Florida Department of Health
Onsite Sewage Nitrogen Reduction Strategies Study

Contract CORCL

Project Team Kick-off Meeting
February 27th, 2009
3:00 p.m. Conference Call

MINUTES OF MEETING

This meeting was held via conference call due to the dispersed nature of the project team. The meeting started at 3 pm and followed an agenda distributed by Hazen and Sawyer.

I. Introductions and General Background

The meeting was attended by the following project team members.

Prime Consultant: Hazen and Sawyer (H&S)
Damann Anderson, P.E., Project Manager
Josefin Edeback, E.I., Project Engineer

Principal Investigators/Task Leaders: Applied Environmental Technology (AET)
Daniel Smith, Ph.D., P.E.
Colorado School Mines (CSM)
Robert L. Siegrist, Ph.D., P.E.
John E. McCray, Ph.D.
Kathryn S. Lowe, CSM Coordinator
Otis Environmental Consultants (OEC)
Richard J. Otis, Ph.D., P.E.

FDOH Staff: Elke Ursin, Contract Manager
Eberhard Roeder, Ph.D., P.E.
Paul Booher, P.E.

Damann Anderson gave a brief overview of the project background and purpose and agenda items for the meeting.

II. Project Team Contacts

A table of project team members contact information was included with the agenda, and is also included below.

Project Team	Contact	Office Phone	E-mail
FDOH	Elke Ursin	850-245-4070 x2708	Elke_Ursin@doh.state.fl.us
FDOH	Eberhard Roeder	850-245-4070 x2698	Eberhard_Roeder@doh.state.fl.us
FDOH	Paul Booher	352-955-2159	Paul_Booher@doh.state.fl.us
H&S	Damann Anderson	813-630-4498	danderson@hazenandsawyer.com
	Josefin Edeback	813-630-4498	jedeback@hazenandsawyer.com
AET	Daniel Smith	813-864-5735	DPSmith_AET@verizon.net
CSM	Kathryn Lowe	303-273-3685	klowe@mines.edu
	Robert Siegrist	303-384-2158	siegrist@mines.edu
	John McCray	303-273-3490	jmccray@mines.edu
OEC	Richard Otis	608-233-5458	otis.rj@charter.net
MEC	Mark Mechling	904-346-5468	mmechling@mechlingeng.com
WRC	Harmon Harden	850-212-4378	harmon100@comcast.net
GCREC	Craig Stanley	813-633-4117	cdstan@ufl.edu
	Gurpal S. Toor	813-633-4152	gstoor@ufl.edu

III. Project Scope Review

Damann gave an overview of the project scope and deliverables associated with the Year 1 contract.

A. Scope Overview – Tasks A, B, C, D & E

Project scope follows the ITN outlined tasks A, B, C and D. Task E is included for project management, coordination and meetings. Primary tasks are as follows:

Task A: Technology Evaluation for Field Testing: Review, Prioritization, and Development
Task B: Field Testing of Technologies and Cost Documentation
Task C: Evaluation of Nitrogen Reduction Provided by Soils and Shallow Groundwater
Task D: Nitrogen Fate and Transport Modeling
Task E: Project Management, Coordination, and Meetings

The project scope is written for a 3-5 year project period, and at this time funding is only available for Year 1. The project tasks are divided into a series of deliverables, with approximate time frames for the deliverable completion. Damann went over the deliverables that were scheduled to be completed under the Year 1 contract.

B. Deliverables Year 1 and Primary Responsible Team Member

Hazen and Sawyer is ultimately responsible for the completion of each deliverable, but the following table outlines the task leader responsible for the primary development of each deliverable. This is summarized in the table below.

YEAR 1 DELIVERABLES	No. Deliverables	Primary Responsibility
Task A: Technology Selection & Prioritization		
A.1 Draft Literature Review Report	1	OEC
A.2 Final Literature Review Report	1	OEC
A.3 Draft Classification of Technologies Report	1	AET
A.4 Draft Technology Ranking Criteria Report	1	OEC
A.5 Draft Priority List for Testing Report	1	AET
A.6 Technology Classification, Ranking and Prioritization Workshop	1	H&S
A.7 Final Classification of Technologies Report	1	OEC
A.8 Final Technology Ranking Criteria Report	1	H&S
A.9 Final Priority List for Testing Report	1	AET
A.10 Draft Innovative Systems Applications Report (per tech., up to five)	2	H&S
A.12 Identification of Test Facility Sites (per agreement)	2	H&S
A.13 Draft QAPP PNRS II	1	AET
A.14 Recommendation for Process Forward (per meeting)	1	H&S
A.15 Final QAPP PNRS II	1	AET
A.16 PNRS Specification Reports	2	H&S
A.17 Test Facility Design 50%	1	H&S
A.18 Test Facility Design 100%	1	H&S
A.19 Test Facility Design Final	1	H&S
A.20 Test Facility Accept Bid	1	H&S
Task B: Field Testing of Technologies		
B.1 Identification of Home Sites (per homeowner agreement)	10	H&S
B.2 Vendor Agreement Report (per vendor agreement)	8	H&S
B.3 Draft QAPP for Field Testing	1	H&S
B.4 Recommendation for Process Forward (per meeting)	1	H&S
B.5 Final QAPP Field Testing	1	H&S
B.11 LCCA Template Report (draft template and user guidelines)	1	AET
Task C: Evaluation of Nitrogen Reduction by Soils & Shallow GW		
C.1 Draft Literature Review on Nitrogen Reduction in Soil Report	1	CSM
C.2 Final Literature Review on Nitrogen Reduction in Soil Report	1	CSM
C.3 Draft QAPP Evaluation of N Reduction by Soils & Shallow GW	1	CSM
C.4 Recommendation for Process Forward (per meeting)	1	H&S
C.5 Final QAPP Evaluation of N Reduction by Soils & Shallow GW	1	CSM
C.6 Home Site Selection (per homeowner agreement)	8	H&S
C.7 Instrumentation of Home Sites Report (per site)	4	H&S
C.11 Test Facility Design 50%	1	H&S
C.12 Test Facility Design 100%	1	H&S
Task D: Nitrogen Fate and Transport Models		
D.1 Draft Literature Review on Nitrogen Fate & Transport Model Report	1	CSM
D.2 Final Literature Review on Nitrogen Fate & Transport Model Report	1	CSM
D.3 Selection of Existing Data Set for Calibration Report	1	CSM
D.4 Draft QAPP N Fate and Transport Models	1	CSM
D.5 Recommendation for Process Forward (per meeting)	1	CSM
D.6 Final QAPP N Fate and Transport Models	1	CSM
D.7 Simple Soil Model Development	1	CSM
D.8 Non-Steady State Aquifer Model, Simple Soil Model	1	CSM

YEAR 1 DELIVERABLES	No. Deliverables	Primary Responsibility
D.9 Aquifer Model with Averaged Output, Simple Soil Model	1	CSM
Task E: Project Management, Coordination, and Meetings		
E.1 Project Kick-Off Meeting (conference call)	1	H&S
E.2 PM-Project Progress Reports (per monthly report)	6	H&S
E.3 RRAC Meetings (per meeting)	1	H&S
E.4 PAC Meetings (per meeting)	1	H&S

C. Test Facility Sites

Hazen and Sawyer is in the process of identifying test facility sites where multiple assessments of technologies and groundwater quality can be conducted. Two potential sites identified in the response to the ITN were the University of South Florida Lysimeter Facility property and the University of Florida's Gulf Coast Research and Education Center (GCREC) near Wimauma, FL. Damann gave an update on activities at these two sites.

USF Lysimeter Station – A preliminary site visit was conducted, and a general assessment of lysimeter station rehabilitation needs determined. Subsequently, another site visit was conducted with a septic system contractor, and a well installation contractor, for the purpose of developing a preliminary estimate of cost to rehabilitate the facility for operation. Paul Booher from FDOH and Deryl Wagner, Drs. Daniel Yeh and James Mihelcic from USF were also in attendance to view the lysimeter facility. A key issue with the lysimeter facility which has changed since work was last conducted there is that sewage from the Campus Ministry Centers is now pumped via force main to the City of Tampa wastewater system. Obtaining a source of sewage for pilot testing will therefore be more difficult than previously thought and require a series of automated valves and controls as well as additional tankage at the site. Hazen and Sawyer is currently in the process of obtaining cost estimates for station rehabilitation. However, rehab costs will likely be over $50,000 based on cost estimates to date.

UF Gulf Coast Research and Education Center – We have a preliminary agreement to participate, and are awaiting a soil and preliminary GW assessment prior to finalizing arrangements with the GCREC. A potential concern with the site is the groundwater level. During a previous site visit, the maintenance supervisor indicated that he had seen numerous holes dug on the site without signs of groundwater. The area soil survey and the fact that a mound system was installed for treatment indicate that the groundwater should be near the ground surface. The preliminary GW assessment will determine if this is a real concern.

Damann stated that based on the cost and time associated with rehabilitating the USF facility, it has become apparent that proceeding with construction of two test facility sites will be costly and time consuming. The current budget in our contract for construction of a test facility at USF does not appear to be sufficient for both the rehabilitation work and the testing facility construction. In addition, the USF Lysimeter station can only be used for pilot tests of treatment technologies and unsaturated zone work, since the water table is extremely deep at the site (>25 ft.) and sufficient area for plume delineation is not available. Management of two facilities once operational will also be more difficult and expensive in future phases of the project. Since pilot testing and both the saturated & unsaturated

zone investigations could be performed at the GCREC, the Project Team recommendation is to conduct all test facility work at the GCREC if that site meets our requirements. This recommendation would include shifting the funds for test facility design and construction in Task A to the design and construction of the test facility for Task C. Therefore, we would like to proceed with only using the GCREC testing facility on the condition that the NRCS Soils assessment and preliminary GW assessment are conducive to performing the proposed work.

FDOH asked several questions regarding the GCREC facility which were answered by the project team. There is a well on site. An artificial water table such as that used at the lysimeter facility is not thought to be required. A short run of electric and water lines with meters will likely be required. The system is designed for 6,000 gpd, but we are not really sure of the current flow. The project would use an allotted portion of the 475 acre site as project area away from the mound system, but the mound system could be used to assess the plume. Dr. Roeder pointed out that at GCREC there is likely more potential for denitrification of groundwater than at USF. Mr. Booher asked if there had been any mining done on the GCREC property. We do not believe that mining has been done on this site. If mining has occurred in the area proposed for the test facility, this would be recognized through the soil evaluation, and would potentially eliminate the GCREC as a potential site. Elke is going to pull the permit records for the existing onsite system from FDOH records. The GCREC is an agricultural research center, and there is interest in this project with the staff. Also, a water quality laboratory is available on site and can provide some of the analyses we are interested in. Hazen and Sawyer feels the GCREC is the optimum site for the test facility if the NRCS Soils assessment and preliminary GW assessment are conducive to performing the proposed work.

IV. Communications

All communications to FDOH should be through Hazen and Sawyer. Damann requested that Eberhard forward technology data received to Dan Smith and Richard Otis and copy Damann and Josefin.

V. Schedule

A revised schedule, in Microsoft Project software, was included with the agenda packet for the meeting. There have been several revisions to this schedule relative to the preliminary schedule in the contract, and these were discussed as follows.

A. Revised schedule: The contract schedule for deliverables has a January 1st start date even though the official project start date was January 28th. The revised project schedule used a February 1st start date, therefore the schedule has been shifted out by one month. Several other deliverable deadlines were additionally shifted out:
   a. Draft QAPP PNRS II shifted out 2 weeks – final QAPP date remains the same.
   b. Draft QAPP Task C shifted out 1 month – final QAPP date remains the same.
   c. Draft Task D Literature Review – shifted out 1 month – final deliverable date remains the same.

B. Discussion of June 30th deadline: Currently the funding for the project requires that all funds be expended by June 30th, 2009. Elke indicated that FDOH has sent a letter to FDEP requesting that the money allotted for this project be transferred to FDOH as cash. If this is done, then the money potentially can be carried forward to the next fiscal year. At this time, FDOH does not have an answer to this potential problem.

VI. Planned Meetings

Several meetings are included in the Year 1 deliverables. These were discussed as follows.

A. Technology Classification, Ranking & Prioritization Workshop: This workshop will be a formal RRAC meeting preliminarily scheduled for early May. FDOH will limit public comments to the end of the meeting. Elke requested that the meeting date be decided one month prior to allow time for coordination. It was suggested that it be held at the GCREC facility if available.

B. Recommendation for Process Forward Meetings (4): These will be meetings between the project team and FDOH. The meetings will be scheduled following the draft QAPP submittals for Tasks B, C, and D. For Task A, it was suggested that an e-mail summarizing the objectives and process forward for the PNRS II QAPP be provided and reviewed rather than a formal meeting.

C. RRAC Meeting: There will be a project status report provided at a RRAC meeting following the May workshop, to be scheduled in June or July dependent on item V.B. above.

D. PAC Meeting: It was decided that the PAC meeting will be scheduled after draft QAPP and Recommendation for Process Forward tasks are complete.

VII. Invoices

A. Invoicing requirements were discussed.
   a. H&S Requirements: The Invoice template from the prime contract will be utilized and submitted to Elke. Elke would like the H&S invoice to include the invoices from subcontractors submitted to H&S.
   b. Subcontractor Requirements: Subcontractors should send invoices identifying those deliverables submitted and the respective contract amount.

B. Damann indicated that all invoices should contain the FDOH contract number and the Hazen and Sawyer Project Number. These are as follows:

Project Numbers:	FDOH Contract Number: CORCL
	H&S Project Number: 44237-001

C. Progress report: Hazen and Sawyer's invoices to FDOH will be accompanied by a brief status report which includes: the status of each task, identification of any schedule problems, technical problems, or budget problems, and the recommended means to correct these problems. In addition, a revised Microsoft Project Schedule will be included for any schedule changes. Subcontractors should include a similar status report with their invoices to H&S for tasks/deliverables for which they are responsible.

D. Schedule updates: Microsoft Project schedule updates will be developed as appropriate

VIII. Other Items

Elke mentioned that any contract amendments need to be completed before early April if the contract period is not revised past June 30th.