

Title Page

STATE OF FLORIDA
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
BUREAU OF ONSITE SEWAGE PROGRAMS

INVITATION TO NEGOTIATE
FOR

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES:
TECHNOLOGY EVALUATION, CHARACTERIZATION OF ENVIRONMENTAL
FATE AND TRANSPORT, AND AN ASSESSMENT OF COSTS

Vendor Name _____

Vendor Mailing Address _____

City-State-Zip _____

Telephone Number _____

Email Address _____

Federal Employer Identification Number (FEID)

Authorized Signature (Manual)

Authorized Signature (Typed) and
Title _____

FLORIDA ONSITE SEWAGE NITROGEN REDCUCTION STRATEGIES

Timeline

EVENT	DUE DATE	LOCATION
ITN Advertised - Released	September 1, 2008	Vendor Bid System: http://vbs.dms.state.fl.us/vbs/main_menu
Questions Submitted in Writing	Prior to 3:00 PM EST September 15, 2008	Submit to: Florida Department of Health Purchasing – [enter administrative lead name], Suite 310 4052 Bald Cypress Way, Bin B07 Tallahassee, Florida 32399-1749 Fax: (850) xxx-xxxx E-mail: [enter administrative lead name]@doh.state.fl.us
Optional Pre-Proposal Conference	September 22, 2008	Department of Health 4042 Bald Cypress Way Conference Room 240 P Tallahassee, Florida 32399
Answers to Questions	September 23, 2008	Posted electronically via the following Internet site: http://vbs.dms.state.fl.us/vbs/main_menu
Sealed Proposals Due and Opened	Must be received PRIOR to: 3:00 PM EST October 1, 2008	Florida Department of Health Purchasing – [enter administrative lead name], Suite 310 4052 Bald Cypress Way, Bin B07 Tallahassee, FL 32399-1749
Anticipated Evaluation of Written Proposals	Beginning October 1, 2008	Individual Evaluation of written proposals – Note: any Evaluation Team Meetings will be publicly noticed.
Anticipated Evaluation of Oral Presentations	October 8, 2008	Research Review and Advisory Committee Public Meeting Location to be determined
Anticipated Beginning Negotiations	October 20, 2008	Department of Health 4042 Bald Cypress Way Tallahassee, Florida 32399
Anticipated Posting of Intent to Award	October 21, 2008	Vendor bid system: http://vbs.dms.state.fl.us/vbs/main_menu

SECTION 3.0 INTRODUCTORY MATERIALS

3.1 Statement of Purpose

The purpose of this Invitation to Negotiate (ITN) is to identify respondents interested in an anticipated 3-year project to develop passive strategies for nitrogen reduction that complement use of conventional onsite sewage treatment and disposal systems. The 2008 Florida legislature has appropriated one-million dollars for Phase I of this project to further develop cost-effective nitrogen reduction strategies. The project shall be controlled by the Department of Health's Research Review and Advisory Committee. The Florida Department of Health (DOH) seeks one or several respondents to conduct tasks addressing the following issues: 1) comprehensive review of existing or ongoing studies on passive technologies; 2) field-testing of nitrogen reducing technologies at actual home sites for comparison of conventional, passive technologies, and non-passive performance-based treatment systems to determine nitrogen reduction performance; 3) documentation of all capital, energy and life-cycle costs of various technologies for nitrogen reduction; 4) evaluation of nitrogen reduction provided by soils and the shallow groundwater below and down gradient of various systems; and 5) development of a simple model for predicting nitrogen fate and transport from onsite sewage treatment and disposal systems. Basic components of the project are described in Section 4. Funding for future years is dependent on future legislative appropriations. The total cost of the contract will not exceed \$5,000,000.

3.2 Term

The initial term of the contract resulting from this solicitation shall be three (3) years.

3.3 Definitions

ATU – Aerobic treatment unit

Conventional drainfield material – Gravel as specified in 64E-6.014(5) FAC

Conventional System – Standard septic tank and drainfield to treat wastewater on site that does not perform advanced treatment

DOH – Florida Department of Health or the department

FAC – Florida Administrative Code

Florida onsite sewage nitrogen reduction strategies study- study that is subject of this Invitation to Negotiate

Media – Material that effluent from a septic tank passes through prior to reaching the groundwater. This may include saw dust, zeolites, tire crumbs, vegetative removal, sulfur, and spodosols.

OSTDS – Onsite Sewage Treatment and Disposal System

Passive – A type of onsite sewage treatment and disposal system that excludes the use of aerator pumps and includes no more than one effluent dosing pump with mechanical and moving parts and uses a reactive media to assist in nitrogen removal.

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QAPP – Quality Assurance Project Plan

PBTS – Performance Based Treatment System, a type of OSTDS that has been designed to meet specific performance criteria for certain wastewater constituents

Reactive media – Media that reacts with wastewater to reduce nitrogen concentrations

RRAC – Research Review and Advisory Committee, a committee with the Florida Department of Health, Division of Environmental Health, that develops priorities for research in onsite sewage, reviews and ranks research proposals, and reviews project reports

State - The State of Florida and legally authorized employees, agents, contractors, or vendors acting on behalf of the aforementioned for the purpose of conducting State business

TN - Total Nitrogen concentration in a water sample (mg/L)

SECTION 4.0 TECHNICAL SPECIFICATIONS

4.1 Scope of Service

The successful respondent(s) shall perform technology evaluations; field work and monitoring of OSTDS and groundwater; analysis and evaluation of data. The respondent(s) shall also reach conclusions and provide recommendations.

In particular, the successful respondent(s) shall perform tasks in furtherance of the following scope:

- 1) Perform a comprehensive review of existing or ongoing studies on passive technologies;
- 2) Perform field-testing of nitrogen reducing technologies at actual home sites for comparison of conventional, passive technologies, and performance-based treatment systems to determine nitrogen reduction performance;
- 3) Provide documentation of all capital, energy and life-cycle costs of various technologies for nitrogen reduction;
- 4) Perform an evaluation of nitrogen reduction provided by soils and the shallow groundwater below and down gradient of various systems; and
- 5) Develop a simple model for predicting nitrogen fate and transport from onsite wastewater systems;
- 6) Present a progress report, including recommendations for funding additional phases of the study, on or before January 5, 2009. This will allow DOH time to meet the reporting deadline to the Executive Office of the Governor, the President of the Senate, and the Speaker of the House of Representatives of February 1, 2009

Deliverables will be reviewed by the Florida Department of Health and its Research Review and Advisory Committee. The successful respondent(s) shall prepare deliverables using software and hardware applications that are consistent with department standards (currently, Microsoft software, PC-compatible hardware).

4.2 Programmatic Authority

The Bureau of Onsite Sewage Programs operates under Section 381.0065 et seq. of the Florida Statutes. 381.0065(3)(c) directs the department to “develop a comprehensive program to ensure that onsite sewage treatment and disposal systems ... are sized,

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designed, constructed, installed, ... operated, and maintained ... to prevent groundwater contamination and surface water contamination". 381.0065(3)(j) specifically directs the Department of Health to award research projects "through competitive negotiation, using the procedures provided in s. 287.057, to public or private entities that have experience in onsite sewage treatment and disposal systems in Florida and that are principally located in Florida".

Laws of Florida, 2008-152, includes Specific Appropriation 1682 requiring "\$1 million from the Water Protection and Sustainability Program Trust Fund shall be transferred to the Department of Health to further develop cost-effective nitrogen reduction strategies. The Department of Health shall contract, by request for proposal, for Phase I of an anticipated 3-year project to develop passive strategies for nitrogen reduction that complement use of conventional onsite wastewater treatment systems. The project shall be controlled by the Department of Health's research review and advisory committee and shall include the following components: 1) comprehensive review of existing or ongoing studies on passive technologies; 2) field-testing of nitrogen reducing technologies at actual home sites for comparison of conventional, passive technologies and performance-based treatment systems to determine nitrogen reduction performance; 3) documentation of all capital, energy and life-cycle costs of various technologies for nitrogen reduction; 4) evaluation of nitrogen reduction provided by soils and the shallow groundwater below and down gradient of various systems; and 5) development of a simple model for predicting nitrogen fate and transport from onsite wastewater systems. A progress report shall be presented to the Executive Office of the Governor, the President of the Senate and the Speaker of the House of Representatives on February 1, 2009, including recommendations for funding additional phases of the study."

4.3 Major Program Goals

The goals of the *Florida Onsite Sewage Nitrogen Reduction Strategies Study* are to develop passive strategies for nitrogen reduction that complement the use of conventional onsite sewage treatment and disposal systems to systematically evaluate the field performance and associated costs of such OSTDS nitrogen reduction strategies in comparison to conventional and existing technologies and to assess, and to model the environmental fate and transport of nitrogen discharged to the environment. Nitrogen loading is important to achieving the mission of the Bureau of Onsite Sewage Programs: "Protecting the public health and environment through a comprehensive onsite sewage program".

4.4 Task List

The successful respondent(s) shall perform the following tasks. The department may consider splitting tasks between respondents, such as awarding 4.4 A and 4.4 B to one respondent, 4.4 C to another, and 4.4 D to a third, with each respondent responsible for their part. Draft deliverables will be reviewed by RRAC and the department. The department will approve all deliverables when completed to the department's satisfaction.

The successful respondent shall perform the tasks listed below.

A) Preselection of technologies and prioritizing technology for testing

- 1 Objectives: Evaluate and prioritize technologies for field testing, so that testing and further development can be phased in as funding becomes available over the three year anticipated project period.

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- 2 Activities: The following activities are currently expected to occur in achieving the objectives of this task. The respondent can propose a different set of activities to achieve the objectives of the task.
- 1) Assess what if any updates are needed to the literature review performed for the Department of Health in 2007 and provide a draft and a final revised literature review. The report can be found here:
http://www.doh.state.fl.us/environment/ostds/research/10-18-07Materials/FL_Passive_Nitrogen_Removal_Study.pdf
 - 2) Develop a classification scheme for technologies to allow comparisons (draft and final). A possible classification suggested by the authorizing language could be as follows:
 - a) Complements to conventional onsite systems: reduced authorized lot flow per acre, separate treatment (and disposal off site) of black water and/or urine, dosed vs. gravity drainfields, differing installation depths relative to vegetation and/or seasonal high water table, fill material modifications
 - b) Passive nitrogen removal system: a combination of a nitrification media filter and a denitrification media filter, including at most one effluent pump and excluding aerators
 - c) Active nitrogen removal system: onsite treatment system affecting nitrogen reduction in the effluent that is not passive because of aeration, number of pumps or active dosing of denitrification material
 - 3) Develop criteria to rank technology for order of testing during the years of the project (draft and final). The criteria shall address issues such as:
 - a) Maturity
 - i) Evaluation in test centers has occurred and system has at least innovative status in Florida; or system has completed innovative system testing in Florida with influent and effluent measurements
 - ii) Technology has been tested at test centers or evaluated in other states but has not been evaluated for innovative status in Florida
 - iii) Technology shows promise in small-scale experiments, needs test center data for comparison to other technologies
 - b) Effectiveness
 - i) Nitrogen reduction >80%
 - ii) Nitrogen reduction 65-80%
 - iii) Nitrogen reduction 50-65%
 - iv) Nitrogen reduction <50%
 - c) Trade-offs with pathogen removal
 - d) Expected cost
 - e) Differences to technologies previously tested
 - 4) Evaluate existing information about technologies relative to criteria to develop a priority list of technology testing over the projected three-year period of the project and determine areas of information need (draft and final).
 - 5) Develop information to address needs for technologies that are not mature enough to be permitted as innovative systems in Florida but rank highly otherwise. This could be accomplished in cooperation with NSF-testing facilities and/or manufacturers or engineers. Assist designer in completion of innovative system application.
 - 6) Summarize the progress of this task (draft and final), including recommendations for funding additional phases of the study with a final first progress report by January 1, 2009; May 1, 2009, and approximately semiannually thereafter in a report to the RRAC.
 - 7) Update the results of activity 4 yearly

Comment [EXR1]: This is territory of the plumbing code. How do we involve them?

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- 3 Deliverables.
 - 1) Draft and final updated literature review within one and two months of contract execution
 - 2) Draft and final classification of technologies within one and two months of contract execution
 - 3) Draft and final ranking criteria within one and two months of contract execution
 - 4) Draft and final priority list for testing within three and four months of contract execution
 - 5) Completed innovative system application.
 - 6) Draft and final of progress reports at specified intervals
 - 7) Draft and final revision of priority list for testing

B) Field testing of technologies at actual home sites and cost documentation

- 1 Objectives: Obtain comparable data on costs and treatment effectiveness for a variety of technologies under field conditions. The emphasis will be on total nitrogen and other wastewater parameters (cBOD5, TSS, TP and fecal coliform) will be assessed in less detail.
- 2 Activities: The following activities are currently expected to occur in achieving the objectives of this task. The respondent can propose a different set of activities to achieve the objectives of the task.
 - 1) Development of a Quality Assurance Project Plan (QAPP). The respondent will develop a quality assurance project plan (QAPP) patterned after EPA guidelines (<http://www.epa.gov/quality/qs-docs/g5-final.pdf>). In this document the respondent will plan and describe the approach, sampling schemes, field work, analytical methods, and quality control procedures guiding the project. The document will address questions such as:
 - a) Achievable cost savings by different management strategies (individual owner decides about technology and maintenance entity vs. area-wide decision about technology and maintenance entity vs. cluster systems with common technology and common maintenance entity)
 - b) Recruitment of testing sites to achieve comparable influent and climatic conditions
 - c) Cost-sharing and instruments to provide incentives and assurance to system owners
 - d) Sampling and monitoring methodology to establish treatment effectiveness by mass balances at performance boundaries (influent, pretreatment effluent, drainfield, shallow groundwater)
 - e) Required length and frequency of monitoring
 - f) Evaluation of reduction effectiveness given within site and between site variability
 - g) Monitoring of costs, energy use and benefits (with focus on nitrogen, also addressing water conservation and irrigation)
 - h) Assessment of life-cycle costs and benefits and stakeholder satisfaction
 - i) Transition for systems out of project monitoring into permanent use
 - 2) Recruitment of homeowners for participation in the study
 - 3) Procurement, permitting, and installation of new systems and/or, existing system evaluation and instrumentation of existing systems
 - 4) Execution of performance-bonds that allow for system replacement if systems do not meet permit requirements
 - 5) Monitoring of influent and effluent flow, quality and ongoing costs and energy use
 - 6) Assessment of life-cycle costs and benefits and stakeholder satisfaction

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- 7) In cooperation with system designer, development of a technical guidance document for the design, installation, operation, maintenance and monitoring of each technology for nitrogen reduction.
 - 8) After sampling is complete, system replacement or transfer of instrumentation to owner
 - 9) Summarize the progress of this task (draft and final), including recommendations for funding additional phases of the study with a final first progress report by January 1, 2009; May 1, 2009, and approximately semiannually thereafter in a report to the RRAC.
- 3 Deliverables:
- 1) Two draft QAPPs and a final QAPP
 - 2) Homeowner agreements to participate
 - 3) Systems readied for sampling
 - 4) Performance bond per system
 - 5) Quarterly Monitoring results
 - 6) Two draft and final report on life-cycle costs and benefits
 - 7) Technical guidance document for each nitrogen reduction technology
 - 8) Acceptance by owner of system
 - 9) Draft and final Progress reports

C) Evaluation of nitrogen reduction provided by soils and the shallow groundwater below and down gradient of various systems

- 1 Objectives: To summarize existing and collect additional data to quantify nitrogen reduction provided by soils and shallow groundwater. The emphasis will be on total nitrogen and other wastewater parameters (cBOD5, TSS, TP, and fecal coliform) will be assessed in less detail for additional characterization.

Option 1: It will also characterize seasonal variability of the respective processes, in particular in the Wekiva Study Area

Option 2: Incorporate summary of existing data from Task D
- 2 Activities. The following activities are currently expected to occur in achieving the objectives of this task. The respondent can propose a different set of activities to achieve the objectives of the task. These tasks may overlap with tasks in task 4.4.B.
 - 1) Prioritize pretreatment/drainfield configuration/soil combinations for testing in the phases of the project in cooperation with RRAC and the department. It is anticipated that differences between drip irrigation, pressure dosed and gravity-fed drainfields will be of interest.
 - 2) Summarize results of previous studies (option 2 only)
 - 3) Development of a Quality Assurance Project Plan (QAPP). The respondent will develop a quality assurance project plan (QAPP) patterned after EPA guidelines (<http://www.epa.gov/quality/qs-docs/g5-final.pdf>). In this document the respondent will plan and describe the approach, sampling schemes, field work, analytical methods, and quality control procedures guiding the project. The document will address questions such as:
 - a) Should soil and shallow groundwater processes be evaluated at the same site or should the evaluations be separated (e.g. soil evaluations in lab or test center experiments; shallow groundwater in the field)?

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- b) How can a mass balance of water, nitrogen and any other parameters be achieved at several locations and validated by comparison to tracer components to characterize the separate effects of processes, such as denitrification, nutrient uptake by plants, and dilution on nitrogen concentrations and loads?
 - c) How will sites be identified that have the desired combination of pretreatment, drainfield and soil? What should be the minimum system age (e.g. five years)? What should be evaluated in a site in addition to the existing system evaluation protocol?
 - d) What is the loading (flow and concentration) coming from the last treatment receptacle?
 - e) How will velocity of groundwater be determined, which has been identified by Heatwole and McCray (2006) as the most important parameter in modeling of nitrogen transport. How will dispersion and recharge be determined?
 - f) How will the importance of seasonal variability relative to other sources of variability be assessed and what is the required length and frequency of monitoring to characterize "average" conditions?
 - g) What will be the sampling and monitoring methodology to establish characterizations that are comparable to each other given within site and between site variability?
 - h) How should soil, groundwater, and weather conditions be characterized?
 - i) How will monitoring equipment be dealt with at the completion of the project?
 - 4) Recruitment of site owners for participation in the study and site evaluations of existing systems
 - 5) Instrumentation of sites
 - 6) Monitoring of groundwater quality, wastewater flow, and any other parameters identified in the QAPP.
 - 7) Report on each site detailing results of nitrogen reduction in soil and shallow groundwater, including monitoring results and mass balance estimates.
 - 8) After sampling is complete, system replacement or transfer of instrumentation to owner
 - 9) Summarize the progress of this task (draft and final), including recommendations for funding additional phases of the study with a final first progress report by January 1, 2009; May 1, 2009, and approximately semiannually thereafter in a report to the RRAC. The progress report will address the question if differences between sites exist.
- 3 Deliverables:
- 1) Draft and final priority list
 - 2) Two drafts and a final summary of previous studies on soil and shallow groundwater fate and transport of nitrogen onsite systems (option 2 only)
 - 3) Two drafts and final QAPP
 - 4) Completed site evaluations
 - 5) Completed instrumentation of sites
 - 6) Monitoring reports with sample parameters per QAPP
 - 7) Two draft and final report on nitrogen reduction in soils and shallow groundwater at each site
 - 8) Acceptance by owner of completed study
 - 9) Draft and final progress reports

D) Development of a simple model for predicting nitrogen fate and transport from onsite wastewater systems

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1 Objectives:

Option 1: to adapt or develop and validate a simple model that can predict location and extent of the average plume of an individual OSTDS, given information on factors such as sewage flow, recharge, drainfield type, soil, and groundwater flow velocity

Option 2: to adapt or develop and validate a model that can predict time-variable location and extent of the plume of an individual OSTDS, given information on factors such as sewage flow, recharge, drainfield type, soil, and groundwater flow velocity. To develop simplifications of the model that apply to certain combinations conditions

Option 3: to adapt or develop a classification model for aerial nitrogen input and loading (lbs/acre) to groundwater from onsite systems depending on factors such as pretreatment, recharge, soil conditions and property size

Option 4: to adapt or develop and validate a model that describes the transition from individual plumes from onsite systems to an average aerial load

Option 5: to adapt or develop and validate a model that describes the watershed-scale transport of nitrogen from subdivisions (multiple houses) to either deeper zones of aquifers or to surface water

Option 6: Include summary of existing data in task C

2 Activities: The following activities are currently expected to occur in achieving the objectives of this task. The respondent can propose a different set of activities to achieve the objectives of the task. These tasks may overlap with tasks in task 4.4.C.

- 1) Summarize results of previous studies and recommend sampling parameters for field work (Task C)
- 2) Development of a Quality Assurance Project Plan (QAPP). The respondent will develop a quality assurance project plan (QAPP) patterned after EPA guidelines (<http://www.epa.gov/quality/qs-docs/g5-final.pdf>). In this document the offeror will plan and describe the approach, analytical methods, and quality control procedures guiding the project. The document will address questions such as:
 - a) What should be the starting point of the model (existing numerical or analytical models such as NHBA, CXTFIT,) or new development
 - b) What data will be used to evaluate the matching of physical processes (velocity, water flux, dispersion)?
 - c) How will aggregation of variable data (soil, flow, concentrations, reaction rates) in space and time occur?
 - d) What will be used to characterize deviations between model and measured data (length, area, mass of plume; flux at performance boundary; concentration at sampling points)
 - e) How will the accurate execution of the algorithms of the model be verified?
 - f) Which existing data sets are proposed to guide model development?
 - g) What will be acceptance criteria for model validation against data developed under task D?
 - h) How will the existence of bias due to simplification be assessed?

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- 3) Adaptation or Development of a model that achieves the objective and calibration with existing data sets
- 4) Validation of the model by comparison to datasets developed as part of task C
- 5) Summarize the progress of this task (draft and final), including recommendations for funding additional phases of the study with a final first progress report by January 1, 2009; May 1, 2009, and approximately semiannually thereafter in a report to the RRAC. The progress report will address the question if differences between sites exist.

3 Deliverables:

- 1) Two draft and final summary of existing data from previous studies and recommendation for sampling data for task C
 - 2) Two drafts and final QAPP, completed within three months of contract execution
 - 3) Two draft and final report on model development and comparison to existing data, completed by June 30, 2009
 - 4) Two draft and final report on validation of model with newly developed data
 - 5) Two draft and final progress reports
-

4.24 **Required Documentation**

The following documentation shall be submitted by respondents participating in this solicitation

- Proposal including sections outlined in sections 4.26 and 4.27 of this ITN
- Attachment VII – Required Certification Form
- Attachment VIII – Onsite Sewage Consultant Qualifications
- Attachment X – Additional Certifications
- Attachment XII – Reference Form

4.25 **Evaluation of Proposal**

Each response will be evaluated and scored based on the criteria defined in Attachment ____ and Attachment _____. This is a two step process: with an evaluation of written proposals and an evaluation of oral presentations.

4.25.1 **Evaluation of Written Proposals**

The Written Proposal Evaluation Criteria Worksheet (Attachment II) will be used by the selection review committee to designate the point value assigned to each proposal. The scores of each member of the selection review committee will be averaged with the scores of the other members to determine the final scoring. The selection review committee will develop points of common weakness or strength that respondents shall specifically address in their oral presentations (see 4.25.2).

In determining vendor responsibility, the agency may consider any information or evidence which comes to its attention and which reflects upon a vendor's capability to fully perform the contract requirements and/or the vendor's demonstration of the level of integrity and reliability which the agency determines to be required to assure performance of the contract.

At the department's discretion, respondents with the highest scores ("short-listed") may be invited to give oral presentations to a presentation evaluation committee. A respondent that scores highest in the evaluation of the approach to a specific task group (4.4.A&B, C, D) may also be invited. The order of presenters will be determined by lot. Participants will be invited by email and phone to give oral presentations. The invitation will include time and location of the presentation, the points of common weakness, and the scoring methodology used for the evaluation of presentations.

4.25.2 Evaluation of Oral Presentations

Comment [ER2]: need RRAC input

The selected respondents will present their proposal to the presentation evaluation committee, which is the department's Onsite Sewage Research Review and Advisory Committee (RRAC). The presentation evaluation committee members will use the Oral Presentation Evaluation Criteria Worksheet (Attachment III) to score and subsequently rank the presenters. The average rank of all evaluators will determine the final ranking of respondents. If the overall ranking and the ranking of approaches to specific task groups differ by half or more of the number of presenters for either of the two highest overall scorers, the presentation evaluation committee will recommend to the department whether or not to pursue separate contracts for tasks.

The scoring of proposals establishes a reference point from which to make negotiation decisions. It in no way implies that a contract will be awarded. The department reserves the right to award more than one contract resulting from evaluation of proposals submitted in response to this ITN, as well as the right to reject all proposals.

Negotiation will commence with the respondent who has the highest ranking as assigned by the presentation evaluation committee. Prior to the beginning of negotiations, the respondent shall have submitted a completed truth-in-negotiation certificate (Attachment X). If negotiations with this respondent are unsuccessful the respondent who ranks the next highest will be contacted, and negotiations will begin with that respondent and so on.

4.26 Description of Approach to Performing Tasks

The proposal shall include the following sections to provide insight into the respondent's approach to providing the services as specified in this solicitation. The respondent will address all areas of work within the Task List. The respondent's technical approach will demonstrate a thorough understanding and insight into this project.

4.26.1 Introduction (2 page limit)

Provide a brief narrative that demonstrates the respondent understands and its intention to meet the purpose and the needs of the project and of the project described by this ITN (3.1 and 3.2).

4.26.2 Company Background (2 page limit)

This section shall provide information on the historical background of the respondent and on the respondent's organization structures. This should include years in operation and years involved in services that are relevant to the services being requested in this ITN.

4.26.3 Willingness to meet time and budget constraints (2 page limit)

The respondent shall state the willingness to meet the time and budget constraints of the department. These include completion within the milestones provided in 4.4, and within a budget that is anticipated to be \$1,000,000 for all tasks through June 2008, and will not exceed \$5,000,000 over three years. Final budget constraints depend on availability of funding.

4.26.4 Description of Approach (5 page limit)

The respondent shall describe the approach proposed to achieve the purposes of the project. The description should address at least the following elements with consideration of the questions posed in 4.4.:

- 1) Tasks A and B. Prioritizing and field testing of technologies at actual home sites and cost documentation
- 2) Task C Evaluation of nitrogen reduction provided by soils and the shallow groundwater below and down gradient of various systems
- 3) Task D development of a simple model for predicting nitrogen fate and transport from onsite wastewater systems

DRAFT

ATTACHMENT I
ITN QUESTIONNAIRE

- 1) **Introduction (2 page limit) (4.26.1)** How does the respondent understand the problem of nitrogen from onsite sewage treatment systems, including pretreatment approaches, environmental fate and transport and modeling?
- 2) **Company Background (2 page limit) (4.26.2)** Does the history of the respondent, including the number of years in operation relevant to the project, and the organizational structure of the respondent, provide assurance that respondent is capable to perform work?
- 3) **Willingness to meet time and budget constraints (4.26.3)** Is the respondent willing to complete the first phase of project by June 2009 and within a budget of \$1,000,000.00?
- 4) **Description of Approach to Performing Tasks Required by Section 4.4 (4.26.4) (5 page limit) How well does the respondent address the following issues:**
 - a) Tasks A and B Approach to prioritizing and field testing of technologies at actual home sites and cost documentation .
 - b) Task C Approach to evaluation of nitrogen reduction provided by soils and the shallow groundwater below and down gradient of various systems
 - c) Task D Approach to simplified modeling of nitrogen loads and attenuation
- 5) **Qualifications/ Organizational Capacity (Attachment VIII) (4.27.1)**
 - a) To what extent does the respondent or its proposed subcontractors have the qualifications and staff to perform the work? What personnel will provide the technical services; include the main non-administrative employees who will be responsible for the implementation of the contract resulting from this ITN. Are the qualifications of staff appropriate to the tasks assigned to them in regards to performance monitoring of onsite treatment systems, evaluation of nitrogen fate and transport in soil and shallow groundwater, and modeling of nitrogen fate and transport?
 - b) How similar are the projects that the respondent has performed to the one proposed in regard to the methodology that the respondent intends to use? How successful have these projects been (definitive results, guidance for decision making)?
 - c) What additional benefits can the respondent provide that have not been included so far, such as but not limited to, a history of projects in this area, partnering with other organizations, leveraging of funds?
- 6) **Description of Project and Workload Management (4 page limit) (4.27.2)** Does the organization of the project ensure that all necessary skills are present and managed effectively (refer to organization chart submitted as part of attachment VIII)? How will the management methods outlined allow to keep costs and schedule under control, maintain qualified staffing, track project progress, and assure the quality of gathered data and their management. What types of corrective actions are foreseen to address problems? Is there potential for conflicts of interests resulting from treatment systems eligible for assessment having been designed, installed, constructed or maintained by the respondent, a proposed subcontractor or related company, and how will this be addressed?
- 7) **Past Performance References (4.9)** How well do the reports of past performance reflect upon the respondent on average? (Past performance for three clients shall be rated according to Table I and averaged. Where past performance cannot be determined it shall be given a rating of 5)
- 8) **Subcontractor Documentation (4.27.2)** Are proposed subcontracts documented by a 1-page letter on subcontractor letterhead, identifying the solicitation number, project title, and prime contractor with whom the firm intends to subcontract? Failure to submit such a letter from an intended subcontractor shall result in the disallowance of the qualifications and experience of the subcontractor from consideration in the evaluations process.

**ATTACHMENT II
WRITTEN PROPOSAL EVALUATION CRITERIA WORKSHEET**

Responder Name: _____

Evaluator Name: _____ Date: _____

This sheet will be used by evaluators to assign scores to all written proposals. Evaluators will judge the presence and quality of each response in assigning a score (see attachment I for questions). The scores range from the highest score representing an excellent response to a zero representing no response. The higher the score the better the response.

ITN Questionnaire Question Number	Point Value	Points Awarded
1. Introduction (4.26.1)	0 – 4	
2. Company Background (4.26.2)	0 – 4	
3. Willingness to meet time and budget constraints (4.26.3)	0 – 8	
4. Description of Approach to Performing Tasks Required by Section 4.4 (4.26.4) (5 page limit) Tasks A and B. Prioritizing and field testing of technologies at actual home sites and cost documentation Task C. Evaluation of nitrogen reduction provided by soils and the shallow groundwater below and down gradient of various systems Task D. Development of a simple model for predicting nitrogen fate and transport from onsite wastewater systems	0 – 14 0 – 12 0 – 8	
5. Qualifications/ Organizational Capacity (Attachment VIII) (4.26.5) a) qualification of staff b) relevance of past projects c) additional benefits	0 – 8 0 – 8 0 – 8	
6. Description of Project and Workload Management (4.26.6) (4 page limit) a) organization and assignment of staff b) project and quality management c) potential for conflicts of interests	0 – 4 0 – 4 0 – 4	
7. Past Performance references (4.9) (average of three, according to table I.1)	0 – 14	
8. Subcontractor Documentation (5.6)	yes/no	
Score without item 4	66	
Total	100	
	POSSIBLE	AWARDED

**ATTACHMENT III
ORAL PRESENTATION EVALUATION CRITERIA WORKSHEET**

Evaluator Name: _____

Date: _____

A sheet such as this will be used by evaluators to assign scores and subsequently ranks to all respondents for each element in the scope outlined in Section 4.26.4. Evaluators will judge the presence and quality of each proposal by assigning a score. The scores range from the highest score representing an excellent response to a zero representing no response. The higher the score the better the response. The score is then converted to a rank, with 1 being the best respondent.

Presentation Evaluation Criterion	Possible Score	Proposal 1	Proposal 2	Proposal3
Qualifications/ Organizational Capacity (4.26.5): How well does the respondent address issues such as -qualification of staff -relevance of past performance to this project	5			
Description of Approach to Performing Tasks Required by Section 4.4 (4.26.4) How well does the respondent address				
Tasks A and B. Prioritizing and field testing of technologies at actual home sites and cost documentation	5			
Task C Evaluation of nitrogen reduction provided by soils and the shallow groundwater below and down gradient of various systems	5			
Task D development of a simple model for predicting nitrogen fate and transport from onsite wastewater systems	5			
Project and Workload Management (4.26.6): How well does the respondent address issues such as -organization and assignment of staff -project and quality management -potential for conflicts of interests	5			
Willingness to meet time and budget constraints (4.26.3): How well does the respondent address the question if this project can be completed within twelve months and within budget.	5			
	Possible	AWARDED	AWARDED	AWARDED
Overall Score	30			
Overall Rank (1=best, 3=worst)	Rank			
Task A+B Rank				
Task C Rank				
Task D Rank				

Proposals with the same score will receive their average rank, e.g. two proposals tied for first and second place will both receive a ranking of 1.5