

**Florida Department of Health
Onsite Nitrogen Reduction Strategies Study**

Contract CORCL

Task C Draft QAPP Recommendation for Process Forward Meeting
November 23, 2009
2:00 p.m.
Teleconference

MINUTES

Attendees:	Kathryn Lowe	CSM
	Josefin Edeback	Hazen and Sawyer
	Dr. Eberhard Roeder	FDOH
	Paul Booher	FDOH
	Dr. John McCray	CSM

I. Draft QAPP Task C

- Clarification on what will be measured and at what resolution was discussed. The monitoring for Task C include:
 1. Drip (mini-mounds): most controlled, most data collected, soil pore water monitoring included.
 2. GCREC (big existing mound): provides more control than homesites and will help define subsequent stages of monitoring. Does not include soil water monitoring, includes monitoring at top of GW.
 3. Home sites: much less controlled (is not included in this fiscal year)
- The monitoring for each of these systems include (as outlined within Table 2.3):
 1. Plume Delineation
 2. Tracer Test
 3. Long Term Monitoring
 4. Rain Events
- Eb suggested that the contract be revised to clarify the 3 different types of monitoring (create subtasks). Kathryn will develop a table for the QAPP which will provide a bridge for the contract. Discussion regarding the number of piezometers that will be required followed. Consensus was achieved that different types of information is required for different types of monitoring and cannot be determined at this time. Therefore the QAPP will provide a total number of monitoring points, not the number of locations.

- The QAPP will be revised to state that at least one of the home sites will be in Wekiva and one will be in Wakulla. The other four home sites are to be determined.
- Also the QAPP will be revised to include reference to the Code's existing system evaluation procedure (time dependent plume development). Eb will e-mail Kathryn the Wekiva project QAPP which made this reference as an example.
- The focus of the study is nitrogen concentration in groundwater, therefore modeling of the groundwater plume transport is key focus at least with funding available now. Additional vadose zone monitoring (beyond what is currently described in the QAPP) for model development will not be conducted. The initial Task D model will be developed using Dr. Otis's previous work in the WSA. After collection of field data, the model will incorporate the WERF project's STUMOD model specific to Florida soils (i.e., vadose zone modeling will be developed using the STUMOD model which will then be calibrated with site specific conditions). The Task D QAPP/Literature Review will further detail STUMOD model. Currently vadose zone monitoring is included in the mini-mounds which is most controlled, and can be used as a check for the STUMOD and Dr. Otis assumptions. Additional clarification will be included within the Task D QAPP to include time-component effects on modeling for all the systems.
- Tracer tests will be performed. Eb mentioned that regulatory approval may be required for tracers. Most likely two types of tracers will be used:
 1. Nitrogen isotope (in mini-mounds) for fate and transport properties
 2. Conservative (GCREC large mound) for hydraulic properties
- The frequency of piezometer and lysimeter monitoring will likely be monthly or every 2 months this fiscal year.
- Additional language will be provided within the QAPP to describe rain event monitoring.
- Additional language will be provided within the QAPP describing qualifications for the people performing monitoring.
- The Hach kit specific method numbers will be provided within the QAPP, but it is noted that specific method numbers may vary due to actual concentrations and detection limits.
- Eb will provide suggestions on contract amendment.
- Provider will submit Task C Literature Review final report by the end of next week.