

WILLARD SPUR STEERING COMMITTEE MEETING

Date: June 23, 2011
Meeting time: 1:00 – 3:00 pm
Location: Great Salt Lake Conference Room (#3134), 3rd Floor, UDEQ Building,
195 North 1950 West

MEETING AGENDA

1. Review meeting summary (April 28, 2011) (Walt Baker)
2. Update on hydrology (Jeff DenBleyker)
3. Update on sampling activities (Jim Harris)
 - a. Finalizing Standard Operating Procedures (SOPs)
4. Science Panel discussion (Jeff Ostermiller/Jeff DenBleyker)
 - a. Review list of nominees
 - b. Discuss compensation/rights for publication
 - c. Final selection of Science Panel members
5. Schedule update (Jeff DenBleyker)
6. Adjourn

ATTACHMENTS

Summary of April 28, 2011 Steering Committee Meeting

Updated list of Science Panel nominees

Draft SOPs for sampling (please review)

- Macroinvertebrates
- Zooplankton
- Vegetation
- Sediment

WILLARD SPUR STEERING COMMITTEE MEETING

APRIL 28, 2011

Refer to meeting recording at: <http://www.willardspur.utah.gov/committee/meetings.htm>

NAME/AFFILIATION

Leah Ann Lamb*	Utah Division of Water Quality
Jim Harris	Utah Division of Water Quality
Pam Kramer*	Utah Division of Wildlife Resources
Ken Braegger	Willard City
Dick West*	Duck Clubs
Chris Montague*	The Nature Conservancy
Ryan Nesbitt*	FFSL
Bruce Howard*	Perry/Willard
Reed Fischer*	Central Valley Water
Theron Miller	JR/FBWAC
Jeff DenBleyker	CH2M HILL
John Isanhart*	USFWS
Walt Baker*	Utah Division of Water Quality
Kimber Hall	Utah Division of Water Quality
R Jeffrey Hicks*	Utah Airboat Association
Jeff Ostermiller	Utah Division of Water Quality
Ryan Tingey*	Great Salt Lake Advisory Council

* Indicates committee member or alternate

ROLL CALL AND FEBRUARY 27 MEETING SUMMARY REVIEW

Walt Baker of the DEQ Division of Water Quality and Steering Committee Chairman found all committee members or alternates in attendance with the exception of those from Great Salt Lake Minerals. He invited the committee to review the last meeting summary, ask questions, or comment. No changes were made to the February meeting summary. Summary is found at:

http://www.willardspur.utah.gov/documents/SC021711/WillardSpurSummary2_17_2011.pdf

RECOGNITION OF JEFFRE HICKS

Walt Baker extended a thank you and a token of appreciation from DWQ to Jeffrey Hicks for his efforts in helping DWQ collect samples in early March.

UPDATE ON COORDINATION WITH PERRY AND WILLARD CITIES

Bruce Howard provided an update on activities at the Perry Willard Regional Wastewater Treatment Plan. The treatment plant started discharging on March 7, 2011 and is currently discharging about 250,000gpd. About 50% of Willard and 50% of Perry still need to be connected to the treatment plan. They are meeting all discharge requirements except for ammonia. It takes some time for the biological mechanisms to mature enough to be able to control ammonia; this was expected. Very pleased with performance in first month.

Nutrient removal system is being bid right now. The plant anticipates construction to start on May 21, 2011 with construction completion in mid-July. The plant anticipates beginning chemical dosing on June 30, 2011.

The Cities submitted their study of alternative discharge locations to the State in February. They looked at a discharge site directly south of the Plant in the Willard Bay outfall channel, a site at the Perry lagoon where water would flow into the Refuge, and a site far to the west where water would flow into Bear River Bay. Nothing further

is being pursued until they receive some direction from the State. The cities are concerned about whether it is really worth the additional capital/operational costs for the more remote sites, i.e., Refuge.

The USFWS will need to consult with its Refuge System to define funding availability and possibility of accepting effluent from the Plant. The cities indicated that they will not want to give up their water rights and will need the flexibility to reclaim the water if they need it. An agreement will be required that provides for funding the capital/operating costs and for transfer of water in the future.

Jeffre Hicks voiced his support for the proposed discharge site on the Willard Bay outfall channel to the south. The effluent will flow into an open channel where water flows directly into the Spur, where phragmites are already being controlled, it doesn't affect property owners to the north, and there is less ditch to maintain. There was general agreement that this option should be pursued with the Refuge option held in reserve until baseline sampling is completed.

UPDATE ON WATER QUALITY BOARD COORDINATION (REFER TO RECORDING AT MINUTE 27)

Jeff Ostermiller provided a review of the Water Quality Board meetings in February and April. The cities requested the WQB, at the February meeting, to set aside \$1.5M in an escrow account to be available if the cities were required to remove nutrients from their discharge. The WQB approved these funds; funds will be set aside and be available through February 23, 2013. Jeff presented DWQ's plans for 2011 to the WQB at their April meeting. The WQB will release funds as needed and has approved funds to implement the 2011 Sampling Plan.

2011 SAMPLING PLAN (REFER TO RECORDING AT MINUTE 30)

See presentation slides at: http://www.willardspur.utah.gov/documents/SC042811/SamplingPlan_4_28_11.pdf

Jeff DenBleyker summarized process the 2011 Sampling Plan underwent for development and review. Jeff reviewed the objectives for the Sampling Plan and expectations for how data will be used when this year's activities are complete. The overall objective of the program is to evaluate whether changes to existing water quality standards are required to protect Willard Spur. One proposal being discussed is to change the classification of Willard Spur to match the classification of waters in the Refuge but that may or may not provide the protection that is required. All agreed that this would be the focus of the work. The objective of this study is to evaluate the Spur's current condition. It was pointed out that the Sampling Plan is moving forward without a definition of what an adverse effect is. It was confirmed that that is the intent and we will be looking to the Science Panel to define an adverse effect once we understand what the current condition is.

Jeff summarized baseline sampling completed in March 2011. Samples are currently being analyzed or are stored awaiting direction from the Science Panel. Jeff summarized sampling sites through the Willard Spur area and methods/studies to be completed. It was pointed out that non-point sources of nutrients may be significant in the Harold Crane WMA drainage. We will need to look at whether additional sites in WMA discharge area as well as the Willard Bay outfall channel are needed. Jeff Ostermiller indicated that Dr. Karen Kettinring will be mapping phragmites throughout eastern Great Salt Lake wetlands. All agreed that vegetation changes are an important concern. Pam Kramer noted that Bio-West has completed biological surveys in the Bear River Bay that may be of use.

DWQ will be completing their Standard Operating Procedures (SOPs) and Quality Assurance Plan (QAP) by mid-May, the SOPs and QAP will be reviewed initially by independent academic reviewers, and submitted to Steering Committee reviewers by June 1, 2011. Steering Committee reviewers will include Theron Miller/JRFBWQC, John Isanhart/USFWS, Pam Kramer/UDWR, and Toby Hooker/Utah Geological Survey. Intent is for Steering Committee to discuss and approve the SOPs and QAP at the June 23, 2011 Steering Committee meeting.

SCHEDULE FOR 2011 ACTIVITIES (REFER TO RECORDING MINUTE 1:32)

See Proposed Schedule handout at: <http://www.willardspur.utah.gov/documents/ProposedSchedule.pdf>

Jeff DenBleyker reviewed the schedule for the remainder of 2011. All agreed that we should move forward with the project and seat a Science Panel. The June 23, 2011 Steering Committee meeting will focus upon discussion of Science Panel composition and compensation. Jeff DenBleyker will provide an updated list of nominees/disciplines for Science Panel members.

Name	Nominated by	Affiliation	Key Discipline	Specialty	Notes
Wetlands Ecologist					
Bonnie Baxter, PhD	Ryan Nesbitt, Division of Forestry, Fire & State Lands	Westminster College, Great Salt Lake Institute	Wetlands ecology/microbiology	Director of Great Salt Lake Institute, photo-biology of salt tolerant bacteria	Currently conducting research on bacteria in North Arm of GSL http://people.westminstercollege.edu/faculty/bbaxter/
Jim Hagy, PhD	Karen Hamilton, US EPA	US EPA Office of Research & Development	Wetlands Ecologist – numeric criteria	Involved in evaluating nation’s estuaries and developing numeric criteria for nutrients in estuaries of Florida and Chesapeake Bay	
Karin Kettinring, PhD	Bob Barrett, US Fish & Wildlife Service	Utah State University, Department of Watershed Sciences	Wetlands Ecologist - plants	Wetlands ecologist, ecology of phragmites, experience on GSL and Bear River National Wildlife Refuge	Ongoing work for USFWS http://www.cnr.usu.edu/htm/facstaff/memberID=1840
Theron Miller, PhD	Dal Wayment, South Davis Sewer District	Jordan River/Farmington Bay Water Quality Council	Wetlands Ecologist – physical, chemical, biological processes	Led research into impacts of nutrients on GSL wetlands since 2004, Development of metrics that identify threshold concentrations of nutrients linked to adverse effects	Jordan River/Farmington Bay Water Quality Council is funded by POTWs
Benjamin R. Parkhurst, PhD	Dal Wayment, South Davis Sewer District	Consultant, HAF, Inc.	Wetlands ecologist/toxicologist	Ecological risk assessments of nutrients, toxic chemicals, metals, sediment on aquatic life, Development of methods to derive nutrient criteria for WERF and FWQC	Worked with WERF and Salt Lake City DPU to develop risk-based approaches for water quality regulation on Jordan River, will require compensation

Name	Nominated by	Affiliation	Key Discipline	Specialty	Notes
Wildlife Biologist					
John Cavitt, PhD	Bob Barrett, US Fish & Wildlife Service	Weber State University, Department of Zoology	Wildlife Biologist	Birds of Great Salt Lake, experience on GSL and Bear River National Wildlife Refuge	Ongoing work for USFWS, Division of Wildlife Resources, and Jordan River Farmington Bay Water Quality Council http://faculty.weber.edu/jcavitt/about.htm
Chris Cline	Pam Kramer, Division of Wildlife Resources	U.S. Fish & Wildlife Service, Ecological Services	Wildlife Biologist	Great Salt Lake birds, habitat, and contaminants	Ongoing work for USFWS on Great Salt Lake
John Luft	Pam Kramer, Division of Wildlife Resources	Utah Division of Wildlife Resources	Wildlife Biologist	Program Manager of UDNR's Great Salt Lake Ecosystem Project, oversight of research into artemia, bird use, and contaminants in GSL	Ongoing work for Division of Forestry, Fire & State Lands and Division of Wildlife Resources
Bioassessment Methods					
Charles P. Hawkins, PhD	Walt Baker, Division of Water Quality	Utah State University, Department of Watershed Sciences	Aquatic Ecology/Statistics	Extensive publications on bioassessment methods, Served on numerous EPA and state advisory panels for development/application of indicators/bioassessment methods for freshwater systems	Will require compensation http://www.cnr.usu.edu/wats/htm/directory-plugin/memberID=792
Ryan S. King, PhD	Walt Baker, Division of Water Quality	Baylor University, Department of Biology	Aquatic Ecology	Focus on the development of ecological indicators and thresholds using aquatic biota, implications of nutrient imbalances on aquatic ecosystems	Ability to contribute to scholarship (research & publications) will dictate whether he can serve on Science Panel or, instead serve as PI http://www.baylor.edu/aquaticlab/

Name	Nominated by	Affiliation	Key Discipline	Specialty	Notes
Hydrology/Water Quality Modeling					
David Tarboton, PhD	Walt Baker, Division of Water Quality	Utah State University, Civil and Environmental Engineering Department	Hydrologic modeling	Surface water hydrology, water budget for Great Salt Lake, hydrologic modeling, climate effects on Great Salt Lake, internet based Great Salt Lake information system	Ongoing work for Division of Water Resources http://www.neng.usu.edu/cee/faculty/dtarb/
Great Salt Lake Ecosystem					
J. Wallace Gwynn, PhD, PG	Ryan Nesbitt, Division of Forestry, Fire & State Lands	Utah Geological Survey - retired	Geochemistry	Conducted Great Salt Lake research since 1975, specializes in salinity and minerals of Great Salt Lake	
Possible Independent Reviewers (nominated but unable to commit to be on Science Panel)					
Robert H. Kadlec, PhD	Dal Wayment, South Davis Sewer District	Consultant, Wetland Management Services	Wetlands Ecologist – physical, chemical, biological processes	Wetlands treatment systems, Assimilation and removal of nutrients, solids, metals in wetlands systems, Phosphorus cycling in Everglades, Author of the book <u>Treatment Wetlands</u>	Confirmed that Dr. Kadlec cannot commit the time required for Science Panel but would like to be considered for independent review tasks, will require compensation
Don Paul, PhD	Pam Kramer, Division of Wildlife Resources	Avian West, Inc.	Wildlife Biologist	Specializes in avian and habitat conservation, studied bird diversity/use/populations on GSL extensively with a focus on Willard Spur	Confirmed that he cannot commit the time required for the Science Panel but would like to be considered for independent review tasks



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