Evaluation Report

Great Salt Lake Lab: Winter 2025

1. The Problem

In 2022, Great Salt Lake (GSL) hit a record-low elevation of 4,188.5 ft.[i] Though only 12 ft below GSL's average elevation, this loss shrunk the lake's surface area from 1,700 square miles to nearly 800.[ii] The elevation of GSL has fluctuated over time, but since 1986 there has been a declining trend in the lake's elevation.

One contributor to GSL's decline is climate change. Increasing air temperatures, evaporation, and dry years pose a long-term threat to the lake's health, with some scientists attributing 9% of its recent drop to climate change.[iii] However, the greater contributor to GSL's decline is human consumption of the lake's inflowing water. Utah residents use around 2.3 million acre-feet of water every year, with the main uses being agriculture, municipal and industrial uses, and mineral extraction.[iv] Researchers from Utah State University estimate that, on average, the lake has dropped 11 feet from its natural level due to human depletions reducing lake inflow.[v]

There are three main consequences of allowing GSL to further dry. The first of these is a collapse of the ecosystem. As stream inflows decrease and water evaporates from Great Salt Lake, the lake's salinity level rises. Brine shrimp, a small crustacean that inhabits the lake, cannot survive in ultra-high salinity levels. The loss of this species would disrupt the health and migratory patterns of millions of birds that rely on Great Salt Lake's brine shrimp and brine flies to refuel during their migratory journeys. Additionally, Great Salt Lake supports large brine shrimp harvesting, mineral mining, and recreational industries that bring an estimated $1.9 billion into Utah's economy annually, not including Utah's profitable ski industry which relies on lake effect snow to extend its seasons.[vi] Losing GSL could have large repercussions on these industries and the state's economy overall. Finally, exposure of GSL's lakebed to the air could result in an increase in particulate matter and poorer air quality surrounding the lake, where most of Utah's population lives. It is estimated that some of the worst PM10 pollution in the United States came from the drying of the saline Owens Lake in California.[vii] There are known toxic elements in GSL's lakebed, including arsenic and lithium, that may be picked up by wind and carried in dust storms across northern Utah, comparable to how PM10 pollution from Owens Lake was carried across California.[viii]

2. The Projects

For our project, our lab decided to focus on two gaps that prevent meaningful and effective changes that are necessary for the Great Salt Lake to sustainably recover. These gaps include coordination, the ability of separate and distinct stakeholders to work together and avoid conflict, and the need for a culture shift to help Utahns become familiar with and support water conservation. To address these needs, our lab designed a project with three separate initiatives: an informative webpage, a caucus presentation, and a coordinated stakeholder campaign.

Through our research, our team found that information about GSL that is presented through different websites may lack consistency, be biased, or be too complicated for individuals to understand. As such, our first initiative was to create a webpage that directs its visitors to straightforward, reliable, and digestible sources that represent a wide range of facts and opinions on the issue. Our hope is that this page will give stakeholders enough flexibility to explore different aspects of the issue on their own while still providing them with enough direction to keep their research grounded in reliable data. After publishing the website, our team aimed to share this information and more through a presentation at an interim meeting of the Environmental Stewardship Caucus. The caucus consists of legislators who want to learn how they can protect the environment, yet don't regularly explore water use in Utah or the Great Salt Lake. In this meeting, we were seeking to provide resources and practical advice to legislators who may not have a strong grasp of Utah water or GSL legislation and programs. This advice included an overview of Great Salt Lake's desiccation, directions on specific programs and past legislation, guidance to our website, and ways to contact us for additional information. Our final initiative was to encourage stakeholders to unite through a common environmental campaign. It was hoped that this would allow stakeholders to maintain their individuality while still having a similar measurable goal, ultimately leading to a united public perception of the issue and more coordinated efforts to save it. These initiatives additionally had the purpose of increasing our credibility among these groups and encouraging more stakeholders to get involved.

With these initiatives in place, we began planning out each project.

3. Present Evaluation of the Projects

3.1 Data Collection

Our team prepared to implement these pilot projects by collecting both quantitative and qualitative data from different stakeholders and experts that helped us refine our project plans. Descriptions of this data collection process are included below:

3.1.1 Webpage Data

Our team met with Jess Dansie Anderson from the Ballard Center Marketing and Communications (MarComms) team to work through the logistics behind the creation of our webpage. We discussed how we could use search engine optimization (SEO) to improve the web page's presence in internet search results about Great Salt Lake. Jess provided us with a list of commonly searched questions and keywords about Great Salt Lake that we could include in the content of our webpage to improve the page's SEO. Additionally, Jess walked our team through some different web design ideas for us to consider when planning out our vision for the webpage intervention project. Finally, we concluded that the webpage would be hosted through the Great Salt Lake Lab's webpage on the Ballard Labs website.

Our team reviewed the data presentation methods of different prominent websites to find a model by which we could format and present our own data. Ultimately, we decided to combine the user-friendly interface of the Mayo Clinic website, the clear and engaging voice of the Great Salt Lake Collaborative, and the aesthetic design of the UN Environmental Program's website into a unique design for our website.

3.1.2 Caucus Data

To prepare for our caucus presentation, our team met with the Office of the Great Salt Lake Commissioner and a representative from the Utah State Legislature to discuss our idea and ask for their feedback. They both approved of our project idea and provided tips for how we could structure our presentation's information. Specifically, they both listed a few pieces of legislation they would like us to focus on in our presentation – a bill about tiered water rates (2025 HB 274) and a Request for Funding of $16 million for the Great Salt Lake Commissioner's Office.

Originally, our team had hoped to present to the Utah Great Salt Lake Legislative Caucus. However, the legislator we spoke with informed our team that the current Great Salt Lake caucus only has a few members on it whose main responsibilities are to analyze proposed legislation for Great Salt Lake. Thus, they are already very educated about the issue and a presentation about resources for learning more about Great Salt Lake would likely not have been very impactful. Instead, he recommended that we reach out to other caucuses with

members who are less informed about the issue for our presentation. He also gave us some ideas for establishing our credibility as presenters and suggested that we focus our presentation on the resources available to legislators and their constituents for learning about the lake instead of solely focusing on legislation. The representative suggested that we then offer ourselves as a resource for teaching legislators about the issue following the presentation.

Our team created a survey to distribute to legislators following our presentation to help us evaluate its effectiveness. After creating a rough draft, we met with the Ballard Center's Data Team to fine-tune our questions. From their feedback, we developed a user-friendly and short survey that gathered the information we needed—how engaging the presentation was, what new content the legislators learned, what topics they found most interesting, and how prepared they felt for future conversations about GSL.

3.1.3 Coordination Data

The data we collected in preparation for our Coordinated Stakeholder Campaign project drastically affected our implementation of the project. Originally, we had planned to gather members of the state and nonprofit organizations together to discuss their concerns and any possible common ground that could be used to create a combined, coordinated public message. However, as we met with different stakeholders to discuss the viability of this idea, we learned about a few factors that caused us to adjust our original plan toward one that involved a single spearheading stakeholder.

First, we met with two adjunct law professors from BYU to discuss their views on our original idea. They both approved of the idea, encouraged us to move forward with it, and gave us some resources for learning about basic negotiation skills and strategies.

In our previously mentioned meeting with the GSL Commissioner's Office and state representative, we also asked for their feedback on this idea. The Commissioner's Office generally liked the idea and asked us to keep them updated about which stakeholders we planned to invite to the discussion. The legislator was less optimistic about the idea. He enlightened us about some legal actions that have arisen between nonprofit organizations and the state that limit the two parties' ability to meet "casually." He also expressed concern regarding the level of trust that exists between nonprofit organizations and the constituents of some key stakeholders from the state (i.e. his constituents are mostly farmers, so he does not feel comfortable meeting with anyone who supports the Wilson's phalarope petition). Overall, our conversation with this representative gave us a much clearer view of the context surrounding the relationships we've observed between members of these two parties. This information was extremely helpful as we continued to meet with other stakeholders to discuss this idea.

Next, our team began meeting with each nonprofit organization that we were interested in including in this project. Some of the organizations we met with include The Nature Conservancy, Grow the Flow, FRIENDS of Great Salt Lake, and The Center for Biological Diversity.

One of the first questions we wanted answered was why some nonprofits work well with the state and promote a very positive public message for Great Salt Lake while others criticize the state's efforts and promote a very negative outlook for Great Salt Lake. We learned that many saw these different public messages as essential for promoting different types of action toward saving the lake. Organizations that seek the voluntary help of Utah's water right holders by asking them to give up their water for the lake need a positive public message to encourage and reassure those water users that their sacrifices for the lake are making a difference. Conversely, organizations seeking regulatory solutions need to keep the issue in the forefront of the public's mind in order to continually drive change, which is most effectively done by creating a sense of urgency. Thus, it was generally believed by the nonprofit groups we met with that a meeting between nonprofit organizations to agree on a unified public message would be extremely difficult because it is not likely that one public message would fit the motivations and goals of all the parties involved.

In additional meetings, we learned that nonprofit organizations tend to cooperate well with the executive branch of the state government and with some legislators. However, high levels of distrust remain between some nonprofits and other legislators. While it was agreed that building trust between nonprofits and the state is one of the most important pieces of the issue to address, we learned that a meeting had already recently occurred in which members of the state met with nonprofit organizations to discuss the idea of a unified public message. It was also mentioned that the success of our project's original idea could depend a lot on how different individual personalities of the people we invited to the meetings would clash or work together.

Finally, we learned that multiple nonprofit organizations already meet together weekly to discuss their common interests and goals. And once again, we were told that there need to be different strategies to address the problem from different angles—that it is too big of an issue to be solved from only one approach. As such, these nonprofit organizations did not seem to support the idea of hosting a discussion between these groups and the state, because they felt like it wouldn't have an impact on the problem.

3.2 Project Implementation Results

3.2.1 Website Implementation

Overall, the website implementation plan was executed nearly as planned. The content curation phase of the project progressed according to schedule. The most reliable and consistent data we found was concentrated mainly in resources provided by different state

agencies and programs. We wanted to avoid appearing overly biased towards the state's data and research, but also didn't want to confuse users with conflicting information from different sources. To hedge this risk, we included links to the main pages of key stakeholders for users to explore on their own without identifying which stakeholders publicize data that contradicts that of the state. Our hope with this decision is that readers will primarily explore the most reliable sources we found but be able to explore other sources on their own once they have a baseline understanding of the problem. Then they can analyze any conflicting data they find in that process to determine which sources or perspectives they would like to personally align themselves with.

The first pitfall we hit during our implementation of this project was a bottleneck in the workload of ours and the MarComms teams that occurred over Winter break of 2024 and slowed down production by about 4 weeks. However, once both teams were caught up from the holiday season, the website was created and published within about 2 weeks.

From the webpage's construction and publication on February 17 until April 21, the page received 121 views with an Average Engagement Time per Active User of 1 minute 32 seconds. However, our team believes that roughly half of those views and their corresponding user interactions came from Ballard Labs employees and the MarComms team reviewing the published site and providing feedback to our team about changes that needed to be made. Initial informal feedback from outside of our team was generally positive, with minor adjustments made based on these user tests.

It was ultimately difficult to publicize the webpage in the ways we had originally planned. We tried contacting the BYU Daily Universe through two different methods, the BYU Marriott Student Newsletter, and the Ballard Center Newsletter team to have a short article about the webpage published. We only heard back from the Ballard Center Newsletter team who asked us to publish our Problem Understanding paper on the page before publishing about the webpage in the newsletter. However, the MarComms team also began restructuring the Ballard Center's websites into a single comprehensive ecosystem at this same time, meaning that any published links or documents on the webpage would soon be broken as the page was recreated in the new ecosystem. Because of this, our team and the MarComms team collectively decided to wait to publish the Problem Understanding Paper until after the Resources page had been rebuilt in the new ecosystem. This decision prevented us from being able to publicize the webpage through the Ballard Center Newsletter before our lab closed, but it ensured that the webpage and paper would ultimately be hosted on a permanent website instead of on a page that would soon be deleted.

3.2.2 Caucus Presentation Implementation

Our implementation of the Caucus presentation pilot project experienced a delay because our team was not able to secure a presentation date at any caucus meetings during the 2025 legislative session. Our team contacted the leaders of the Environmental Stewardship Caucus and the Conservative Caucus to secure a presentation time, but the busy schedules of those leaders and their session interns prevented us from being able to schedule a presentation date before all caucus meetings for the session had already been booked. Near the end of the session, we were finally able to meet with the Environmental Stewardship Caucus, who appeared to be interested in having us present during the interim session starting in May.

Because of this adjustment in timing, our team decided to adjust our presentation. It had previously focused heavily on our ability to help legislators understand proposed water legislation during the 2025 session. We modified it to instead focus primarily on the resources and incentives available to them and their constituents to conserve water for Great Salt Lake. These programs include the Agricultural Optimization Program, municipal rebate programs, and free sessions with the State Water Engineer for correcting water right information. Our hope is that this revised presentation content will better inform legislators who may not be familiar with Great Salt Lake about how they can encourage their constituents to act beyond just supporting legislation.

Unfortunately, as the 2025 legislative session wrapped up and it became time to schedule a definitive date for our interim presentation, we were no longer able to contact any members of the Environmental Stewardship Caucus including the one with whom we had previously met. Near mid-April, as our lab began to wrap up and as we had still received no response from any caucus members after numerous attempts, we decided to discontinue the project.

3.2.3 Coordinated Stakeholder Campaign Implementation

Our original plan for the Coordinated Stakeholder Campaign Pilot Project was to hold a meeting with multiple nonprofit organizations to learn about their concerns surrounding Great Salt Lake and to find common ground among their different intervention strategies, then to do the same with various state organizations, and finally to have both the nonprofit and the state groups meet together to discuss ideas for a collaborative public campaign supported by each of them. However, after considering the feedback we received from our meetings with multiple stakeholders about this original idea, our team decided to adjust our plan.

Instead, we decided to form our own idea for a public campaign that we believed many different stakeholder groups could support. We referred to our plan for this campaign as the "800K" plan based on the Great Salt Lake Strike Team's reported need of 770,000 AF for

Great Salt Lake (rounded up to 800K) and the similarity between the 5 zeros in 800,000 and the 5 Olympic rings. This plan would use the publicity of the upcoming 2034 Olympics hosted in Salt Lake City as a springboard for driving public engagement with Great Salt Lake. Specifically, this campaign would combine nonprofit organizations' and state agencies' goals for Great Salt Lake's ecological health with the financial incentives and desire for positive publicity held by many other stakeholders regarding the upcoming Olympics. The main idea behind the campaign was that if the Great Salt Lake is healthy or on track to become healthy by the time the Olympics arrives, then Utah will likely experience more lake effect snow for the Olympic games and media outlets will likely praise Utah for its efforts to conserve this natural wonder. However, if the Great Salt Lake remains in critical condition when the Olympics arrive, then less lake effect snow could make for bad conditions for Olympic events and Utah will likely be criticized for neglecting to care for its environment. This outcome was observed in the 2024 Paris Olympics with massive amounts of media attention directed toward the poor quality of the Seine River and Paris' failure to successfully clean up its natural environment prior to the games.

Additionally, our team decided to pitch this idea to only one stakeholder, the Office of the Great Salt Lake Commissioner, to spearhead the campaign instead of trying to get all stakeholders to support the campaign individually. The Office of the Great Salt Lake Commissioner coordinates heavily with state agencies, nonprofit organizations, and other stakeholders and is well-respected for the efforts it is making to save the lake. Our hope was that having this agency spearhead the 800K plan would lead to a more receptive response to the plan by other stakeholders compared to if our team pitched the plan to each of them individually.

After multiple failed attempts to meet with the Office, we were eventually able to share our idea. While they agreed that coordination among stakeholders is a big problem, they shared that for now, they are pushing for just a much more realistic goal of an additional 250K AF of water for Great Salt Lake. As such, they wouldn't be interested in taking up our "800k Plan."

With this setback, one thing that became extremely clear to our team was that the real issue is not which number of acre-feet or elevation for Great Salt Lake is correct—it's that there are so many numbers out there. Taking one quick scan of the most prominent organization's materials, we found pushes for 250k, 770k, and 1 million AF for GSL and elevation goals of 4198, 4200, and 4207 ft. From a public perspective, all these numbers are confusing, but internally they also lead to conflicting priorities among active stakeholders.

As our lab was nearing the end, we realized we did not have time to see any sort of agreement reached among the most important stakeholders. Yet we felt like the information and perspective we had was still valuable. Thus, we decided to take both of our

previous ideas (a stakeholder meeting and a coordinated campaign) and develop a final pitch for the Commissioner's Office about our plan, what it could look like, and why we believe it is worth considering.

We adapted the pitch to remove the 800K acre-feet goal and to focus solely on the importance of finding some kind of campaign that many different stakeholders could support. We presented it to the Director of Communications at the Department of Natural Resources whose purview covers the Office of the Great Salt Lake Commissioner. Ultimately, our meeting with her was friendly but not successful. We sent her a written report of our pitch for her consideration, but her overall opinion of the idea during our meeting included the following:

1) The DNR is already stretched too thin trying to manage the publicity of existing efforts. With their resources already so stressed, her team would not be able to handle coordinating a large-scale campaign.
2) There is already some coordination happening within the executive branch of the state government in preparation for the Olympics. Great Salt Lake is involved in that plan, so adding another campaign about the lake on top of that would be redundant.

With the end of the semester closing in and with no stakeholder willing to spearhead the campaign, we decided to retire this project as well. We sent her a written version of our pitch and encouraged her to read and consider it. Our hope is that the information included in it will be useful in some capacity to the Office of the Great Salt Lake Commissioner and the Department of Natural Resources moving forward.

3.3 Project Budget Evaluation

3.3.1 Website Budget

In total, this project was budgeted to cost $427.50 between the cost of the time it took our team to curate the content for it and the time it took the MarComms team to publish it (30 total hours x $14.25 per hour). In implementation, it took our team about 25 hours to curate the content, and it took the MarComms team about 6 hours to publish it, resulting in an actual cost of the project of approximately $440.

3.3.2 Caucus Presentation Budget

The budgeted cost of this project was expected to be $0 in addition to the payment rates associated with the hours spent by our team preparing for and presenting at the caucus. This is because caucus funding traditionally comes from donations from member campaigns, or fundraising efforts. We would not need to pay any fees to present at the caucus or to provide any meals or refreshments at it.

3.3.3 Coordinated Stakeholder Campaign Budget

This project was budgeted to cost around $525 apart from our team's wages for the time spent preparing for it. However, upon shifting our project idea from a formal stakeholder meeting to a pitched campaign, that excess cost has been eliminated. The only remaining cost is the wage expense related to the extra time our team has spent cultivating the 800K campaign.

4. Lessons Learned from the Projects

4.1 Credibility as a student

From the early research stages of our project, one of the main concerns we had was how to present ourselves in a way that gave us credibility. Although we had spent hundreds of hours learning about the Great Salt Lake, the individuals outside of our organization would often immediately profile us as college students who were doing this as a hobby or passion project with little academic or professional expertise.

Many of the interviews conducted in the beginning of our research were simply informational—aimed at learning about what specific people and their organizations were doing and how they felt about or interacted with other stakeholder groups. During this stage, our team rarely ran into issues, likely because it is common for university students to conduct informational interviews. However, a distinct shift was seen as we moved from meeting to learn about stakeholders' efforts to meeting to share our ideas with them. In a few circumstances, it was clear that the interviewee didn't know that we were already well-educated about GSL. We were able to avoid this misjudgment in many situations by providing a strong introduction to our lab and asking specific, knowledgeable questions.

Unfortunately, there were multiple occasions when our ideas were not listened to or were immediately shut down. In these experiences, the other party frequently gave alternative suggestions for actions that one could deem more "fitting" for a college-age group of students. These meetings were often sizable setbacks, and they made it difficult for our team to know if our idea needed improvement or if we were just being stereotyped and dismissed as uneducated enthusiasts.

As frustrating as these occurrences were, the majority of our meetings went very well, and many stakeholders were responsive to us and our proposals. Whether an interview was successful or not could have just been dependent on the person we were speaking with, but it did appear that our lab was more likely to be heard when we spoke with confidence and used our connections to other credible individuals to back up our ideas. Although we recognized the faults in our projects and were looking for advice and input, the more confident we were in how we presented our ideas, the better feedback and attention we

received during our meeting. If at first our ideas were brushed off, mentioning other stakeholders who listened to us and were interested often helped pivot meetings to become more productive.

On that note, if a future Social Impact Lab or group of university students anticipate needing to meet with a variety of stakeholders during their projects, our lab would suggest putting a particular emphasis on developing one or two strong connections with credible individuals/organizations early in the process. Having these people to reference, or even potentially join in on later meetings, could help avoid some of the setbacks our group experienced related to our perceived credibility.

4.2 Time and Scheduling Barriers

As time moved forward in our ideation and implementation phases, a clear difficulty that arose was working with the schedules of very busy stakeholders on our semesterly timeline. For example, in many situations, we had to wait weeks to get on the calendar of important individuals—and sometimes these meetings would fall through. As we relied on these people to help us co-create our pilot project and implement our designs, we often felt stuck and unsure of how to proceed without their input. Additionally, as the Ballard Labs collectively transitioned between phases of the social impact cycle, these scheduling issues caused our lab to fall behind expectations for our progress.

This became a particularly significant issue when trying to work with the Utah legislature. The Utah Legislative Session, taking place from mid-January to the beginning of March, is the most critical time for solutions and projects that deal with laws and lawmakers. In October of 2024, our lab had firmly decided that we wanted to present at a legislative caucus. This was roughly 3 months before the beginning of the legislative session, so we promptly began to set up meetings with legislators and other stakeholders to pitch our presentation idea and to schedule a caucus meeting presentation date. As mentioned earlier, it was difficult to get in contact with many of these important individuals, and that difficulty only increased as the legislative session got closer. Eventually, we were able to meet with a leader of the Environmental Stewardship Caucus in mid-February—but he did not show very much interest in our presentation. However, even if he had, by that time it was already the end of the legislative session, and our presentation would have fallen outside of our original timeframe for project implementation.

Going forward, students need to be extremely proactive in reaching out to and scheduling meetings with stakeholders that are essential to the progression of the project. Hopefully, in connection with Section 4.5, establishing early connections in the co-creation process can help avoid this situation. Additionally, if a team specifically wants to pilot something during the legislative session, our suggestion would be to start as early as possible—even a year in advance is not unreasonable or excessive.

4.3 Strong Opinions of Stakeholders

During our design process, our lab understood that opinions and tensions between many GSL stakeholders were not ideal for efficient and beneficial decision-making. For example, it was a seemingly common opinion among everyone we interviewed that players other than themselves were not doing enough to conserve water and were not being open-minded to other important interests.

For example, the farmers we met with generally saw themselves as the main water conservationists in Utah's society, while some nonprofit organizations generally viewed those farmers as a key source of Utah's water problems. Some nonprofit organizations criticized the legislature for not doing enough to solve the problem, while members of the legislature stated that they were doing everything they could, and that nonprofit opposition of their efforts was getting in the way of positive change.

As such, our main desired outcome was to create a community of cooperation and understanding among these individuals and organizations. However, as our first attempts to bring polarized groups together failed, it became clear that strong opinions were going to be a major hurdle that could not simply be remedied by getting opposing individuals into the same room. Individuals we met with were either unwilling to meet with other stakeholders or felt like it would be pointless because those meetings would end poorly. Additionally, a current lawsuit against the state by various nonprofit organizations prohibited some members of these groups from being allowed to negotiate together without the presence of formal legal representation related to this lawsuit.

However, this sentiment was not just found between clearly opposing organizations and individuals. It was also found among organizations that were seemingly on the "same side". For example, many nonprofit organizations did not see a need or reason to come to some unified front or goal. Their reasoning was that they all took different approaches for a reason and that it would be silly for them to all do the same thing. However, this naturally could have been a misunderstanding of our idea, as all our lab wanted to do was facilitate better collaboration. Additionally, the executive and legislative branches of the Utah State Government do not always agree on how much attention the GSL should get, and some counties' Water Conservancy Districts hold differing values on the importance of water conservation.

This led us to the conclusion that to get stakeholders with strong, polarizing opinions to work together, it is necessary to give them something concrete and definitive that they can unify around and commonly work towards.

These instances have helped us learn that even within big groups of generally united stakeholders, there are still polarizing opinions, and this causes more difficulty in

cooperation. With that in mind, we created a more fleshed-out approach to dissolve disagreements and try to help lift all stakeholders to the same level. We felt that with an increase in unity toward a common goal comes an increase in the possibility of the lake being protected.

4.4 Implementation of the Social Impact Cycle

In the beginning stages of the lab, one of the first issues we faced was fitting the drying GSL within the Ballard Center's social impact cycle. The first step in the cycle is to love the one—to choose an individual and population to research and focus on. The lab's very first leads chose to look at low-income individuals in West Valley, who are especially vulnerable to poor air quality conditions in Utah. As such, the real core social issue that was to be addressed was respiratory diseases in West Valley City and the Salt Lake valley. However, when you take these negative consequences (decreased lung function for example), flip them to a positive outcome, and work backwards, you get solutions such as exercise, healthy dieting, and breathing practices. These ideas are good treatments, but they ignore the underlying contributor of toxic GSL dust.

This is a common difficulty with environmental issues because at a very basic level, they are not human problems. The Great Salt Lake is not in itself a person, and so its drying is not technically a social issue. Yet the drying does result in social repercussions that are human problems. And the factors that contribute to its drying are human-driven. So really, the Lake and its health are inexplicably connected to the people in Utah—but that begs the question, is GSL our "one"?

To get around this, our lab had to take a perspective of advocacy. In other words, we focused on helping the GSL *in order to* help the people living around it. This would ensure that any lake recovery would not come at the cost of certain groups or individuals.

This ended up working well for our team as we continued to do research and began ideating pilot solutions. However, we believe that some confusion and difficulty could have been avoided if there had been a clear direction or framework specifically meant for mapping out environmental issues.

4.5 Partnering with a Single Stakeholder

Over the course of our research into the drying of the Great Salt Lake, our team engaged with a wide range of stakeholders involved in addressing the issue. These initial conversations were incredibly valuable in helping us understand the landscape—who was involved, what their goals were, and how they were working to intervene. Our intent was to offer support and to identify opportunities where our research could help align or strengthen their strategies. However, as we dove deeper into their efforts, we noticed

significant gaps in coordination. Many of these stakeholder interventions, though well-intentioned, ended up working at cross-purposes due to a lack of communication and strategic alignment. Despite our efforts to encourage collaboration among them, including attempts to empower a major stakeholder to lead a unified initiative, we found there was little appetite for sustained partnership or leadership in that area.

Looking back, we now believe that a more focused approach—partnering closely with a single stakeholder from the outset—may have yielded stronger outcomes. Even if that partner's strategies didn't perfectly align with our own, working alongside them over a longer period would have allowed us to build trust, gain deeper insights, and potentially influence their approach in meaningful ways. This sustained collaboration could have served as a model for others, demonstrating the value of coordinated, research-informed intervention. It might also have positioned us more effectively to bridge the divides we later observed across the broader stakeholder landscape. Going forward, this experience has underscored the importance of depth over breadth in building partnerships for impact.

4.6 Leveraging Our Comparative Advantage

The widescale effort to address the drying of the Great Salt Lake involves a broad and impressive coalition of stakeholders. Environmental lawyers, legislators, scientists, policy analysts, and engineers each bring specialized knowledge and experience to the table, contributing in concrete and often deeply technical ways. When our lab first entered this space, our goal was to identify gaps in these efforts—places where our unique perspective or capabilities might add value to the broader solution. We approached the issue with open minds and a collaborative spirit, eager to learn and to support wherever we were most needed.

However, as we conducted our research and engaged more deeply with stakeholders, we began to realize that we didn't have a clear comparative advantage in many of the areas where work was already being done. We weren't policy experts or scientists with new solutions to contribute, nor did we hold political sway to influence legislation or funding decisions. What we did offer, we eventually came to see, was a broader view: our ability to connect with a wide range of parties and to step back to observe how those parties were—or were not—working together. This bird's-eye perspective on coordination and fragmentation among stakeholders became the most meaningful insight we had to offer.

From this experience, we've come to appreciate the importance of identifying your comparative advantage before diving into a complex social issue. In hindsight, we may have been more effective, or at least more intentional, had we first asked ourselves what unique skill set we brought to the table and how that fit into the larger ecosystem of people

already working on the problem. Social challenges are multifaceted, and there is certainly room for many types of contributions—but understanding where your work truly complements and strengthens existing efforts is critical. We would encourage future teams or individuals hoping to make an impact to start not just with passion or curiosity, but with a clear sense of what their specific strengths are to avoid wasting valuable time trying to discover their unique skills.

5. Recommendations for the Way Forward

Moving forward, the BYU Kennedy Center's Stewardship Lab will take ownership of the Great Salt Lake Lab along with the Andean Poverty Lab to explore the potential of using parallel problems to solve concurrent social problems. The Stewardship Lab will use the results of our labs' pilot projects to form its own plans for future interventions.

5.1 Website

If the Stewardship Lab desires to continue this webpage, we recommend that the lab either continue to update the page with more recent sources, update it with sources that are tailored more specifically to their intervention ideas, or add a disclaimer to the top of the page stating the last date that the page was updated so that viewers know the age of the resources they are viewing. Historical data about the Great Salt Lake and the history of water rights in Utah will not change very much as the page ages, but a disclaimer like this would be helpful for the Current Solutions section which focuses on the most recent efforts of stakeholders. As it currently stands, the website is not getting much traction or views, so our team suggests that this project only be continued if more effort is made to promote the page or, if like our lab's original intent, it fits into a concurrent project.

5.2 Caucus

Even though we were unable to fulfill our project goal of presenting to legislators about Great Salt Lake, we still believe that education about the problem is critical for long-term policy solutions. While the efforts of other stakeholders are valuable, our team understands that it is ultimately the work of the state legislature that will pave the way to success for Great Salt Lake. As such, we encourage the Stewardship Lab to continue in these efforts as it sees fit in the future. Our presentation for the caucus meeting is already completed and would only need to be updated if any of the information included in the presentation is adjusted by the state. If the Stewardship Lab decides to continue in this effort of educating the legislature about the issue, we would encourage its members to reach out to caucus schedulers well before the legislative session begins to secure a presentation time slot. Additionally, we would recommend that the Stewardship Lab partner with an important stakeholder or legislator to push this presentation onto the schedule as we have found that

caucus leaders are far more likely to accept applications to present if those presentations are backed by one or more prominent stakeholders.

5.3 Coordinated Stakeholder Plan

Our team delivered our pitch for the coordinated stakeholder campaign to the Director of Communications at the Department of Natural Resources. In summary, she was not interested in our idea, but suggested that having our team curate a social media campaign for the lake for the DNR to publicize would be really helpful; this is something her team has been wanting to do to provide a steady stream of information about the lake to the public, but they have been too understaffed to allocate any resources to it. If the Stewardship Lab would like to pick up this invitation moving forward, we believe it would receive a lot of support from the DNR to do so. We believe that public education about the problem and buy-in to the solution is critical for creating lasting cultural change surrounding water use in Utah and the Great Salt Lake Basin.

Additionally, the Stewardship Lab could try pitching the coordinated campaign idea directly to the Salt Lake City Organizing Committee for the 2034 Olympic and Paralympic Winter Games to see if they would be willing to spearhead the campaign.

6. Conclusion

At the conclusion of our lab, our team is incredibly proud of our work. While factors outside of our control may have hindered us from being able to carry out our projects, we believe that those initiatives and the lessons we learned from those experiences are still valuable. They taught us a lot about the challenges of implementing the Social Impact Cycle in real life. Additionally, we established many friendly and professional relationships with stakeholders involved in this problem which will hopefully be useful to the Ballard Center moving forward. So, while our efforts may not have had a measurable impact on the problem, our hope is that the lessons learned from this Lab will have a large impact on future Ballard Center Labs as they navigate the complexities of real-world social impact. We invite them to read this report and consider how they can use the principles discussed here in their own work to avoid the pitfalls we faced and to adapt the best practices we used to their own work.

We have also provided a solid foundation of problem understanding for the Stewardship Lab to use as it takes responsibility for this Lab moving forward. If the Stewardship Lab chooses to carry on with our pilot projects, we hope its team members use the suggestions we include in this paper to refine those efforts. If not, we still encourage the lab members to use our research to deeply explore the problem of the shrinking Great Salt Lake and to educate their future goals.

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