Lynn de Freitas

Salt Lake City, UT

An Interview by

Greg Smoak

30 September 2013

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Great Salt Lake Oral History Project

U-3225

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THIS IS AN INTERVIEW WITH LYNN DE FREITAS ON SEPTEMBER 30, 2013. THE INTERVIEWER IS GREG SMOAK. THIS IS THE GREAT SALT LAKE ORAL HISTORY PROJECT, TAPE NO. U-3225.

GS: Good afternoon. It is Monday, September 30th, 2013. My name is Greg Smoak and we are at the American West Center at the University of Utah. I am happy to have with me today Lynn de Freitas, Executive Director of FRIENDS of Great Salt Lake, and today we are going to conduct an oral history interview as part of the Great Salt Lake Oral History Project, and Lynn, it's great to have you with us today.

LDF: It's nice to be here, Greg.

GS: Before we start in on your work with the Lake and specifically with FRIENDS of Great Salt Lake, would you give us a little bit of background on yourself, where you were born and raised, and how you came to Utah?

LDF: I was born and raised in New Jersey, and what brought me to Utah was an opportunity to visit a friend who was attending the University of Utah. It was my senior year in college, it was spring break, and it seemed like a logical thing to do, since I kind of thought I might end up moving from New Jersey and going West, likely California. That said, I came for the visit. I was floored by the landscape and the place and when I graduated I came back. And I've been here since 1971. And it was quite the contrast coming from a coast and having the ocean but it was an interesting learning opportunity to have an inland sea as a part of the landscape that I was finding myself calling home now.

GS: Now before you came to Utah had you visit—traveled much in the West itself so you knew you wanted to come West or was it kind of that romantic vision of something you hadn't really experienced?

LDF: It was—it was really the romantic vision. I hadn't traveled very extensively at all. Canada, East coast, you know there's a lot there. And it just seemed to me that I had to leave the East and knowing about all of the stories and the myths and the grandeur of the landscape, the West was a place I felt was what I needed to find the other part of me.

GS: Now specifically, do you have a memory of when you first encountered Great Salt Lake, what it meant to you, was it off putting? Was it—did it feel surreal, alien? Or did it feel comfortable?

LDF: You know, I didn't quite know what I was seeing as I, I think it was, Western Airlines maybe, or Delta Airlines—was coming in for a landing, I was looking down at this very interesting mix of whatever it was. I wasn't quite sure. I wasn't quite sure if I was seeing pollution, if I was seeing wetlands. I knew the Great Salt Lake was here, but I really didn't know that much about it to understand a visual impact of, you know, at first sight this is what it is. So I was really somewhat perplexed. I graduated in biology. That was my major. And I had intended to be a high school biology teacher. So I understood wetlands and open waters and things like that. But to actually look at the landscape and see in the context of the mountains and then, *what the hell is going on here?* So I was really, I was kind of curious and taken aback. And I do remember asking lots of questions to my friends that I was visiting here and the acquaintances that I was developing, what their knowledge of that place was all about, so—

GS: Did they—that first visit did you actually go out to the Lake? Did they take you out there to dip your toes in the Lake?

LDF: They didn't, actually we went skiing.

GS: Oh, okay.

LDF: Yeah. Right.

GS: So not a time of the year to go swim in the Lake.

LDF: That's right, it was in the spring. And to that extent, we spent most of our time hiking and skiing. So I didn't make it out there on my visit but certainly moving here I found myself getting closer to the Lake and finding out parts of it.

GS: And then when you moved here you had a career, I think as a school librarian, correct? With public schools—

LDF: Well that was—

GS: And then Rowland Hall, or was that down the road? Was that later?

LDF: Right, that was eventually. When I relocated to Utah I was hoping to be a high school biology teacher. At the time there was a surplus of teachers, and so I substituted in the various school districts and I worked, eventually, as an aide at the East High library. And this was right after East High had the fire, back in 1971 or '2. And so I was helping in the library putting the collection back together that had been inundated with water and smoke. And it was through that exposure to working in the library and in the school that I decided that I really wanted to pursue a master's in education with an emphasis in, it's called educational systems and learning resources, at the University of Utah, which enabled me to be a school librarian, a certified school librarian in the state of Utah. Had I left the state of Utah it would have been like leaving Shangri-La, and I wouldn't have been able to be a school librarian without actually going and pursuing my MLS in whatever state I intended—

GS: Right. So this is specific certification for Utah schools that's offered.

LDF: Correct.

GS: Or does it—do you know if it's still offered here now, or is it?

LDF: It is, it is, yes.

GS: Okay. And were you involved with other environmental organizations that—I know that FRIENDS of Great Salt Lake wasn't founded until I think 1994, or…?

LDF: That's correct, yes.

GS: Were you involved in other types of advocacy groups earlier than FRIENDS?

LDF: Right, well, I was a member of the Sierra Club. And also I joined Great Salt Lake Audubon, a local chapter of national Audubon but in Utah. And Save Our Canyons called to me as well since I was pretty familiar with the landscape of the mountains. And so that was kind of a good beginning. And at the same time, having gotten my master's and working as a librarian or a library media coordinator and starting out at the elementary school level at Jackson Elementary and then moving to South High School until that closed, and then I was destined to go to Highland High, go Rams! [GS laughs] And I interviewed for a position at Rowland Hall and I took that. So, in the scheme of working at various school settings as a library media coordinator and discovering this new place through those organizations, things seemed to be coming together.

GS: Now, kind of off the Great Salt Lake topic, but I didn't know that you worked at South. And that's such a beautiful old building. And, how long were you there? What year did South close?

LDF: South closed in 19…I want to say 1998. Go Cubs! [GS laughs] Because, well, as you know there was a manifest destiny to the suburbs.

GS: Right.

LDF: And there was this moment of truth where one of the major high schools in downtown Salt Lake City had to give it up. And South was the school that they ended up closing. So it was a great community, and it was very cosmopolitan, and a wonderful multiethnic teaching experience and community. So...

GS: Okay. Alright, well let's move to specifically to FRIENDS of Great Salt Lake, and we can talk more broadly about the Lake as well, but maybe talk us through how you became involved with FRIENDS, again founded in, I believe, 1994, and what brought you to the group, your interaction with the Lake, maybe a little bit before that. I guess with Audubon you probably were a birder, perhaps.

LDF: Indeed, indeed. It's funny because it wasn't until moving to Utah that I actually got into birding, and the Bear River Migratory Bird Refuge and all of those places that are kind of easy to suddenly find an inundation of birds that you can begin developing an understanding of trends of where you are and what's going on. Um, I forgot the question [laughs].

GS: I was asking about how you—

LDF: Oh, birding! [claps]

GS: That's—let's start with that, let's go back to that though and then talk about your interactions before, even before FRIENDS with the Lake. We sort of left off, we didn't really explore that fully, but how did you, in a sense, use the Lake in those years before becoming involved with FRIENDS of Great Salt Lake? Obviously birding is part of it, were there any other aspects of that interaction?

LDF: No.

GS: Really?

LDF: No, actually, ironically, no. The birding opportunities were there, but as far as spending more time with the Lake exploring, it just didn't seem to be really necessarily a high priority for me. Southern Utah was a great draw, and as you know, living here, it's a vantage point for so many places to explore. So essentially I spent a lot of time just catching up on where I was in the West, and looking around at other places that I had heard about and read about that were easy to get to and that were great camping opportunities.

So the Great Salt Lake, the emergence of Great Salt Lake, in kind of a personal part of the way I wanted to spend my time and my developing interests in that system, did come from participating at—the Museum of Natural History at the University of Utah in 1994 had a series on Great Salt Lake, a series of lectures. And in May, it was the last lecture of the series, and Wayne Martinson, who today is the Important Bird Area Coordinator for The National Audubon Society, Ella Sorenson, who works with the National Audubon as a manager of the Gilmore Preserve, and a few other people—I don't remember exactly who was on the program—but they presented and Wayne was the last to present, and his presentation essentially was titled *A Call to Binoculars*. And he had gone to Mono Lake, which as you know is a sister lake of Great Salt Lake, it's on the other side of the Great Basin in the eastern Sierra, and he had gone to a conference of the Mono Lake Committee early in that year, and Mono Lake—the committee's success in essentially gaining a Supreme Court decision to restore that system and bring back water into that system—was an inspiration to Wayne and a gaggle of other people from Salt Lake who had gone. And they were asked at this conference, "Why don't you do for Great Salt Lake what we've done for Mono Lake?" So, Wayne was coming back with a

mandate to put together—to see if there were people interested in coming together to create an organization to work on behalf of preserving and protecting the Great Salt Lake ecosystem. So his *Call to Binoculars* was an invitation to the audience members to sign up on a clipboard that he passed around to eventually be contacted to organize into various component parts of creating a nonprofit—FRIENDS of Great Salt Lake—to be here, to work to preserve and protect the Great Salt Lake ecosystem. So that was kind of the initial inspiration of *hmm, interesting. This is a great way to learn more about that system out there*. And so we all signed up and we were invited to come in the fall to participate in various committees to gestalt and to think about *what does the organization do? How is it going to be constructed?* And all of the nuts and bolts that come with creating a non-profit. And I remember the first, this was in October of 1994, the first newsletter essentially was under the wing of the Great Salt Lake Audubon newsletter. So it was an insert, inside that publication, that Audubon essentially enabled FRIENDS to take flight in their newsletter to get out to their membership to introduce the world at large to this new organization.

GS: And has that relationship continued with Audubon here in the state? Or has it ebbed and flowed over the years?

LDF: Well, we've always considered Great Salt Lake Audubon to be kind of like a mother ship because of that accommodation and that similar interest, all those birds, this migratory mecca. So FRIENDS over the years has worked very closely with Great Salt Lake Audubon and other Audubon chapters within the state on the issues that pertain to the Lake because. Because there are so many issues partners help with the work load.

GS: And so early membership in the organization: how did you—how were you first involved beyond membership in those early years?

LDF: Well actually, I was, my curiosity was piqued but I was also doing other things. Like I was camping in Southern Utah and going to the Tetons and going to California. So the very first Great Salt Lake Issues Forum that FRIENDS of Great Salt Lake hosted, which was in 1996, was this opportunity for the community at large, businesses, academia, interested citizens, scientists, to come together and talk about Great Salt Lake. I attended the Forum. And at that time I was really impressed because there was so much that I was learning about this system and one of the board members, Howard Gross, who was the treasurer at that time, introduced himself and asked me if I might be interested in coming onto the board, and I said "Sure, I'll come to a meeting and see what it's like."

And I ended up being voted onto the board, and then shortly thereafter, it was just within a year, the president at the time, Joel Peterson, stepped down because of his job. So I was asked to run for president. And I thought *wait a second, I hardly know about the system, what are you doing!?* [GS laughs] And they said "You know, it's the best way to learn. You'll learn so much about the system and you'll learn about who the players are and the way we (FRIENDS) can be a part of this conversation." Being an educator at heart, it was like *well of course! This is so logical.* So I was voted in as president. And I fulfilled that responsibility. In the meantime I had left Rowland Hall in 1994 and was kind of playing the field which was great because I had the opportunity to do that. And so I was able to commit in a full-time way my energy and my passion and my growth to FRIENDS of Great Salt Lake.

GS: So this is before you were the executive director. You were in a sense in a voluntary role on the board and as president.

LDF: Correct. Yes. So I was learning lots. And I was out there at various meetings, at the Division of Water Quality and the State Forestry, Fire & and State Lands, and any opportunity that had Great Salt Lake as a part of it which was practically everything. Because here we are along its shores and everything that we do in the watershed affects that system. So I was a pretty busy girl, but I was really learning a lot and I was very engaged, and I loved my work. I served as president until about 2001. The various boards that I worked with were excellent boards, they were stabilizing through time. We had great commitments from directors and the organization was feeling like it was ready for a growth spurt that was going to be coming on soon and what did that all mean? I suggested that perhaps we create an executive director position, and I would be happy to serve in that capacity, we had someone who was a successor to my presidency, so the stability of the board was there, and now we had the opportunity to have staff, which I continued to fulfill as a fulltime volunteer. And so I've been doing that since 2001.

GS: Okay. And so, just to get an idea of how the organization is structured today, it sounds like you were the president and the executive director anyway, so how is that divvied up now? The responsibilities, like what does the president of FRIENDS of Great Salt Lake do and what do you do on a daily basis as executive director? What's the difference?

LDF: Right. Okay, well, the role of the president of the board, essentially, is to work with the board to oversee the governance and the financial stability of the organization. And in my capacity as executive director, I serve at the pleasure of the board. I do have

now a fulltime education and outreach director, which is a paid position. And we also hired just this year. Back in August, we hired a membership and development director, as a part time person. So we serve at the pleasure of the board to advance our education program, our advocacy component, and communications and membership building. Our current president, Rob Dubuc, also is a staff attorney at Western Resource Advocates. Western Resource Advocates is a nonprofit organization that works to help small nonprofits who are working on natural resource issues, land, air, energy, water. And because they are attorneys, they help organizations who might not otherwise have an opportunity to get a little more of a footing on a particular issue that really needs to be brought to the fore and have an opportunity to address an issue more fully. Rob attends many of the meetings that I do because it's a part of his work as an attorney representing FRIENDS and the issues that we're focused on, but also as the president of the board.

So right now it's terrific because we kind of have two, well, executive directors isn't the right term, but we have two fulltime people on behalf of FRIENDS who are out there at various tables engaging in advocacy and policy discussions.

GS: Okay. Could you maybe walk us through some of the key events and issues in your time with FRIENDS, starting back in the mid-'90s? I mean, make reference to really specific events, initiatives that the FRIENDS have undertaken, what you have seen as the most important work that you and the organization have tackled in the last twenty years.

LDF: Well, one is every two years we have a biennial Great Salt Lake Issues Forum that began in 1996. So through the course of the years since, it's been recognized as *this is something that FRIENDS does* and people from, now, all over the world, come and attend this Issues Forum. We've elevated not only a recognition of who FRIENDS of Great Salt

Lake is, and our ability to bring stakeholders together and the extended community of people who are working on saving systems together, but we have also been recognized in our capacity to effect improvements on issues that affect the Lake. For instance, [pause] Hmm. Legacy Highway. Legacy Highway was a proposed roadway flanking the eastern shores of Great Salt Lake in Davis County. It was going to have a tremendous impact on prime wetlands and habitat on the eastern shore of the Lake because of the impacts that a roadway typically does when it's adjacent to very sensitive and fragile lands. And Legacy was a campaign that we took on because we recognized the impacts that this roadway would have on the Great Salt Lake. And it was a very long campaign. It began back in 1996, '97. And it finally culminated in a settlement agreement in 2005. It was very political, and politically charged. It was one of those issues that was difficult for FRIENDS because we hadn't really been on that kind of a firing line before, given the fact that it was an issue that we ended up litigating, taking to court. So we did a lot of soul-searching as an organization recognizing that in some instances we were losing members because it was so politically charged. And yet it kind of clarified our spiritual integrity of "Well gosh, if not us, then who would stand up for the Lake under these kinds of circumstances?" So we endured, and in fact, the campaign helped the organization become stronger and recognized in its capacity to be able to help forge a better outcome of a proposed project that at first blush would have been the kiss of death for the eastern shore of Great Salt Lake. But the outcome is a parkway, a far better roadway, a Legacy Nature Preserve as a mitigation component that is the first of its kind in Utah that had such a tremendous ratio of wetlands impacted and the number of wetlands to be a ratio of mitigation for that single acreage of impact. It also generated a number of different

components such as a science advisory committee to help identify research needs that the Preserve could use to advance a better understanding of how we could maximize its functionality to provide the habitat values necessary to maximize bird use. The parkway had a trail component that provided a different opportunity for the public to regard living along the shores of Great Salt Lake.

So it was definitely something that we're very proud of and that to this day we refer to as an example of our commitment to hold federal and state agencies accountable when they don't do their job. Great Salt Lake has become recognized as a significant economic contributor to the state, but also there is recognition of the hemispheric importance of it. As citizens living next to it we must be responsible stewards for its sustainable future. Currently we're working on a proposed expansion of Great Salt Lake Minerals Corporation, a mineral extractive industry, one of six on the Lake, in the north arm of the Lake, that was established in 1970. The company wants to increase its production of potassium sulfate, a commercial fertilizer, to increase its global market share.

GS: Where is their facility located?

LDF: It's in two areas. One part of their current operation is in Bear River Bay and the other part is on the west side of the Lake in Clyman Bay, the western shore of the north arm.

GS: Far western shore?

LDF: I'm sorry, the far western shore.

GS: Oh so is this what used to be called IMC?

LDF: IMC Kalium. Yes it's gone through various names. But this iteration that was established in 1970, I think, is Great Salt Lake Minerals. It's a subsidiary of Compass Minerals International which is located in Kansas. And so the proposed expansion of that operation, current operation size is 43,000 acres divided equally on the east and west side of the Lake. Initially the company wanted to nearly triple the size of its footprint to 91,000 acres plus the existing forty-three. The expansion needed more water, an additional consumptive water right of 353,000 acre feet of water annually, which is a significant amount of water to be taken from this system for that operation. And they wanted this development to occur relatively quickly. Difficult, but—

GS: They wanted fast approval.

LDF: But fast. So it was on a fast track to increase this production and meet that global market demand. And this originally was proposed in 2009. FRIENDS knew that the scope of work ahead required partnerships. We formed a coalition called the Coalition to Keep the Lake Great. And we brought in Lake users, duck hunters, sailing, sailors, birders, swimmers, rowers, people who just like to go to the Lake because it's a way to get away, and anyone who was interested in doing something in order to counter this expansion proposal. So we worked as a coalition and today we are still in the process of seeing this through because it requires a NEPA process and 404 permit under the Clean Water Act from the Army Corps of Engineers. But the company has reevaluated. They've heard our concerns. They've reduced the 91,000 acres to, I think it's 37,00 acres. They no longer will be applying for that additional consumptive water right of 353,000 acre feet. And the physical expansion will go through adaptive management increments. If approved by the Army Corps, each increment of expansion with data collection and

monitoring will include a public hearing opportunity to assess and determine whether or not the next step can go forward. So we've gone from something that was kind of a, you know, a tsunami of "This is what we want to do to expand and this is the way we're going to do it," to a much more reasoned approach.

GS: Let's keep talking about issues but eventually I would like to return to the relationship of FRIENDS of Great Salt Lake to the industries around the Lake. We want to talk to them in this oral history was well. And like you said, there's six that are mineral extraction but there're also other industries such as brine-shrimping and others.

LDF: Exactly.

GS: I don't want to stop your train of thought though on other important projects and initiatives.

LDF: Right. Well, let me say again that the way FRIENDS works is to look for opportunities to sit down and talk to the parties directly involved with the issues and try to see if we can't narrow differences, while considering some of the constraints that come with the way the Lake is managed. So there's just so much that we can hope for, as far as an outcome. It's likely that Great Salt Lake Minerals will be able to expand to some increment. So it is not particularly effective for FRIENDS to say "No build, no expansion." We look for ways to make progress in the interests of the system. We're quite cordial with industry, and we spend a lot of time with them. FRIENDS has been part of a stakeholder group called the Great Salt Lake Advisory Council, which was a council that was appointed by Governor Huntsman. The charge of the council was to evaluate the existing management of the Lake and to recommend improvements. The council was comprised of thirteen different stakeholders that included wastewater

treatment representatives, duck hunters, FRIENDS, various municipalities, and Great Salt Lake Minerals and the brine shrimp industry. We worked as a unit to evaluate the existing management and recommend to Governor Huntsman what improvements we thought would be in order to effectively sustain the system. And clearly there are a number of ways that we needed to improve the management of the system in order to think long-term. The outcome of the Great Salt Lake Advisory Council under Governor Huntsman was to forward this recommendation to the legislature. Unfortunately the legislature kind of chewed it up and spat out what came to be known as the Great Salt Lake Advisory Council Take Two under Governor Herbert.

One of our recommendations was to create a commission, a Great Salt Lake Commission that would be a go-to body in the executive branch of the government that essentially would be well versed in understanding the system, would recognize what the stressors are, where the science deficits are, what we need to do in order to keep things together. And as proposals for various development projects for the Lake came forward the commission would consider these proposals and respond accordingly. But that didn't fly well with the legislature so it came out again as a "Well, let's just do another advisory council." So with that, that advisory council did have some members of Huntsman's council on it, so there was kind of like this, this gene pool of those representatives who, you know, were disappointed that we weren't able to make the headway that we wanted to the first go-around, but recognized—I'm not on this current council—that there were still some opportunities that this council could explore, such as commission studies, that will help us better understand the system.

For example, we always talk about the Lake versus the people, or the birds versus the people. How could we put a dollar amount on the system so that the great state of Utah could recognize the economic significance of the Great Salt Lake? Herbert's council commissioned a report. Now we know that the economic significance of Great Salt Lake to the annual GDP of Utah is 1.3 billion dollars. That comes from mineral extraction, brine shrimp harvesting, it comes from tourism and birding, those and recreational aspects. And it also comes from what's called assimilative capacity. It's just like one of those euphemistic words, which means that "If we didn't have the Lake there, what would we do?" Kennecott Utah Copper discharges into the Lake, if we didn't have the Lake there what would it do with some of its discharges? This economic component actually enables industry to conduct their business in a cheaper way, because the Lake is there.

Another study that the advisory council generated was Great Salt Lake Health. It looked at the Lake from different aspects of parts of the ecological components, the wetlands and the uplands and the transitional, emergent marshes, and "What is it about those parts of the system? How are they doing? Are they in poor condition? What are the stressors on them? What more do we need to know about them in order to better understand what the pressures are on the various parts of the system so that we can then be better managers, knowing that it's an economic generator?" So these two reports actually work hand in hand to help the people of Utah and decision makers recognize the economic value of it, but they also help drive funding for various research opportunities to fill in those information gaps or to improve a part of the Lake that isn't doing so well. "So, what do we have to do? Do we have to do something with the water quality? Is it

responsible for affecting something about the Lake that is not particularly healthy?" So, I lost my way.

GS: Well, no, we were—we could go back to if there's more to talk about on the efforts of FRIENDS and big projects, or even more general things like the educational programming that FRIENDS has undertaken over the years. Maybe spend a bit of time talking about that.

LDF: Okay. Sure. So back in 1998 we realized that we needed to create an outreach component, which beyond the Great Salt Lake Issues Forum, we didn't really have something that we could constantly take out into the community, kind of our own road show for Great Salt Lake. We hired an education director under contract to create a live narrative slideshow program called *The Lake Affect: Living together Along the Shores of Something Great.* He booked presentations throughout the community, senior citizens' facilities, schools, League of Women Voter meetings; to anyone who wanted to hear this message about Great Salt Lake.

Through time we realized that it would be great to get kids out to the Lake as a part of the classroom experience. And so this same education director developed what was called *Project SLICE* and that was an acronym for Salt Lake Initiative for Conservation Education. Out of *Project SLICE* was a Lakeside learning field trip. We were developing units of study for fourth grade teachers because that was our target audience. They learned about Utah history. They—students stick with one teacher pretty much, so there's a cohesion there and there's a focus of the curriculum. So we were developing lesson plans to address the state science core curriculum, and a part of that would be a field trip component. We were leading field trips, taking fourth graders out to

the Lake, to help them understand what it is about the Lake that people refer to as "buggy," "stinky." And what it is about the Lake that is not a dead sea, that is a living organism that is hemispherically and globally important. So we've been doing that since 2001.

GS: And our fourth grader went last week by the way.

LDF: Oh! [claps] Bravo!

GS: From Ensign Elementary they did the trip there.

LDF: Yeah. Well, even with the weather, sometimes the weather's been kind of uncooperative.

GS: It was a cold—

LDF: It was a cold day.

GS: She claimed it was snowing but I had my doubts [unclear].

LDF: Yeah. Okay. So, well I'm delighted to hear that. And, you know, we're trying to increase our reach, but fourth grade seems to be a sound focal point for us. Again, we're a small organization. You know our operating budget is about $180,000. I do my job as a fulltime volunteer. So we have to maximize the effectiveness of what we can do with the limited resources we have at hand. With the education field trip component, we're thinking of ways to create spin-offs of that, a summer camp for instance. We've been working with the Museum of Natural History to do a Great Salt Lake summer camp. Research component is part of our mission, but we don't do research because we don't have the capability of doing that, but we help support the need for research on the Lake and create inspiration for the kinds of research based on this Great Salt Lake Health Report. Where did we need to put some funding money?

But one outcome that we have created is called the Doyle Stephens Scholarship. The Doyle Stephens Scholarship was established in 2003 in the name of the late Dr. Doyle W. Stephens, who was a U.S. Geological Survey research hydrologist who did lots of work on the Lake, and when he died an untimely death in 2000 we wanted to create a component that would recognize student work/research on the Lake, in Doyle's name, to build a rapport with the larger community. The Doyle Stephens Award is given every year to an undergrad or grad student who is doing research on the Lake. It began as a $500-level award, and now we're up to $1,000. The hope was to create an endowment that would essentially fund the end goal scholarship, but with the state of the economics, we have to keep supplementing that endowment to pay for the award. Just recently, we established the Alfred Lambourne Prize, which will be a way to—okay, we know that not everyone loves the sciences like we do, but the culture and the history and that humanities underpinning that is part of where we are and how we are with the Lake, seemed to us to be a great opportunity to create another outreach recognition component in the form of a prize for some artistic or humanities expression that raises awareness about the Lake. So we're just rolling that out now and it's a work in progress but we're very excited about that.

GS: So could you tell us about the namesake of that prize?

LDF: Yes, the namesake of that prize. Well, Alfred Lambourne was an American painter and writer. He was actually English by birth but came to America, and wrote extensively about the Lake, and painted lakescapes and drew perspectives of the Lake, and because he seemed to us to be a kind of a bellwether of awareness about this place and the Lake, visually and verbally. We wanted to put it in his name. His great-grandson

is actually a member of FRIENDS. This had nothing at all to do with naming the prize after his great-grandfather but it's interesting—"Really? You're Alfred Lambourne's great-grandson? Who knew?" So it just seemed to be the right fit for the award, the prize. Yeah.

GS: Not to turn away from the humanities, but science has been critical to the stuff that—the projects that FRIENDS have taken on. And you've mentioned a couple of scientists. Who are some of the other folks who you see as being critically important to the work that FRIENDS have carried out to the type of science being done over the years?

LDF: Okay. Well, we're constantly leaning on the universities for the research interests that come from Utah State, and University of Utah, and Westminster College. Dr. Bill Johnson, who's in the Department of Geology and Geophysics, does very interesting research on mercury and selenium in the Lake which are issues. The system, you know, has the dubious honor of having the highest level of methyl mercury in waters of the United States, and so there's a lot that we need to figure out about this system and why is that the case? And so Dr. Johnson is working in that pursuit. Certainly U.S. Geological Survey, in the charge that it has to help us better understand all sorts of aspects about the landscape and the water, they have been a key contributor to elevating our understanding of the system. Dr. Wayne Wurtsbaugh who's a professor at USU whose area of expertise is limnology, and who's done extensive work in Farmington Bay on nutrient impacts to the system, which is a reflection of our watershed and what's going on upstream and how that relationship with the Lake translates into outcomes. And Dr. Bonnie Baxter at Westminster College, at the Great Salt Lake Institute, a kind of champion for looking at

the north arm and studying the microbial life and the halophytes up there to understand—"So what is it about these highly resistant, salt tolerant microbes that enable them to do what they do?" There's a lot to learn from that chemistry. So we're forever thankful for the emergence of more and more interest from the universities to seek funding from the various divisions in the Department of Natural Resources that offer funding for Great Salt Lake. How's that? [both laugh]

The list is endless, that's the thing, and there were so many people. And that said, every Great Salt Lake Issues Forum is like this wonderful opportunity to say "Bill, will you come and talk about this?" or Wayne, or Paul Jewell, come and talk about what's going on with circulation and airflow, prevailing winds and how that relates to things that occur on the surface of the Lake and subsurface. That's the joy of my work, is to be able to always know where to go and have willing and interested individuals who want to share the work that they're doing so that we can all better understand how we can improve the way we regard the Lake and manage it.

GS: I think one of the interesting things is, of course, the Great Salt Lake is the immediate system that we look at, but globally and hemispherically there are other systems like that; as I understand the FRIENDS forum have brought people together from all over the world by this point, and so maybe tell us a little bit about that, the other—the scientists or even just people who were involved in advocating for similar systems?

LDF: Sure. You know, when you think globally of similar systems—saline systems comprise about 45% of the volume of inland water around the planet. So there's a big neighborhood out there, Those saline systems have common threats, threats that bring them right to Great Salt Lake as far as they're all in the same boat. Certainly we're

talking about climate change, and those shifts in weather patterns and precipitation patterns and things like that, that are going to affect these systems because they're so reliant upon precipitation. Population encroachment on the wetlands and on those systems from upstream development, water diversions, we think of the Aral Sea and how that used to be a huge fishery in that part of the world which is now just kind of a little puddle, virtual puddle, but that—that is the result of upstream diversions for agriculture, and a general sense of ignorance about the value of the systems. What is it that we can continue to learn from them being as unique and as quirky as they are, but also the significant contribution that they make as an ecosystem that draws millions of migratory birds and generates a variety of ecosystem services?

So in 2008 our Great Salt Lake Issues Forum combined forces with the International Society of Salt Lake Research and its triennial conference, and it just happened to fall on the triennial timing, and we decided to unite forces and have a joint conference, which brought in twenty-three countries from around the world, over 250 people from those countries, to talk about saline lakes around the world, and the research that's going on, the threats, the pressures, just the science of what they're all about. And that was an entire week of a conversation that I'll certainly never forget, and I think all of the participants in that experience will remember it as a real highlight. But as a result of that, again, I can send an email to Ittai Gavrieli, who is with the Israeli Geological Survey, and who, you know, is in touch with issues on the Dead Sea, and I can say "Ittai, will you come out for the next forum and be my keynote just to remind us about that story of what's happening with the Dead Sea?" Or Bob Jellison in California, who does research on Mono Lake, who was a part of the Mono Lake Committee dynamic to bring

water back into that system. I can call Bob and say "Bob, you know, we need to talk about that sister lake on the other side of the Great Basin. Would you come and bring us up to speed on that?" So there again the community of Great Salt Lake and beyond has just expanded to the far reaches of the globe, which is, it's heartening to think that there are so many people who are concerned about the future of these systems and that the work is ongoing.

GS: Well let's go from global back to the local, and I've been a little bit schizophrenic here, sorry about that.

LDF: It's okay.

GS: But what, you know, to return to the issues and what FRIENDS is doing now, what do you and, by extension, FRIENDS of Great Salt Lake, see as the most crucial issues facing the Lake right now? What projects or programs do you have ongoing?

LDF: Okay. I think the biggest issue for the Lake is going to be the water issue, because it's a terminal lake and what doesn't come from the sky has to come from inflows into that system. And we know with the pressures of drought cycles that we've been going through and we continue to be a part of, and climate change, shifts in that water coming into the system and coming from the sky and the snowpack are going to be a key contributor to what happens to that system. The consumptive water right commitments that are already outstanding on that system are really beyond the water capacity that system even has. So there're already pressures regardless of what climate change does that are ongoing. So there's a gestalt of the water picture that is going to have a direct impact on the system, which in turn is going to affect that economic significance, that generator of the brine shrimp dollars, the mineral extractive dollars, the birding dollars,

that comes to the state of Utah, and even assimilative capacity of that system. It's, you know, the responsibility on a global level and a hemispheric level of what that system means for migratory birds is—I can't overstate it.

And as such, if we don't think about the Lake's needs as we think about upstream reservoir needs, I'm fearful of the outcome. FRIENDS has been advocating for what we call a Conservation Pool for the Lake. What that means is that at a certain lake elevation there would be a moment of truth when all of the industries who are using consumptive water from the Lake, they would have to curtail their activities or they would slow down to a portion of their operational levels so that water could remain in the system and the viability of those other uses could sustain. It's a hard sell. It's a really hard sell.

GS: Oh yeah. Now do you see this including in-stream flow claims on the major tributaries, or will that lead you into all kinds of controversies?

LDF: Well, that's the thing. We have to—we have to talk to everybody. But you know, I think to start out, to demonstrate to people upstream, "Look. All the Lake users have already said 'We've shaken hands' and we've said 'Okay, if we can get upstream to regard something about the need of the system' and we've already decided that 'Okay, at this level we're going to just—we're just going to back off, we're just going to have to figure out something else'" then possibly that would be a really great lobbying tool to look at upstream water users. I don't know. We just keep saying it and we keep talking it and we just have to continue to explore various aspects of how to get more momentum behind it.

And one thing I think that's been really helpful in doing that is a tool that was developed during the last revision of the Comprehensive Management Plan of Great Salt

Lake that's done through the Division of Forestry, Fire & State Lands, which is a division in the Department of Natural Resources. Forestry, Fire & State Lands has the jurisdictional responsibility to manage sovereign lands, and Great Salt Lake is a sovereign land. So that's their managerial responsibility. And with the last revision of the CMP there was a tool called the Great Salt Lake Level Matrix. Essentially it looks at lake elevations and lake uses and volumes of water and it's this really great, it's almost like a batik of things that are going on at different points along the way when the lake level is at a certain elevation. What kinds of uses drop out or what kinds of uses pick up? You have high-water lake years and you have low-water lake years. So what shows up at those different elevations?

And this is a really great tool for us to use when we talk about the need to have water in the Lake because there is this magic elevation I think, it's 4194 feet above sea level. Average lake level used to be considered 4200 feet above sea level. Over the past fifteen years and drought cycles and pressures on the system, the average lake level—it's more like 4197, 4198. 4200 is no longer average. So a lot of rethinking is going on, and with that, having this tool to kind of visually depict what those changes would look like and what industries drop out. What are those impacts that translate out into this economic significance of the system? It's—I think it's a really great tool. So, there are gray areas in it too, just like the Great Salt Lake Health Study, but again, there is research to help fill in those deficits so we can get a better picture.

There's also another tool that's going to be in the process called the Integrated Water Resources Management Model. And what this will do is help the state have a tool for water resources on the Lake and proposals that come forward to Forestry, Fire & State

Lands for developing resources, and helping to put that into the picture of that matrix, to think through "Well, you know, maybe it's not such a great idea that we approved this lease for this proposal that would require an additional consumptive water right of "X" when we're already feeling the pressure of being over papered as it is, and we're already looking at what seems to be a lake level that's being pervasive of late." So hopefully it's to better inform decision making on behalf of the systems so we don't dry it up and it doesn't end up like an Aral Sea, or an Owens Lake.

GS: Exactly.

LDF: Or almost a Mono Lake. You know. So I would say water in the system is key.

GS: Now arguably the most consequential human artifact out there is the causeway. It's the railroad causeway which effectively creates two lakes, and I know that there has been some proposal to transform that causeway, to close off some of the culverts and they're already—of course restricts the exchange of water between the north arm and the south arm.

LDF: Right.

GS: What's the status of that now and where are how are FRIENDS—how are they involved?

LDF: So, yes, the causeway has been an impediment to enabling circulation throughout the entire system to occur. And when the rock-filled causeway went in, in—you tell me.

GS: '59.

LDF: '59. In '59, you know, initially there was some permeability to it, but of course through time it's less permeable. The two culverts, we're now down to one culvert, the two culverts that were only fifteen feet wide, and fairly far apart, were always subject to

detritus and wave action and the integrity of that structure as loads of freight trains would go over it. And a breach, a 300-foot breach that is down to a certain level in the lake bed that theoretically is supposed to allow salinity exchange between the north and south arms.

GS: And that was not put in until the floods, until the early '80s.

LDF: That's correct. And that was deepened as well. And that was very controversial. The north arm extractive industry was bummed. They were so bummed. The fact that, you know, this sudden, you know, outflow—I mean it was not pretty. So it was a very politically charged decision, but it was one that, much to the credit of the State and the Division of Forestry, Fire & State Lands, and the governor, they made it happen. So we're now at a place with the causeway where, you know we've had a lot of research, we've had a lot of anecdotal observations of what the causeway has done to the system. The integrity of the culverts has been problematic. The railroad has gotten permission to close the west culvert, because it was the most difficult to maintain, so we're down to one culvert and this breach. And the railroad is proposing to build a bridge, another opening along the causeway, likely right next to the breach on the far west side of the causeway, that theoretically would enable that salinity flow to occur. Well the jury's out on that because based on the design that was drafted and advanced to the Army Corps of Engineers and the various cooperating agencies within the Department of Natural Resources, various scientists and researchers see what the railroad is proposing differently.

And one of FRIENDS' I guess [pause] contentions is the fact that "Here's this causeway that has impacted a public trust that belongs to the people of Utah. We should

all have the ability respond to this proposed draft of a bridge construction. The public should be able to be totally informed about what the railroad has in mind, what the discussion is about what the Army Corps of Engineers has to consider, and how this plays into the scheme of our public trust and this, you know, enduring in perpetuity for the people of Utah." This hasn't been a public process, so right now things are kind of happening internally. And one of the contentions that FRIENDS has made clear with the Army Corps of Engineers is that these are problems that we have based on talking with experts about the schematics, but the bigger problem is that the public's being left out of the conversation. So we feel that the Corps should require an individual permit or a standard permit for the railroad so that it would open up the public process so that the outcome is something that we all feel that we had a hand in making happen. And that's still in a state of flux right now. Right now the Corps is going to be meeting with the railroad in early October, which is what, tomorrow?

GS: Yes. (laughs)

LDF: And the railroad will present to the Corps their findings, based on working now with Dr. Wally Gwynn who is a professor emeritus from—he's the former Utah Geological Survey guru in DNR, he's acting as an expert consultant, and Kidd Waddell who is retired from the U.S. Geological Survey who worked on the Salinity Balance Model in the causeway that U.S.G.S. did back in the late '90s. So the Corps is going to meet with these experts, the railroad, and the cooperating agencies for an update on the process. And the Corps has a number of options. They can say "Okay people, what do we think? Okay, looks good to us, let's go forward with this nationwide permit, which keeps the public out of it, and you know, let's just do it." Or they can say "Well, good, but we

believe that the public should be involved so we're going to require a standard permit, it's going to be a full NEPA process, it will be in the EIS. We'll explore, you know, we'll update the Salinity Balance Model, we'll do X, Y, and Z, so that when we lay this structure down it's going to be done right the first time, instead of, 'we're going to lay it down and we're going to kind of hope for the best.'" We'll have a better sense of certainly with an outcome that will, theoretically, have increased the salinity exchange between the north and south arm of the Lake. But that's contingent on lake level. And, you know, you can't make it happen if the lake level isn't there to have that exchange occur, regardless of what you're hoping to do with the bridge. So, to be continued.

GS: Alright.

LDF: Yeah.

GS: We've been here a while, but I do want to ask you to return to your personal experience with the Lake then, and maybe talk a little bit about the special places on the Lake. You said first when you arrived in Utah, you know, you knew about the Lake but you really didn't spend a lot of time there and then the birding, you did the birding. But now after a couple of pretty intense decades of engagement with the Lake and these issues, how are you—how has that changed your perception of the Lake and where—you don't have to tell us exact locations if you want to keep them secret, but where are the special places on the Lake that you think are maybe underappreciated or just important to you personally?

LDF: Okay. Probably the most memorable experience I've had with the Lake was an opportunity to visit and spend the night on Gunnison Island in the north arm in Gunnison Bay. Gunnison Island is home to the third largest breeding population of American white

pelicans in North America. It also has a California gull rookery there too. It—it is what it is because it's remote. And in the mid nineteen seventies the legislature, bless their hearts, with the prompting of Governor Rampton, designated that island as a protected island so the public is not able to go to that island, it's only research and the Department of Wildlife Resources to confirm ground truth aerial surveys of pelican populations. So I had the distinct honor of being invited to go, and with a great group of people, Don Paul, who used to work with the Division of Wildlife Resources who created the Great Salt Lake Water bird Survey, who we refer to as the Holy Man of Great Salt Lake. So he was—he was there. Yae Bryner, who is a retired kindergarten teacher in the Ogden School District who's an avid birder was a part of the trip, and some others. But we got to go to the island and spend the night and do a ground truthing of aerial surveys of pelican colonies. And that was truly extraordinary because during the boat trip out there I was thinking *gosh, you know, it's kind of like Homer and the* Odyssey. You know, I'd never been to that far reach of the Lake before on the water on my way to Gunnison Island. And then, of course, my childhood, old movies like *King Kong* came to mind. It's like going to Kong Island [GS laughs]. You know, *what's it going to be like there?* And it was, it was, it was magical. And it was deep and it was an experience that I will always cherish and recognize the importance of why that island is protected, the significance of why it needs to perpetuate, which again has pressures around it, lake elevation and land bridges to that island, so I can't say enough about the significance of Gunnison Island and the opportunity of being able to visit it personally.

Antelope Island is a great favorite. But then it's a great favorite with so many people, for obvious reasons. But every time I go out to Antelope Island I really forget that

I'm so close to this growing metropolitan area. And so, it is, you know, "jewel" is getting to be quite overused in so many references, but it is, it is truly a jewel for our Wasatch Front and all visitors because of that fabulous landscape. It's kind of like Xanadu. I get out there and sometimes I think I'm in Ireland. It's so many things but it's Antelope Island, and so it's kind of a gestalt of the ability to have a refuge that's so close to so many people but it's right there and it's private and it's choice and it's soulful. I've done the circumnavigation around the Lake over the course of a weekend which was, like, fabulous, you know? You just feel like *wow! This is like what it's all about!* You know?

GS: How did you come back? I did that this last Pioneer Day.

LDF: Oh did you really?

GS: And we did it in a day, a very long day.

LDF: A day? Wow.

GS: Yeah. And we drove the railroad causeway back to Lakeside, which I'm not sure UP really wants you do.

LDF: Yeah. Did you have permission to do that?

GS: No. But there were no signs and there was nobody around.

LDF: Yeah. Yeah, good for you!

GS: And so it was a holiday, so we zipped across it and we saw one UP work crew, who waved at us, and we went through the quarry and off on our way through the bombing range to come home, so…

LDF: We—I'm trying to remember. We actually ended up going through, well let's see. Kelton? And then we headed to Montello, and—is that in Nevada or is that in Utah? You know where Montello is? I think it's in Nevada.

GS: The name is—yeah, it may be that far, it's past Lucin.

LDF: And then we came back via Eighty. So, you know, we did kind of like a wide berth. I've approached the West Desert Pumping Project through the bombing range, which is always kind of interesting.

GS: And that's—we drive right past the pumps on this little—the first time I did it was about twenty years ago. You know? I guess if you don't get caught and if there's no sign… I shouldn't be having this on tape. (laughs)

LDF: Yeah you shouldn't. But that said, it reminds you again of how rugged a place the Lake is.

GS: Oh yeah. And really how remote it is, the west side of the Lake gets so few visitors.

LDF: Absolutely. And yet, there's so much history and there's so much culture, and there's so much written about it. And, you know, again, it's unique, and it's special, and it's every bit as juicy as going to Southern Utah but it's right here, and it's its own finite province of reality. So that was really great. And I loved that a lot. And I would say that, on the whole, just getting out there regularly, which I do now, which is a part of "time to check in, time to go out, see what's coming through," you know? Someone at—at a gather we were watching a documentary on birding in Central Park in New York and after the film we were talking and this person says "You know, the thing about birding is that it puts you in touch with real time." And that's so true. And so, for me personally, oftentimes you know you're steeped in something and real time is like going past you because you're like stuck in a paper or an issue and so birding really is that window to what's happening in the moment. So I appreciate all aspects of the Lake in that regard,

because you can find something in Farmington Bay when you go up to Bear River Migratory Bird Refuge, which is another favorite haunt of mine. It's unique and it has a different aspect of what the Lake holds. So, I'm just grateful that it's all things.

GS: Alright.

LDF: Yeah.

GS: Well, before we close, I'll open it up to you to ask you if there's anything that you can think of that I missed. There's always the opportunity of course for a follow-up interview.

LDF: Sure.

GS: But what haven't I ask, that you think is critically important that should be part of an oral history historical record?

LDF: Yeah. Well, you know, I think again the thing that the Lake symbolizes really is it's—it's not a conventional lake. And when people refer to a lake they think that a lake should be this, that, and the other. You should be able to water-ski on it; you should be able to fish in it.

GS: I hate to tell you this, I have water-skied on it.

LDF: Have you?

GS: Yes.

LDF: Wow, you didn't fall, did you?

GS: Yes, I did actually.

LDF: Did you?

GS: It was unavoidable. I'm not that good of a water-skier. Anyway so—

LDF: But I mean in a conventional sense. I mean, okay, everything about this lake that's not like your typical lake is what makes it so supremely unique and important and special. And I think the more time you spend discovering parts of the whole the more you realize that there's so much that you don't know and there're so many stories that begin to unfold. And the literature and the art and the science, it's all a part of "why are we here?" And you know, "what does the future hold for here when we think about that ecosystem?" So I hope everybody takes the time to go out and visit and discover things about themselves but also about that system. Yeah. Right on.

GS: Alright, well, thanks so much Lynn, it's been a great interview. And we look forward to maybe continuing this conversation. Certainly, talking with other folks, I will certainly ask you for names of people we should be talking in this program, so…

LDF: Well it's my pleasure. Thank you very much.

GS: Alright. Thanks again.

END OF INTERVIEW