



## Program Strategic Plan 2010 – Division of Environmental Health - Florida Department of Health

Mission: "Promote and Protect Health"

Vision: "Healthier Floridians"

**Goal: To prevent disease of environmental origin**

### **Bureau Of Onsite Sewage Programs, B – Engineering and Research**

RRAC, PRODUCT APPROVALS, WATER QUALITY PROTECTION, TDML'S, and 2<sup>nd</sup> LEVEL REVIEW COMMITTEE

#### **Trends and Conditions:**

Nearly one-third of Florida's population is served by individual onsite sewage treatment and disposal systems (OSTDS), primarily septic tanks. Over 2.5 million onsite systems are in use within the state. Approximately 10,812 new systems were installed in the State last fiscal year (July 1 – June 30), 13,303 repairs of failing systems were conducted and 1364 existing and modification of systems were conducted. It is estimated that OSTDS discharge over 450 million gallons per day in Florida. These systems provide a safe and economical means of wastewater disposal when properly constructed and maintained. However, improper use and maintenance of these systems can result in unsanitary conditions and contaminated drinking water and recreational waters. Since groundwater is the source of drinking water for 90% of Florida residents, protection of the ground water including the surface water is one of the department's primary missions. Florida continues to be recognized nationally for its onsite systems program. In the fall of 2008, Mrs. Joyce Hudson, Senior Engineer with the U.S. Environmental Protection Agency wrote an article for the National Onsite Recycling Association Onsite Journal and stated "Florida provides for renewable performance-based operating permits for engineered systems as well as maintenance contracts and annual inspections. The state also has one of the best inventory systems among the states reviewed".

Division Cost - \$2,204,002.48  
Division Positions – 19\*  
County Program Cost - \$22,908,683  
County Positions - 353.73

\* Except for 1 GR FTE the bureau is funded through a trust fund supported by fees collected on permits and contractor licensing. Also note the division cost and number of positions listed above, is the total sum of costs and positions assigned to the entire bureau (See Bureau of Onsite Sewage Programs' Strategic Plans A & C).

The following measures are expanded on in this section:

- Measure # B-1: Meet at least semi-annually with Research Review and Advisory Committee (RRAC) to review existing research projects, rank new research proposals, and identify priority areas for future research.
- Measure # B-2: Review and process requests for product approval of treatment receptacles, innovative and alternative products, performance-based systems to ensure processing according to Chapter 120, FS, standards and reviewed according to standards in Chapter 381.0065, FS.
- Measure # B-3: Provide Technical Assistance to Water Quality Protection Initiatives, such as the Springs Initiative and Total Maximum Daily Load Program.
- Measure # B-4: Review applications for the 2nd Level Review Committee to ensure systems installed in the Suwannee and Aucilla River floodplains meet the more stringent standards.
- Measure # B-5: Process requests for review of product composition to ensure processing according to Chapter 120, FS, standards and reviewed according to standards in 381.0065(4)(m), F.S.

In Measure # B-1, the department has a continuing research program to evaluate the impact of onsite systems on public health and the environment, and study improvements in technology. Research on onsite sewage systems has become more pressing as local and state efforts to



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protect water quality, in particular in springs, increase and require answers about how to manage in particular nutrient contamination by onsite sewage sources.

A Research Review and Advisory Committee (RRAC), composed of representatives of various interest groups per Chapter 381.0065(4)(o) F.S., advises the Bureau on research priorities, comments on research reports, and assists in selecting contractors for research projects. The enabling statute requires at least two meetings of this committee per year. The RRAC met a total of seven times in 2009, which exceeds the required benchmark.

The focus of much of the research currently being performed or planned relates to increased nitrogen in water bodies, addressing questions such as how to identify the onsite sewage impact in water bodies that currently have impaired water quality, how to measure the performance of onsite systems, identifying new technologies to improve the functioning of onsite systems, and keeping track of where the onsite systems are.

#### **Increased nutrients in water bodies**

Wastewater contains pollutants, nutrients, disease-causing organisms or pathogens (bacteria and viruses), and oxygen-consuming material. The nutrients nitrogen and phosphorus found in wastewater can be harmful to surface waters because they cause algae blooms, which reduce oxygen in surface waters, and can kill off fish and other organisms.

Past research projects on the issue of increased nutrients in water bodies have shown that effluent from onsite systems travels quickly through karst geology to monitoring wells and that nitrogen moves with this partially effluent. A research project was completed this year at Manatee Springs State Park showed that installing nitrogen removing technologies reduced the groundwater concentrations of nitrogen.

There has been continued legislative interest on this issue as several locations throughout Florida are proposing, or have, requirements for increased treatment due to nutrient concerns. In 2008 the Florida Legislature tasked the Florida Department of Health to conduct a study to further develop cost-effective nitrogen reduction strategies and to develop passive strategies for nitrogen reduction that complement use of conventional onsite sewage treatment and disposal systems. As of December 2009 the contractor, in coordination with RRAC and DOH had successfully completed numerous tasks including literature reviews, ranking of nitrogen reduction technologies for field testing, design of a test facility for effluent plume monitoring and further development of passive technologies, and preparation of quality assurance documents for the test facility work and groundwater monitoring to be completed during fiscal year 2010-2011. Installation of a test center for the evaluation of nitrogen reduction techniques and preparation for field sampling is planned for later in the fiscal year 2009-2010. Sampling and reporting of results would continue through subsequent years. Funding for fiscal year 2010-2011 is required to field-test the ranked technologies. Field-testing of technologies at home sites will require additional funding. Additional funding for this project is being requested from the legislature.



### **Identifying onsite sewage contribution in impaired water bodies**

An additional area of interest concerns the contribution of onsite systems to observed water quality problems. Two studies addressed this question in fairly sparsely populated coastal communities. The results of a 2004-2007 study performed in Taylor County confirmed that beach water quality frequently requires advisories. This study did find no significant difference in water quality between beaches with and without developments, and found that creeks and canals upstream from beaches generally showed poorer water quality than beaches, that environmental factors such as rainfall and temperature affected water quality, and that there were no consistent differences found between areas with septic systems and central sewer.

In 2008-2009 the Bureau received a grant to resample the Town of Suwannee that was previously served by onsite systems and has converted to central sewer in the past ten years. Assessing the environmental impact of sewerage this area can be beneficial to other communities facing similar issues. The same sampling locations were kept to evaluate the long term effect of sewerage on water quality. The sampling locations included both background river locations as well as locations in the canals of the town. The only statistically significant observation was a reduction in the increase of fecal coliforms in the canals relative to the river in 2009 as compared to 1996. This would indicate a benefit of closing the OSTDS. However, the 2009 sampling was conducted in the summer as opposed to late fall/winter in 1996 and the potential seasonal effects on fecal coliforms have not been assessed. It could not be determined if water quality improvements resulted from general changes in water quality in the area or from eliminating onsite sewage systems. The Bureau renewed the contract to allow for re-sampling during November and December of 2009 to allow for an analysis of potential seasonal effects and river flow. The results of this project may help to guide other communities facing similar water quality concerns in making the decision to convert from onsite sewage systems to a more centralized solution.

Optical brighteners, found in most laundry detergents, give off visible light when exposed to ultraviolet light (a form of fluorescence) and do not occur in unpolluted waters. Therefore, positive identification of optical brighteners in water can provide indisputable evidence of human wastewater sources. We obtained funding from EPA and implemented a project in cooperation with DEP's Southwest District and Mote Marine Research Institute. Water samples were excited with light of various wavelengths and the resulting fluorescent light emitted was measured. Optical properties of several detergents and spikes of detergents in samples were also determined. The results suggested that most detergents had a specific response that could be used as a tracer of wastewater, however that response was not necessarily caused by the optical brightener. Additional work is needed to identify the class of compounds responding. Further analysis found that field methods based on two factors, one representing the detergent signal of wastewater and one adjusting for colored dissolved organic matter, are feasible.



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#### **Measuring the performance of onsite systems**

Another focus area for research has been an assessment of the performance and operation of onsite systems. With regards to advanced onsite systems such as aerobic treatment units and performance-based treatment systems, the Monroe County Health Department was funded by the Department for FY 2006/2008 to collect detailed data on the performance of a sample of nutrient-reducing and aerobic treatment systems in the Florida Keys. The sampling has been completed and analysis of the data is underway and should provide insights into the variability of influent and effluent concentrations under normal use operating conditions.

A companion project funded by the EPA 319 Nonpoint Source Management Grant Program will perform a similar analysis on a larger statewide level. This project will also include the creation of a statewide database of all advanced systems and a survey of various involved parties (homeowners, septic contractors, and DOH staff at the county level) to see their perceived strengths and areas of improvement for the program. One of the final deliverables will be a booklet that will be made publicly available outlining the results of the project.

#### **Identifying new technologies**

A previous research project was completed in 2008 which reviewed passive ways to reduce nitrogen in onsite systems and performed limited laboratory experiments. For the purposes of this project, a passive system was one that does not use an aerator pump and uses media for denitrification. These systems have the potential to be cost-effective options to reduce nitrogen. The results of the experiments were very favorable and are being expanded on in the legislatively mandated Nitrogen Reduction Strategies Study. The Bureau has also agreed to assist the University of Central Florida with a research project funded by DEP that investigates nitrogen reduction.

#### **Keeping track of onsite systems**

The Florida legislature tasked the Bureau with developing a comprehensive inventory of onsite sewage systems in Florida. Having this inventory will assist in accurately estimating the impact of these systems on the environment; providing the information necessary to implement a program to improve, maintain, and manage these systems; and developing a framework for the appropriate location of future development. A snapshot inventory was taken in 2008 and the next step will be to determine how this information can be updated in the future.

Bureau staff presented the results of research at various meetings around the State and at the national level. In 2009, staff presented a total of nine presentations at conferences and continuing education events. In 2009, these conferences included the Florida Environmental Health Association (FEHA) annual educational conference, the National Environmental Health Association (NEHA) annual conference, and the Water Environment Federation technical exhibition and conference.



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Publications and reports by staff and contract providers for 2009 included:

- Dixon, L.K. Optical Brighteners: PARAFAC Analyses of EEM Fluorescence Data for the Conceptual Design of Field Instrumentation and Methods. February 2009.
- Briggs, G. R., E. Roeder, and E. Ursin. Progress Report on Nitrogen Reduction Strategies for Onsite Sewage Treatment and Disposal Systems. Legislative Report. February 2009.
- Barranco, E. and E. Ursin. Onsite Program Update on the 2008 Legislative Mandate. The Voice. Florida Onsite Wastewater Association. March 2009 issue.
- Anastasiou, Christopher. Optical Brighteners: Field Report. March 2009.
- Roeder, E. and Brookman, W.G. 2009. Grab versus composite sampling. Water Environment Laboratory Solutions 16(2) April/May 2009. pp1, 4-7.
- Ursin, Elke and Kara Loewe. Alternative Drainfield Products in Florida: A Statewide and Regional Analysis of Frequency, Distribution, and Density. The Voice. Florida Onsite Wastewater Association. May 2009 issue.
- EarthSTEPS, LLC and GlobalMind. Statewide Inventory Onsite Sewage Treatment and Disposal Systems in Florida. June 2009.
- Environmental Consulting & Technology, Inc. Evaluation of Water Quality around the Town of Suwannee, Florida, and Comparison to Historic Data. September 2009.
- Roeder, E., Brookman, W.G. 2009. Influent and effluent assessment to evaluate nutrient removal in onsite sewage treatment systems. WEFTEC 2009 Proceedings. WEFTEC.09. Orlando, FL. WEF, Alexandria, VA.
- Roeder, Eberhard and Elke Ursin. Final Report for Remote Sensing of Onsite Sewage Impacts. Assistance ID No. MX-96423005-4. U.S. Environmental Protection Agency, Gulf of Mexico Program. October 2009. Tallahassee, Florida.
- Ursin, Elke and Eberhard Roeder. Final Report for Evaluating the Environmental Impacts of Onsite Sewage Systems in the Town of Suwannee, Florida. DEP Agreement # CZ924. October 2009. Tallahassee, Florida.
- Roeder, Eberhard. Coming up from the Onsite Sewage Research Program: A survey on practices and perceptions concerning advanced onsite system. The Voice. Florida Onsite Wastewater Association. November 2009.
- Ursin, Elke. Summary of September 10, 2009 Research Review and Advisory Committee (RRAC) Meeting. The Voice. Florida Onsite Wastewater Association. December 2009 issue.
- Harden, Harmon, Eberhard Roeder, Jeffery Chanton, and Elke Ursin. Final Report for Reducing Onsite Sewage Treatment System Impacts in the Suwannee River Basin. Assistance ID No. MX-97450302-6. U.S. Environmental Protection Agency, Gulf of Mexico Program. December 2009. Tallahassee, Florida.
- Multiple literature reviews, quality assurance project plans, and other reports for the nitrogen study



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In addition to this, there is a focus on public education through a comprehensive website providing online access to research reports, RRAC meeting material, agendas for RRAC meetings, presentations, and brochures.

In Measure # B-2, the review and processing of requests for product approval of treatment receptacles, innovative and alternative products, components of performance based treatment systems (PBTS) are tracked to ensure standards specified in Chapter 120 and 381.0065, Florida Statute and 64E-6, Florida Administrative Code, are met. Applications for septic tank designs (treatment receptacles) are reviewed for compliance with the design standards and testing requirements provided for by rule. As of early 2010, there are 1328 tank designs approved by 103 manufacturers. In 2008, 43 new tank designs were approved. Tank manufactures located in Florida counties are inspected for compliance by the county health department on an annual basis and issued an annual operating permit. The department has performed or witnessed eight tank structural vacuum tests verifying tank design integrity. The department has also evaluated, by way of mathematical calculations, the structural design of Category 4 and H-10 and H-20 traffic loadings on the designs of three major manufacturers.

Reviews of applications for 1 alternative drainfield product, 2 alternative repair methods and three components of onsite systems resulted in approval. Six product approval requests were denied. Applications for six other products and five aerobic treatment units were reviewed and additional information was requested. Several of these decisions resulted from variance and waiver requests.

The concept of performance-based treatment systems was incorporated into the rule in February of 1998. Since then approximately 1198 such systems have been installed. These type systems are installed where regulations require increased treatment, e.g. to deal with site constraints such as setback or authorized lot flow, or to reduce drainfield sizes. They are permitted by the CHD and require a design from a Professional Engineer in Florida. The Bureau Engineer is available to provide upon request, assistance to County Health Departments in the review of performance-based treatment systems and other engineer-designed systems. In 2009, approximately two dozen such reviews were completed in some detail.

Conducted four six-hour training sessions on Low Pressure Dosing Systems for certification of Master Septic Tank Contractors – Part 4.

In Measure # B-3, the Bureau provides technical assistance to county health departments and other agencies in regards to water quality protective initiatives. Agencies in the State of Florida, such as the Governor's Springs Initiative, spring protection efforts in several counties, and DEP's total maximum daily load program (TMDL) have shown continued interest in obtaining DOH's perspective on water quality issues and the role of onsite sewage systems in addressing problems. Bureau staff participated in public meetings and provided information in a variety of formats related to springs protection at Manatee and Fanning, Rainbow, Volusia Blue, Wakulla, and Wekiva Springs.

Bureau staff continuously reviews nitrogen reduction technologies, which are of interest both to the onsite sewage program (measure #9) and other interested parties. Bureau staff provided in 2008 comments on technical documents related to TMDLs on several creeks in Jacksonville, the



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Suwannee River, Alligator Lake in Columbia County, and Lake Jessup in Seminole County, and was invited by DEP to comment on proposals for onsite sewage-related studies. Bureau staff also summarized nitrogen contribution from various sources to groundwater in the Wekiva Study Area (see also measure #9).

In Measure # B-4, the Bureau staff participates in the approximately bi-monthly meetings of the Second Level Review Committee, which reviews applications of onsite system located in the floodplains of the Suwannee and Aucilla Rivers for compliance with the more stringent statutory requirements, to ensure these are met prior to discharge in shellfish harvest areas.

In Measure # B-5, the Bureau staff reviews the composition of products (formerly review of additives) for use in Onsite Sewage Treatment and Disposal Systems (OSTDS). These are tracked to ensure standards specified in Chapter 120 and 381.0065(4)(m), Florida Statutes (FS) and 64E-6.0151, Florida Administrative Code (FAC), are met.

In Florida, the law indicates that no product sold in the state for use in onsite sewage treatment and disposal systems may contain any substance in concentrations or amounts that would interfere with or prevent the successful operation of such systems, or that would cause discharges from such systems to violate applicable water quality standards, 381.0065(4) (m), FS. In 2000, the Department published criteria for the evaluation of all products sold or used in onsite sewage treatment and disposal systems, 64E-6.0151, FAC for determination of whether the use of such products would cause discharges in violation of ground or surface-water quality standards.

From March of 2000 until December of 2009, the Department has reviewed 207 products for compliance with the minimum water quality standards established by the state. It is important to stress that the Department's compliance determination is not an endorsement or approval with respect to the benefit, effectiveness, or performance of the system additive. In 2009, 19 products were identified for review. Of these 8 were found in compliance or were determined not to require further review, 6 were found not to comply, and the remaining 5 were pending at the end of the year. As of 2009, the department has approved and published list of 73 products in compliance with law or rule. Products not listed are not allowed for use in onsite sewage treatment and disposal systems in the state. The Florida Department of Health assumes no liability for any promise, guarantee or expectation from the purchase or use of any additive. The department reserves the right to withdraw acceptance if the product formulation or ingredients are modified after the product is evaluated by the Department or subsequently found not to be in compliance with law or rule. The department has been 100% successful in the enforcement aspect of this rule. Consumer information is provided on our internet site and articles have been placed in the Florida Onsite Wastewater Association (FOWA) Journal.

### **Additional Short Term Objectives**

#### **By January 1, 2011**

- Measure B-1 – Research:
  - Continue to meet with the RRAC at least twice a year to review ongoing and new research projects



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- Continue research studies in progress such Review of Nutrient Reducing Systems in the Keys, Re-Evaluation of Water Quality in the Town of Suwannee, Performance and Management of Advanced Onsite Systems, and the Nitrogen Reduction Strategies Study
- Develop and implement further studies in support of the program on performance and impacts of onsite system
- Maintain a comprehensive list of research priorities recommended by the RRAC
- Continue to provide updates on the research program throughout the State and the Nation by giving presentations, presenting posters, and writing papers
- Continue to maintain the Bureau research program website to ensure current information is available on the research program
- Market the efforts of the Bureau through the intranet, internet, and distribution of brochures
- Present results of research projects to the Bureau's Technical Review and Advisory Panel (TRAP)
- Continue to process and review applications for treatment receptacles, innovative systems, alternative systems, and review PBTS
- Provide coordination with partners at the FEHA educational conference, joint meetings with EPA, DEP, and others
- Begin to be present at regional CHD Director's Meetings
- Continue to provide monthly trainings to CHD staff
- Conduct six trainings on Low Pressure Dose design
- Continue to process and review applications for product composition
- Review the current product composition section of chapter 64E-6.0151 to identify sections to be updated



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#### **Long Term Objectives**

**By January 1, 2013**

- Have soil scientist on staff
- Model Maintenance and Management program for Wekiva Study Area
- Measure B-1 – Research:
  - Develop and implement further research studies in coordination with priorities developed by the RRAC
  - Market the results of research studies by presenting the results throughout the State and the Nation
  - Continue to seek outside funding through grants to supplement the state research funds used to conduct research projects
  - Develop a manuscript for a research study that is suitable for publication in a peer-reviewed journal
- Revise innovative/ alternative system approval process to reflect the changing relationship between NSF and ETV
- Develop standard operating procedure for the evaluation of ATU and PBTS performance
- Model program certification or national recognition
- Definition of a menu of onsite sewage best management practices that provide guidance for a range of environmental conditions and contaminant concerns.
- Revise the product composition section of chapter 64E-6.0151, FAC to reflect any changes identified as necessary.



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**Measure # B-1: Meet at least semi-annually with Research Review and Advisory Committee (RRAC) to review existing research projects, rank new research proposals, and identify priority areas for future research.**

Division Strategic Plan	Strategy (Program level)	Benchmark	Responsible Party	Target Date (up to 18 months)	Status (What is happening now)
Objective 1: Be The Best Communicators and Educators	<i>Information and Analysis</i> Target new and ongoing research to ensure the performance of new, proposed, and existing technology is continuing to protect public health and the environment.	Conduct research projects as outlined in the strategy.	Elke Ursin	Ongoing	Ongoing research is being conducted and/or in the planning stages, and listed for specific research topics.
	Projects on increased nutrients in water bodies	<ul style="list-style-type: none"> <li>Continue the work outlined in the contract agreement for the Nitrogen Reduction Strategies (legislatively mandated project), submit legislative progress reports, and assess future funding for project after legislative session.</li> </ul>	Eberhard Roeder Elke Ursin	July 1, 2009	<p>This project was mandated in the 2008-2009 legislative budget. Interim progress report to be submitted to the Legislature and the Governor by February 1, 2010, and final report due May 1, 2010.</p> <p>Continuation of project is dependant on future funding.</p>
	Projects on identifying onsite sewage contribution in impaired water bodies	<ul style="list-style-type: none"> <li>Completion of the second phase of the Town of Suwannee Study, final project report to be written.</li> </ul>	Elke Ursin	October 1, 2010	<p>Sampling has been completed.</p> <p>This project is ongoing and the contract is set to end on October 1, 2010.</p>



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	Projects on measuring the performance of onsite systems	<ul style="list-style-type: none"> <li>Assessment of water quality protection by advanced onsite sewage treatment and disposal systems: performance, management, monitoring (EPA 319 Program Grant): Finalize the Keys study report, finalize the database of statewide advanced systems, finalize QAPP for sampling, contract with lab to analyze samples, start sampling, finalize the survey task, continue to compile information on best management practices</li> </ul>	Elke Ursin Eberhard Roeder	December 31, 2010	This project is ongoing.
	Projects identifying new technologies	<ul style="list-style-type: none"> <li>Passive Nitrogen Reduction Strategies Phase II (part of Nitrogen Reduction Strategies project): build test facility, begin testing different technologies</li> </ul>	Elke Ursin Eberhard Roeder	July 1, 2010	Contract is in place and is currently ongoing. This project is part of the larger Nitrogen Reduction Strategies project.



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	Projects to keep track of onsite systems	<ul style="list-style-type: none"> <li>Statewide Inventory of Onsite Systems in Florida: Determine next steps forward</li> </ul>	Elke Ursin Eberhard Roeder Kara Loewe	December 31, 2010	This project was mandated by the legislature in the 2008-2009 budget and was completed on June 30, 2009. RRAC has determined that this is a priority for future research and has asked staff to present options on how to continue the project in a future meeting.
	Support research on OSTDS done by other agencies / universities	<ul style="list-style-type: none"> <li>Provide guidance to UCF on their research on nitrogen reduction. Any submitted documents from UCF will be reviewed within 15-days.</li> </ul>	Elke Ursin Eberhard Roeder	December 30, 2010	Project is ongoing.
	Ensure a DOH Certified Contract Manager is on staff	<ul style="list-style-type: none"> <li>Obtain recertification within two years of issuance of DOH Contract Manager certificate</li> </ul>	Elke Ursin	Ongoing	In order to ensure that research contracts are monitored, a DOH certified Contract Manager is required.  Currently the Contract Manager is certified through July 2010 and must recertify prior to this date.
Objective 2: Use our data	Ensure data collected from projects is used and shared to the best extent possible	Listed in Strategy	Elke Ursin	Ongoing	Currently being monitored
	<ul style="list-style-type: none"> <li>Make data obtained from the Inventory of OSTDS in Florida available to the public and other state agencies</li> </ul>	Discuss options for updating the read-only GIS map, share data with interested parties	Elke Ursin Kara Loewe	Ongoing	The data is being made available on the DOH website as a read only GIS map.



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		<ul style="list-style-type: none"> <li>Research project results to be used to promote rule changes</li> </ul>	Evaluate at the end of each project whether any proposed rule changes need to be proposed to the TRAP	Elke Ursin	Ongoing	This is ongoing.
Objective 4: Support Community Outreach	<i>Customer and Market Focus</i>	<ul style="list-style-type: none"> <li>Ensure that research activities are coordinated and monitored</li> </ul>	Listed in Strategy	Elke Ursin	Ongoing	Currently being monitored
		<ul style="list-style-type: none"> <li>Meetings with Research Review and Advisory Committee (RRAC) per Chapter 381.0065(4)(o) F.S.</li> </ul>	The RRAC should meet at least twice a year to review the ongoing and proposed research projects	Elke Ursin	Ongoing	This is ongoing.  RRAC has had seven meetings as of December 2009. Meetings were held at various locations throughout the Central Florida area as well as via teleconference. The main focus of the meetings was the legislatively mandated Nitrogen Reduction Strategies Study. Other research projects were discussed as appropriate, with presentations made on several research projects. All meeting material is made available on the DOH website.



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		<ul style="list-style-type: none"> <li>Publications and presentations of research results to promote community outreach through marketing research results.</li> </ul>	Upon completion of a research project any final report shall be distributed to the RRAC and posted on the DOH website. A minimum of three presentations at various conferences shall be made prior to the end of the calendar year.	Elke Ursin Eberhard Roeder	December 31, 2010	In 2009 several presentations were made at meetings throughout the state and nation, including the FEHA annual education meeting, the National Environmental Health Association annual meeting, and the Water Environment Federation technical exhibition and conference.
	Objective 5: Increase financial diversity and flexibility	Increase the diversity of funding for the research program	Listed in Strategy	Elke Ursin	Ongoing	Currently being monitored
		<ul style="list-style-type: none"> <li>Apply for outside funding to supplement state research funds</li> </ul>	A minimum of two grant applications shall be submitted for projects that support the goals of the research program	Elke Ursin	December 31, 2010	Daily updates from Grants.gov are being reviewed.



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**Goal: To prevent disease of environmental origin**

**Bureau Of Onsite Sewage Programs, B – Engineering and Research**

RRAC, PRODUCT APPROVALS, WATER QUALITY PROTECTION, TDML’S, and 2<sup>nd</sup> LEVEL REVIEW COMMITTEE

**Measure # B-2: Review and process requests for product approval of treatment receptacles, innovative and alternative products, performance based systems to ensure processing according to Chapter 120, FS, standards and reviewed according to standards in Chapter 381.0065, FS.**

Division Strategic Plan	Strategy (Program level)	Benchmark	Responsible Party	Target Date (up to 18 months)	Status (What is happening now)
Promote and Support Training and Innovation	<i>Customer and Market Focus</i> Process and review applications for treatment receptacles and new products for approval.	Review applications within 30 days, and request additional information if necessary, and approve or deny within 90 days.	Paul Booher	Ongoing	Ongoing and currently being conducted.
	<ul style="list-style-type: none"> <li>Process and Review Applications for Treatment receptacles</li> </ul>	Conduct strategy within 30 days, and request additional information if necessary, and approve or deny within 90 days.	Paul Booher	Ongoing	In 2008, 117 tanks from 14 different manufacturers have been reviewed tested and approved. There are a total of 1285 tank designs approved by 101 manufactures. (In 2007, 36 tanks from 13 different manufacturers have been reviewed, tested and approved).
	<ul style="list-style-type: none"> <li>Process and Review applications for Innovative and alternative systems, products and components</li> </ul>	Conduct strategy within 30 days, and request additional information if necessary, and approve or deny within 90 days.	Paul Booher Eberhard Roeder Kimberly Duffek	Ongoing	In 2008, 2 Innovative system applications, 2 alternative system/products/components, 2 alternative repairs and 3 ATU’s were approved for use in Florida. (In 2007, 4 Innovative system applications were reviewed and 5 alternative system/products/components and 7 ATU’s). A large fraction of product approvals take now the path of a 120 variance, requiring both technical and legal review.



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**RRAC, PRODUCT APPROVALS, WATER QUALITY PROTECTION, TDML’S, and 2<sup>nd</sup> LEVEL REVIEW COMMITTEE**

	<ul style="list-style-type: none"> <li>Process and Review Performance based treatment systems and other engineer-designed systems applications when requested by CHD's.</li> </ul>	Conduct strategy within 30 days, and request additional information if necessary, and approve or deny within 90 days.	Paul Booher Eberhard Roeder	Ongoing	<p>In 2009 there were a total of approximately 1198 PBTS in the State. (In 2008, it was reported that there were approximately 979 PBTS in the State). The method of extracting these numbers has been refined because inactive permits have been removed from the numbers.</p> <p>Design reviews requested by County Health Departments have somewhat declined from the previous year to a couple per month.</p>
	<ul style="list-style-type: none"> <li>Visit counties for problem resolution</li> </ul>	Conduct strategy within 30 days, and request additional information if necessary	Paul Booher	Ongoing	Paul Booher conducted five visits during 2009.
	<ul style="list-style-type: none"> <li>Conduct trainings throughout the state to assist DOH staff, engineers, CEHP's, and septic tank contractors with engineering issues</li> </ul>	Conduct six trainings on Low Pressure Dose design during 2010	Paul Booher	Ongoing	Paul Booher conducted four classes during 2009: Miami Dade, Davie, Jacksonville, and Tallahassee



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**Measure # B-3: Provide Technical Assistance to Water Quality Protection Initiatives, such as the Springs Initiative and Total Maximum Daily Load Program.**

Division Strategic Plan	Strategy (Program level)	Benchmark	Responsible Party	Target Date (up to 18 months)	Status (What is happening now)
Be The Best Communicators and Educators	<i>Customer and Market Focus</i> Provide point of contact, review, expertise, and information relative to water pollution by onsite sewage systems to agencies.	Invitations to provide technical assistance and expertise	Paul Booher Eberhard Roeder	Ongoing;	Staff has participated regularly in various working groups for Wakulla Springs, the Wekiva Study Area, and Volusia Blue Springs. Staff attended several DEP advisory committee meetings on pollution trading and nutrient criteria. Staff has been invited to present at the Rainbow/Silver Springs Working Group Meeting
	<i>Information and Analysis</i> Review, Analyze, Critique, and Summarize information relative to water quality impacts by onsite sewage systems	Completed review or summary	Eberhard Roeder	Ongoing	Ongoing review of third-party nitrogen-reduction testing data, with resulting table posted on the Department's web-site; The ongoing nitrogen reduction strategies project is currently the main focus of staff review and comment efforts.



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RRAC, PRODUCT APPROVALS, WATER QUALITY PROTECTION, TDML'S, and 2<sup>nd</sup> LEVEL REVIEW COMMITTEE

**Measure # B-4: Review applications for the 2<sup>nd</sup> Level Review Committee to ensure systems installed in the Suwannee and Aucilla River floodplains meet the more stringent standards.**

Division Strategic Plan	Strategy (Program level)	Benchmark	Responsible Party	Target Date (up to 18 months)	Status (What is happening now)
Maintain All Onsite Systems By Schedule and to an Upgraded Common Modern Standard.	<i>Process Management</i> Review applications for Managed Systems with Operating Permits to be installed in the Suwannee and Aucilla River basins for compliance with rules.	Managed Systems must meet a variety of site specific conditions according to design and operating permit.	Paul Booher Mark Lander	Ongoing	Meetings are scheduled on a bi-monthly basis.
	<ul style="list-style-type: none"> <li>Second Level Review for Onsite Systems in Suwannee and Aucilla River Floodplains – Taylor, Madison, Hamilton, Columbia, Suwannee, Lafayette, Gilchrist, Union, Alachua, Dixie and Levy Counties.</li> </ul>	Review OSTDS applications that are in the floodplains of the Aucilla and Suwannee River for compliance with rule	Mark Lander	Meetings conducted on a bi-monthly basis and staffed by Paul Booher, Kyle Roberts, Todd Harris, Kelly Fleming and Mark Lander.	In 2008 a total of 107 applications were reviewed including; 64 new applications, 12 repair applications and 31 existing applications. The number of new applications has declined since the last year due to a decrease in economy resulting in few new home constructions. (2006 - 2007 total of 160 applications were reviewed including, 114 new systems, 21 repair applications and 25 existing systems)



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**Measure # B-5: Process requests for review of the composition of products to ensure processing according to Chapter 120, FS, standards and reviewed according to standards in 381.0065(4)(m), F.S.**

Division Strategic Plan	Strategy (Program level)	Benchmark	Responsible Party	Target Date (up to 18 months)	Status (What is happening now)
Promote and Support Training and Innovation	<p><i>Customer and Market Focus</i> Process and review applications for determination of product compliance.</p>	Review applications within 30 days, and request additional information if necessary, and approve or deny within 90 days.	Marcelo Blanco	Ongoing	Ongoing and currently being conducted.
	<ul style="list-style-type: none"> <li>Process and Review applications for determination of product compliance with the applicable rules and statute.</li> </ul>	Conduct strategy within 30 days, and request additional information if necessary, and approve or deny within 90 days.	Marcelo Blanco	Ongoing	<p>In 2009, 19 products were identified for review. Of these 8 were found in compliance or were determined not to require further review, 6 were found not to comply, and the remaining 5 were pending at the end of the year. As of 2009 the department has published a list of 73 products in compliance with the regulations.</p> <p>In 2008, 16 applications were reviewed 9 were approved and 3 were denied, and 4 were pending at the end of the year. All of these were reviewed within the 30 day time frame. As of 2008, 67 additives have been approved for use in the State. A total of 207 applications have been reviewed since the inception of the program as of March 2000.</p>