

# FRIENDS of *Great Salt Lake*

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*Roar of Beauty* by Charles Uibel

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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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# EXECUTIVE DIRECTOR'S MESSAGE

## CAN THE GREAT SALT LAKE STATE OF UTAH LEARN FROM THE PELICAN STATE OF LOUISIANA?

*"The entire shoreline of the Great Salt Lake is a natural wonder of international significance. It rivals many of our national parks in its geologic history and ecological splendor. If it were not so near to our urban interface, it may have been designated as a National Park long ago. With more intense pressure from urbanization than ever before, perhaps that time has come."*

- Soren Simonsen Salt Lake City Council and Principal planner, Community Studio

As you might expect, cleaning a pelican contaminated with oil from the BP disaster is no easy task. Although already stressed from the trauma of being coated with oil, the bird must be captured aka "rescued", and transported to a rehabilitation command center, located any number of miles away. Likely suffering from dehydration and hypothermia, it must be quickly stabilized with intravenous fluids and nourishment in a temperature controlled environment, while waiting for a production line of staged baths in Dawn dish soap and strategic rinse cycles.

For a bird this is no less than torture – manipulated against its will while being gently sponged and Q-tipped inside and out. The bird's reward for this hell is to end up in a holding area to dry and regain strength before being staged back into its natural environment. With any luck, a safe and productive haven can be located that's not too far away where the pelican can try to regain some foothold in the seasonal cycle of things. The goal is to survive the "care" process and then of course, to survive long term.

But what about the thousands upon thousands of brown pelicans, laughing gulls, sandwich terns, and great blue herons –to name a few - that weren't even given the chance to run this grim gauntlet? What is their fate from either ingesting or being covered with the Oobleck?

The Mississippi Gulf Coast is, or quite possibly was, one of the most productive fisheries in the world. It is home to an array of avian species that flock there from as far away as the prairie pothole region in Canada because of its habitat and high productivity. And it is home to significant seafood harvests, tourism and recreation, and -- yes -- oil and gas production. All combine to support a longstanding and vibrant culture.

It's not lost on any of us that these Louisiana marshes weren't always regarded as valuable, and that over the past 60 years the landscape has been manipulated significantly to accommodate industrial development. Diverting the Mississippi Delta prevented fresh water from coming into the marshes. Miles of canal dredging changed the hydrological dynamics of the ecosystem.

The canals facilitated salt water intrusion and exacerbated natural disasters like Katrina and Rita. Combined, these occurrences have directly impacted the ecosystem goods and services that were once extraordinarily abundant. The environmental disaster aside, the BP incident is a sober reminder about how easily things can fall apart when safety and quality assurance procedures are non-existent, regulatory oversight is lax, and responsible ecosystem management and planning take a back seat to politics.

How can a terminal lake  
located at the bottom of a  
35,000 square mile drainage  
basin not have its own  
water? Simple: all the water  
coming into the lake is  
already spoken for.

Just as water from the sky is life to the marshes of the Gulf Coast, it is also true for the Great Salt Lake, the largest body of water west of the Mississippi River. The lake relies on precipitation and inflows from snowpack and rivers upstream in its watershed. The amount of water, the quality, and when it arrives directly affect the lake's ability to cycle through its natural dynamics – breathing, cleansing, rejuvenating, and sustaining its ecological productivity in this arid western environment. It's an ecological productivity demonstrated by astounding bird use, record breaking brine shrimp harvests, and abundant mineral production.

Yes, it is an ecological and economic golden goose, it's hemispherically important, and it's emblematic of our sense of place, our history and traditions like waterfowling, sailing, and birding. But because Great Salt Lake is such an overachiever with this amazing output potential, it's tempting to just keep asking for more– “higher, faster, stronger” –without giving something back. We should be checking its temperature and pulse occasionally just to be sure it's healthy.

One big problem for Great Salt Lake is that it does not have its own water. How can it not have its own water? How can a terminal lake located at the bottom of a 35,000 square mile drainage basin not have its own water? Simple: all the water coming into the lake is already spoken for through existing water rights that are tied to various beneficial uses of the system. Existing water rights are already over appropriated. That means there is more papered water than there is wet water. Even so, new applications like the request from Great Salt Lake Minerals (GSLM) for 353,000 acre feet of water annually for a proposed expansion are waiting for approval by the State Engineer.

Theoretically, the system could be drained dry as each interest takes its share of a limited resource. Although this is a universal plight for all saline lakes around the planet, are we prepared to accept this sad fate for our lake? Unless we are willing to implement immediate and effective management strategies to remedy this situation, that's exactly what we can look forward to.

In April, at the FRIENDS 2010 Great Salt Lake Issues Forum, we spent three days discussing the politics, science, and value of keeping the lake wet and explored the

plausibility of a conservation pool for Great Salt Lake. There was consensus that a conservation pool has merit, but it would require strong leadership, cooperative conservation of water, and the collective will of all water users to support it. So what are we waiting for?

But this isn't the only challenge Great Salt Lake faces. Over the past 60 years, the lake has been severely altered by causeways and dikes which have affected the hydrology and geochemistry of the system. The pressures from development on and around the lake continue to mount under a management regime of multiple uses and “balance”. Most of the wetlands in Utah, 400,000 acres of them, are next to the Great Salt Lake. And they're under threat. At the same time, the Division of Forestry, Fire and State Lands approved a 10 year lease for GSLM to nearly triple its operational footprint on the lake to increase its production of fertilizer. The Army Corps of Engineers characterizes this proposal as the largest 404 project in the nation because of the acreage involved.

The nation is collectively holding its breath as work goes on to determine the immediate and long term impacts from the worst environmental disaster in the history of the Gulf. Here at Great Salt Lake, we still don't know what constitutes minimal damage or substantial impairment. Or what the cumulative impacts from the broad range of permitted uses of the system are. Without targets for responsible management and reference conditions for the lake, how will we ever know if we're moving toward sustainability or perhaps toward our own disaster? 🐼

In saline,  
Lynn de Freitas

What you can do – Visit [www.fogsl.org](http://www.fogsl.org) - to find out.

# FRIENDS ORGANIZATIONAL STATEMENT

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FRIENDS of Great Salt Lake was founded in 1994. The mission of FRIENDS 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. The long-term vision of FRIENDS is to achieve comprehensive watershed-based restoration and protection for the Great Salt Lake Ecosystem.

FRIENDS has a very active Board of Directors and an Advisory Board consisting of professionals in the scientific, political, literary, education, and broadcast communities. The organization sponsors an array of programs, activities, and materials in pursuit of its mission.

Every two years, FRIENDS hosts the Great Salt Lake Issues Forum to provide a focused discussion about the Lake for policy makers, researchers, planners, industry and other stakeholders. The goal of each Forum is to encourage constructive dialogue about the future of the lake's ecosystem and its resources, and to illuminate the complexities involved in research, management and planning for the lake.

The Friend of the Lake Award, given at each forum, acknowledges a citizen, business or organization working to promote GSL awareness in the community.

In 1997, Bruce Thompson was hired as Education Director to initiate a major regional education project designed to enhance both the knowledge about and care for the future of Great Salt Lake. Bruce wrote and produced a live-narrative slideshow program "The Lake Affect: Living

Together Along the Shores of Something Great." The program is now available on DVD.

In 2000, Project SLICE, a 4th grade curriculum using Great Salt Lake as a system of study was initiated. It consists of 7 units of study, a Speakers Network, Teacher Training Workshop, and Lakeside Learning Field Trips. Currently work is being done to expand the curriculum into other grades.

Emily Gaines, Education and Outreach Director is working to refine the Project SLICE curriculum and expand education outreach into the Great Salt Lake community.

In 2002, the Doyle W. Stephens Scholarship Award was established. The scholarship provides support to undergraduate and graduate students engaged in new or ongoing research that focuses on Great Salt Lake.

In 2006, FRIENDS was the recipient of the Calvin K. Sudweeks Award by the Utah Water Quality Board for outstanding contributions in the water quality field.

In 2002, President Lynn de Freitas, was awarded the outstanding volunteer educator award by the Utah Society for Environmental Education.

In 1998, FRIENDS was awarded the Conservation Achievement Award by the Utah Chapter of the Wildlife Society. 🐾

## On the Cover

*Roar of Beauty* by Charles Uibel - [www.GreatSaltLakephotos.com](http://www.GreatSaltLakephotos.com)

For its own protection Great Salt Lake presents itself as an uninviting stink puddle. Disguise is, after all, nature's first defense.

A morning's rainbow in orange clouds will quickly return to bland. Big blocks of foam in red water melt into ordinary waves. A musical spring breeze accompanying the dance of the antelope will always waft away with the changing sky.

There is not a great performance going on every time you pass the theater. But don't be fooled by the dark marquee and the ordinary unpleasant noises of the street. There are spectacular moments to be shared with the lake. And between the uninviting, the stink, the puddles, there is a roar of beauty.

# 2010 FRIEND OF THE LAKE AWARD

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## DON PAUL



*Don Paul by Larry Neel*

*“His sincerity and his gracious willingness to share his knowledge and expertise with regard to the Great Salt Lake has brought much needed national and international attention to this unique ecosystem”*

*- Yae Bryner, Linking Communities cohort*

Don Paul is the 2010 Friend of the Lake award winner. The award is given to honor and acknowledge those performing outstanding work in education, research, and/or advocacy to benefit Great Salt Lake.

Many people call Don Paul a Great Salt Lake institution. Don was a wildlife biologist with the Utah Division of Wildlife Resources for 34 years and served four years as the Great Basin Bird Conservation Region Coordinator. He currently runs AvianWest Inc., a bird and habitat conservation business, serves on the Shorebird Science Team for the Intermountain West Joint Venture, is an active member of the Linking Communities, Wetlands and Migratory Birds, and recently served as a committee member of the Waterbird Conservation Council of the Americas. He is published in both scientific and popular conservation literature.

Such a list of accomplishments misses an important aspect of Don's life and dedication to Great Salt Lake. He's an excellent Great Salt Lake schoolmaster who has spent a lifetime learning about Great Salt Lake and skillfully helping others to learn about it too. His range of influence and inspiration goes far beyond our own backyard. His learn by doing approach has been instrumental in getting heaps of lake work done, and has added to the richness of the modern day history of Great Salt Lake as well.

To be one of his students, fellow researchers, or committee members is to see one inspiring and diligent human being. FRIENDS is delighted to give the 2010 award to Don Paul.

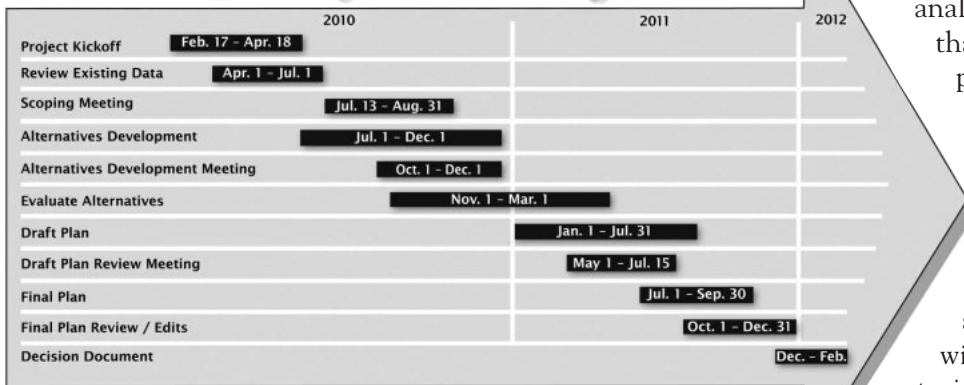
# SPEAK UP FOR THE LAKE

## REVISION OF THE GREAT SALT LAKE COMPREHENSIVE MANAGEMENT PLAN

The Utah Department of Natural Resources Division of Forestry, Fire, and State Lands (FFSL) has initiated a revision of the Great Salt Lake Comprehensive Management Plan (CMP) to provide management direction to FFSL and other Department of Natural Resource and Department of Environmental Quality agencies for protection and use of Great Salt Lake resources below the meander line for the next ten years. The revised management plan will incorporate a wealth of new scientific data that has been developed since the current plan was adopted in 2000. Various management scenarios for the Great Salt Lake will be considered, taking into account environmental, social, and economic impacts. The analysis of new data during the planning process will also influence any revisions to FFSL's Mineral Leasing Plan.

agencies, stakeholders, and the general public in a two-year planning process. The project will kick off with a round of public scoping meetings this summer. SWCA and FFSL will present the project at County Commission meetings beginning in late-July and early-August 2010. Immediately after the presentations, the project team staff will be available to gather comments and answer questions about the CMP. Throughout the summer months comments and concerns pertaining to the management of the lake will be accepted. Substantive comments and new research gathered during this phase of the process is essential, as they will help shape the revised CMP.

### Great Salt Lake Comprehensive Management Plan



Once management issues have been identified, FFSL will develop a range of management actions to meet the needs of the resource. A range of four management action alternatives will be analyzed via a set of comprehensive criteria that will incorporate the importance of the public trust and sustainable uses of the Great Salt Lake. The alternatives, analysis and preliminary assessment of each of the lake's resources will be available for public comment at the second round of public meetings later this year. Upon incorporation of substantive public comment, a Draft CMP will be developed that contains strategies to implement the preferred alternative. The Draft CMP will be available for public comment during a third round of public meetings scheduled to be held in the Spring of 2011. The Final CMP and Decision Document will be completed by February 2012.

The CMP is intended to provide a comprehensive management approach to the sovereign lands and resources under the jurisdiction of FFSL. With specific regard to the Great Salt Lake, the lands under FFSL jurisdiction fall below the surveyed meander line. The elevation of the meander line was mapped between 1855 and 1966 and ranges from approximately 4202 to 4212 feet. The revised CMP will be comprehensive in its approach to manage the interconnected resources of the Great Salt Lake, but will be unable to consider management actions occurring above the meander line within the Greater Great Salt Lake ecosystem.

Together with SWCA Environmental Consultants, FFSL will engage federal, state, and local government

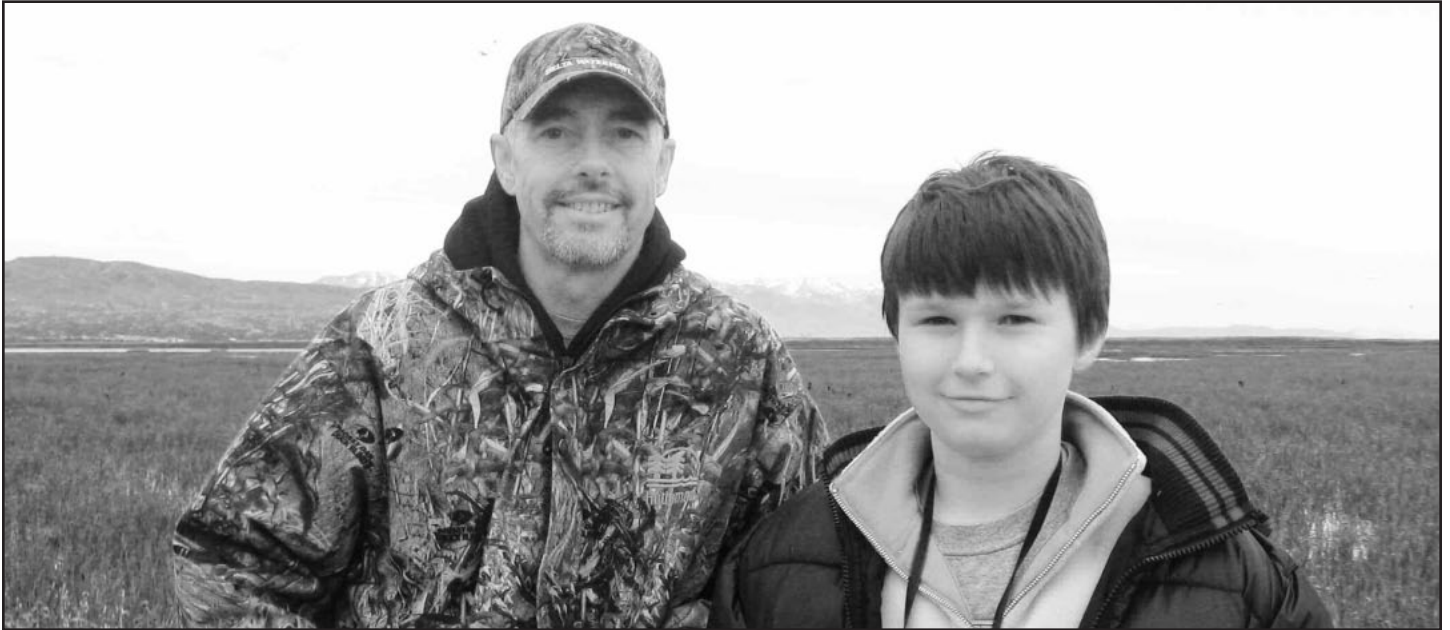
Please visit us online at: [www.gslplanning.utah.gov](http://www.gslplanning.utah.gov) for project updates.

For further questions and comment submissions contact Laura Vernon at SWCA ([lvernon@swca.com](mailto:lvernon@swca.com) or (801) 322-4307) or Laura Ault at FFSL ([lauraault@utah.gov](mailto:lauraault@utah.gov) or (801) 538-5540).

# FRIENDS OF GREAT SALT LAKE AWARD

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## STUDENT WINS AIRBOAT RIDE FOR SCIENCE PROJECT



*Airboater R. Jefre Hicks, and Miles by E. Gaines*

The FRIENDS of Great Salt Lake gave me the honor of taking a ride on an airboat to see the many sights of the lake. On my way to the Great Salt Lake, I attempted to imagine the beauty of such an amazing place. When I arrived, the wildlife and plant life engulfed me. As I entered the Farmington Bay WMA, I was greeted by a symbol of the beauty that I was about to behold. A bird sat perched on a reed, later identified as a yellow-headed blackbird. This was only the first of the varied sites of beauty I would see.

When we got on the airboat, we saw a group of ducks floating peacefully on the water. As we got closer, they began to disappear, head first under the water. I watched with delight as their heads reappeared above the water; watching us as we left their home. Staring back to see this sight, I nearly missed another beauty. Floating by was a nest, abandoned earlier in the season. Later on, we saw another nest, this time with several unhatched eggs. Although no bird was sitting on these nests, we saw many nests with their mothers warming the eggs. As we passed, they would take flight and return after we were gone.

As I continued to gaze at the beauty I began to notice other things—things that did not seem so grand. One of these things that I noticed was a plant called phragmites, the captor of the Great Salt Lake. It was a plague, destroying the home of countless wildlife. I was told it didn't have any use in the circle of life on the Great Salt

Lake. It was just there, existing only to take over the lake. They have yet to find a way to destroy it. The issue continues to baffle many.

I never imagined that so much beauty could be beheld on the Great Salt Lake. I was obviously wrong. Why aren't more funds being set aside to heal this exquisite lake? We must take action. We are the lake's only chance. Thank you to FRIENDS of Great Salt Lake and my inspiring guides, Emily and Jefre, for helping me understand this. 🐾

-Miles Hubbard

Miles Hubbard is a 7th grade student from John Hancock Charter School. Last spring, Miles participated in the Central Utah Science and Engineering Fair hosted by BYU. His project – "What's In Your Water?" He received the FRIENDS of Great Salt Lake Award for middle school projects. His award was an airboat ride at Farmington Bay accompanied by Emily Gaines, Education and Outreach Director; and R. Jefre Hicks, President of the Utah Airboat Association.

# RADICAL JOY FOR HARD TIMES

## WHEN THE LAKE CALLS



*Salty Trio on Stansbury by C. Uibel*

After a long drive home from a family vacation to the Grand Canyon, I met up with Cindy Lund, who drove down from Park City after a full day of volunteer work. We set out to take part in the Radical Joy for Hard Times Global Event that was being held at four points on the Great Salt Lake: Antelope Island, Black Rock, and the north and south ends of Stansbury Island. This global event was an opportunity for people to go to wounded places and be part of an intimate form of environmentalism by sharing stories and discovering the natural beauty that still remains.

Even though we were both exhausted and had things to do, we felt as though we were being called to participate in this event. So, after a late start, Cindy and I arrived at the south end of Stansbury Island shortly after 7 PM. With not a soul in sight, we called Charles Uibel, who arrived in a plume of dust to take us to our destination. We followed him at break neck speeds - a photographer at heart; he didn't want to miss the light. At the end of the road, we parked and began to hike up an old cattle trail to our vantage point atop a hill. Cindy was thrilled to see hundreds of sego lilies blooming alongside the trail. We reached our destination in time for sunset, and all of us took photos.

This was to be a moment of healing for the Great Salt Lake. We each took a moment to say something about the gratitude and hope we feel for the Lake. The global

organizers of the event wanted each group to recreate a bird as a symbol of unity. We created our bird design out of rocks down by the water.

Evening was upon us as we walked along a paved gravel road, engrossed in conversation, and naively secure in knowing it wouldn't be much longer before we reached our cars. Charles interrupted and mentioned that we were on the wrong side of the canal. Oops! Tired from the day's events but happy for the flashlights in my bag, we backtracked our steps and eventually found our cars.

We all agreed that we hadn't laughed so hard or felt so alive in a long time. Later, the event organizers asked, "What beauty or fascination did you discover?" My response: the natural healing beauty of the Great Salt Lake never ceases to amaze me. She (the Lake) with her enthralling beauty takes your breath away and does something to your soul to make you love it.

We went to Stansbury Island on the Great Salt Lake in hopes of being part of this global plan of healing wounded places, but as usual, the Lake with its stark beauty in the unrefined desert landscape embraced us, and instead healed our weary souls.

Nicole M. Anderson

Former intern with FRIENDS and current volunteer

# GREAT SALT LAKE INSPIRES

## ART AND WORDS INSPIRED BY THE GREAT SALT LAKE

At Great Salt Lake

Where once the lake tongued  
land, marsh grass and willows sponge  
moisture from salt flats, leave  
grains of oolithic sand  
awash in sunshine. On mountains to the east,  
fresh water iced through winter anticipates  
spring, anticipates sun's double-barreled  
assault of light and reflection to raze  
its white ridges.

Underneath the snow pack,  
drops sliver through mud, carry ash  
from China, oil from Russia, a bead of mercury  
from the tip of a wave curled to death  
at the Cape of Good Hope—each drop  
leavened with stardust from before  
water was.

But I want a rush of blue, a May spill  
of rivers to swell the lake; swallow beaches;  
rejuvenate avocets, gulls, willets, bald eagles knobbed  
on tree stumps, poised egrets silent  
as pearls nurtured in oyster beds  
off the coast of Louisiana. Only then do I cup  
my hands to receive the seasoned water.

Maurine Haltiner

*Lake life* by Jeff Clay

# LAURA AULT

## NEW PLANNER TO LEAD GSL COMPREHENSIVE MANAGEMENT PLAN PROCESS



Photo courtesy Laura Ault

Laura Ault is the Forest Legacy Coordinator and planner for the Utah Division of Forestry, Fire and State Lands. She works with private forest landowners to obtain conservation easements through the US Forest Service Forest Legacy Program. As a planner for the Division, Laura is the project lead for the Great Salt Lake Comprehensive Management Plan. Prior to joining the Division of Forestry, Fire and State Lands she worked as a Project Manager for the State and Local Planning Section of the Utah Governor's Office of Planning and Budget. Laura worked closely with the Utah Quality Growth Commission and the LeRay McAllister Critical Land Conservation Fund on issues related to land use planning. She graduated from Utah State University with a Bachelor's of Landscape Architecture degree and a Master's of Science degree in Bioregional Planning.

Laura can be reached at [laurault@utah.gov](mailto:laurault@utah.gov) or by calling 801-538-5540.

## SHARING A HEMISPHERIC VISION

### CONNECTING PEOPLE AND MIGRATORY BIRD CONSERVATION



Hemispheric Linking Partners Visit Great Salt Lake by Don Paul

On August 16 and 17th, Linking partners from Canada, S. America, Mexico, and the United States gathered at Weber State University for a planning meeting to advance program goals in education, conservation and ecotourism. These program goals are a part of a multi year proposal funded by Bird Life International and Rio Tinto to advance range wide migratory bird and habitat conservation throughout the western hemisphere.

Read more at: [www.utahlinking.org](http://www.utahlinking.org)

# GREAT SALT LAKE ADVISORY COUNCIL

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## TAKE 2

Alexander Graham Bell coined the phrase "When one door closes another door opens." So it is with the Great Salt Lake Advisory Council. With the passage of HB 343 in the 2010 Legislative session, a new GSL Advisory Council has been formed and the first one is no longer. On June 30, 2010 at Antelope Island State Park, Governor Gary Herbert introduced the 11 member council which is tasked with advising the Department of Natural Resources and The Department of Environmental Quality on the sustainable use, protection and development of the lake in terms of balancing sustainable use, environmental health and reasonable access for existing and future development.

The members of the new Council are as follows: Chairman, Leland Myers, Representative of Publicly Owned Treatment Works, Julie Peck-Dabling, Salt Lake County, Dan Tuttle, Tooele County Commissioner, Jay Hardy, Box Elder County Commissioner Jan M. Zogmaister, Weber County Commissioner, Louenda H. Downs, Davis County Councilman, Carlton Christensen, Salt Lake City, David Livermore, State Director of The Nature Conservancy, Conservation Interest, Jeff Richards, Migrating Bird Protection Area, Nicol Gagstetter, Extractive Industry, Don Leonard, Aquaculture.

Some of the Council members are old hands to Great Salt Lake issues and some of them are a bit newer at worrying about this magnificent resource. So far the Council has been instructed by various agencies and interests associated with the lake. Many of the concerns identified are well know, such as water quality and quantity issues or development of a scientifically defensible definition of Lake health. The Council meets monthly and the date and location can be found at the following web site: <http://www.gslcouncil.utah.gov/meetings.htm>.

Everyone is invited and all opinions are welcome. In this process of protecting the lake one last Bell quote is applicable, "The most successful men[women] in the end are those whose success is the result of steady accretion... It is the man [woman] who carefully advances step by step, with his mind becoming wider and wider - and progressively better able to grasp any theme or situation - persevering in what he knows to be practical, and concentrating his thought upon it, who is bound to succeed in the greatest degree."

Leland Myers, Chairman



*Birds and Buildings* by Don Paul

# GREAT SALT LAKE EDUCATION

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## WELCOME INTERNS



*Salty Discoveries* by Jeff Clay

During spring semester 2010, FRIENDS launched an internship program. We were fortunate to find Nicole Anderson and Sarah Jensen, two undergraduate students at the University of Utah. Nicole and Sarah worked with us from January through May and received college course credit for their internship work. They made many valuable contributions to the work of FoGSL and assisted with field trips, membership-building, outreach, and the Issues Forum. We were sad to see them go and wish them the best in their future endeavors.

We received several applications for our fall 2010 Education & Outreach Internships and are pleased to welcome Frances Amaral and Kimberly Ertel, our newest interns!

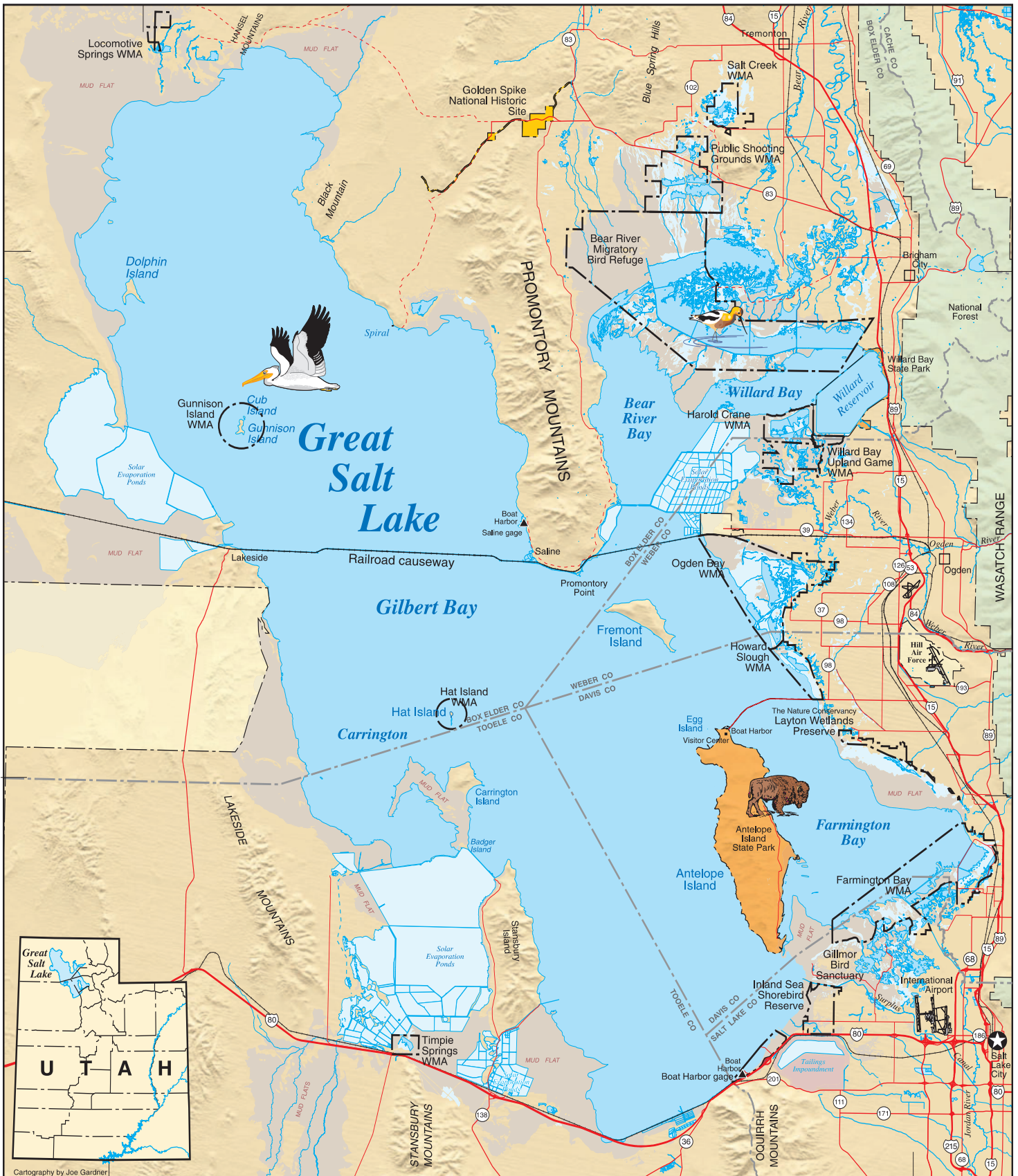
Frances Amaral, a California native, has been enjoying life in Utah for the past five years. She is currently pursuing undergraduate studies at Weber State University in the field of zoology. Among many diverse experiences, she has dedicated time and effort to the Utah Division of Wildlife Resources, Marine Mammal Care Center, and the Waterbear Mountain Organic Farm. Her area of interest lies in environmental studies and wildlife conservation. In the future she hopes to continue exploring these themes through the United States Peace Corps.

Kimberly Ertel is originally from Salt Lake City. She graduated in August 2010 from the University of Oregon in Eugene with undergraduate degrees in Mathematics and Environmental Science. While attending college, she participated in several environmental groups and programs including the Coalition Against Environmental Racism, Climate Justice League, Environmental Leadership Program, and Our Ocean. Kim also spent 18 months serving as a missionary for the LDS Church in Romania and Moldova. Kim is interested in pursuing graduate studies in Environmental Policy and Management or possibly Environmental Law.

Our interns will assist with Lakeside Learning field trips, outreach events, fundraising, and much more. They are an integral part of the FoGSL community and bring a great deal of energy and enthusiasm to our organization. We are able to compensate our interns with a modest stipend, thanks to the generosity of our donors.

For more information about our internship program, or to make a donation, contact Emily at [pelican@fogsl.org](mailto:pelican@fogsl.org).

# GREAT SALT LAKE AT A GLANCE



Courtesy of USGS



## DR. EPHYDRA - WE WELCOME YOUR QUESTIONS VIA EMAIL OR PHONE

E•phy'•dra, a noun; a genus of two species of brine flies that live on the bottom of the Great Salt Lake as larvae and pupae, and along the shores of the Lake as adults.

Brought to you by the Science Committee to help explain the science surrounding Great Salt Lake. We welcome your questions via email or phone. Contact Lynn de Freitas at [ldefreitas@earthlink.net](mailto:ldefreitas@earthlink.net)

## Conservation Biology:

### Terrestrial Corridors and Flyways and the Principles of Conservation Biology



*Pronghorns* by Gary Crandall

In 1967 biologists Edward O. Wilson and Robert H. MacArthur published “The Theory of Island Biogeography,” a seminal work in population biology that gave rise to the field of conservation biology about a decade later. Conservation biology is the scientific study of biodiversity and habitats with the aim of protecting species from anthropogenic causes of extinction.

A basic tenet of conservation biology is that animals must be able to move freely between habitat patches in order for populations to remain robust and for the risk of species extinction to be minimal. Large habitat patches are often called core areas; these must be connected with one another by landscape linkages or corridors.

An animal movement corridor is any route that animals of a given species generally use for moving between core areas. The dispersal of young male mountain lions in search of places to live is an example of such movement. Annual ungulate migration between sum-

mer and winter ranges is another. Yet another is the annual migrations of birds, which use the avian equivalent of corridors known as migration routes to traverse great distances between breeding grounds and winter quarters.

Functional corridors uniting scattered populations of a species enhance conservation of the species in two main ways: by allowing for genetic exchange among sub-populations, which keeps them robust and resilient, and by allowing individuals from one core area to recolonize another formerly inhabited area should the species become locally extirpated. Large carnivores, such as the wolf and the mountain lion, are among the most wide-ranging of terrestrial mammal species, and they therefore require long functional corridors for moving between cores.

The greater Yellowstone ecoregion is an example of a core area supporting grizzly bears, wolves, wolverines, elk, and many other species. It is connected to the Uinta Mountains and Book Cliffs in Utah, and from

there to the southern Rockies of Colorado, via a forested corridor extending along the Idaho-Wyoming border into northern Utah. The narrowest stretch of this high-elevation corridor is the Bear River and Monte Cristo Mountains, which run north-south for 100 miles from Montpelier Idaho to Echo Junction. This Uintas-Yellowstone connection is itself part of an even longer chain or network of connected habitats running all the way from the Brooks Range in Alaska to the Sierra Madre Mountains of northern Mexico. If we succeed in protecting (and where necessary restoring) the functionality of this “mega-corridor” we will allow many forest-dwelling species, such as the Canada lynx, wolverine and wolf, to move freely between core areas, thus ensuring their long-term survival as species.

Analogous to the mega-terrestrial corridor just described, bird migration routes for different species merge into broader “flyways.” There are four major bird flyways in North America, one of which is the Central Flyway. This flyway extends all the way from the McKenzie River delta in Alaska to Mexico and Central America. It generally runs along the east side of the Rockies, but in western Montana it crosses to the west side of the Continental Divide and dips south into the valley of the Great Salt Lake. This dip no doubt exists in large part because of the very

existence of the Great Salt Lake, which serves as a core area for many species of migratory bird. For some species, such as Wilson’s phalarope and the eared grebe, it serves as an important stopover where they can rest and feed during migration; for others, such as the American white pelican, it serves as a breeding ground.

One of the biggest conservation challenges we face is that of protecting these migratory corridors and core habitats from further degradation - a challenge that will become increasingly more difficult, and more important, as the global climate changes. 🌿

Kirk Robinson  
Executive Director  
Western Wildlife Conservancy



*Bear River Bay Community* by Rosalie Winard

# DISCOVERING OUR LAKE

## A Great Salt Lake Tradition: Rowing on Great Salt Lake



Image courtesy of Great Salt Lake Rowing Club

The Great Salt Lake waits serenely as rabbits bound back to their warrens after a night out, the shore birds begin to emerge, and the rising sun and departing moon momentarily balance each other in the sky. Only the remaining mosquitoes conspire to interrupt the tranquility of an early morning row. Evenings, with their glorious sunsets, often compete for beautiful rows. And then, there are the joys of winter rowing (polar fleece, anyone?). Actually, rowing is great year round and good for anyone from age 12 and above.

Following a tradition that began more than a hundred years ago, the Great Salt Lake Rowing Club (GSLR) was formed in 2002. In the early days of rowing on the lake, hundreds of people would come from all around the region to participate in regattas/races. Crowds would cheer on their favorite team, even betting on the outcomes, but as Utah's leaders have always frowned upon gambling, that put an end to rowing as a past time on Great Salt Lake. Thirty years ago Wendy Whitney, a local nurse practitioner, taught herself to

row and then began instructing others. She is responsible for laying the groundwork for the current rowing scene.

GSLR's mission is to educate the public and the rowing community about the sport of rowing, and to impart both information about and the importance of, the Great Salt Lake ecosystem. Lessons for beginners come in 3 different packages: 1) Life Long Learning through the University of Utah; 2) GSLR group lessons; and 3) private lessons. Experienced coaches teach each of these and emphasize boat handling, safety, rowing terms and techniques, marina etiquette, and the natural history of the lake. Students learn to scull in single shells. Sculling means that each rower uses two oars; sweep refers to one oar per rower (think of the long boats skimming the Thames).

While we stress safety, especially with the variable weather of the lake, club members are equally intent on having fun. We host club rows Saturday mornings at 8 AM and Wednesday evenings at 6 PM. Someone is



Image courtesy of Great Salt Lake Rowing Club

always available to help others lug their boats down to the docks and back up again. We aim for at least two full moon rows on the Friday closest to the event. This involves a pot luck dinner and then rowing on the lake after dark with fixed lights attached to the boat's bow and stern.

The club hosts the Utah Summer Games and participates in the national Learn to Row Day, a free introduction to rowing for the general public. On August 7th the 8th Annual Row for the Cure occurred. This is a joint venture with the local affiliate of the Susan G. Komen Breast Cancer Research Foundation. Rowers sign up for a distance between 3 and 16 km and then raise money through pledges. Participants aren't timed, but there are prizes for the largest amount raised as well as other categories. Previously, rowers from the Huntsman Cancer Center and UT Crew, the junior rowing program, have joined us.

A stalwart group takes off each early September for the Antelope Island Row, an all day round trip of 16 miles

and the reward of bragging rights to their co-workers the next day. And, not to be forgotten is the unofficial, but traditional, New Year's Day Row to mark the start of another season of wonderful adventures. It's a great way to experience the lake, a great group of people, and a great full body exercise.

Come join us! We have a boat and set of oars just waiting for you. Please see [www.gslr.org](http://www.gslr.org) for more information.

Karen Denton  
GSLR Board

## HOW TO REACH US

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## 2010 FRIENDS of Great Salt Lake Fall Fundraiser



Artwork by Elizabeth B. (4th grade, Jackson Elementary) depicting a spring 2010 Lakeside Learning Field Trip with FRIENDS of Great Salt Lake

## FRIENDS Fall Fundraiser

Thursday, October 21st, 5:30 - 8:30 pm

Join us for an evening of fun and FRIENDS.  
Chase Mill at Tracy Aviary 589 East 1300 South,  
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• Wine • Appetizers • Silent Auction

RSVP TODAY

Visit [www.fogsl.org](http://www.fogsl.org) or call 801-583-5593.

Submission Deadlines: Sept. 16 (Fall), Dec. 16 (Winter), Mar. 16 (Spring), and June 16 (Summer). Submit articles and images for consideration to Lynn de Freitas ldefreitas@earthlink.net or call 801-583-5593.

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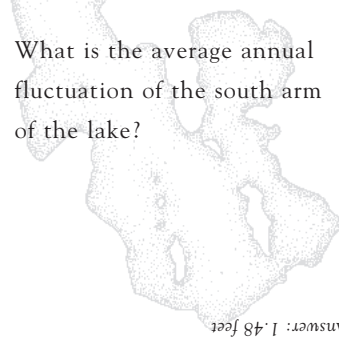
### Lynn Pace: Aug 15 1942 - July 2 2010

"If you care for the marsh it will care for you."

Father, husband, duck hunter, airboater, Great Salt Lake advocate and friend to many. He will be missed.

### Lake Fact:

What is the average annual fluctuation of the south arm of the lake?





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Great Salt Lake clock tick by Charles Uibel