

## UTAH LAKE STUDY COMMITTEE MEETING

September 23, 2004

7:30 a.m. to 8:50 a.m.

County Commission Conference Room

### ATTENDEES:

#### Members

Mayor Lewis K. Billings, Provo  
Mayor Jerry Washburn, Orem  
Mayor Burnell Evans, Payson  
Mayor Timothy Parker, Saratoga Springs  
Mayor Rulon Gammon, Vineyard  
Clyde Naylor, Utah County

#### Other Interested Parties

Robert West, Provo  
Greg Beckstrom, Provo  
Dan Nelson, MAG  
Ray Loveless, MAG  
Bruce Chesnut, Orem City  
Chris Keleher, June Sucker Recovery Implementation  
Program (JSRIP)  
Reed Harris, JSRIP  
Jarret Whicker, Envision Utah  
Caleb Warnock, Daily Herald

Attachments to the June 24 meeting minutes were distributed. The minutes of the June 24 Utah Lake Study Committee meeting were approved with attachments.

Minutes of the August 26 bus tour were amended to note the bridge into the Utah State Park will be “replaced” rather than “constructed” next spring, and “Sandy Beach” rather than “Lincoln Beach” is where the Spanish Fork River enters the Lake. The minutes were approved as amended.

#### Water Quality Report by Ray Loveless

Mr. Loveless distributed a packet containing information from a study he conducted by monthly monitoring Utah Lake for one full year. The first page listed the monitoring sites on the lake which appear on each of the subsequent graphs representing various aspects of the Lake. Other columns on the first page contained information on water temperature, TDS, Transparency, Total Phosphorus and Chlorophyll a.

#### Comments on Total Dissolved Solids (TDS)

- Water with high salinity is more difficult to treat for drinking water
- TDS are higher on the south end of the lake
- Farmers had to pipe in additional water to dilute the TDS to continue to use the water for the orchards
- Salinity levels in the Jordan River are unknown
- Orchards and alfalfa don't do well with high salt levels in the water.

#### Comments on Transparency

- Transparency is measured using a “secchi disc” which has one white and two black triangles and is lowered into the water to see how far the light penetrates.
- Transparency varies from 3-4 inches to 1 meter in Utah Lake. Turbidity affects the depth readings.
- Transparency at Deer Creek and Jordanelle is around 15 meters; Fish Lake is probably around 20 meters.

### Comments on Total Phosphorous

- Total phosphorous is more important on a lake than on a stream and more time is spent reviewing it because it is the element responsible for growth of aquatic plants, algae, etc.
- All samples taken on Utah Lake show high levels of Phosphorous.
- The standard for phosphorous was set by the Utah Division of Water Quality as directed by EPA.
- The standard for Utah is that phosphorous in a lake should not exceed .025 milligram/liter. Deer Creek averages about .03 while Utah Lake is closer to .08 with higher readings in wastewater treatment facility areas. Treatment plants provide about 70% of the phosphorous.
- Provo River is not a significant source of phosphorous because it comes from Deer Creek and Jordanelle. Those in Wasatch County have made the effort to keep those reservoirs relatively clean. Sewage effluent was removed from the river and processed to be used for irrigation.
- Parks City canyon reservoirs had serious water quality problems and the city was required to treat the water to remove the phosphorous. It cost about \$5 million for the facility which produces about 2.5 million gallons of water a day at a quality better than the stream from which it came.

### Comments on Chlorophyll a

- The numbers are highest in August when the lake turns green and water skiers complain about the algae.
- There is high productivity in the Lake because of the rich nutrients which encourage algae growth.
- If transparency were higher, there would be even more productivity
- Phosphorous content and turbidity of the lake impact the growth of algae.

The charts on the last page of the information identify Utah Lake as hyper-eutrophic, the only lake in the state to be so identified. The high Uinta lakes are identified as oligotrophic where there is very little productivity and the fish are small. Deer Creek and Jordanelle are identified as mesotrophic which is described as nice productivity and good water quality. Eutrophic means there are some water quality issues and hyper-eutrophic means the standards are exceeded.

### Additional Comments

- Even if millions of dollars were spent repairing stream banks and capturing storm water and treatment plant effluent to improve the water quality, the appearance of the Lake may not improve.
- The standards presented seem unrealistic for Utah Lake and could possibly be changed.
- Bateman Dairy has spent \$750,000 to keep water from the dairy out of the lake and ground water.
- The Technical Committee will play a big role in the TMDL studies and recommendations.
- The study by Mr. Loveless was conducted in 1990 when the Lake was full, prior to the drought years. The elevation was about 4,485 feet.
- Lower phosphorous in the lake would result in reduced production of algae, increased recreational value and elimination of the odor. It would also improve the habitat of the June Sucker.

### ULRP Presentation

There was no one in attendance to make this presentation.

### Technical Committee Report

Bruce Chesnut, Technical Committee Chair, said the group met and discussed how to address certain priorities. The first priority was felt to be water quality and Dr. Merritt from BYU has been invited to address this issue at the October 25 meeting. The meeting will be held at 8:30 a.m. at the Orem Public Works building at 955 North

900 West. Dr. Merritt will present at around 9:00 a.m. and everyone is invited to attend. Other technical committee topics for discussion include recreation, development, transportation and dredging

#### Priorities for the Technical Committee

Mayor Billings distributed a summary list of “Issues and Information Sought” to which other issues can be identified and added. He proposed two steps: 1) continue to define all stakeholders, and 2) continue to gather and validate information, distinguishing between fact and personal opinion. These two things need to be done before deciding the next step to move forward.

#### Comments on Handout.

- Ask Technical Committee to review, refine and add to the list, and identify experts who could best answer the questions.
- Facts on transportation issues need to be addressed, particularly in the Goshen bay area.
- Everyone may not agree on every issue, but the committee needs to understand the support for various opinions and review information for accuracy.
- There is a need to clean up what comes into the Lake before cleaning up the Lake.
- Information gaps, if discovered in the validation process, need to be filled.
- There needs to be coordination of presenters between the Study and Technical committees.
- The question of local jurisdiction needs high priority.
- A total lake management plan is needed to coordinate development all around the lake.

Members of both the Study Committee and the Technical Committee were asked to review and refine the list over the next month. At some point, a “call for information paper” could be issued which refers to these topics and invites comment from stake holders. These steps will prepare the committee to better facilitate the community and stakeholder input process.

Mayor Washburn moved to take the two steps outlined by Mayor Billings, an action seconded by Mayor Evans and approved unanimously by those present.

The issues handout will be sent to members of the Technical Committee.

#### Vanguard Media Public Perceptions Study

Copies of the study were provided to those who were interested.

#### Future Meetings Items

Issues need to be identified and assigned to specific people or subcommittee to address. Mr. Naylor was invited to work on the local jurisdiction piece to prepare a document to circulate for stakeholder comment. Mayor Billings will pursue the causeway issue for a future agenda.

There were not public comments or questions.

The next meeting will be held on Thursday, October 28, at 7:30 a.m. in the County Commission Conference Room.

Meeting adjourned at 8:50 a.m.

The following individuals took a copy of the Vanguard Media Public Perceptions Study.

Caleb Warnock - Daily Herald (will return if needed) 344-2543

Greg Beckstrom - Provo

Bruce Chesnut - Orem and Technical Committee

Clyde Naylor - Utah County

Dan Nelson - MAG (would return if needed)

Jerrit Whicker - Envision Utah (would return if needed)

Mayor Washburn, Orem

Mayor Parker, Saratoga Springs

Mayor Gammon, Vineyard