

Homeowner Agreement

To Participate in Florida Onsite Sewage Nitrogen Reduction Strategies Study

December, 2010

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. 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. The project funds will cover the cost of any permits required, any new technology installed, maintenance costs, and restoration of property to original condition. 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: [REDACTED]

Address: [REDACTED]

Mailing Address: [REDACTED]

Telephone: [REDACTED]

Fax: _____

Email: [REDACTED]

Type of system installed/existing to be evaluated: 1200 Gal Septic Tank _____

HOMEOWNER

By: [REDACTED]

HAZEN AND SAWYER, P.C.

By: 
Damann L. Anderson

Title: Vice President

encl.: Residential Evaluation Survey

RESIDENTIAL EVALUATION SURVEY

Name: [REDACTED] Date: 11 Feb. 2011

Time: _____

Street Address: [REDACTED]

City: Gibsonton State: FL Zip Code: 33534

Mailing Address (if different from above) [REDACTED]

33534

Daytime Phone (Work or Cell): [REDACTED]

Evening phone (Home or Cell): [REDACTED]

Parcel #: _____

Designer: _____

Installer: _____ City: _____ State: _____

Property Size (acres or sq. ft.): _____

A. 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? NO
3. Did you receive the as-built drawing for the system? NO

4. Any additions to the home since septic system was built?

Bedrooms NO

Bathrooms NO

Other NO

5. Type of use: Permanent

If seasonal, number of months used _____

a. Number of people living in the home: Adults (18-65): ___ M ___ F

Seniors (>65): 1___ M 1___ F

Children (<13): ___ M ___ F

Teenagers (13-17): ___ M ___ F

- b. Guests (Approximate number and frequency): Overnight? 2 or 3 several time per year

c. Number of bedrooms: 3 Number of bathrooms: 3

d. Number of pets: Dogs X Cats 3 Number of pet baths per month: 0

6. Number of showers per week: 14 Number of baths per week: 0

7. Water supply: Private well / _____

8. Do you have an in-home business? NO

If "yes", what type? _____

9. Do you use septic system additives? NO

If "yes", what products? _____ Frequency: _____

B. System (completed by O&M service provider or homeowner if no service provider)

10. Type of pretreatment system: Septic tank ATU Media filter Constructed wetland

a. Specific type of system _____

b. Make and Model _____

11. How old is the system? 13 (years) Date of last pump out: none

12. Has the system ever backed up? NO

13. Have the baffles ever been plugged? NO

14. Effluent screen in septic tank outlet? YES / NO ??

15. Has effluent screen ever plugged? YES / NO Date(s): _____

16. Has the system ever been repaired? NO

Record of System's Service: _____

17. Has effluent ever surfaced? NO

18. Has the alarm ever sounded? NO

19. Soil type – at drain field depth or lower: _____

20. Type of distribution/dispersal system:

Gravity Trench Pressure dose X-Mound Drip Spray

Other: _____

21. Control system: Demand / Timed

22. Design rate for system: _____ (GPD)

23. Septic tank size: 1200 (gallons) Pump tank: NO (gallons)

24. Sludge levels in septic tank: 1st compartment accumulation _____

Floating materials _____

2nd compartment accumulation _____

Floating materials _____

25. Sludge level in pump tank: Accumulated _____

Floating materials _____

26. Is the pump working? (DNA)

27. Duration of pump cycle: _____ (minutes) Pump drawdown: _____

C. Water Use

28. Actual **indoor** water use (GPD): Average: _____ High: _____ Low: _____

Reading this data from: _____ cycle counter
_____ hour meter on pump
_____ water meter
_____ other

29. Actual **outdoor** water use (GPD): Average: _____ High: _____ Low: _____

Reading this data from: _____ cycle counter
_____ hour meter on pump
_____ water meter
_____ other

D. Additional Information (completed by homeowner or at site visit and evaluation)

30. Water supply:

a. Raw Water Quality Characteristics: Hardness _____ (gpg) Iron _____ (ppm)
TDS _____ (ppm) pH _____ Chlorine (total or free) _____ (ppm)

b. Other Water Quality characteristics:
Hydrogen Sulfide _____ (ppm) Sulfates _____ (ppm) Alkalinity _____
Other 1 _____ Other 2 _____ Other 3 _____
Other Comments _____

31. Water treatment device(s):

a. Is a water softener used? NO Back flushes to: _____
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 month _____
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, sediment, etc)? YES / 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 _____ (gallons) Total Regenerant Water _____ (gallons)
Total Time for Regeneration _____ (min) Avg. Flow to Drain _____ (gpm)
Regenerants Per Month _____ Average Daily Drain Water _____ (gallons)

d. Other Water Treatment Devices: __500 Gal Aeration Tank between well and house__

e. Treated Water Quality Characteristics:

Hardness _____ (gpg) Iron _____ (ppm)
TDS _____ (ppm) pH _____ Chlorine (free) _____ (ppm)

Other Water Quality characteristics:

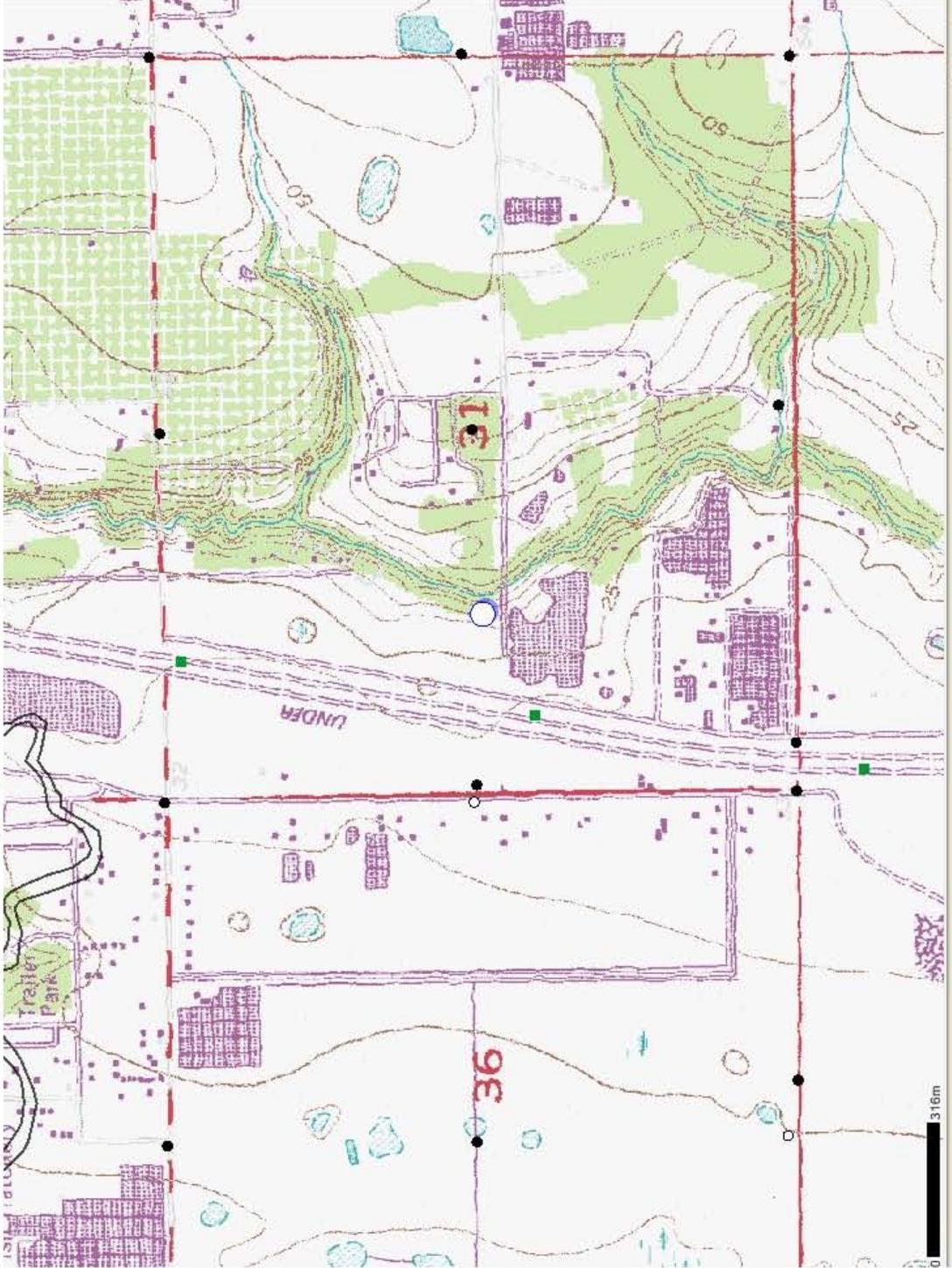
Hydrogen Sulfide _____ (ppm) Sulfates _____ (ppm) Alkalinity _____
Other 1 _____ Other 2 _____ Other 3 _____

Other Comments

32. Is there an outside power supply? YES
If yes, does it have its own breaker? __YES_____
How many amps? _50 Amp supply to Pump House_____
33. Is there an outside water spigot? YES
If yes, does it require a key? ____NO_____



LABINS Survey Data Interactive Map



June 30, 2011 soil boring, downgradient of mound:

0-1.25'	Topsoil
1.25-3.15'	10YR6/1 gray fine sand
2.8'	10YR6/1 gray fine sand with 10YR2/2 black stripes
3.15-4.15'	10YR2/2 black fine sand
4.15-5.55'	10YR3/2 very dark grayish brown fine sand
5.55'-6.25'	10YR3/1 very dark gray fine sand
6.25'-8.6'	10YR2/1 black silty fine sand
8.6'-9'	10YR2/1 very moist black fine sand
9'-	10YR3/1 saturation very dark gray fine sand

¾" Standpipe piezometer, 5' screen installed.