

**FLORIDA DEPARTMENT OF HEALTH
ONSITE NITROGEN REDUCTION STRATEGIES STUDY**

**PROGRESS REPORT NO. 19
(March, 2013)**

Task	Task Status	Activity this Period	Technical, Schedule, or Budget Problems Encountered	Recommended Methods to Resolve Problems
Task A – Technology Evaluation for Field Testing: Review, Prioritization, and Development				
Task A.1, Draft Literature Review Report	Task Complete	Task Complete	None	N/A
Task A.2, Final Literature Review Report	Task Complete	Task Complete	None	N/A
Task A.3, Draft Classification of Technologies Report	Task Complete	Task Complete	None	N/A
Task A.4, Draft Technology Ranking Criteria Report	Task Complete	Task Complete	None	N/A
Task A.5, Draft Priority List for Testing Report	Task Complete	Task Complete	None	N/A
Task A.6, Technology Classification, Ranking and Prioritization Workshop	Task Complete	Task Complete	None	N/A
Task A.7, Final Classification of Technologies Report	Task Complete	Task Complete	None	N/A
Task A.8, Final Technology Ranking Criteria Report	Task Complete	Task Complete	None	N/A
Task A.9, Final Priority List for Testing Report	Task Complete	Task Complete	None	N/A
Task A.10, Draft Innovative Systems Applications Reports	Not started	No activity	N/A	N/A
Task A.11, Final Innovative Systems Applications Reports	Not started	No activity	N/A	N/A
Task A.12, Identification of Test Facility Sites	Task Complete	Task Complete	None	N/A
Task A.13, Draft QAPP PNRS II	Task Complete	Task Complete	None	N/A
Task A.14, Recommendation for Process Forward Meeting	Task Complete	Task Complete	None	N/A

Task	Task Status	Activity this Period	Technical, Schedule, or Budget Problems Encountered	Recommended Methods to Resolve Problems
Task A.15, Final QAPP PNRS II	Task Complete	Task Complete	None	N/A
Task A.16 Materials Testing for FDOH Additives Rule	Task Complete	Task Complete	None	N/A
Task A.17, PNRS Specification Reports	Task Complete	Task Complete	None	N/A
Task A.18, Test Facility Design 50%	Task Complete	Task Complete	None	N/A
Task A.19, Test Facility Design 100%	Task Complete	Task Complete	None	N/A
Task A.20 PNRS II Test Facility Construction Support & Administration	Task Complete	Task Complete	None	N/A
Task A.21 PNRS II Test Facility Construction 50%	Task Complete	Task Complete	None	N/A
Task A.22 PNRS II Test Facility Construction 100%	Task Complete	Task Complete	None	N/A
Task A.23 PNRS II Test Facility Construction Substantial Completion	Task Complete	Task Complete	None	N/A
Task A.24 PNRS II Test Facility Accept Construction	Task Complete	Task Complete	None	N/A
Task A.25 Monitoring & Sample Event Reports	Task Complete	Task Complete	None	N/A
Task A.26 Data Summary Reports	Task Complete	Task Complete	None	N/A
Task A.27 Draft PNRS II Report	Underway	Work on draft PNRS II report.	None	N/A
Task A.28 Final PNRS II Report	Not started	No activity	N/A	N/A
Task A.31 Change-order Allowance	Underway	FDOH authorized \$19,000 to perform a simulation of bioreactor filtration treatment of onsite wastewater April 4, 2011. The Biotool Task 1a and 1b reports completed on December 8, 2011. Remaining change-order budget = \$ 1000.	None	N/A
Task B – Field Testing of Technologies and Cost Documentation				

Task	Task Status	Activity this Period	Technical, Schedule, or Budget Problems Encountered	Recommended Methods to Resolve Problems
Task B.1, Identification of Home Sites	Task Complete	Task Complete	None	N/A
Task B.2, Vendor Agreement Reports	Underway	One vendor agreement remains in Ph3A budget to be completed.	None	N/A
Task B.3, Draft QAPP for Field Testing	Task Complete	Task Complete	None	N/A
Task B.4, Recommendation for Process Forward Meeting	Task Complete	Task Complete	None	N/A
Task B.5, Final QAPP Field Testing	Task Complete	Task Complete	None	N/A
Task B.6 Field Systems Installation Report (per system)	Underway	Design completed for B-HS3, B-HS4 and B-HS5 located in Seminole County. Permit applications to be sent in early April.	None	N/A
Task B.7 Field Systems Monitoring Report (per event)	Underway	Eighth B-HS1 monitoring event (sampled January 24, 2013) completed on March 13, 2013. The second B-HS2 monitoring event (sampled February 5, 2013) completed on March 13, 2013.	None	N/A
Task B.9, Technical Description of Nitrogen Reduction Technology Report	Not started	No activity	N/A	N/A
Task B.11, LCCA Template Report (draft)	Not started	No activity	N/A	N/A
Task B.12 LCCA Template Report (final)	Not started	No activity	N/A	N/A
Task B.16 Change-order Allowance	Underway	Remaining change-order budget = \$39,448.95.	None	N/A

Task	Task Status	Activity this Period	Technical, Schedule, or Budget Problems Encountered	Recommended Methods to Resolve Problems
Task C – Evaluation of Nitrogen Reduction Provided by Soils and Shallow Groundwater				
Task C.1, Draft Literature Review on Nitrogen Reduction in Soils & Shallow GW Report	Task Complete	Task Complete	None	N/A
Task C.2, Final Literature Review on Nitrogen Reduction in Soils & Shallow GW Report	Task Complete	Task Complete	None	N/A
Task C.3, Draft QAPP Evaluation of Nitrogen Reduction Provided by Soils & Shallow GW	Task Complete	Task Complete	None	N/A
Task C.4, Recommendation for Process Forward Meeting	Task Complete	Task Complete	None	N/A
Task C.5, Final QAPP Evaluation of Nitrogen Reduction Provided by Soils & Shallow GW	Task Complete	Task Complete	None	N/A
Task C.6, S&GW Test Facility Design 50%	Task Complete	Task Complete	None	N/A
Task C.7, S&GW Test Facility Design 100%	Task Complete	Task Complete	None	N/A
Task C.8, S&GW Test Facility Design Final	Task Complete	Task Complete	None	N/A
Task C.9, S&GW Test Facility Construction Support & Administration	Task Complete	Task Complete	None	N/A
Task C.10, S&GW Test Facility Construction 50%	Task Complete	Task Complete	None	N/A
Task C.11, S&GW Test Facility Construction 100%	Task Complete	Task Complete	None	N/A
Task C.12, S&GW Test Facility Construction Substantial Completion	Task Complete	Task Complete	None	N/A
Task C.13, S&GW Test Facility Accept Construction	Task Complete	Task Complete	None	N/A

Task	Task Status	Activity this Period	Technical, Schedule, or Budget Problems Encountered	Recommended Methods to Resolve Problems
Task C.14, Soils & Hydrogeologic & Monitoring Plan for S&GW Test Facility	Underway	Started work on soils, hydrogeologic and monitoring plan for S&GW test facility. <ul style="list-style-type: none"> • Soils analyses 100% complete. • Piezometer installation 100% complete. • Survey 100% complete. 	None	N/A
Task C.15, Tracer Testing at GCREC	Underway	No activity	None	N/A
Task C.16 S&GW Sample Event Report	Underway	<ul style="list-style-type: none"> • S&GW Test Facility sample event no. 4 was conducted the week of January 7th. • S&GW Test Facility sample event no. 5 was conducted the week of March 11th. 	None	N/A
Task C.17 S&GW Data Summary Report	Underway	Started work on S&GW Test Facility Data Summary Report (DSR) No. 4.	None	N/A
Task C.18 Test Facility Closeout Report	Not started	No activity	N/A	N/A
Task C.19 Field Site Selection	Task Complete	Task Complete	None	N/A
Task C.20 Instrumentation of GCREC Mound System	Task Complete	Task Complete	None	N/A
Task C.21 GCREC Mound Sample Event Report	Task Complete	Task Complete	None	N/A
Task C.22 GCREC Mound Data Summary Report	Task Complete	Task Complete	None	N/A

Task	Task Status	Activity this Period	Technical, Schedule, or Budget Problems Encountered	Recommended Methods to Resolve Problems
Task C.23 Instrumentation of Remaining Field Sites	Underway	<ul style="list-style-type: none"> • The drill rig instrumentation at C-HS4 located in Hillsborough County completed on December 7, 2012. • Piezometer installation 100% complete. • Survey 100% complete. 	None	N/A
Task C.24 Field Sites Sample Event Reports (SER)	Underway	<p><u>C-HS3:</u> Sample Event No. 3 conducted the week of February 25th.</p> <p><u>C-HS4:</u> Sample Event No. 1 conducted the week of January 14th.</p>	None	N/A
Task C.25 Field Sites Data Summary Report (DSR)	Underway	<u>C-HS4:</u> Started work on Data summary report No. 1.	None	N/A
Task C.26 Draft Site Summary and Close-out Report (per site)	Underway	<u>C-HS1:</u> Draft site summary and close-out report completed March 12, 2013.	N/A	N/A
Task C.27 Final Site Close-Out Report (per site)	Not started	No activity	N/A	N/A
Task C.30 Change-order Allowance	Not started	No activity	N/A	N/A
Task D – Nitrogen Fate and Transport Modeling				

Task	Task Status	Activity this Period	Technical, Schedule, or Budget Problems Encountered	Recommended Methods to Resolve Problems
Task D.1, Draft Literature Review on Nitrogen Fate & Transport Model Report	Task Complete	Task Complete	None	N/A
Task D.2, Final Literature Review on Nitrogen Fate & Transport Model Report	Task Complete	Task Complete	None	N/A
Task D.3, Selection of Existing Data Set for Calibration Report	Task Complete	Task Complete	None	N/A
Task D.4, Draft QAPP N Fate and Transport Modeling	Task Complete	Task Complete	None	N/A
Task D.5, Recommendation for Process Forward	Task Complete	Task Complete	None	N/A
Task D.6, Final QAPP N Fate and Transport Modeling	Task Complete	Task Complete	None	N/A
Task D.7 Simple Soil Tools	Underway	<ul style="list-style-type: none"> • 72 HYDRUS simulations have been run. • 80% progress report to be completed in April which summarizes the preliminary results of the HYDRUS simulations. 	For submittal of the Task D.7 deliverable report by June 30, 2013 the final scope must be identified no later than May 1, 2013	N/A
Task D.8 Complex Soil Model	Underway	Continued model development coding and incorporation of a shallow groundwater table. Model parameter estimates for Florida soils have been incorporated.	None	N/A
Task D.9 Complex Soil Model Performance Evaluation	Underway	Corroboration of water table to Florida data work underway.	None	N/A

Task	Task Status	Activity this Period	Technical, Schedule, or Budget Problems Encountered	Recommended Methods to Resolve Problems
Task D.10 Validate/Refine Complex Soil Model	Not Started	Work has started to validate the complex model with denitrification and parameter estimates using GCREC soils.	None	N/A
Task D.11 Aquifer Model Combined with Complex Soil Model Development	Not Started	Approach incorporated into spreadsheet for 2D groundwater model	None	N/A
Task D.12 Aquifer-Complex Soil Model Performance Evaluation	Not Started	Comparison/evaluation of different models for estimating water table fluctuations complete.	None	N/A
Task D.13 Validate/Refine Aquifer-Complex Soil Model with Data Collection from Task C	Not Started	No activity	N/A	N/A
Task D.14 Development of Aquifer-Complex Soil Model for Multiple Spatial Inputs	Not Started	No activity	N/A	N/A
Task D.16 Task D Guidance Manual (Draft)	Not Started	No activity	N/A	N/A
Task D.17 Task D Guidance Manual (Final)	Not Started	No activity	N/A	N/A
Task D.18 Change-order Allowance	Not Started	No activity	N/A	N/A
Task E – Project Management, Coordination and Meetings				
Task E.1, Project Kick-off Meeting	Task Complete	Task Complete	None	N/A
Task E.2, PM-Project Progress Report	Underway	The March 2013 bimonthly progress report (this report) was completed April 12, 2013.	None	N/A
Task E.3, RRAC or TRAP Presentation	Underway	No activity	None	N/A
Task E.4, RRAC or TRAP Meeting Attendance	Underway	No activity	None	N/A
Task E.5, PAC Meeting	Not started	No activity	N/A	N/A