water—purportedly sent to a holding pond at the edge of the lake. In February, CACC sent a letter to UDAQ explaining the technical reasons for these concerns, and raised additional concerns about the fate of any dioxins that may be released to holding ponds. At the recent Great Salt Lake Issues Forum, Dianne Nielson, Director of the Department of Environmental Quality, assured the audience that testing of both gases and scrubber water would be undertaken, but would not commit to a timeframe. CACC's position is that since testing was about to occur, MagCorp's recent admission should be a cause for conducting testing of scrubber liquids immediately, not delaying testing.

Want to help? Good people in the Department of Environmental Quality can only protect the environment when they have political support from above. A major reason that they have been allowed to cooperate with CACC is because State politicians are embarrassed to host the nation's largest emitter of toxic chemicals without even knowing the full extent of the problem. Letters to politicians filter back to DEQ in the form of authorization to act. If you want more information contact me at (801) 596-1325, or Howard Gross at (801) 486-4565.



# The 4th Annual Antelope Island Workshop and Camp out

## May 1-3, 1998

Plan on attending the 4th Annual Antelope Island Workshop and Camp out on May 1, 2 & 3rd. This workshop has been a tradition of Friends of Great Salt Lake to provide an intimate and scientific perspective on the Great Salt Lake ecosystem and its history. Spectacular Antelope Island sets the stage for the outdoor seminars on the natural history the lake. The center of activity is the remote historic Fielding Garr Ranch on the eastern shore of the island. Usually closed to the public, the State Park manager is granting special permission for us to camp overnight near the ranch house.

### Workshop Sessions:

- Geology of the Shorelines of Great Salt Lake and Lake Bonneville
  - Ecological Stories of Antelope Island
  - Lake Ecology from a Canoe Point of View
  - Hike Up a Remote Canyon
  - Island Birding at its Best
  - Wetlands of Great Salt Lake Ecosystem
  - Great Salt Lake Limnology and the Ecology of Brine Shrimp
- Genevieve Atwood  
Ty Harrison  
Joel Peterson  
Tim Smith  
Frank Howe  
Don Paul  
Paul Birdsey

Arrive Friday for a camp out under the stars. Rise and shine on the island. Participate in a morning session from 9:00-12:00 , break for lunch, and then head out for the 1:00-4:00 afternoon session. Saturday evening potluck with a campfire will provide a nice finish to the day. On Sunday, we will be planting browse species so bring a shovel. The activity fee is \$20 for adults, \$10 for seniors. Children under 12 are free and must be accompanied with an adult. (No dogs please).

A program brochure will be mailed to all members by the end of March. The registration deadline for the workshop will be April 29th. Limited space is available so you'll want to sign up early. Call Lynn de Freitas for more information at 582-1496. Definitely not to be missed.



Sam reflecting on  
Great Salt Lake -  
Photo by Howard  
Gross



# A Proposal for a Comprehensive Watershed Restoration and Protection Program for Great Salt Lake

Robert W. Adler, Associate Professor of Law  
University of Utah College of Law

(Note: Sections I - III of this paper were adapted from Robert W. Adler, *Addressing Barriers to Watershed Protection*, 25 Environmental Law 973-1106 (1995). Sections III and IV were the focus of Mr. Adler's presentation at the Second Great Salt Lake Issues Forum, held on February 21, 1998, with Section IV specifically addressing the current Great Salt Lake planning process being conducted by the Utah Department of Natural Resources.)

## I. What is a watershed approach?

A watershed is the total land area drained by a body of water. For Great Salt Lake, the watershed consists of roughly 35,000 square miles in parts of 3 states. A watershed approach, much like the related idea of comprehensive ecosystem management, considers and addresses the impacts and interactions of all human and natural conditions and activities within a watershed.

## II. Why Adopt a watershed approach?

Four sets of imperatives suggest the wisdom of watershed-based programs: ecological; institutional; economic; and sociological.

### A. Ecological Imperatives

1. The nature of aquatic ecosystems, which suggest critical connections that cannot be addressed through source-specific programs alone, like:
  - a. interactions between land and water resources;
  - b. links between water quantity and water quality;
  - c. ties between groundwater and surface water; and
  - d. the heterogeneity of aquatic ecosystems. Place-based programs allow us to address the unique aspects of individual systems. (As North American watersheds go, the Great Salt Lake ecosystem is quite unique.)
2. The nature of the major remaining sources of aquatic ecosystem impairment, none of which are addressed well by existing source-specific pollution control programs, like:
  - a. habitat loss and alteration;
  - b. polluted runoff (nonpoint source pollution); and
  - c. declining instream flows.

### B. Institutional Imperatives

1. The existing system for protecting and managing water resources in the United States is complicated and fragmented. Programs are characterized by:
  - a. Political fragmentation -- overlapping and conflicting responsibilities.
  - b. Issue fragmentation -- the artificial division of related water issues into separate programs, such as:
    - water quality and quantity;
    - land and water use; and
    - surface and ground water.



## C. Economic Imperatives

### 1. Efficiency

Public and private resources are inadequate and increasingly scarce. Watershed programs allow us to tailor programs to the needs and conditions of particular watersheds.

### 2. Equity

Historically we have asked a lot from some sources of impairment (like sewage treatment plants and factories); but little or nothing from others (such as farm runoff). The key goal of a watershed approach is to identify all sources impairment in the watershed, to work collectively and to ask each source to do its fair share to protect the shared resource.

## D. Sociological Imperatives – Bioregionalism and the Conservation Ethic

Place-based programs draw energy and support from the realization that people are more willing to take actions and make sacrifices to protect and restore a special *place* than the abstract idea of environmental quality. Places like the Great Lakes, the Chesapeake Bay, the Columbia River or Great Salt Lake.

"We live along the Great Salt Lake, one of the most extraordinary natural features in North America. I do not believe we, as a community, have honored its rarity. Our lack of intimacy toward this inland sea is not out of neglect, but of ignorance. We do not know the nature of this vast body of water that sparkles and sings. If we did, the shores of the Great Salt Lake would look different."

Terry Tempest Williams

## III.A General Model for Watershed Approaches

There is no single way to implement watershed programs. However, a standard but flexible model for watershed protection is evolving (gleaned from a wide range of current watershed programs at various scales all over the country):

**Step 1:** Establish a process to make decisions collectively, wherever possible by consensus among all affected interest groups, in a way that ensure commitments to implementation.

**Step 2:** Conduct comprehensive, *watershed-wide* resource inventories and evaluations a basis for program design. Consider:

- a. the status of the resource;
- b. the past, current and potential future health of the watershed;
- c. existing sources of impairment; and
- d. all potential solutions.

**Step 3:** Establish specific goals and objectives, wherever possible using numeric or other objective performance standards, and tie program implementation and evaluation to the attainment of those goals. Goals should include positive ecological measures, such as the "properly functioning condition" of the watershed.

**Step 4:** Identify, select and implement solutions designed to achieve the defined program goals, and allocate resources based on careful targeting.

**Step 5:** The process must be iterative rather than static to account for changing environmental and artificial factors and evolving knowledge. This requires ongoing evaluation of program implementation and results, so that programs and strategies can be modified or retained as needed.

## IV. Implications for the Ongoing Great Salt Lake Planning Process

The ongoing planning process is a great beginning, and should be supported. But it represents a first step along the road to a much broader vision of a comprehensive planning, restoration and protection program for Great Salt Lake. There are five ways that the current process could be broadened or improved over time.



**1. Broaden the geographic focus from the Lake to the watershed of the Lake.**

The current process is limited to the area within the meander line. This limitation was originally set by statute, but the formal meander line boundary was repealed in 1995. So we have an opportunity to broaden the vision of the planning effort. None of the other similar processes around the country that are making real process are limited in this way. All look at the whole watershed and the essential interactions: between what happens upstream in the water system and at the hydrological ends of those systems; and what happens on the land mass and the impacts of those activities on the water body and its ecosystems. *It's all connected; so we have to plan in a connected way.*

**2. Shift the Focus from Single-Agency to Multiple-Entity Planning.**

A comprehensive planning effort should involve, as active players and decisionmakers, the full range of public and private entities whose actions and interests are affected by decisions about the Lake and its watershed. This is not meant as criticism of DNR. The issues that affect the lake transcend not just DNR but any single agency--in fact, any combination of government agencies--because of the myriad private entities whose actions affect the Lake or are affected by decisions about management of the Lake in some way. *We're all connected; so we need to plan together.*

**3. Shift the Focus of Efforts from Resource Use and Allocation to Resource Restoration and Protection.**

In the past, in part due to narrowly-defined statutory directives, we prepared "Resource Use and Allocation Plans," that focused on extractive and consumptive uses of the Lake. Such uses inevitably will continue, and must be considered as part of the planning process. And those who benefit economically from those uses must be part of a broader planning process. But our human interests in the lake are no more important than those of the Pelicans or the Eagles. *Great Salt Lake is a sustainable ecosystem; we need to plan for sustainability; not just for use and allocation.*

**4. Shift our time focus from the short-term to the long-range.**

The current planning process is proceeding rather quickly. While progress on short-range problems is commendable, the current planning effort should be just the beginning of a much longer, more iterative and adaptive process. Similar programs around the country proceed on the principle of "adaptive management," which consists of planning, implementation, monitoring, reassessment, replanning, additional implementation and so on. Until the goals of the program are met. *The Lake changes constantly, as do our actions that affect the Lake; so we need to plan in an iterative way.*

**5. We need to move from planning to implementation.**

Watershed planners around the country have learned the lesson of impressive-looking plans that did little more than collect dust on the shelves of government offices. Plans are only meaningful if they contain binding commitments to implementation. *The problems the Lake face are real; so our solutions must be real as well.*

Many thanks to the following sponsors for refreshments at activities and meetings

- All My Cookies  
261 E. 3300 S.
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- The Red Butte Cafe  
1412 S. Foothill Dr.



## Ella Sorensen's Keynote Address at the Second Great Salt Lake Issues Forum

*(Note: The following text was adapted from Ella Sorensen's keynote address at the Second Great Salt Lake Issues Forum, held on February 21, 1998. Text copyright © 1997 by Ella Sorensen. Friends of Great Salt Lake is grateful to Ella Sorensen for her permission to reprint it in our newsletter, and grateful for her vision. Thanks also to Gibbs Smith Publishers for permission to reprint a passage from "Seductive Beauty of Great Salt Lake: Images of a Lake Unknown" that was part of Ms. Sorensen's keynote address, and to John P. George for sharing his skillful eye and wonderful photography with all of us. —HG)*

Long before modern humans set foot on the salty shores of Great Salt Lake, the cadence and rhythms of myriad natural cycles were well established. These cycles are complex and diverse but to anyone watching the movements of birds on the lake, season after season, year after year, what at first seems like a jumbled kaleidoscope of millions of birds coming and going is actually a timely, predicable and well-ordered sequence.

Ancient cycles connected to the lake are interconnected and delicate, dependent upon each other and fragile. They were set down before we came along and set without our advice, guidance, direction, or planning committees.

Migration, the coming and going of birds with the seasons, has always fascinated humans. In the Great Salt Lake, we have a world class showcase of migration.

I would like to now simplistically touch on about a dozen bird rhythms.

Today is February 21 and already the northerly migration is underway. Occasionally in late February, when alerted by loud nasal honking calls, I lift my eyes into a brilliant blue sky and meet there the great powers of flight, strong wings flapping wild and free taking dazzling white snow geese on their annual migration north to beyond the Arctic Circle.

One could almost believe that pintails are frozen into the white winter ice of the fresh water marshes for as soon as the mid-February melt begins pintails suddenly and abundantly are there. They are merely passing through for only a small number will remain to nest. But come fall, a million or so are back to sit in flightless rafts on the Great Salt Lake while their molted feathers are replaced.

Six different swallow species forage commonly in the insect-rich air above the above the wetlands and already now in late February the vanguards have arrived. Almost always the first swallows to show up are the deep iridescent, blue-backed tree swallows. Tree swallows nest in cavities, often old woodpecker holes. The cliff swallow of Capistrano fame comes later to Utah, but is the first of the six swallow species to vanish from the state in the fall. Cliff swallows plaster their mud nests on cliffs, buildings, viaducts and bridges. And almost invariably any swallow that lingers into late fall will not be tree or cliff, but instead the flame-colored, fork-tailed barn swallow.

Spring's first hint of renewal among last year's tan withered cattail stalks is not the new growth of green, but the early March appearance of the brilliant yellow heads of blackbirds. Yellow-headed are bigger and more aggressive than the red-winged and will out compete them for the preferred nesting areas. The red-winged will make do with what's left.

A sharp "wheet" call of an avocet in March heralds the immediate approach of many, many more. But several weeks will pass before the first black-necked stilts appears. Avocets and stilts nest in loose colonies on the ground, often side by side in identical habitats, but stilts on an average tend more toward flooded vegetated areas, and avocets to bare ground. The stilts will leave Utah sooner than the avocets, whose numbers will swell to hundreds of thousands, as local breeding avocets are joined by nesters from other locations and together linger and fatten into fall. The bright orange head of the breeding avocet will molt to white. I have seen premigratory flocks packed so tight together in the shallow salty water at the south end of the lake that they appear as vast fields of snow, and then I have returned the next day and found none.

Willetts arrive later than stilts and avocets, but of all the shorebirds it is the boldly striped, black and white winged willetts that slip from the state the soonest. Commandeering the entire expanse of an April sky as their courting grounds, they loudly zoom about. It is impossible to ignore when the willetts are aroused.



Then, they settle down, often a single pair, away from water, to nest, hatch, and fledge. And then, zip, by mid summer they disappear from the state, and I receive my annual July call from the California coast informing me that "our" willets are back in California.

California gulls and pelicans often nest together on remote isolated islands that afford protection from predators, making migratory flights to forage. While incubating, according to Don Paul, the pelicans are on 72-hour shifts, one on the nest, and one feeding and loafing in fresh water marshes to the east. When chicks hatch and need to be fed the shift shortens to 48 hours, and eventually 24 hours when the rapidly growing chicks' demand for fish becomes incessant. It takes a lot of transported fish to grow from an egg-sized nestling to a big lumbering white pelican with a 9-foot wing span ready to fledge and fly away from the island.

California gull fledglings are brown and white, and over a period of 37-40 months they go through a series of two molts a year in a predictable sequence to become the gray white and black adults. These molts produce eight plumages so distinct and recognizable that a gull expert can watch a gull fly by and say "Oh, there goes about a year and half old California gull molting into its second winter plumage from its first summer plumage." On Great Salt Lake we see mostly the gray and white adult. To this we owe another bird cycle. As soon as the California gull chicks molt into flight feathers, most surrender to their urge to wander, leaving Great Salt Lake behind for the Pacific coast, where they remain for 3 or 4 years until they achieve maturity and return to Great Salt Lake islands and dikes to breed.

California gulls nest with pelicans, but the smaller black-headed Franklin's gull prefers the white-faced ibis as a nesting neighbor. They often form large colonies together in emergent marshes. Ibis are fond of feeding in flooded agricultural fields. Franklin's gulls are more discriminating feeders than the California gull—you don't see Franklin's gull hanging out at dumps.

When large flocks of marbled godwits appear in June, the joke is that it is hard to tell if they are coming or going. But most have finished nesting in the prairie states and are headed south for winter. June, and fall migration has already begun. When violent storms downed thousands of migrating eared grebe on December 15, 1991 in southern Utah, many wondered why the grebes were migrating so late. They were not late. Eared grebes are tied into the cycle of brine shrimp. Departing by the thousands in December is not unusual.

These are but a few of the species that occur annually on Great Salt Lake. Hundreds of different species and hundreds of differing life cycles. Different arrival and departure times, different seasons, different food sources, different nesting habitat, but for each individual species the requirements are really rather rigid.

Today Great Salt Lake is ours. It is our moment. It is our time for stewardship of one of the most unique and magnificent natural wonders on earth.

Something beyond ourselves fashioned the intricate workings of this lake.

*It was not through our toil nor labors that the lake was created. It was not our ideas that sprouted and blossomed.*

*It was not our hand that placed the brine fly and the brine shrimp so abundantly into and upon the water. Nor gave to each the algae that so richly sustains their life.*

*It was not a song from our lips that set the seasons, the harmony and rhythms to which the wings of birds give heed.*

*The curves and straight lines that define the island skylines are sculptures by some other, designed.*

*The waters flow to patterns molded to another's will.*

*Does not what ever or who ever we believe created the lake, deserve our acknowledgment of the masterpiece? Our appreciation of the magnificent handiwork? 1*

One of the grandest, most important, and most maligned natural cycles on Great Salt Lake relates to its dynamic nature and salty water. Periodic inundation of fresh water marshes is normal and natural and essential to maintain the ancient life cycles and diversity of life on this lake and keep the system healthy.

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1 From page 4 of "Seductive Beauty of Great Salt Lake: Images of a Lake Unknown." Essays by Ella Sorensen. Photographs by John P. George. Gibbs Smith Publishers, Salt Lake City. 1997.



The Great Salt Lake is a wanderer, a traveler, a restless drifter that if here today might be here tomorrow, or might be somewhere else. We draw boundaries on maps but they are nonsense, to satisfy a human need to define a shape that never even a moment remains the same.

The story of life that survives on the shifting shorelines of shallow salty terminal lakes is the story of life that has learned to wander in harmony with life that has learned to wait. Myriad saline playas, depressions into the earth, and vast expansive mudflats often lie dry around the perimeter of the lake. And those who do not understand the dynamic, ever-shifting nature of the lake call them worthless and barren. But the perception of lifelessness is but an illusion. Could all who would trash these so-called barren areas be there in the time of splendor. Like a plant of roots, leaves, and stems that one day opens the petals of a gloriously beautiful flower, the dry areas explode with life when seasonally or intermittently flooded, as the climate varies, as the rain falls or as snow melts or runoff gathers. Dormancy is replaced by frantic activity, for there is little time to waste. Algae grows, insects explode, birds with wings to wander are suddenly abundantly there, to quickly call and court and nest before the water leaves and the mudflat dries and lies dormant again.

For maybe a year, A decade, or a century. Dry but not barren. It waits.

And we humans, used to trees with roots and structured buildings, have poorly grasped the dynamics of shifting lakes. We make our plans from snap shot views and, failing to realize that time is more than today, rush in and build and fill and alter and change forever the delicate rhythms necessary for a healthy ecosystem of a dynamic lake.

One never knows from year to year where the shoreline of the lake will be, or where these little pools will appear or how long they will hold water. Birds using Great Salt Lake have survived for millennia because when tomorrow comes, and they return to nest or forage and find yesterday's sites under water or dried, they have the wings to wander. And although the lake is dynamic, ever shifting and changing, Great Salt Lake is not fickle. Somewhere there are areas whose blossoming time has come, where each species of birds can find suitable habitat for nesting and foraging, and the species continues on for another generation.

But avocets can not nest in parking lots, and stilts do not forage on highways, and ibis can not nest on the green grass of golf courses.

While the lake is in our keeping we have important choices to make. I watch this lake being picked apart piece by piece and with terrible disruption of natural cycles. I am reminded of a 15th century Native American poem:

*What does your mind seek?*

*Where is your heart?*

*If you give your heart to each and every thing,*

*you lead it nowhere, you destroy your heart.*

—King Nezahualcoyotl<sup>2</sup>

We cannot dole the lake out piece by piece, give everyone a piece of the action and expect to retain the integrity of one of the grandest natural wonders on earth.

Each generation receives the lake from its predecessors, makes their mark upon it, and then passes it on to the next generation. A forward moving path of time. We cannot change our starting point for that is set by the actions of others before our journey began. Nor can we dictate where those of the future will head. But for awhile the footsteps are ours. We can follow the easy course for most humans pick up, without questioning, the cadence and direction of the path onto which they were born, but we are not on a good course with this lake. We need to have the courage to change the direction away from the destructive road we are on toward one of a good stewardship of protection and preservation. We must make our decisions with enlightenment, and with an eye to the responsibility to other life forms as well as our responsibility to those who follow us.

Let us rise to our time of stewardship and hold our place in history with valor and honor. It is not the lake we need to conquer, but ourselves.

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<sup>2</sup> From pp. 4-5 of "Aztec Thought and Culture: A Study of the Ancient Nahuatl Mind." By Miguel Leon-Portilla. Translated from the Spanish by Jack Emory Davis. University of Oklahoma Press. 1963.



# Great Salt Lake Auto Tour 1998

June 6-7

Our next Great Salt Lake Auto Tour has been set for June 6 & 7, 1998. This year's tour will feature stops at Bear River Migratory Bird Refuge, Monument Point, Kelton, and Bangerter Pump Station. We will have an over-night camp out on the west side of the lake on Saturday night.

**Volunteers** are needed to cook a dutch oven main dish or dessert, provide musical entertainment, bring a portable toilet and privacy screen, and other tasks.

Call Wagonmaster Kevin Landis at 972-7054 or e-mail [barten@compuserve.com](mailto:barten@compuserve.com) if you would like to help. Don't get left out, volunteering guarantees your space in this popular trip.

Ed Note: This is a once in a lifetime experience. 99.9 percent of the population has never had this opportunity to really experience the Great Salt Lake. You will experience untold beauty, solitude, history and knowledge as you drive your wagon around the Lake. Wagonmaster Landis' readings from early adventures and pioneers who populated the vacant landscape will transport your senses back to the days of these people as if you were living their adventure.



Carrington Island - Great Salt Lake (photo courtesy Utah State Historical Society)

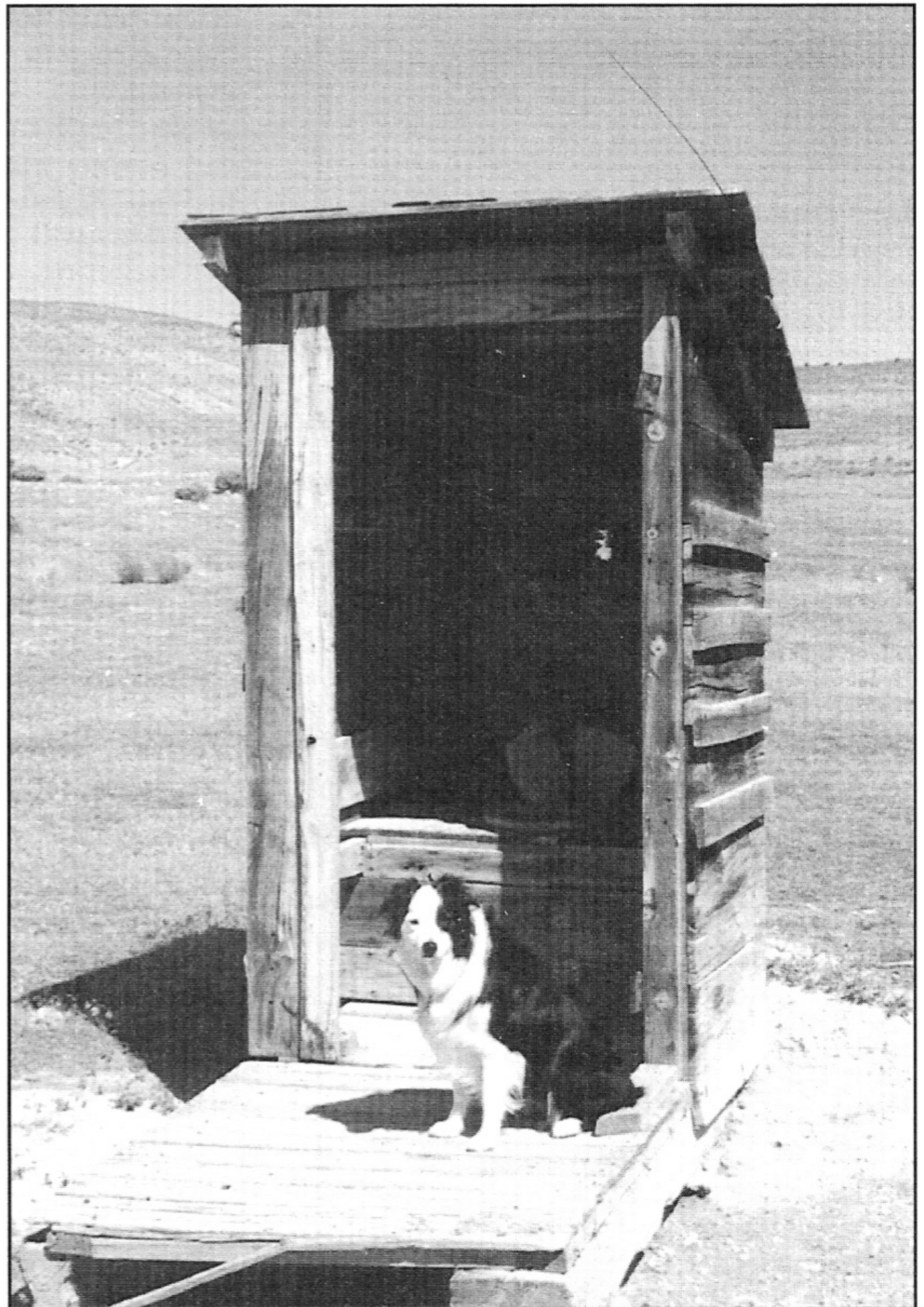


# Friends of Great Salt Lake is calling for a few good hands...

FOGSL is looking for some volunteers to help in the following:

- The Education Director's contract to present 50 showings of *The Lake Affect* slide show is nearing completion. We are in the process of determining the future direction of this effort. Possibilities include presentations by FOGSL volunteers, the production of *The Lake Affect* in video format, and possibly others. (Contact: Howard Gross 486-4565 hgross96@aol.com)
- FOGSL is looking for one or more people to take over **the editing and production of the newsletter**. This requires editing articles and graphics and assembling them into a quarterly newsletter of 16-20 pages. (contact Reda Herriott 484-5799 redahz@wasatch.com or Lynn de Freitas 582-1496 patrick.de-freitas@m.cc.utah.edu)
- In addition to editing and production, the newsletter also needs a **mailing coordinator** to seal, bundle, and box the newsletters per postal rules, fill out the paperwork, and drop it off at bulk mail. (contact Reda Herriott 484-5799 redahz@wasatch.com)
- **Board Positions:** FOGSL needs people to serve on the board for the upcoming year. There is one current opening and 9 openings for the 1999 term. Please come and help stand up for the Lake! (contact Lynn de Freitas 582-1496 patrick.de-freitas@m.cc.utah.edu)
- **Adopt-A-Highway** helpers (see article page 18) (contact Margie Paul-Hus 487-4383)
- **Auto Tour** support (see article page 14) (contact Kevin Landis 972-7054 or e-mail barten@compuserve.com)
- **Grebe Research** (see article page 18) (contact Don Paul of UDWR at 721-9780)
- In addition, if you have any ideas for **projects** (outings, education, advocacy, fund raising, art, etc.) for FOGSL to pursue and can lead, inspire, or just help. (contact - any board member or attend a board meeting)

Zane volunteers to "do it all" for Friends of Great Salt Lake



# Friends of Great Salt Lake 1998

## BOARD OF DIRECTORS

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

President Elect - Vacant

**Joel Peterson - Past President**  
485-2394 103327.1555@compuserv.com

**Margie Paul-Hus - Vice President**  
487-4383 chiron358@aol.com

**Michele Davis - Secretary**  
328-1981 otisphish@aol.com

**Spencer Martin - Treasurer**  
484-5703 spenmartin@aol.com

**Ivan Weber**  
355-6863 kiweber@kennecott.com

**Mark Doman - Membership Database**  
355-5343 leitner-usa@msn.com

**Rick Ford**  
583-5029 rford@weber.edu

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

**Kathlyn Collins**  
355-5226

**Ann Dick**  
359-5764 gdick@xmission.com

**Robin Hooton**  
272-3619

**Doug Howard**  
295-4395

**Jim Zinanti - newsletter**  
484-5799 jzinanti@wasatch.com

**Kevin Landis - activity organizer**  
972-7054

**Reda Herriott**  
435-425-3966 RedaHZ@Wasatch.com

**Lynn LeMaster - monthly flier**  
294-4517

## ADVISORY BOARD

**Bob Adler**

**John Kadlec**

**Dick Nourse**

**Steve Simms**

**Ella Sorensen**

**Terry Tempest Williams**

**Wayne Wurtsbaugh**

## Recycle Aluminum Cans.

Please consider donating aluminum cans 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 FOGSL 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 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.**

## Submitting Material for Publication

1. **What To Submit:** original articles (historical, geological, geographical, biological, political, fiction, poetry, etc.) which pertain to Great Salt Lake or art work including sketches, photographs, etc.
2. **Submitting Material:** Mail or deliver to 2656 S. Chadwick St. SLC, UT 84106-3506. Or e-mail to [jzinanti@wasatch.com](mailto:jzinanti@wasatch.com) or [RedaHZ@wasatch.com](mailto:RedaHZ@wasatch.com)
3. Please phone 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).

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/~fogsl>  
Kevin Landis: webmaster



# Board Meeting Summary

Salt Lake County Complex, Room S3009

3 March 1998

Present: Doug Howard-Board, Lynn de Freitas-President, Howard Gross-Board, Ivan Weber-Board, Ann Dick-Board, Jim Zinanti-Board, Robin Hooton-Board, Rick Ford-Board and Michele Davis-Secretary.

Others Present: Kevin Landis-Member, Reda Herriott-Newsletter Co-Editor.

Not Present: Margie Paul-Hus-Vice President, Spencer Martin-Treasurer, Bruce Thompson-Education Director, Mark Doman-Board, Kathlyn Collins-Board.

## Meeting opened.

Approval of February 5, 1998 minutes.

Treasurer's report postponed until next meeting.

The Lake Affect: The Board discussed the possibility of increasing the school audience percentage beyond the current 20% of the overall 50 programs. It was recognized that schools have a wonderful potential for integrating the program information with the curriculum, and yet there are other audiences in the community we need to target. For the time being, schools will remain at 20%. Friends received a \$6000 grant from The Wilburforce Foundation in Seattle, Washington for continued funding of the Education Director position. Discussion about expanding the format of the program and including more volunteers in the process is ongoing.

Issues Forum: 110 people registered for the Forum. Volunteers, speakers and sponsors are being thanked for their support in making the Forum a success. Comments and concerns from the audience in conjunction with the program topics were recorded and compiled by Brenda Landureth, Administrative Asst. Great Salt Lake Planning Project. They will be incorporated in the draft document of the Planning Project. Since the salinity issue and the railroad causeway were recognized as of significant importance, we will attempt to contact a spokesperson from Union Pacific Railroad for our May general meeting.

Denise Brown Watercolor Poster: The Board discussed creating a poster using the Denise Brown watercolor that was featured on the cover of our newsletter. It has strong possibilities as a fundraising idea but would also require good marketing strategies. The Board will continue to consider this idea in the future.

Great Salt Lake Planning Project Comments: March 20th is the deadline for comments. Comments made by our membership at our January meeting with Jim Carter were compiled by Brenda Landureth and will be in-

corporated in the draft document. Friends is also working with a coalition of other nonprofits on comments. Board members were encouraged to send their individual comments to the planning project team. Three important points to include are the scope of the project has not been well defined, the deadline is artificially unreasonable, and the integration of agencies dealing with the Lake needs to be improved and consolidated through a coordinating body or clearinghouse.

Adopt a Highway Program: The Board selected the following dates for this project: Saturday April 18, Saturday June 27th, Saturday October 4th. Rain days are the next day. We will provide free lunches and a raffle to get more people to participate.

Antelope Island Workshop: May 1,2 &3. Fee will increase to \$20. Instructors are being contacted and program brochures will be mailed out by the first week in April.

Great Salt Lake White Paper: A white paper on the Great Salt Lake ecosystem would be an effective way to focus the public attention on the significance of the Lake. Friends is working with The Nature Conservancy, Utah Wetlands Foundation, Audubon and others to achieve this goal. Details will be provided as things progress.

Earth Fest '98: The Univ. of Utah Museum of Natural History is sponsoring this Earth Day program on Sat. April 18th. Friends will participate by providing a display of our successes in focusing attention on Great Salt Lake.

Membership Database: The Board discussed their concerns over the database conversion and the difficulties involved particularly because of Mark's business obligations in Denver. Jim will contact Mark and explore a better way of making the necessary changes in this process.

KRCL Environmental Updates: The Board will explore opportunities available through KRCL to provide information spots on Great Salt Lake issues. This would be an excellent way to continue to educate the public about the complexities of the ecosystem, impacts of the proposed Legacy Highway, etc. Terry Underwood, 484-3132, oversees these updates.

**Meeting closed.**



## Friends of the Highway: Adopt-a -Highway Clean-up

Once again, spring brings with it our commitment to tidying up our section of adopted highway near Saltair. As an extra added incentive to bring all of you out to the road, we are having a raffle and will provide free lunch. That's right! Many hands make light work and that means getting the job done in half the time. Some of the raffle items will include your very own FOGSL T-shirt, and a free message. The lunches will be yummy sandwiches from Skool Lunch. The selected dates for our clean-up are:

Saturday April 18 (Earth Day activity)

Saturday June 27

Saturday October 3

We will meet at the Saltair Exit at 9:30 and work until noon. Lunch will follow. So that we can order the correct number of lunches, we are asking for RSVPs on the Tuesdays before each of the clean-up dates. Call Margie at 487-4383 or email her at [chiron358@aol.com](mailto:chiron358@aol.com) to put you on the list. We really appreciate your support in this effort.

## Great Salt Lake Issues Forum Abstracts

If you would like a copy of the abstracts of presentations at the Second Great Salt Lake Issues Forum, please send \$2.00 (for copying and postage costs) to FOGSL, PO Box 2655, SLC, UT 84110.

## New Survey Methods of Eared Grebes Show Abundance at Great Salt Lake Largely Exceeds Previous Estimates

*(Note: The following text was adapted from the presentation and abstract given by Joel Flory of the Utah Division of Wildlife Resources (UDWR) at the Second Great Salt Lake Issues Forum, held on February 21, 1998 in Salt Lake City. —HG)*

As part of its Great Salt Lake project, UDWR conducted intensive waterbird surveys at Great Salt Lake from June 25 to September 10, 1997. In addition to these surveys, Eared Grebe (*Podiceps nigricollis*) numbers were estimated using a new photosurvey method developed at Mono Lake, California. The results of this survey indicate fall staging populations in 1997 of 1,460,000 grebes. Previous estimates of Eared Grebe abundance have generally been smaller at approximately 400,000, probably due to the technique(s) used. This newer method will allow for year to year comparisons that previously weren't possible. Eared Grebes rely heavily on brine shrimp (*Artemia monica*) during their molt. At that time, shrimp compose >98% of grebe diets. Based on estimates from various Great Basin locations, Eared Grebe during their peak abundance at Great Salt Lake may be consuming in excess of 100 tons per day of brine shrimp.

The waterbird surveys will be conducted again in 1998 and **volunteers** with good-to-excellent birding skills are needed. If you are interested, please contact Don Paul of UDWR at 721-9780.

## Earth Day 1998

Earthfest '98: April 18

The Utah Museum of Natural History will celebrate Earth day on Saturday, April 18. Free museum admission and activities. Come and visit the FOGSL booth! Music, live birds, recycling projects, food, and fun. Time is 9:30 am - to 2:00 pm. Contact Kara Edwards 581-4887.

USEE Earth Day Celebration

Come and see exhibits, play environmental games, and find out who will win the Pollution Prevention Video Contest. Plus enjoy music, food, and more at Gardner Village 7800 South 1100 West. Time is 10:00 am to 6:00 pm. Contact USEE (Utah Society for Environmental Education) 328-1549



## Denise Brown Art Print Cards

If you enjoyed the cover of our last newsletter, or if you would just like to have four beautiful and inspirational artists views of our "Great Salt Lake". Please order some cards. Denise Brown is graciously donating all of the proceeds (above printing cost) to our organization.

Card packs:

\$14.00 for 8 Cards

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(Choose all same or a mixture.)

To order box(es),

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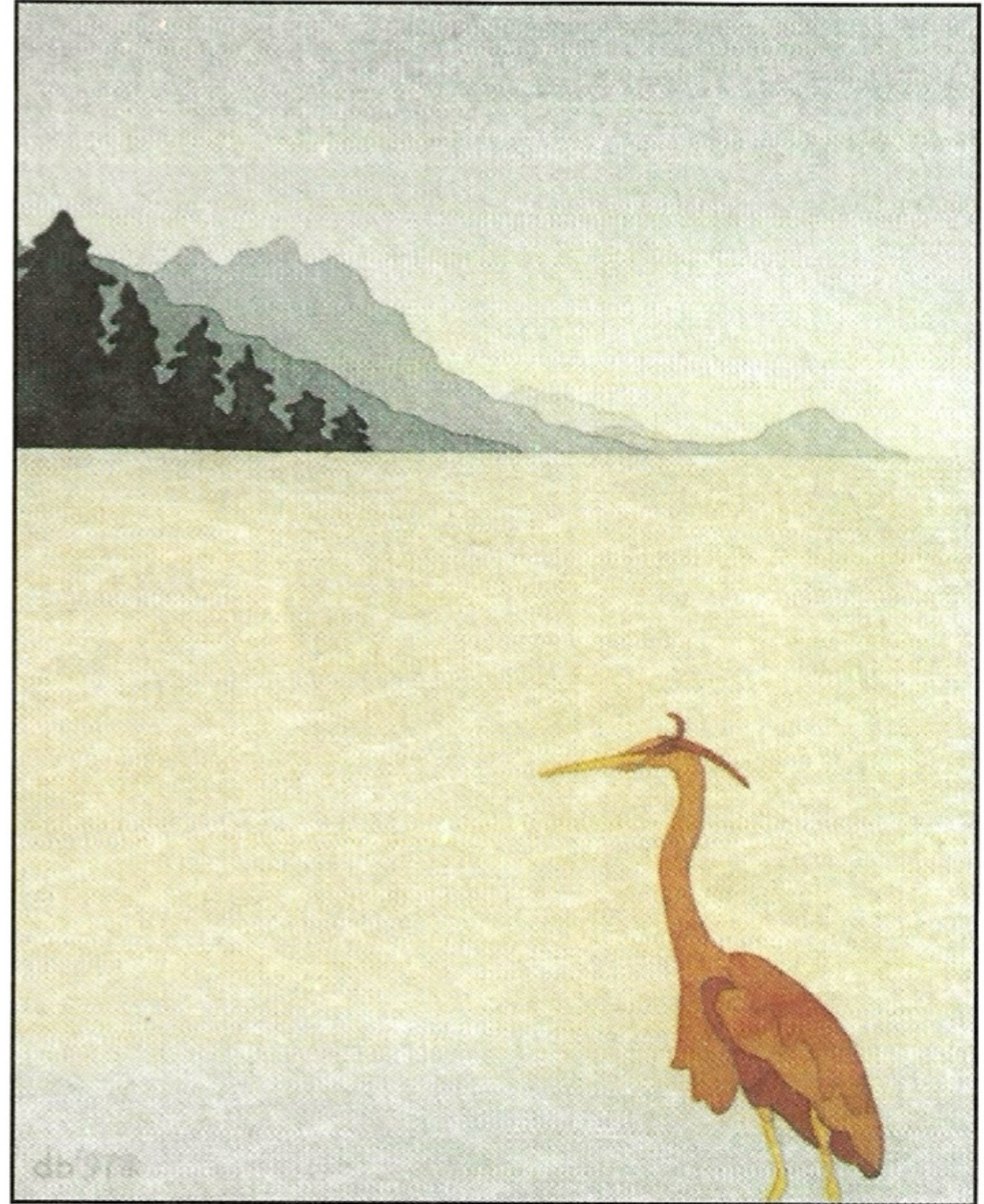
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**Yes!** I want to join **FRIENDS of Great Salt Lake.**

Here are my dues in the amount of (check one):

- \$10 Student Membership "Brine Fly"
- \$10 Senior Membership "White Pelican"
- \$20 Regular Membership "Pickleweed"
- \$30 Family Membership "Wilson's Phalarope"

Contributing Memberships:

- \$31-50 "Brine Shrimp"
- \$51-100 "Eared Grebe"
- \$101-250 "Pronghorn Antelope"
- \$251-499 "Bald Eagle"
- \$500 Sustaining "Ecosystem Protector"

**Student** - be at least half time.

**Senior** - must be 62 years or older.

**Sustaining** is any corporation, institute, organization, or individual interested in financially supporting activities of **FRIENDS OF GREAT SALT LAKE**

(v4n2)

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

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- \$50
- \$100
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