Homeowner Agreement

To Participate in Florida Onsite Sewage Nitrogen Reduction Strategies Study

Nitrogen is an important concern for water quality. Animals, crops, ecosystems, and human health can be adversely impacted by the presence of nitrogen in water supplies. The environmental effects of nitrogen on groundwater and surface water can ultimately lead to the degradation of surface waters in watershed systems that have strong groundwater/surface water interactions. Nitrogen that enters surface water bodies via these interactions can lead to algal blooms and eutrophication. These processes lead to oxygen depletion in surface waters which can be harmful to natural aquatic life. In Florida, the protection of watersheds, in particular surface water bodies, has led to the legislation of protection of these areas (i.e., the Wekiva River Protection Act).

A research study to examine nitrogen reduction strategies for onsite sewage treatment and disposal systems in the State of Florida is underway. The project is being conducted by Hazen and Sawyer, P.C an environmental engineering firm under contract with the Florida Department of Health (FDOH).

One element of this research project is to prioritize nitrogen removal technologies under field conditions. To reach this goal, field-testing of nitrogen reducing technologies at home sites is needed to compare various treatment systems for their ability to remove nitrogen. Monitoring nitrogen reduction of the systems will occur at various locations in the State of Florida. In addition, the research project includes subsurface and groundwater monitoring which will be used to assess the current level of nitrogen reduction obtained by Florida soils and to assess groundwater impacts due to conventional and nitrogen removal systems.

The participation of select homeowners is essential for the success of this research program. Therefore, we are looking for volunteers to allow their onsite wastewater systems to be used for this project. All homeowners will remain anonymous in all data analysis and reporting. The study will last up to two years with all site visits scheduled at the homeowner's convenience with adequate notice provided. No work will be done inside the home without homeowner's permission. The earliest start time for work will be 8:30 am. The work at each property may include:

- Property walkovers to characterize land uses and features
- Collection of information from the owner regarding water use and wastewater system data
- Installation of new wastewater treatment equipment
- Soil borings
- Installation of monitoring wells
- Collection of wastewater samples
- Monitor energy used and other operational costs

Hazen and Sawyer, P.C. will be responsible for: application for permits, modifications, operation, maintenance, monitoring, inspections, and removal or leaving the system in place at study termination. Hazen and Sawyer is fully insured for this work, and a copy of the certificate of insurance is attached. The project funds will cover the cost of any permits required, any new technology installed, operation and maintenance costs during the study, and restoration of property. All project payments will terminate upon site closure. The homeowner shall agree to not tamper with the system during the monitoring period. The site will be restored to the original condition upon completion of the study if desired by the homeowner. All homes participating in the study will receive a \$250 cash incentive.

If you are interested in becoming involved in this important research project, please fill in the information below and sign where indicated. We will coordinate all our activities with you and give you any additional information you require prior to beginning work at your property.

Thank you for taking the time to consider this request, and we look forward to your response.

Very truly yours.

Hazen and Sawyer, P.C.

Name: Address: Mailing Address: Telephone: Fax: Email: PASSIVE: GRAVITY Feed

Type of system installed/existing to be evaluated:

HOMEOWNER

By:

enci.: Certificate of Insurance HAZEN AND SAWYER, P.C. 10002 Princess Palm Avenue Registry One, Suite 200 Tampa, FL 33619

Vice President Title:

RESIDENTIAL EVALUATION SURVEY

Nan	Date:12/16/2010 Time:10 AM				
Stre	reet Address:				
City	ty:Longwood State:Florida Zip Code: _32779-9749_				
Mai	ailing Address (if different from above):				
Day	aytime Phone (Cell):				
Eve	vening phone (Home):				
Parc	arcel #: _				
	esigner:				
	State :				
Proj	operty Size (acres or sq. ft.) : _1 acre				
A. I	Home/Residents				
1.	Is this your first home with an on-site wastewater treatment system? NO				
2.	Did you receive any septic system user information? YES				
3.	Did you receive the as-built drawing for the system? NO				
<i>3</i> . 4.	Any additions to the home since septic system was built?				
т.	BedroomsNo				
	BathroomsNo				
	Other				
5.					
	If seasonal, number of months used				
	a. Number of people living in the home: Adults (18-65): _1_ M _1_F				
	Seniors (>65): _1_MF				
	Children (<13): MF				
	Teenagers (13-17): MF				
	b. Guests (Approximate number and frequency):2-4 monthly				
	c. Number of bedrooms:4/5 Number of bathrooms:4 1/2				
	d. Number of pets: Dogs_Visit Cats Number of pet baths per month:	·			
6.	Number of showers per week:14 Number of baths per week:				
7.	Water supply: Private well				
8.	Do you have an in-home business? YES				
	If "yes", what type? Home Office for Advertising Sales, Marketing Strategies, Real E	Estate Sa			

9.	Do you use septic system additives? YES		
	If "yes", what products?Rid-X Frequency:Once a year		
B. S	System (completed by O&M service provider or homeowner if no service provider)		
10.	Type of pretreatment system: X Septic tank □ATU □Media filter □ Constructed wetla	and	
	a. Specific type of system?	_	
	b. Make and Model?	_	
11.	How old is the system? _33 (years) Date of last pump out:?		
12.	Has the system ever backed up?		
13.	Have the baffles ever been plugged? NO		
14.	Effluent screen in septic tank outlet? NO		
15.	Has effluent screen ever plugged? NO Date(s):		
16.	Has the system ever been repaired?		
	Record of System's Service:None	_	
17.	Has effluent ever surfaced?		
18.	Has the alarm ever sounded?		
19.	Soil type – at drain field depth or lower:?		
20.	Type of distribution/dispersal system:		
	X Gravity □Trench □ Pressure dose □Mound □Drip □Spray		
	□Other:		
21.	Control system: Demand / Timed		
22.	Design rate for system:?(GPD)		
23.	Septic tank size: _?(gallons) Pump tank: _NA(gallons)	allons)	
24.	Sludge levels in septic tank: 1 st compartment accumulation		
	Floating materials		
	2 nd compartment accumulation		
	Floating materials		
25.	Sludge level in pump tank: Accumulated		
	Floating materials		
26.	Is the pump working? YES / NO		
27.	Duration of pump cycle: (minutes) Pump drawdown:	_	

C.	W	ater	Use

28.	Ac	ctual indoor water use (GPD): Average:X High:	Low:			
	Re	eading this data from: cycle counter				
		hour meter on pump				
		water meter				
		Unmetered Well other				
29.	Ac	ctual outdoor water use (GPD): Average: High:	Low:X			
	Re	eading this data from: cycle counter				
		hour meter on pump				
		water meter				
		Unmetered Well other				
D. A	ddit	itional Information (completed by homeowner or at site visit and evaluation)				
30.		vater supply: ?				
			(ppm)			
		TDS (ppm) pH Chlorine (total or free)				
	b.	Other Water Quality characteristics:	4.1			
		Hydrogen Sulfide (ppm) Sulfates (ppm) Alkalinity				
		Other 1 Other 2 Other 3				
		Other Comments				
31.	Wa	ater treatment device(s):				
	a.					
		Brand Model/Year Installed				
		Regeneration Method? Timer / Demand Initiated Regeneration (Meter or Sensor)				
		Softening Regenerant? NaCl / KCl Salt per Regeneration (lbs)				
	·	Salt Purchased (lbs per month)				
		Estimated Brine Volume (gallons) Combined Discharge TDS	(ppm)			
		Backwash Time (min) Backwash Flow Rate	(gpm)			
		Backwash Volume (gallons) Fast Rinse Time	(min)			
		Fast Rinse Flow Rate(gpm) Fast Rinse Volume	(gallons)			
		Total Regeneration Water (gallons) Total Time for Regeneration	(min)			
		Avg. Flow to Drain during Regeneration (gpm) Regenerations per mo	onth			
		Average Daily Drain Water(gallons)				
	b.	Reverse osmosis? NO Discharges to:				
		Brand Model/Year Installed				
		Auto Shut Off? YES / NO Rated Capacity	(gallons/day)			

		Daily water consumed(gallons)	Stated Recovery Ratio		
		Estimated Daily Water to Drain	((gallons)		
	c.	Backwashing Water Filter (iron, sec)? NO			
		Back flushes to:		Brand		
		Model/Year Installed		Regenerant (if any)		
		Regeneration Frequency		Backwash Time	(min)	
		BW Flow Rate	_ (gpm)	BW Volume	(gallons)	
		Fast Rinse Time	_ (min)	FR Flow Rate	(gpm)	
		FR Volume (ga	allons)	Total Regenerant Water	(gallons)	
		Total Time for Regeneration	(min	n) Avg. Flow to Drain	(gpm)	
		Regenerants Per Month	Avera	age Daily Drain Water	(gallons)	
	d.	Other Water Treatment Devices:				
	e.	e. Treated Water Quality Characteristics:				
		Hardness(gpg)	Iron_	(ppm)		
		TDS (ppm) pH Chlorine (free) (ppm)				
		Other Water Quality characteristics:				
		Hydrogen Sulfide (ppm) S	ulfates	(ppm) Alkalinity		
		Other 1 Other 2		Other 3		
		Other Comments				
						
32.	Is	there an outside power supply? ?	YES	/ NO		
		If yes, does it have its own breaker?	}	_ //		
		How many amps?				
33.	Is	there an outside water spigot?	YES			
		If yes, does it require a key?				
	100					



