



Up-Country Building Inspectors, inc.

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SEPTIC SYSTEM REPORT

GENERAL INFORMATION

Inspection Date: 1-01-08 Inspector: Mark O'Neil Report Number: XXXXX

Subject Property:

Address: 21 Wayout Lane

City: Somewhere

State/Zip: Maine, 04999

County: Exurbia

Assessment: Satisfactory

Client's Name: Daniel & Danielle Jones

Address: 12 Intown Drive

City: Downtown

State/Zip: ME, 04999

Phone:

Estimated Age of System: 30

Date Last Pumped: Dec 2007

Building: Single Family

HHE-200 Available at Inspection: Yes

People Present: Buyer Agent Buyers

Representative

Weather: Sunny

Temperature: 40

Soil: Wet

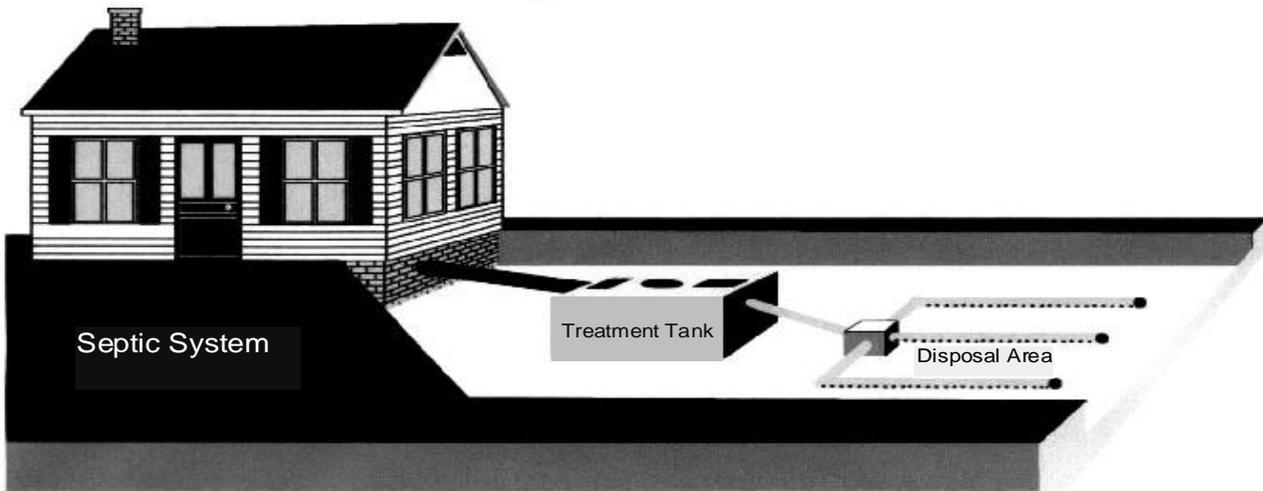
DISCLAIMER

In consideration of the fee paid for the inspection and the services rendered, Up-Country Building Inspectors,inc. and the client agree that: the purpose of this inspection is to identify and disclose the visible and apparent conditions of the septic system as these conditions prevail on the date of the inspection. The inspector shall review the municipal and State records if made available at the time of the inspection.

This report was completed in accordance with the minimum reporting criteria established by the Maine Department of Human Services and adapted in part from the "Maine Septic System Inspection Guidelines" prepared by the Maine Association of Site Evaluators. The information contained in this document accurately describes the conditions observed relative to the specific items referenced in the report that existed on the inspection date. No warranty is made or implied that the conditions described herein are representative of past conditions; will continue beyond the inspection date; or that the subsurface wastewater disposal system will function in compliance with the Maine Subsurface Wastewater Disposal Rules. No inference can be made regarding conditions, status, or functionality of any system characteristic not specifically described in this report.

If the client or third party make a claim that we have been negligent in making the inspection and/or preparing the report, or if the client is not fully satisfied we have met our obligation and duties under this inspection agreement, all parties agree the claim against Up-Country Building Inspectors,inc. shall be limited to the greater of double the septic inspection fee paid by the Client or \$1,000. This limitation applies to every type of claim or cause of action arising out of or related to this agreement, inspection report, including but not limited to breach of contract, negligence or violation of an Unfair Trade Practices Act.

Our Inspection Process



Background

There are more than 600,000 dwellings in the State of Maine. More than half of those dwellings, 330,000, rely on sub-surface wastewater disposal systems (septic systems).

Septic systems consist of an underground tank (septic tank) and a drain field (leach field) to cleanse and purify household wastewater. Sewage flows by gravity from the house to the tank where heavy solids settle to the bottom (sludge) and lighter solids, grease and oils float to the top (scum).

Anaerobic bacteria break down the solids. Incoming sewage displaces a like quantity of liquid effluent, which flows from the tank by gravity to pipes or chambers buried underground. Effluent is absorbed by the soil where aerobic bacteria and microorganisms utilize various nutrients and chemicals contained in the effluent. The majority of the purified water returns to the ground water.

A septic inspection seeks to determine whether the components of the septic system are operating properly.

In 1974 the State of Maine adopted rules for the design and construction of septic systems and required the use of a standard design form HHE-200. If the system being inspected was installed after 1974, and the form is available at the time of the inspection, the original home design criteria will be compared with the current usage.

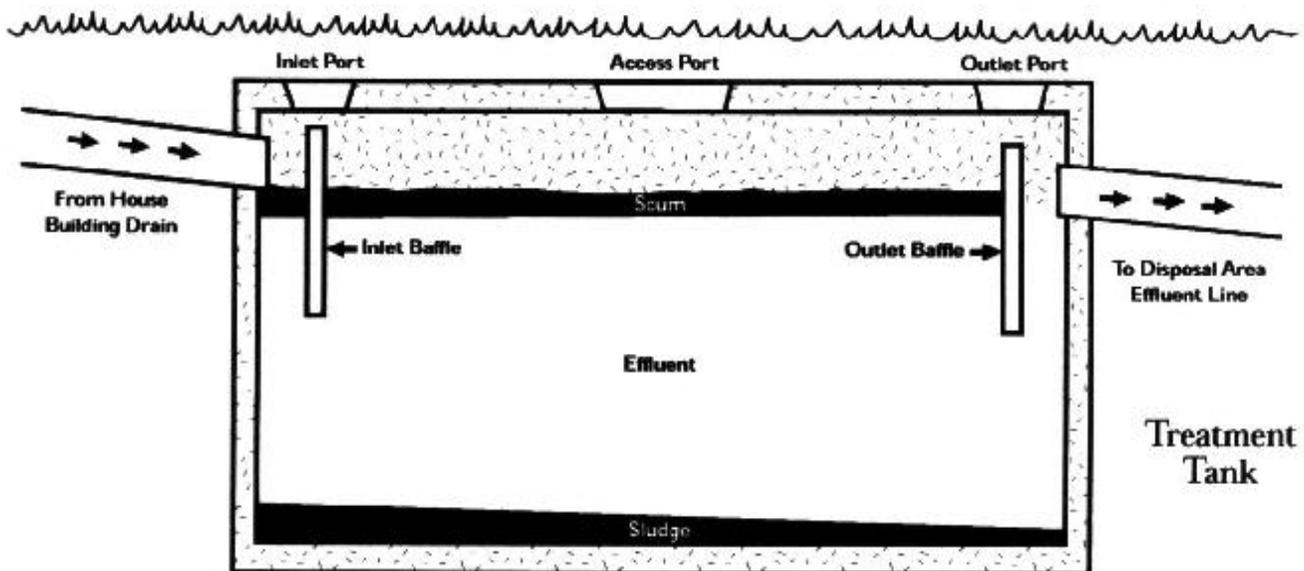
Inside the House

The physical inspection will begin with a review of the homes readily visible plumbing. Fixtures are checked to insure that leaks are not causing excessive amounts of water to enter the septic system. Sump pumps and backwash from water treatment equipment should not drain into the system. Washing machines should empty into the septic system unless they drain into a separate gray water system that is specifically designed for such use. A garbage disposal places excessive amounts of solids into the system and should not be used unless the septic design (HHE-200) has made provisions for its use.

The Treatment Tank (Septic Tank)

The septic tank needs to be of a sufficient size to allow sewage from the house to have adequate time to permit the heavy solids (sludge) to settle to the bottom and lighter solids (scum) to float to the top. Usually, the outlet inspection cover will be excavated to allow observation into the tank, and an estimate of tank condition and size to be made. The effluent level should be at the bottom (invert)

of the outlet pipe. A baffle needs to be in place and have sufficient structural integrity to hold solids in the tank, where anaerobic bacteria will digest the organic material. Non-organic material needs to be pumped from the tank on a regular basis, usually every three years, to prevent excess amounts of solids from escaping the tank into the leachfield.



Pump Tank

Most septic systems are designed to allow effluent to flow by gravity to the leach field. Occasionally, leach fields need to be placed higher than the septic tank. A pump would then be necessary to deliver the effluent to the higher leach field. If the home being inspected utilizes a pump system, the pump tank may either be opened or inspected using a fiber optic camera inserted through the septic tank outlet pipe into the pump tank, to confirm that the pump is operating properly and that excess amounts of scum have not accumulated in the tank.

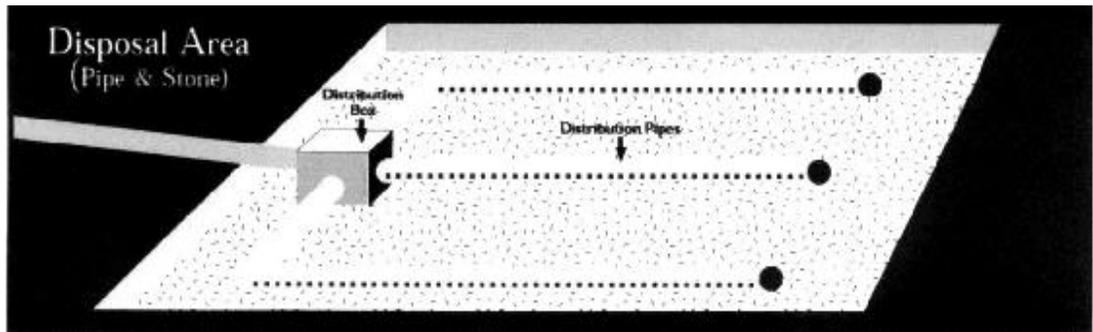
Sufficient water will be introduced into the septic tank that will then flow into the pump tank to raise the effluent level. When a preset level is reached, the float switch will activate the pump and lower the effluent level. When effluent is drawn down to a preset level, the switch will deactivate the pump. If the pump fails to deactivate and the effluent level continues to rise, a higher switch should activate an alarm inside the home to warn of pump malfunction.

Disposal Area (Leach Field)

If gravity is used to deliver the effluent to the leach field, a pump is not required. Where possible, a fiber optic camera will be inserted through the outlet pipe of the septic tank and the effluent line may then be inspected for obstructions and an effort will be made to observe the condition of the distribution box, if present.

The leach field provides a temporary underground storage area for the effluent using either a series of pipes buried in a trench, or a bed of small stones, or a series of chambers.

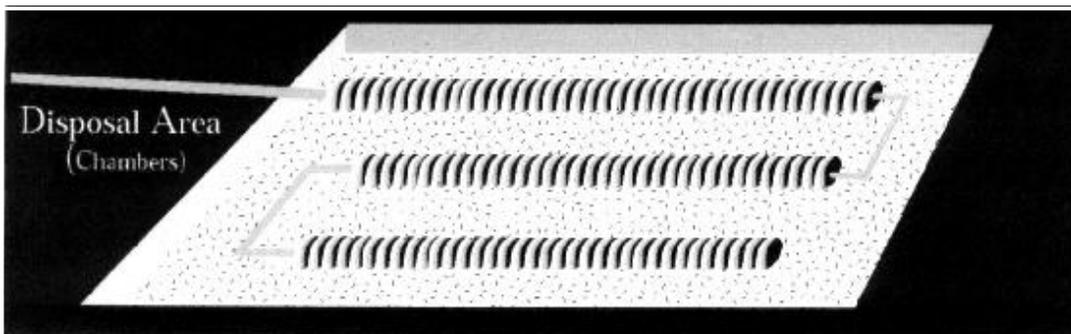
The surrounding soil acts as a filter as it absorbs the effluent. Aerobic bacteria and micro-organisms convert the remaining organic material to soluble plant nutrients. Pathogens are attracted and held by the electrical charge of the soil particles and, away from the host, soon die. Purified water is allowed to return to the water table.



the field has reached the end of its useful life (failed). If the field is not restored or replaced, continued use would flood the field. If ponding or breakout occurs, or if the effluent backs up into the house, the system is malfunctioning and must be replaced.

During the inspection water may be introduced into the septic tank and allowed to flow into the field. When possible, the fiber

optic camera will be used to observe the flow and drainage of the effluent. The ground above and surrounding the leach field will be inspected to insure that ponding or breakout have not occurred and that sufficient ground cover is present to prevent erosion. A core sample may be taken or a test pit dug to insure that effluent is not being retained above the stone layer or that chambers are



not full. The surrounding landscape will be observed to note if rain runoff will be directed away from the leach field.

As the leach field ages, the soil becomes clogged with wastewater solids and the by-products of bacterial and microorganisms growth. As this biomat accumulates, absorption is slowed and the field begins to retain effluent. When effluent is retained above the stone layer or the chambers fill,

An overall assessment will be made as to the condition of the septic system. Recommendations will be made to correct deficiencies or to improve the system.

Septic System Report

Functional
 Marginal
 Unsatisfactory
 Not Accessible
 Not Applicable
 Safety Concern
 Major Concern
 Minor Concern
 Maintenance

HOME INTERIOR		Condition			Significance			COMMENTS
1	Plumbing Leaks	✓						
2	Sump Pump Drainage		✓			✓	✓	Disconnect sump pump from septic system
3	Backwash Lines				✓			
4	Washer Drainage	✓						
5	Garbage Disposal		✓			✓	✓	Not recommended for septic systems. Disconnect.
TREATMENT TANK								
6	Size							1000 gals
7	Tank Condition	✓						
8	Effluent Level	✓						
9	Baffle Condition		✓			✓	✓	Replace deteriorated baffle.
10	Scum/Sludge Layer	✓						
PUMP TANK								
11	Pump Operation				✓			
12	Scum				✓			
13	Alarm				✓			
DISPOSAL AREA								
14	Effluent Line	✓						
15	Distribution Box	✓						
16	Ground Cover		✓			✓	✓	Cut shrubs over leach field.
17	Effluent Level	✓						
18	Surface Water Control	✓						
ANALYSIS								
19	Septic System	✓						

comments continued:

Inspection Terminology

Condition: The physical or functional state of the component being described.

Functional: The item was performing its intended function at the time and date of the inspection in response to normal use. The item showed typical wear and tear for its age and usage. No immediate need for major repairs was noted, if normal maintenance practices are followed.

Marginal: The item, although perhaps working at the date and time of the inspection, had indications that servicing or maintenance was needed or that continued function or operation should not be expected. The item appeared to be near the end of its service life. The item may be capable of being used for an indeterminate time. Budget for replacement or remedial repairs to avoid any unexpected expenses.

Unsatisfactory: The item has either; failed in service; was no longer performing its intended function; significantly impedes the operation of a major component and/or system; or was unsafe or hazardous in its operation or condition.

Not Accessible: The item was not visible or had limited access and was not inspected.

Not Applicable: The item was not present in this situation.

Significance: The inspectors opinion of the consequences of the noted deficiency.

Safety Concern: An item that was considered a safety concern was a condition that was considered harmful to the occupants due to its presence or absence from the system.

Major Concern: Any item that was identified as a major concern was a condition that either; has a significant detrimental effect on the system or the potential for causing such an effect. The inspector estimated that the cost of repair or replacement of these items or the potential damage from these items failure could exceed \$500. In the opinion of the inspector, these items should be addressed by a competent contractor.

Minor Concern: Any item identified as a minor concern was a condition or situation that did not significantly effect the system at the time of the inspection, nor did it pose a major threat to the system. The inspector estimated that the cost of these items could be under \$500.

Maintenance: Any item identified as maintenance was considered a normal and routine task of owning and maintaining a septic system, or it is a suggestion for future improvements and/or upgrades for the new owner. These items were generally considered the responsibility of the purchaser and are quite frequently performed after the completion of the home sale.

Important Notice: (1) Any item identified as a Marginal, Unsatisfactory, Major and/or Safety Concern has a high probability of needing repair, replacement, or correction now or in the immediate future. (2) If any purchase decision about the property inspected would be effected by the cost of repairs, the buyer should obtain firm contractor quotations prior to making any decisions. (3) A minimum of three bids from competent contractors should be reviewed prior to authorizing any repair work.

Assessments and Recommendations

The system has a 1,000 gallon concrete septic tank. The top of the tank and inlet inspection port cover were in good condition. The septic tank had been pumped out recently and there was no heavy build up of scum.

Before starting the flow test the water level in the tank was at the bottom of the effluent pipe as appropriate for a properly functioning system. The flow test introduced approximately 95 gallons of water into the system. The water level rose slightly and quickly returned to the pretest level. This indicated that the leach field accepted the load without resistance and was working well.

There was no excessive growth of vegetation over the leach field and the slopes of the leach field did not show signs of effluent surfacing. However, there were small trees and bushes that should be cut down before their roots interfere with the leach field. A test pit dug in the leach field did not reveal evidence of current or past flooding.

Conclusions and Recommendations:

The septic system was working satisfactorily at the time of the inspection. Recommendations for maintaining the system include the following:

1. Pump the septic tank every 3 years to protect the leach field from plugging.
2. Eliminate or severely restrict the use of the garbage disposal to reduce the load imposed on the septic system.
3. Cut down tall weeds, bushes and small trees to promote the growth of grass which helps evaporate water from the leach field.

Yours Truly,

Mark O'Neil

**SOME
THINGS
YOU CAN
DO TO
KEEP
YOUR
SEPTIC
SYSTEM
HEALTHY**

Septic systems are hardy and self-sufficient, but there are ways to ensure that you receive the greatest longevity from yours.

1. Know the location of your tank and have the non-biodegradable materials pumped from it every three to five years.
2. Avoid excess water in your drain field. Some things you can do are:
 - * Repair leaking fixtures.
 - * Install low flow showerheads.
 - * Space your washer loads throughout the week.
 - * Redirect drains from sump pumps and backwash from water treatment systems away from the septic system.
 - * Divert rain runoff from yards, driveways, and roofs away from the drain field.
3. Eliminate or severely restrict the use of garbage disposals and prevent grease and oils from entering the drain. Everything that can go into the trash should be kept out of the system including: paper towels, tissues, disposable diapers sanitary products, and condoms.
4. Use liquid laundry detergent and minimize the use of liquid bleach which kills bacteria.
5. Do not use continuous toilet bowl cleaners. Paint removers and thinners, laytex paint, cleaning solvents, oils, and toxic pesticides should be disposed of according to your local ordinances rather than down the drain.
6. Additives are not necessary and may do more harm than good.
7. An effluent filter will help restrict the migration of solids into the drain field. Filters need annual cleaning.
8. Avoid vehicular traffic over the tank, drainpipes, and disposal field to avoid compaction of the soil and possible damage to the pipes, unless your system was specifically designed to handle the excess weight.
9. Grass should be grown over the drainage field to prevent erosion. Avoid planting woody rooted trees and bushes near the field. Their roots can invade and clog the pipes.
10. Vegetable gardens need to be located well away from the drainage field.
11. Know the warning signs of a malfunctioning field due to its age or damage.
 - * House drains may become sluggish, gurgle, or even back up.
 - * Grass over the drain field may grow taller or richer in color, and the ground may become mushy and have a septic smell.
 - * Dark effluent may begin to pond above or breakout the sides of the drain field.
 - * When in doubt, call a professional for an opinion.