



TECHNICAL COMMITTEE MEETING

Monday, April 22, 2013, 8:30 A.M.

Historic County Courthouse, Suite 211

51 South University Avenue, Provo, Utah 84601

ATTENDEES:

Chairman, Chris Keleher, Department of Natural Resources (DNR)
Vice-Chairman, Richard Nielson, Utah County
Greg Beckstrom, Provo City
Sarah Johnson, Central Utah Water Conservancy District (CUWCD)
Kim Struthers, Lehi City
Hugh Van Wagenen, Lindon City
Neal Winterton, Orem
Lee Hansen, Saratoga Springs City
Mike Mills, June Sucker Recovery Program
Charity Gibson, Recreation/State Parks

ATTENDEES:

Doug Sakaguchi, Division of Wildlife Resources (DWR)
Ben Bloodworth, Forestry, Fire, and State Lands (FFSL)
Mike Pectol, U.S. Army Corps of Engineers
Reed Price, Utah Lake Commission

VISITORS:

Dee Chamberlain, Saratoga Springs Home Owners Association
Bill Pope, HDR Engineering, Inc.
Bob & Cri Krejci, Saratoga Springs citizens
Peter & Sharon Anderson, Citizen

ABSENT:

American Fork City, Mapleton City, Santaquin City, Springville City, Vineyard Town, Woodland Hills Town, Utah Division of Parks, Utah State Division of Water Resources, Utah Lake Water Users, Department of Environmental Quality.

1 **1. Welcome.**

2 Chairman Chris Keleher called the meeting to order at 8:36 a.m. He welcomed the members and visitors to the
3 meeting. He asked each person to introduce him or herself to the group.
4

5 **2. Review and approve the Utah Lake Commission (ULC) Technical Committee (TC) minutes from February 25,**
6 **2013.**

7 Mr. Keleher asked for discussion, comments, or corrections for the minutes of February 25, 2013. He had
8 editorial corrections on page 2, line four, pertaining to the wording of the history of carp removal, changing "doing
9 research and analysis" to read, "to assess the carp population and other ecological parameters."

10 It was motioned by Mr. Greg Beckstrom to approve the minutes as amended and corrected; and it was seconded
11 by Mr. Lee Hansen. The motion carried and the minutes were unanimously approved as corrected.
12

13 **3. Carp removal effort presentation from Mike Mills.**

14 Mr. Mike Mills, JSRIP Local Coordinator, reported on the history and progress of carp removal of Utah Lake.
15 Taking an illustration from the book, "Ecology of Shallow Lakes," by Martin Scheffer published in 1997; he showed
16 two different water states that exist in shallow lakes, like Utah Lake. The two water states are clear and turbid. The
17 primary productivity in a clear water state has a lot of diversity in terms of emergent and submerged aquatic
18 vegetation with a healthy bird community, a variety of fish species, and different wildlife. Utah Lake may currently be

1 turbid, where historical evidence shows Utah Lake was once in a clear water state. Turbid water states show there is
2 a definite reduction in biological diversity and with the main driver wrapped in algae, as seen on Utah Lake. There is
3 a loss in the varieties of vegetation, fewer birds, and the fish community is dominated by bottom-feeding fish. The
4 majority of the primary productivity is wrapped up in the production of filamentous or green algae. Common carp,
5 the bottom-dwelling fish, have pushed Utah Lake into a turbid water state where primary productivity is dominated
6 by algae and lead to water quality issues. Carp stir up sediment, remove vegetation holding sediment in place, and
7 are ecological engineers driving the system into a turbid state. Carp was introduced into the Lake in the late 1800s.

8 Literature concerning shallow lake ecology suggests three different drivers push a lake from clear water state to
9 the turbid water state. First is water level fluctuations -- Utah Lake is managed as a reservoir and it has experienced a
10 lot of fluctuations in the past. JSRIP funded a study to look at future fluctuations at the Utah Lake water level. Based
11 on the study, it predicted once the Central Utah Project is complete, fluctuations would be greatly reduced and mimic
12 the initial historical fluctuations; hence, water level fluctuations are the main area of focus if we want to change Utah
13 Lake. Second is the nutrient loading – Utah Lake has a significant issue. Third is bottom feeding fish -- the issue of
14 carp in Utah Lake.

15 A picture of Ventura Marsh, Iowa, dissected by a dike showed two sides where carp were removed on one side
16 and not the other. The side that underwent carp removal resulted in a vibrant blue lake, and the other side still with
17 carp was a dull olive green. A distinct difference was visible and the benefits extended beyond the color of the water.

18 After JSRIP was organized, a study was done to look at the non-native fish in the lake, which fish posed the
19 biggest impact to recovery, and to the health of the Utah Lake ecosystem. The common carp were implicated as
20 being the main problem. Different control options were researched. During carp assessment period, the decision on
21 whether mechanical removal was a feasible alternative was discussed. The majority of fish pulled out was carp and
22 they dominated the Utah Lake fish community. A lot of feedback and information suggested a large scale commercial
23 seining would work and have an effect on the common carp population. It took a long time to implement something,
24 and finally in late 2009-2010, JSRIP was ready to implement a full scale, carp-removal-program on Utah Lake. The
25 information received revealed in order to make a difference in Utah Lake, over five million pounds should be
26 removed annually, to achieve a 75 percent reduction in the population within six years.

27 All the targets are based on what is known as a Ricker curve. In Utah Lake's case, the model was pushed to the
28 edge, and found the point where the population was impacted instead of sustaining and driving it down. Other
29 things indicate once 75 percent reduction is achieved, some maintenance effort is necessary to maintain the reduced
30 population. Approximately 600,000 pounds a year would need to be removed in order to maintain the reduced level.
31 The focus of 75 percent reduction is what the literature suggests is needed in order to return to a clear water state.

32 Fishing is done throughout the year. Wintertime, when the lake ices over, it is a bit more work to seine, but it can
33 be more efficient and productive. In 2009, there were 80,000 pounds, the largest carp catch received in one day. He
34 explained the harvesting process and the improved mechanisms Loy Fisheries have implemented utilizing better
35 technology and improving efficiency. Results throughout the past several years were evaluated from September
36 2009 until the present. February and March in 2013, showed a tremendous start being removed early in the year.
37 Funding was a concern, but DNR and Bureau of Reclamation, stepped up and keep things going through 2012.
38 Residual funding is still available, and JSRIP is covered through the end of February 2014, this fishing season.
39 Everything removed from September 2009 to the present shows it is just shy of 11 million pounds. A table and
40 graphs of monthly catch rates, showed winter is the best time. He noted the frustrations of weather, frozen lake, and
41 other problems incurred causing a lower harvest.

42 JSRIP had chosen to focus on five million pounds a year with a six-year time frame in order to carry out a carp
43 removal program. If the harvest were sustained at about three million pounds a year, it would take ten years to meet
44 the 75 percent. Based on the models, 11 million would yield a 20 percent reduction, and have a much more
45 increased risk. With a ten-year carp removal program, many things can go wrong. JSRIP will continue to push
46 forward needing to reach the five million pounds a year in order to make a difference. Some issues faced are disposal
47 of the fish. The commercial fisherman reports if they had a close reliable facility to deliver the carp, they would be
48 more efficient. Through efforts of Utah Lake Commission, Mr. Price led this effort with support from Representative
49 McKell, to pursue funding from the state legislature to create a processing plant down on Utah Lake. Unfortunately,
50 it was not successful, but some good was done in bringing the issues to the attention of the legislature, getting a
51 discussion initiated, and familiarizing them with the need to do something about the carp issue.

1 Some criticism was received such as private industry making a profit off of the Utah Lake fish. After meeting the
2 maximum for carp, another fish for human consumption could be processed. It is believed fish meal holds a lot of
3 promise with the product. Some people suggested going after the money to get the project completed. There are
4 pros and cons to either option. The efficiency would be good if there was a close facility to take the harvested fish. It
5 would be cheaper in the long-run to build a facility and gain some revenue back off of the carp in order to reduce the
6 costs. There is some element of feeling good with what is being done with the fish by creating a product with a
7 better use than what was previously done by turning them into compost, feeding them to minks, or using them for
8 fertilizer. If a facility existed, the maintenance necessary long-term after the reduction is achieved, shows there is
9 always a need to feed the facility and as a result have an outgoing product to sustain it. If funding for removal only
10 was chosen, JSRIP is ready to go. There is no start-up and no concern about building a facility near Utah Lake, no
11 permitting, and an ongoing history of four years. Concerns about having to bring in a third party to work with Loy
12 Fisheries was discussed, who would work with the state lease the facility and run it. There are tradeoffs with both
13 options. Mr. Mills said JSRIP would like feedback and suggestions of which option is better.

14 Catch rates are still trying to be improved. Over 100 carp in the lake are tagged with telemetry tags. Utah State
15 University tracks the fish. Loy Fisheries could look at the data, find areas where the tagged fish are congregating, and
16 target those areas to fish in order to get a better catch. Loys need to be more trusting in the data received, and be
17 more adventurous in fishing those areas. It has been discussed about bringing in additional commercial fishing
18 companies during the good months, to harvest an additional 20,000 pounds a day as there is plenty of catch to go
19 around so there would not be a lot of conflict. An incentive program was also discussed.

20 The commercial fishermen are hesitant to fish Friday, Saturday, and Sunday during the summer months because
21 of the large number of recreationists. When they are fishing, everyone is interested in what is going on with the
22 fishing, therefore, causing problems. Loys reserve fishing for week days and avoid high use days. They felt a better
23 public outreach campaign about getting the word out why the fishing was going on would reduce the potential for
24 conflicts. It would be easy for JSRIP to implement starting next month to try to reduce any conflicts.

25 Funding is always an issue. Funding is good through the end of 2013 and into 2014; but beyond that, there are
26 no guarantees of keeping the program going. It has been difficult to operate on a year-to-year basis as it creates a
27 concern for everyone that is part of the program. The bottom line is to make a difference in the fish community of
28 Utah Lake; the carp population needs to be addressed. They are the subject that drives and causes so much damage
29 to the ecosystem that it is hard to imagine something changing at Utah Lake without addressing the carp. He called
30 for any questions.

31 **a. Group discussion to share ideas about carp removal efforts.**

32 Mr. Mills asked for questions or comments. Mr. Beckstrom asked if Mr. Mills noted any difference in the tag rate
33 between summer fishing and winter fishing. Mr. Mills said data can be looked at, but no one has evaluated it. They
34 get more walleye in the winter, especially in February. Northern pike were not caught when they first started, but
35 now show up with some regularity about once every two weeks. Walleye are the only species that are caught more
36 in the winter. Mr. Hansen asked if they considered a fish trap in a concentrated area. Mr. Mills said they had
37 considered it. Earlier, Mr. Chris Bulow set traps all over in the lake and even baited them. The catch rates declined
38 very rapidly as fish learned the system, tended to avoid the trap, and the harvest was not sustained. It could be used
39 in conjunction with the mechanical removal and being more mobile with the traps could be effective. Mr. Hansen
40 said he was thinking in terms of extended periods with nets, leaving them in place for several days. It is a technique
41 used in Asia. Mr. Mills said they could look at the process again as they have never done anything big in terms of a
42 trap. Mr. Dee Chamberlain asked if they had considered using gill nets for trapping. Mr. Mills explained Mr. Hansen's
43 netting comment, sectioning the lake with large nets to keep fish in one place. It would remove all the carp from that
44 section, and let it re-colonize and do it again. Gill nets in Utah Lake caused an issue with the fish getting so tangled in
45 them and trying to remove all the fish, as they tended to throw the net away. Mr. Chamberlain said exclusion fences
46 were put in Saratoga Bay a few years ago and the vegetation came back very well. He asked if that could be done.
47 Mr. Mills said initially they fenced off areas from carp that had vegetation started in them already. In other areas,
48 they put up a fence, but left part of it open so carp could invade and it was very dramatic. In areas that did not have
49 carp inside the fence, the vegetation responded very positively. It was repeated when Hobble Creek restoration area
50 was completed. If the carp could be taken care of, the vegetation would come back.

1 Mr. Beckstrom asked what the availability of alternative marine fisheries might be able to supplement or even
2 provide competition to Loy's in the carp removal efforts. Mr. Mills said when the RFP was advertised to select a
3 commercial fisherman four different commercial fish operations showed interest. Mr. Loy has fished other lakes, but
4 has been exclusively on Utah Lake for a few years. Most of the other fishermen have a pretty regular market
5 somewhere else. Interest received since the RFP is fishermen can come in for a few months. Two fishermen in
6 Northern Nevada and in Minnesota have expressed willingness to come in for a short time period. The process would
7 be to release another RFP and they would possibly receive a minimum of 4-5 responses.

8 Mr. Van Wagenen said that at the current rate it would take ten years, when the initial goal was six years. He
9 asked what the estimated time frame was now. Mr. Mills said if they could get the catch rates up to five million, it is
10 still six years from the present to reach the goal. Based on lake levels when they did the research, and what they
11 have observed, it could be seven more years at three million pounds a year. Utah State has been working on
12 numbers that would allow them to compare the level of carp now to when it was started back in 2004 to see if there
13 is any difference. The information should be available in May. It is the missing data point they would really like to
14 have.

15 Mr. Hansen asked if they reached and achieved the goal, in six to ten years, were there plans in place for
16 continued control. Mr. Mills said yes, in order to maintain a reduced population, they would have to harvest fish
17 annually or every three years; the model suggests waiting the three years to harvest more. Either method would
18 keep the population low. Ideas for implementing maintenance as a commercial fishery will be on Utah Lake, and if
19 the carp population were low enough, it would probably be for another species, possibly white bass. It could require
20 the commercial fisherman/harvesters take carp in addition to their commercial harvest. Division of Wildlife
21 Resources could provide the maintenance effort, or even a carp bounty program, but they have not worked in the
22 past. The JSRIP will probably look at funding the ongoing maintenance effort. Mr. Van Wagenen said if the facility
23 does get built and used, they could process other types of fish beyond the 6-10 years. Mr. Mills confirmed his
24 understanding. The life of the facility would probably exceed the life of the project. The idea would be to remove
25 carp and other species used for human consumption as those profits are larger than they are for fertilizer, fish meal,
26 etc. Mr. Van Wagenen asked for a projection of the time it would take to make up the initial investment cost after
27 the program is finished. Mr. Mills said the savings over a six-year program, if the facility is built, would be about
28 \$500,000 a year, and end up costing \$5 million over six years to build the facility and run the carp removal program.
29 If there is no facility, the cost over six years is \$7.2 million. After six years, the initial two million to build the facility is
30 paid off.

31 Mr. Price asked Mr. Mills to explain how the carp got into Utah Lake. Mr. Mills said the most likely source was in
32 the late 1800s when the country was faced with deteriorating fish stocks all over. The U.S. Fisheries Commission, the
33 predecessor agency to the U.S. Fish and Wildlife Service, brought in carp and shipped them all over the country in
34 large cans via train. A train came to Salt Lake City and those cans were offloaded. They were either stocked directly
35 to Utah Lake or in the ponds in the valley and then made their way to Utah Lake. Areas in the country with carp
36 problems can trace their source of carp back to the late 1800s when the government was stocking carp. At the time,
37 a lot of people inhabiting the country felt like carp would be a good food fish. It is probably the most consumed fresh
38 water fish in the world. There are cultures that love carp and eat it a lot, but not the US.

39 Mr. Keleher called for further questions. He asked if the plan was to have Mr. Mills present at the Governing
40 Board this week. Mr. Price confirmed his understanding. Mr. Keleher said if anyone had any thoughts on ways to
41 improve his presentation he would like to hear their input. Mr. Mills said he would appreciate any feedback and if
42 anyone has thoughts about a facility versus just removal.

43 Mr. Beckstrom said if it were possible to achieve secure multi-year funding, the approach might be to put out an
44 RFP to recover X number of fish over 5-7 year period, and let those responding to the RFP make the decision and
45 crunch the numbers as to the most cost-effective way. It would address the questions the state legislators are asking
46 as to whether or not it really is cost-efficient, rather than ULC saying it is. If a RFP is sent out, what the private sector
47 might identify which is the most cost effective over a multi-year program. Another thought is it might be of value to
48 adjust the value of the carp, still pay on a per-pound, using incentives of what would be paid for an additional three,
49 four, or five million pounds collected in a contract year. Mr. Loy would be getting paid to do more than the current
50 yield rate of the carp and with incentives and he and other possible commercial fishermen would respond in a more
51 effective fashion. Mr. Mills said Mr. Loy would be more supportive of an incentive program rather than second

1 fisherman, as he does not want the competition. Mr. Beckstrom said there should be a way to make the jump from
2 three million to five million. Mr. Mills concurred.

3 Mr. Price said to emphasize the purpose of having Mr. Mills presenting to the Governing Board is to seek input
4 from a political body of how they feel would be our best way to move forward to help the ecosystem of Utah Lake
5 with the carp removal. We want them to help decide, understand their point of view, the mindset of a legislator to
6 go to the legislature and emphasize Utah Lake is their responsibility, and the state of Utah owns and manages Utah
7 Lake. The Commission wants the state to take ownership of it, and we are requesting input from ULC Governing
8 Board to strategize and move forward. The whole effort is to help with the water quality of Utah Lake, the recovery
9 of the lake ecosystem, and become an even better fishery and recreational resource.

10 **b. Consider making a recommendation about carp removal to the Utah Lake Commission Governing Board.**

11 Mr. Keleher asked if a recommendation should be made. Mr. Price said he wanted to know what Mr. Keleher, as
12 the Technical Committee Chair, wanted to tell them about the discussion. Mr. Keleher said one of the things to be
13 considered is the long-term needs. Once the goal is achieved to reduce the population by 75 percent, it doesn't
14 mean it is done. It then becomes maintenance mode, but the models put together report carp needs to be
15 continually removed on an annual basis or every third year. There needs to be a sustainable use and way to dispose
16 of the fish in a processing plant or compost, it is hard to make the recommendation. From his perspective this will be
17 a need in perpetuity until the technology to eliminate carp from the system. He wondered what others felt.

18 Mr. Hansen said the recommendation did not need to be made to move this forward. The feeling is the
19 Governing Board will hand it back. Unless there is some kind of conclusion, they will refer it back to TC. Mr. Van
20 Wagenen asked since funding was sought to build a facility, it seems like the most logical route to go. On the slide of
21 pros and cons, and it does not need to have total cost benefit analysis but basic numbers of the costs of building a
22 plant, how long it will take to make that amount back, and the best guess of how it could be profitable in the future.
23 Additional thoughts were in the presentation introduction, other methods than mechanical, and if they were still
24 viable. Present options of just poisoning the entire lake and re-stock with native fish. Mr. Mills said poisoning the
25 lake is not very feasible option. With the options presented through studies, JSRIP chose mechanical removal.

26 Mr. Beckstrom said it would be at least as effective and not much more expensive, but to drain the lake and try to
27 refill it. Mr. Hansen asked if it was feasible to drain the lake. Mr. Mills said no, Mother Nature would decide that.
28 Mr. Beckstrom said if the lake was reduced to the outlet elevation it would be a lot smaller area, and a lot higher
29 dense fish population. The three years have proven carp is removed effectively through mechanically means, at
30 three million pounds a year; the opinion is the ten-year number is very optimistic. It shouldn't take longer than that
31 at the given rate to accomplish the goal.

32 Mr. Price said the question he was trying to have answered is should ULC continue pursuing the legislature for
33 the carp removal or the fish processing plant to do something beneficial with the fish or keep funding just to remove
34 the fish – ULC is trying to get the Board to help answer. Mr. Hansen asked if they could make the recommendation
35 they consider one or both of the options and take them to the legislature for funding. It gives the Board something
36 concrete they can actually present.

37 Mr. Keleher said the first recommendation would be to support the carp removal and it is effective even though
38 the initial goal is not being achieved. The question is does ULC make the recommendation the Commission pursues
39 legislative funding to do the carp removal. The other option is alternatives for what the funding would do to either
40 hit the carp population hard and take them out, or go into a processing facility to allow uses of the carp. It is
41 weighing the pros and cons. He didn't know if there was enough to make a recommendation between the two ideas.
42 He felt a recommendation be made this year on getting prepared and soliciting funding from the legislature at their
43 next session. Mr. Beckstrom asked what three million pounds a year cost. Mr. Mills said it has been \$750,000. Mr.
44 Beckstrom surmised the legislature would ask is what is needed to achieve the objective and possibly \$1.5-2 million
45 range, and what other options of funding have been researched. Are there no options for federal funding and is this
46 going to become a state allocation, delegated out, or what. Mr. Mills said over the past, in money spent, it has been
47 equaled by 50/50 in terms of state/federal money. The federal agency who started funding has not given any more
48 money since the initial. The BLM seems to be confident they can provide money every year and but there is no
49 guarantee now, with the most given is \$500,000 a year. It is becoming more difficult to get the federal money. Mr.
50 Beckstrom asked if there was some option in approaching the legislature with a sort of matching or if they could fund
51 up to \$1 million a year with the idea only that which is matched is spent, and if \$1 million from federal/private grant

1 sources would generate \$2 million a year. It may be an approach they are receptive to and feeling they are getting
2 something done without carrying the full weight of the obligation.

3 Mr. Keleher asked for other comments. There was none. Mr. Hansen summarized TC agrees the Commission
4 should approach the state legislature for some manner of funding and it may be the recommendation TC takes to the
5 Governing Board. Mr. Van Wagenen asked about the data the Utah State University is working on for population
6 then and now, how much it would affect the decision to go forward, and if it would make a difference for any
7 recommendation. Mr. Mills said he did not know. He needs to get five million pounds to have the confidence a
8 difference is being made. Mr. Van Wagenen said the information would not necessarily affect it; they need to get the
9 five million pounds regardless. Mr. Mills said yes. Mr. Beckstrom asked if the results from the analysis are likely to
10 say a higher or lower number than five million is needed. Mr. Hansen asked if money was the limitation on getting
11 the five million pounds. Mr. Mills said it had been at times. Last year was the first time they had to tell Mr. Bill Loy to
12 reduce the amount and keep it under the goal, as he did not want to run out of money and lay off crew. A six-month
13 period was looked at where we were not going to be able to maintain this, but after six months, more funding came
14 and they spread it out to remove more. Disposal has been a limiting factor. He has taken the revenue and invested it
15 back into bigger equipment, but he could actually be running a second crew. If he had hired eight more people,
16 fishing completely separate from him, he would have the second crew. Some of the responsibility goes back on him,
17 if he had increased the effort a little more. If Mr. Loy is not willing to do it, another company would. Someone asked
18 if it was because he was scared to not put the investment in and not getting paid going forward. Mr. Mills said that is
19 factored into it. Another thing is he is a hands-on person and doesn't want his people unsupervised. Incentives were
20 suggested, such as enough to get him to take a leap on fishing unexplored areas, and/or get another crew fishing as
21 he does.

22 Someone said it sounded like a good non-profit program going on, and a website could be set up for a non-profit
23 corporation to improve Utah Lake, eradicate the carp, and increase the native vegetation. On a conservative mode,
24 people from all over the world would donate to the cause, and you could draw in a lot of money.

25 Mr. Price said it was a good suggestion as members of the Board were discussing setting up a nonprofit
26 organization "Friends of Utah Lake." Mr. Keleher said it was something Mr. Price was going to follow up on. He
27 asked if everyone was agreed from a technical perspective, the Commission should approach the legislature for this
28 funding or if anyone does not agree with it.

29 Mr. Hansen motioned to recommend to the Governing Board they approach the legislature for continued funding
30 of carp removal. Mr. Richard Nielsen seconded the motion. Voting was unanimously in favor.

31
32 **4. Utah Lake "Wish List" survey discussion.**

33 Mr. Price said that as a continuation of his pursuit for a wish list for Utah Lake, he sought input from different
34 sources. For example, initially it was how to improve access points. Many stakeholders were asked how we could
35 make the access points around Utah Lake better and if there was a need more access points. Good feedback came
36 from sporting, environmental, and recreation groups. The plan was to look at various areas, the first being land-use
37 related, recreation-related, environment, and education categories. Input will be received from various stakeholders
38 and special interest groups who would be interested in helping identify specific projects for betterment of Utah Lake
39 and for the achieving of the goals and objectives stated in the Utah Lake Master Plan.

40 As he compiled the information, he felt there might be a more efficient way to reach out to not only the
41 stakeholders, but to the general public and statistically validate this. The plan is to create a survey that solicits input
42 from the community and helps answer questions about objectives in the Utah Lake Master Plan. He reviewed the
43 draft survey he had created with 30 questions to figure out demographics, and to help interpret the data.

44 He reviewed the present survey questions of the lake use such as attendance, activities, the participant's
45 interaction to the lake, their individual input and requests, and ranking of the improvements, actions that can be
46 taken, as referred to the objectives in the Master Plan. The survey encompassed everything the person might want,
47 need, or the value of the Lake, how supportive they would be to upgrade the lake, and the funding resources.

48 Ms. Charity Gibson asked that Utah Lake State Park be added to Provo Marina, because people do not
49 understand it even though they are visiting the Provo Marina, it is actually Utah Lake State Park. He continued
50 stating a few questions would be open-ended question seeking input. Mr. Van Wagenen said it would be hard to

1 aggregate the information with an open ended question. He suggested of giving a list of a dozen or things and it
2 would be easier to analyze. Mr. Beckstrom suggested adding the word “other” for the open ended option.

3 **a. Group discussion to receive input on the survey.**

4 Mr. Price asked for input the Technical Committee might have to help make it a good survey and get the
5 information in order to figure out what improvements are wanted at Utah Lake, and to request long-term funding in
6 an appropriate way and source to make the improvements happen and to achieve the vision of the lake. Someone
7 asked if it would be an on-line survey. Mr. Price said yes and he wants input from the lake users, so ULC will directly
8 solicit them to get their feedback and know what they want; they probably will provide us with most of the realistic
9 improvements. To make it statistically valid, particularly on funding, lake users are possibly going to support various
10 tax increases or user-fee increases, because they are lake users. ULC needs to find out what the public wants and
11 engage their support. Direct mailing people or surveying them through phone calling to get their answers to the
12 survey would be completed. The data would be analyzed separate from the stake holders. He would work with the
13 county to select randomly 500 residents to send direct mail and get the responses needed to be able to stay within a
14 certain supported confidence limit. It would be on line for people who stumble upon it, and ULC would directly solicit
15 input from mailing lists. Another is to do one that is more statistically robust and tells the general feel of the public
16 itself, and analyze them separately to the Board showing similarities and differences between the general population
17 and the lake users.

18 Mr. Hansen said the answers ULC would get back would depend very much on what group is actually polled. He
19 suggested three groups. One is the people who live around Utah County but don't use the Lake, another group is
20 occasional recreational users, primarily boaters, water skiing, etc., and the third is a group of people who use the
21 Lake regularly in the summertime. He suggested taking a Saturday and actually run a poll of people who are at the
22 Lake, find out what they are doing, and survey at the Lake. Mr. Ben Bloodworth suggested using the Dedicated
23 Hunters to run the survey s around. Someone suggested putting a notice in the utility bill and state a survey is being
24 taken and to go to the specific website to take the survey. Another suggestion was to have someone go to the Utah
25 Lake State Park to hand it out and drop it off on the way out. Mr. Van Wagenen said some of the questions were
26 overlapped a bit, and generally the shorter the survey the more someone will fill it out. He suggested on the money
27 questions to rank them, rather than figure percentages. Mr. Dee Chamberlain said he could volunteer the Saratoga
28 Springs Association to do the survey.

29 Mr. Price asked if there was anyone who was skilled at survey making. Mr. Bloodworth said he had an intern that
30 is getting her Master's in statistics. There is a specific science in the way the questions are stated and wording used.
31 Mr. Price utilized a survey from Provo City they used for their Parks and Recreation and an old JSRIP survey, using the
32 basic format of their questions and tweaked it to be Utah Lake specific.

33 Mr. Keleher asked when the survey is ready to be sent out, if it would be sent to the TC to get their feedback. Mr.
34 Price said yes. He signed up for a deluxe Survey Monkey account. He will be creating the on-line survey in draft form
35 so it will be easy to access and respond to it. He will send it to the Committee and hope the members will respond
36 and let him know if it makes sense, and what doesn't make sense. When ULC reaches out to the public, it needs to
37 be simple, straightforward, and allow the information to be gathered. The purpose of this is to gauge public interest
38 and to be able to tell his Board and other decision-makers the improvements desired at Utah Lake and a way to fund
39 them. Mr. Hansen said when the final draft is completed, take it to one of the Owner's Association and run it by 20
40 people to get their reaction. He suggested having a trial run through before it is actually implemented. Mr. Keleher
41 said it would be a good exercise for the TC members to go in on their own and see if it doesn't make sense, and
42 provide their feedback. Mr. Price suggested having a family member take it also. Mr. Hansen felt others who are not
43 on the Committee and don't have the background look at it. Mr. Keleher reiterated he would like to see what TC
44 members think. He thanked Mr. Price for his goals with the survey.

45
46 **5. General comments and ideas for future discussion.**

47 Mr. Chamberlain asked how the FFSL is doing on the dock document with the draft. Mr. Bloodworth said he has
48 not seen it. Mr. Ryan Nesbitt came for a day and worked at the office, but did not get a chance to evaluate the dock
49 situation. FFSL does not have it internally yet, but as soon as it is reviewed, it will be addressed. Mr. Price said they
50 had talked about it in the Executive Committee and the process in working with Mr. Nesbitt, who decided to request
51 an amendment to the Master Plan when the document is ready. There still has to be a public hearing and they know

1 the route they are going. There will be some public input and they will begin the process to amend the Master Plan
2 that involves the Technical Committee's input.

3 Mr. Price would like to report they requested \$200,000 in grant funds for the phragmites removal effort. The
4 focus is on the south end of the lake between Provo Bay and Lincoln Beach this coming year. A report should be
5 received from the grants by May. They are confident as they have a proven track record and have shown great
6 results in the removal. Someone asked why that particular area was picked rather than an area where people live.
7 Mr. Bloodworth said they had established priority areas over the past few years and they have a phragmites working
8 group. Mr. Price said in terms of where people live, starting in Saratoga Bay, they have been treated and the entire
9 north end has been treated, on the east side, Vineyard center street has been treated, and again in Provo Bay area.
10 They have done about 2500 acres thus far. They have plans on getting back to the Saratoga Springs area soon.

11 Mr. Bloodworth advised the group the changes in air quality have been made with EPA backing. It is going to
12 make it difficult to burn on Utah Lake because the changes have put the index up, so they need higher wind speed,
13 and wind speed makes FFSL uncomfortable with burning in areas around Utah Lake. It is 15-17 miles per hour, which
14 is more than desired. Mr. Chamberlain asked if there had been any burning. Mr. Bloodworth said not in three years.
15 There are continual plans and they had tried, but they have not had windows to do it. Mr. Chamberlain asked if there
16 would be any more smashing down activity in Saratoga Bay with Cross Marina. Mr. Price said yes, and they have
17 been working with Mr. Bloodworth, Mr. Buehler, and Mr. Jim Cross to figure out how to handle the financing of it.
18 They hope to have him working during the summer and the Saratoga Bay area is where they will start and then move
19 to the north end and continue around to the north end and as funds are available, down towards the Provo Bay area.
20 Mr. Bloodworth said there were funds. Mr. Price said it is figuring out proper procurement and contract procedures
21 with the sole source contract. Mr. Krajric said he and his neighbors where they live are willing to go to the bay area
22 and work, rather than use federal funds. His group has personally cleared out, so the neighbors are willing to work.

23 Mr. Price said he had a BYU student who approached him wanting to do a meaningful project on Utah Lake as a
24 recreational management major. They wanted to create a shoreline adoption program where they would be able to
25 identify the improvements or work that can be done by groups who want to adopt a shoreline so it gives the
26 community more ownership. This summer, the intern will be creating an "Adopt a Shoreline" type of program aimed
27 specifically in the areas being cleared and opened up. It will provide guidelines of how and what can be done there.

28 Mr. Keleher said once USU has their results on the ecosystem monitoring and carp assessment, they could recruit
29 USU to present in the TC meeting.

30 Mr. Van Wagenen suggested on the carp removal adding the words of incentivizing to carp removal, the more
31 they are paid. He suggested doing a feasibility study to look at the processing plant to be as specific as possible.

32 Mr. Michael Pectol motioned in future years looking at funding the carp removal process and look at incentivizing
33 so there is higher dollar value as they increase the pounds of carp and consider funding some type of feasibility study
34 to look at the cost benefit of a processing plant. Mr. Van Wagenen seconded the motion. The motion unanimously
35 passed in favor.

36 Mr. Beckstrom asked about the Utah Lake Festival for 2013. Mr. Price said it was scheduled for Saturday June 8
37 from 10 a.m. to 2 p.m. at the State Park. It will be a similar format as in years past, with a new focus of a boat show.
38 Depending on the turnout, it will be decided if it continues next year. There will no free food this year, but there is a
39 vendor at the park who will be selling food and he should be ready for larger crowds.

40 Mr. Bloodworth said he wanted to thank the group for allowing him to participate, and express the Divisions'
41 opinions. He has taken a position in Colorado and he will be moving. His replacement will possibly be Ms. Laura
42 Ault's group and someone will maintain a replacement from sovereign lands.

43
44 **6. Confirm that the next Technical Committee meeting is scheduled for Monday, May 20, 2013.**

45 Mr. Keleher said the next scheduled meeting is on Monday, May 20, 2013, in Room 211 in the Utah County
46 Historic Courthouse

47
48 **7. Adjourn.**

49 Mr. Hansen motioned the meeting stand adjourned; it was seconded by Mr. Nielsen. Mr. Keleher adjourned the
50 meeting at 10:23 a.m.