

Agent Authorization Form

Date: 5/13/24

I, Paul B Szem authorize Walter Giese, Gene Young, Davis McIver, or any employee of Applied Resource Management, PC to act as an agent on my behalf in all matters dealing with wastewater system permitting on my properties in accordance with GS 130A-366.2.

I ACKNOWLEDGE that the lot(s) associated with the AOWE Permit will be billed on a time and materials basis to include but not limited to;

- Additional onsite work/evaluations associated with the site
- Permit Package Preparation
- Onsite Pre-Construction Conferences
- Onsite System Inspections
- Post Construction Conferences and ATO preparations
- County fees

System installation inspections will be required prior to covering any portion of the system regardless of system installer certification level issued by the North Carolina On-site Wastewater Contractors and Inspectors Certification board.

The AOWE reserves the right to stop work on this project at his sole discretion for any reason.

Property Owner Signature: Paul B Szem

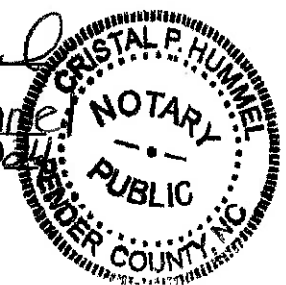
Property Owner Printed: Paul B. Szem

Property Address/Location: 406 COMPASS POINT
Hampstead NE 28443

This instrument was signed and sworn before me on this 13th day of May, 2024 by Paul B Szem.

Notary Signature: Cristal P. Hummel

Notary printed Name: Cristal P Hummel
My commission expires 6/2, 2024



Applied Resource Management, P.C.

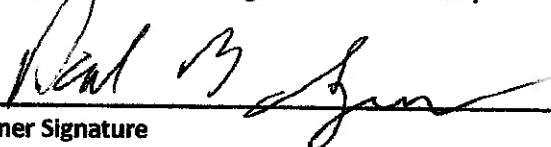
P.O. Box 882, 257 Transfer Station Road, Hampstead, NC 28443 910.270.2919 Fax 910.270.2988



Authorized Onsite Wastewater Evaluator (AOWE) Permit Requirements

- All requirements in 15A NCAC 18E and 15A NCAC 18A .1900 (as applicable) are adopted as part of this permit.
- Pre-construction conference with septic contractor required before beginning site modification and/or system installation.
- The system shall be installed/repared by a septic system contractor approved by the AOWE. A list of Approved Installers will be included as part of the permit package. The list of Approved Installers may contain one or more certified installers that are employees of Applied Resource Management, P.C. (ARM). Please note that if the system installation is performed by ARM, the AOWE and certified installer will be separate individuals with separate certifications, both employed by ARM. It is required that no evaluator shall allow his or her interest in any business to affect the quality or results of the evaluation work that the evaluator may be called upon to perform, to include all required inspections of onsite wastewater system installations.
- It is the responsibility of the contractor to call ARM to schedule the installation inspection at least 2 days prior to installation. The system shall not be installed in wet conditions or the AOWE permit may be revoked.
- Any changes to the proposed plans must be approved by the AOWE.
- Do not allow any traffic, construction, excavation, utilities, material storage, or any other disturbance to take place on the designated septic area or repair area. These activities may void your permit.
- The client/owner is responsible for ensuring that property lines are readily identifiable in the field.
- The contractor is responsible for ensuring that the septic system is installed in the proper location and that all setbacks are met. See NCAC 18E .0601 for setback requirements. The contractor is responsible for ensuring that the septic system is installed in accordance with local rules in counties where applicable.
- The system installation must be inspected by the AOWE at certain stages during the installation.
- For systems with pumps, the contractor is responsible for insuring the proper installation of the electrical components. An electrical permit must be obtained and a person with a valid NC Electrical license must provide electrical services to the controller and alarm.
- This NOI/AOWE Permit shall become invalid and/or may be revoked if the site is altered or intended use changes. There shall be no grading, cutting, logging, or other soil disturbance in the septic area. Design does not guarantee functionality or future performance.
- Permit issued by the AOWE will be valid for a period of three (3) years from date of issuance.
- The contractor is responsible for back filling the system components so that no areas are subject to the retention or ponding of surface water. After the installation is completed, some settling of the backfill material may take place. The system owner is responsible for eliminating settled or sunken areas, stabilization, and final landscaping of the ground surface. No heavy equipment or vehicular traffic over the leach field or repair area.
- Installer shall provide written acknowledgment that the system was installed in accordance with 15A NCAC 18E regulations and permit conditions prior to issuance of the Authorization to Operate (ATO).
- Change of System Ownership: A wastewater system authorized pursuant to NCGS 130A-336.2 shall be transferable to a new owner with the consent of the AOWE. The new owner and the AOWE shall enter a contract for the wastewater system. Confirmation that the site and intended use is unchanged will be required. The new owner will be responsible for costs associated with site visit to confirm site conditions have not been altered. An application for permit transfer shall be submitted to AOWE/ARM.

Owner/Client Acknowledgment of Permit Requirements



Owner Signature

5/13/24

Date

SECTION .0600 – LOCATION OF WASTEWATER SYSTEMS

15A NCAC 18E .0601 LOCATION OF WASTEWATER SYSTEMS

(a) Every wastewater system shall be located the minimum setbacks from the site features specified in Table IX. The setback shall be measured on the ground surface, unless otherwise specified in this Rule, from the nearest wastewater system component sidewall or as otherwise specified in a system specific rule or PIA Approval.

TABLE IX. Minimum setbacks from all wastewater systems to site features

Site Features	Setback in feet
Any transient or non-transient non-community water supply well, community well, shared water supply well, well that complies with 15A NCAC 18A .1700, or water supply spring	100
A private drinking water well or upslope spring serving a single family dwelling unit	50
Any other well or source not listed in this table, excluding monitoring wells	50
Surface waters classified WS-I, from ordinary high-water mark	100
Waters classified SA, from mean high-water mark	100
Any Class I or Class II reservoir, from normal water level	100
Lake or pond, from normal water level	50
Any other stream, non-water supply spring, or other surface waters, from the ordinary high-water mark	50
Tidal influenced waters, such as marshes and coastal waters, from mean high-water mark	50

Permanent stormwater retention basin, from normal water level	50
Any water line, unless the requirements of Paragraph (i) have been met	10
Closed loop geothermal wells	15
Building foundation and deck supports	5
Patio, porch, stoop, lighting fixtures, or signage, including supporting structures such as posts or pilings	1
Any basement, cellar, or in-ground swimming pool	15
Buried storage tank or basin, except stormwater	10
Above ground swimming pool and appurtenances that require a building permit	5
Top of slope of embankment or cuts of two feet or more vertical height with a slope greater than 50 percent	15
Top of slope of embankment or cuts of two feet or more vertical height with a slope greater than 33 percent and less than or equal to 50 percent	15
	If the site has suitable soil depth that extends for a minimum horizontal distance of 15 feet from the edge of the dispersal field, no minimum setback is required.
Top of slope of embankment or cuts of two feet or more vertical height with a slope less than 33 percent	0
Groundwater lowering system, as measured on the ground surface from the edge of the feature	25
Downslope interceptor drains and surface water diversions with a vertical cut of more than two feet, as measured on the ground surface from the edge of the feature	15
Upslope and sideslope interceptor drains and surface water diversions with a vertical cut of more than two feet, as measured on the ground surface from the edge of the feature	10
A stormwater collection system as defined in 15A NCAC 02H .1002(48), excluding gutter drains that connect to a stormwater collection system, with a vertical cut of more than two feet as measured from the center of the collection system	10
Bio-retention area, injection well, infiltration system, or dry pond	25
Any other dispersal field, except designated dispersal field repair area for project site	20
Any property line	10
Burial plot or graveyard boundary	10
Above ground storage tank from dripline or foundation pad, whichever is more limiting	5
Utility transmission and distribution line poles and towers, including guy wires, unless a greater setback is required by the utility company	5
Utility transformer, ground-surface mounted	5
Underground utilities	5

(b) Wastewater systems may be located closer than 100 feet but never less than 50 feet from water supply wells or an upslope spring for repairs, space limitations, and other site-planning considerations when one of the following conditions is met:

- (1) the well was constructed prior to July 1, 1993, in accordance with 15A NCAC 18A .1720; or
- (2) a variance for a reduced well setback has been issued in accordance with one of the following:
 - (A) 15A NCAC 02C .0118 for a shared water supply well, a wastewater system permitted or installed in saprolite, or for a transient non-community public water supply well; or
 - (B) 15A NCAC 18C .0203(b) for a non-transient non-community public water system.

(c) Wastewater systems shall not be located closer than 100 feet to springs, uncased wells, and ungrouted wells used as a source of drinking water and located downslope from the dispersal field.

(d) Underground utilities maintain a five-foot setback and shall not encroach on the wastewater system and repair area.

(e) The reduced setbacks in Table X shall apply to septic tanks and pump tanks if a leak test has been performed at the job site on the septic tank and pump tank in accordance with Rule .0805 of this Subchapter that verifies the tank, pipe penetrations, and riser connections are watertight.

TABLE X. Reduced setbacks for tanks to some site features

Site Features	Setback in feet
Permanent stormwater retention basin, from normal water level	35
Bio-retention area, injection well, infiltration system, or dry pond	15
Groundwater lowering system, as measured on the ground surface from the edge of the feature	15
Any water line	5
A stormwater collection system as defined in 15A NCAC 02H .1002(48), excluding gutter drains that connect to a stormwater collection system, with a vertical cut of more than two feet as measured from the center of the collection system	5

- (f) No minimum setback shall be required from a well that has been permanently abandoned in accordance with 15A NCAC 02C .0113 and for which a record of abandonment has been submitted in accordance with 15A NCAC 02C .0114.
- (g) Initial and repair dispersal field systems shall not be located under impervious surfaces or areas subject to vehicular traffic unless approved in accordance with G.S. 130A-343 and Section .1700 of this Subchapter.
- (h) If a collection sewer is installed under areas subject to vehicular traffic or areas subject to soil disturbance or compaction, one of the following pipe materials shall be used:
- (1) DIP;
 - (2) a minimum of Schedule 40 PVC, Polyethylene, or ABS pipe sleeved in DIP;
 - (3) a minimum of Schedule 40 PVC, Polyethylene, or ABS pipe sleeved in DOT traffic rated culvert pipe;
 - (4) a minimum of Schedule 40 PVC, Polyethylene, or ABS pipe with 30 inches of compacted material provided over the crown of the pipe; or
 - (5) other pipe materials may be proposed when designed, inspected, and certified by a PE and approved by the LHD.
- (i) In addition to the requirements of Paragraph (a) of this Rule, wastewater systems with a proposed DDF greater than 3,000 gpd, as determined in Rule .0401 of this Subchapter, shall be located the minimum setbacks from the site features in Table XI.

TABLE XI. Minimum setbacks from wastewater systems greater than 3,000 gpd to site features

Feature	Setback in feet
Any Class I or II reservoir or any public water supply source utilizing a shallow, under 50 feet, groundwater aquifer, from feature or normal water level	500
Any other public water supply source, unless a confined aquifer	200
Any private drinking water well or upslope spring, unless a confined aquifer	100
Surface water classified WS- I, from ordinary high-water mark	200
Surface waters classified WS-II, WS-III, B, or SB, from mean high-water mark or ordinary high-water mark	100
Waters classified SA, from mean high-water mark	200
Any property line	25

- (j) Wastewater systems with a DDF greater than 3,000 gpd that meet the requirements of Rule .0510(f) of this Subchapter may use the setbacks identified in Table IX of this Rule.
- (k) Collection sewers shall be located the minimum setbacks to site features shown in Table IX, unless a different minimum setback is specified in Table XII. When a reduced setback to a collection sewer is utilized, the piping requirements for the reduced setback shall be extended to comply with the unreduced setback. The distribution device shall receive the reduced setback when demonstrated to be watertight with an on-site leak test.

TABLE XII. Minimum setbacks from collection sewers to site features

Feature	Setback in feet
Any public water supply source, including wells, springs, and Class I or Class II reservoirs, from feature or normal water level	100
	50, if constructed of or sleeved in Schedule 80 PVC or DIP with mechanical joints equivalent to water main standards, and the collection sewer is leak tested and shown to be watertight*
Any water supply well excluding those regulated under 15A NCAC 18C	50
	25, if constructed of Schedule 40 pressure rated PVC or DIP with mechanical joints equivalent to

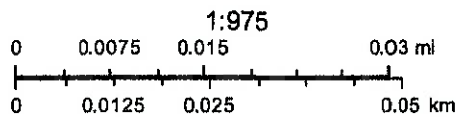
	water main standards, and the collection sewer is leak tested and shown to be watertight*
	15, if constructed of Schedule 80 PVC, sleeved in DIP or Schedule 80 PVC, and the collection sewer is leak tested and shown to be watertight*
Surface waters classified WS-I, WS-II, WS-III, B, SA, or SB, from mean high-water mark or ordinary high-water mark	50 10, if constructed of or sleeved in Schedule 80 PVC or DIP with mechanical joints equivalent to water main standards, and the collection sewer is leak tested and shown to be watertight*
Any other stream, non-water supply spring, or other surface waters, from the ordinary high-water mark	10
Tidal influenced waters, such as marshes and coastal waters, from mean high-water mark	10
Closed loop geothermal wells	5
Any service connection as defined in 15A NCAC 18C .0102(c)(21)	5
Any basement, cellar, or in-ground swimming pool	10
Top of slope of embankment or cuts of two feet or more vertical height with a slope greater than 50 percent	5
Interceptor drains and surface water diversions, with a vertical cut of more than two feet as measured on the ground surface from the edge of the diversion	5
Permanent stormwater retention basin, from normal water level	10
Bio-retention area, injection well, infiltration system, or dry pond	5
Any other dispersal field, except designated dispersal field repair area for project site	5
Any property line	5
Burial plot or graveyard boundary	5

*Pipe materials other than DIP, Schedule 40 pressure rated PVC, or Schedule 80 PVC shall be acceptable when the materials conform to materials, testing methods, and acceptability standards meeting water main standards and when the line has been designed, installed, inspected, and certified by a PE and approved by the LHD.

- (l) The minimum setback from water lines to collection sewers shall be 10 feet, except as follows:
- (1) the water line is laid in a separate trench with the elevation of the bottom of the water line 18 inches above the top of the collection sewer; or
 - (2) the water line is laid in the same trench as the collection sewer with the water line located on one side of the trench, on a bench of undisturbed earth and with the elevation of the bottom of the water line 18 inches above the top of the collection sewer. The collection sewer shall be located the width of the trench from the water line.
- (m) Collection sewers and water lines shall not cross, except as follows:
- (1) 18 inches clear vertical separation is maintained, with the collection sewer crossing under the water line; or
 - (2) the water line crosses under the collection sewer or 18 inches clear vertical separation is not maintained and the following criteria are met:
 - (A) the collection sewer is constructed of DIP with joints equivalent to water main standards and extends 10 feet on each side of the point of crossing, with full sections of pipe centered at the point of crossing; and
 - (B) the water line is constructed of ferrous materials with joints equivalent to water main standards and extends a minimum of 10 feet on each side of the point of crossing, with full sections of pipe centered at the point of crossing.
- (n) Collection sewers shall not cross storm drains, except as follows:
- (1) 12 inches clear vertical separation is maintained between the collection sewer and storm drain;
 - (2) the collection sewer is constructed of DIP with mechanical joints or restrained push-on joints equal to water main standards; or

- (3) the collection sewer is encased in concrete or DIP for a minimum of five feet on either side of the crossing.
- (o) Collection sewers shall not cross under a stream, except as follows:
 - (1) a minimum of 36 inches of separation from the stream bottom is maintained;
 - (2) the collection sewer is constructed of DIP with mechanical joints or restrained push-on joints equal to water main standards; or
 - (3) the collection sewer is encased in concrete or DIP for a minimum of 10 feet on either side of the crossing and protected against the normal range of high and low water conditions, including the 100-year flood or wave action.
- (p) Collection sewer aerial crossings shall be constructed of DIP with mechanical joints or restrained push-on joints equal to water main standards and freeze protected. Pipe shall be anchored for a minimum of 10 feet on either side of the crossing.
- (q) If septic tanks, pump tanks, grease tanks, raw sewage lift stations, wastewater treatment plants, sand filters, and other advanced pretreatment systems are located in areas subject to flooding at a frequency greater than a 10-year storm, they shall be designed and installed to be watertight and to remain operable during all flooding events.

History Note: Authority G.S. 130A-334; 130A-335(e) and (f); S.L. 2019-215, s.2.



Pender County

1 inch = 81 feet
1/8/2024



PIN: 4213-07-7962-0000
Owner: SZEM, PAUL B
108 COASTAL BLUFFS CT
HAMPSTEAD, NC 28443
Deed Ref: 4828/1071
Property Address: 406 COMPASS PL
Description: L56,PB 42/103,HARBOUR @ SUMMERSET

Subdivision: HARBOUR AT SUMMERSET
Tax Codes: G01 F22 R40
Sale Price: \$215,000
Sale Date: 1/8/2024
Plat: 00420103
Account No: 1026886
Township: TOPSAIL

Acres: 0
Land Value:
Building Value:
Total value:
Deferred Value:
Exempt Amount: EXEM_AMT
PCL Class: R
Heated Sq Feet:

Maintenance Guidelines for Septic Systems

15A NCAC 18E .1303 is attached.

- Practice water conservation. All water that a house sends down a drain enters the septic system. If less water is used, the less water ends up in the septic system.
- Water usage that is at 75% or greater of the daily design flow for the system shall be considered excessive.
- Drainfield area shall be landscaped to shed surface water and have ample vegetative cover to prevent erosion.
- Do not allow vehicular traffic to drive over or park on top of drainfield or any other component of the septic system.

Gravity system: Have the system inspected at least every three to five years by a septic service professional. The septic tank shall be pumped out by a certified septage hauler as needed or when the solids level is found to be more than 1/3 of the total liquid depth in any compartment (15A NCAC 18E .1303 (a)(3)). The effluent filter shall be cleaned or replaced as needed when the septic tank is pumped out.

Pump system: Have electrical components (panel, floats, pump) inspected once a year by a septic service professional. At inspection, pressure head shall be adjusted to height specified on original specifications. A septic system with a single effluent pump or siphon (Type IIIb) shall be inspected by the Local Health Department every five years (15A NCAC 18E .1303 (Table XXXII)).

Drip System: See attached Owner's Manual: American "Perc-Rite" for maintenance of the wastewater drip system. An Operations and Maintenance contract with a certified Subsurface Wastewater Operator is required. The Drip system shall be inspected by the Local Health Department once a year (15A NCAC 18E .1303 (Table XXXII)).

TS = sets, in mg/L
the effluent limit based on the constituent and effluent standard in mg/L, from Table XXV
in Rule .1201(a) of this Subchapter

(h) The Management Entity may record daily wastewater flow and may sample influent to the advanced pretreatment system as needed to determine compliance with this Rule and OP conditions.

History Note: Authority G.S. 130A-335(e) and (f).

15A NCAC 18E .1303 OWNER RESPONSIBILITIES FOR WASTEWATER SYSTEM OPERATION AND MAINTENANCE

(a) Any person owning or controlling the property upon which a wastewater system is installed shall be responsible for the following items regarding the operation and maintenance of the system:

- (1) the wastewater system shall be operated and maintained to protect North Carolina ground and surface water quality standards and to prevent the following conditions:
 - (A) discharge of sewage or effluent to the surface of the ground, surface waters, or into groundwater at any time;
 - (B) back-up of sewage or effluent into the facility, building drains, collection system, freeboard volume of the tanks, or distribution system; or
 - (C) effluent within three inches of finished grade over one or more trenches based on two or more observations made not less than 24 hours apart, and greater than 24 hours after a rainfall event;
- (2) the system shall be considered to be malfunctioning when one or more of the conditions of Subparagraph (a)(1) of this Rule occur or if it is necessary to remove the contents of the tank(s) at a frequency greater than once per month in order to prevent one or more of the conditions of Subparagraph (a)(1) of the Rule. The owner shall contact the LHD when the wastewater system is malfunctioning and implement remedies as directed by the LHD in accordance with Rule .1306 of this Section. If the system was permitted under an EOP or AOWE permit, the owner shall contact the PE or AOWE when the wastewater system is malfunctioning;
- (3) wastewater systems shall be inspected, and the entire contents of all septic tank compartments shall be removed whenever the depth of both the scum and sludge is found to be more than one-third of the liquid depth in any compartment. The effluent filter shall be rinsed to remove accumulated solids that can cause the wastewater to back up into the facility or clog the system, or replaced as needed;
- (4) residuals from the wastewater system shall be transported and disposed of in accordance with G.S. 130A, Article 9, and 15A NCAC 13B;
- (5) grease traps and grease tanks shall be pumped as needed to prevent discharge of FOG from the trap or tank to the next treatment component, but no less than yearly. Grease traps and grease tanks shall be maintained in accordance with Rule .0803(h) of this Subchapter and the owner shall maintain a contract with a septage management firm. All pumping records shall be maintained on-site;
- (6) site-specific vegetation shall be established and maintained over the wastewater system and repair area to stabilize slope and control erosion;
- (7) activities that result in soil disturbance or soil compaction shall not occur over the initial and repair dispersal field area;
- (8) maintaining the wastewater system in accordance with Rule .1301(a) of this Section; and
- (9) turning the effluent flow diversion valve for alternating dual dispersal fields once a year or as specified by the PE, AOWE, or authorized designer.

(b) A contract for operation and maintenance of a wastewater system required to be maintained by a Management Entity, as specified in Table XXXII of Rule .1301(b) of this Section, shall be in effect for as long as the system is in use. A contract shall be executed between the system owner and a Management Entity prior to the issuance of an OP, unless the system owner and Management Entity are the same. The contract shall include:

- (1) specific requirements for operation, maintenance, and associated reporting;
- (2) responsibilities of the owner;
- (3) responsibilities of the Management Entity;
- (4) provisions for notification to the LHD by the owner and Management Entity upon termination of the contract; and
- (5) other requirements for the continued performance of the system, as determined by the Management Entity, LHD, and Department, as applicable.

History Note: Authority G.S. 130A-335(e) and (f).

15A NCAC 18E .1304 MANAGEMENT ENTITY RESPONSIBILITIES FOR WASTEWATER SYSTEM OPERATION AND MAINTENANCE

(a) When a Management Entity is required to be or to employ a certified operator as specified in Table XXXII in Rule .1301(b) of this Section, the operator shall, at a minimum, be certified as a subsurface operator in accordance with G.S. 90A, Article 3, and 15A NCAC 08G. Operators of systems classified as Type V or VI in Table XXXII in Rule .1301(b) of this Section may be required to have additional certifications by the Department in accordance with Rule .1301(d) of this Section and upon consultation with the Water Pollution Control Systems Operator Certification Commission, if required by G.S. 90A, Article 3.

(b) The Management Entity shall inspect the wastewater system at the frequency specified in Table XXXII in Rule .1301(b) of this Section or in accordance with the RWTS or PIA Approval.

Understanding and Protecting Your Septic System

If you currently discharge wastewater to a septic system, if you are looking to purchase a place of residence, public assembly, or business, or to move to a place that is served by a septic system, this guidance document should be helpful. Contact your local health department for additional assistance and information.

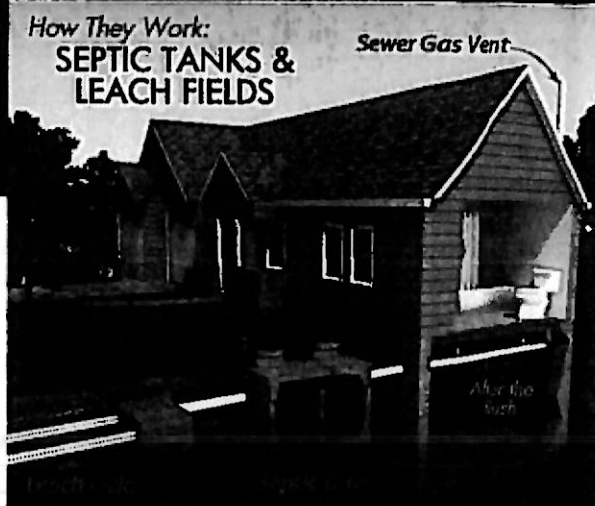
Know Your Septic System

Not all septic systems are the same. It is important to know about your septic system, such as the components that make up the system and their location on the property, the system functioning and maintenance history, as well as what to do and what not to do. Traditional conventional septic systems have a septic tank and a drainfield with gravel-filled trenches or a gravel bed. Newer septic systems may have polypropylene or polyethylene "chambers" or polystyrene aggregate in place of the gravel.

Some systems use advanced technologies that require a higher level of maintenance than traditional conventional septic systems, and state rules have specific maintenance requirements for these systems. Sometimes owners will be required by state rules to hire a state-certified operator to regularly inspect and maintain the system. In addition, state rules require the local health department to inspect these systems on a periodic basis.

Some properties are legally required to have a "repair area or replacement area" in which a second drainfield could be installed if needed. This repair area should have been identified typically by the health department when the site was permitted and should be shown on your septic system permit ("Improvement Permit"). State rules also require you to protect this area from any soil disturbance activities such as excavation; building a house addition, garage, or other structure; swimming pool construction and installation; and grading.

If you are not sure what type of wastewater system you have, contact the local health department to request a copy of the septic system permit and soil evaluation sheet for your property. These forms should indicate the approved design daily flow, type of system, size of each of the system components (septic tank, any other tanks or pretreatment units, the drainfield, and the repair area), and approximate locations of those components. Also, ask the previous owner or the seller for information about the system (e.g., installations, repairs, maintenance).



Ask Questions

Ensure you have answers to the following questions:

- What type of septic system do you have?
- How old is the system (i.e., when were the system components installed)?
- Where are all the system components located, including the drainfield and repair area? (Note: They may not be at the same location or even on the same lot.)
- How many gallons a day (e.g., number of bedrooms, occupants, seats in the restaurant) is the septic system designed to treat and dispose of?
- What is the volumetric (liquid) capacity of each tank in the septic system?
- Which drainfield option or product was used for your system?
- Is the septic system working properly?
- Does the system require a certified operator?
- What are the legal requirements for long-term maintenance?
- Has the septic system been maintained in the past?

"Keep this information for future reference to help you properly maintain your septic system"

"Let your Health Department know the problem"

Signs of Possible Septic System Failure

- Sewage backing up into your toilets, tubs, or sinks.
- Sewage backing up in the septic and/or pump tank
- Slowly draining plumbing fixtures, particularly during and after it has rained.
- The smell of raw sewage accompanied by soggy soil or sewage discharged over the ground or in nearby ditches or woods.
- Sewage comes to the ground surface when the pump turns on and then disappears after the pump turns off.
- An alarm flashing (red light) and/or blaring horn coming from the pump control panel.

Understanding and Protecting Your Septic System



DOs and DON'Ts

DO

- Do learn the location of the septic tank, drainfield and repair area. Keep a sketch of the system location and layout with your maintenance record for service visits.
- Do keep your septic tank cover accessible for inspections and pumping.
- Do keep suitable vegetation growing over the drainfield and repair area to stabilize the soil and prevent erosion.
- Do have a maintenance plan for your system.
- Do have your septic system inspected in accordance with state regulations.
- Do make sure you have an effluent filter installed on your septic tank to prevent solids from reaching the drainfield and to increase the life of your system.
- Do have solids pumped out of the septic tank by a State-permitted pumper every 3 to 5 years (typical primary residence) or as required per the permit. Do make sure both compartments of the septic tank are pumped out. If the septic system includes a pump tank have it pumped out too.
- Do periodically check to ensure the septic system, pumps and electrical components, continue working properly between scheduled maintenance visits.
- Do call the local health department or an onsite wastewater contractor certified by the North Carolina Onsite Wastewater Contractor Inspector Certification Board (NCOWCICB) whenever you experience problems with your system, or if there are any signs of system failure.
- Do keep a detailed record of installations, repairs, and tank pump outs.
- Do hire a state-certified subsurface system operator when required by the septic system permit.

DON'T

- Don't ignore problems with your septic system hoping they will just go away.
- Don't enter the septic tank.
- Don't wait until the tank overflows, the drainfield fails, or the system backs up to have the tank pumped.
- Don't expand the size of the place of residence, business, or public assembly without obtaining prior written approval to adjust the size of the septic system accordingly.
- Don't make or allow repairs to your septic system without obtaining required permits from the local health department.
- Don't direct downspouts, water softeners, sump pumps, water features, swimming pool, hot tubs, HVAC condensate drains or similar discharges into the septic system or toward the drainfield.
- Don't install sprinkler systems or wells in the septic system and repair areas.
- Don't perform construction of any type over the septic system and repair areas (e.g., decks, patios, sheds).
- Don't cover the septic tank, d-box, or drainfield with structures (e.g., planters, firepits, grills) or hardened surfaces (e.g., asphalt, concrete, stone, brick).
- Don't drive or park vehicles over the septic system.
- Don't put cigarette butts, paper towels, disposable wipes, sanitary napkins/tampons, condoms, cotton swabs, kitty litter, coffee grounds, disposable diapers, plastics or other non-biodegradables into the septic system.
- Don't pour grease or cooking oil down the drain or foul up the septic system with harmful chemicals (e.g., solvents, paint, medications, disinfectants, pesticides) and other hazardous substances.
- Don't install garbage grinders at sinks.

State-Certified Septic System Installers and Inspectors

Contact the North Carolina Onsite Wastewater Contractor Inspector Certification Board (NCOWCICB)
Phone: (336) 202-3126 • Website: <https://ncowcicb.info>

State-Certified Subsurface System Operators

Contact the North Carolina Water Pollution Control System Certification Commission (WPCSOCC)
Phone: (919) 707-9089 • Website: <https://deq.nc.gov/about/divisions/water-resources/operator-certification>



NC Department of Health and Human Services • Division of Public Health • On-Site Water Protection •
<https://ehs.ncpublichealth.com/oswp> • NCDHHS is an equal opportunity employer and provider •
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List of Approved Installers

Company	Installer	Level	Cert #	Office Phone
Morgan Trucking & General Const.	Tarkessio Landis Morgan	II	5305	910-386-9407
Sibbetts Hauling Inc	Jeffrey Sibbett	IV	1285	910-754-4440
W A Page & Sons Inc.	William Page	IV	1280	252-393-8116
Bogue Sound Septic	Richard Taylor	IV	1288	252-393-6426
LB Page Landscaping	Robert Ochat	IV	1278	252-393-7766
JAD Construction	John Dietrich	IV	3403	910-988-9292
Whaley Enterprises	Adam Whaley	III	2010	910-285-2012
Whaley Enterprises	Carson Whaley	II	6649	910-271-0336
Applied Resource Management	Bailey Rauseo	IV	8066	910-270-2919
Inman Septic	David Inman	IV	2031	910-443-4149
Parker Septic Serv.	Todd Parker	IV	2993	910-799-5877
Extreme Onsite Construction	Kevin Padgett	IV	2000	910-548-2291
HBA Contracting	Andy Baker	IV	8010	910-548-5524
Flat Rate Septic	Zach Parker	IV	2016	910-376-0939
Quality Septic Services Inc	Ed Faison	IV	4530	919-422-7126
Faires Construction	Duncan Faires	IV	4375	910-358-9600
Arnolds Landscaping	Thomas Arnold	IV	5049	910-389-4170
Al Sidbury Construction	Alfred Sidbury	IV	2007	910-270-3221
Creech's Plumping INC	Hunter Creech	IV	7303	252-237-7733
Creech's Plumping INC	James Creech	IV	5187	252-237-7733
53 Septic Services	Adam Lanier	IV	9170	910-604-1087
Bear Creek Construction LLC	Jamie Rivenbark	II	6615	910-540-3337
Turnage Construction & Trucking	Dwight Turnage	IV	2043	252-745-4976
Leggett's Backhoe Service	Chay Leggett	IV	1924	910-738-8301
Farrugia Grading & Construction	Nick Farrugia	IV	6641	252-723-4017
Coastal Ground Worx	Ryan Campbell	IV	5102	910-547-6052
Cape Fear Land & Septic	Bryan Leonard	IV	6925	910-520-5205

Certified Installer is responsible for having appropriate certification level as well as applicable Manufacturers' Certification.

§ 130A-336.2. Alternative wastewater system approvals for nonengineered systems.

Additional installers may be approved on an individual and/or site-specific basis. However additional Site Visits and System Inspections may be required at an additional cost.

The list of Approved Installers is supplied to the owner/client in accordance with G.S. 130A-336.2(d)(3).



The system shall be installed/repaired by a septic system contractor approved by the AWOE. A list of Approved Installers will be included as part of the permit package. The list of Approved Installers may contain one or more certified installers that are employees of Applied Resource Management, P.C. (ARM). Please note that if the system installation is performed by ARM, the AOWE and certified installer will be separate individuals with separate certifications, both employed by ARM. It is required that no evaluator shall allow his or her interest in any business to affect the quality or results of the evaluation work that the evaluator may be called upon to perform, to include all required inspections of onsite wastewater system installations.

LEVEL	Description of Activities
I	Limited to single septic tank, conventional (gravel) gravity system only.
II	Grade I, plus: Any approved gravity or single pump dispersal system not specified in Grade Level III or IV. This includes multiple tanks, grease traps, single pump or single siphon, fill systems, and sand-lined trench.
III	Grades I and II, plus: Dual pumps or dual siphons, systems up to 3000 gpd, low-pressure dispersal, flow equalization, and any system that requires ground water lowering with a pump.
IV	Grades I, II, and III, plus: Systems >3000 gpd, multiple off-site systems, industrial process wastewater, residential wastewater treatment systems (RWTs), drip dispersal systems, wastewater reuse systems, and advanced treatment systems.

Certified Installer is responsible for having the appropriate certification level as well as applicable Manufacturers' Certification.

§ 130A-336.2. Alternative wastewater system approvals for nonengineered systems.

- (e) Responsibilities of the On-Site Wastewater System Contractor. – The on-site wastewater system contractor retained by the site owner shall do all of the following:**
- (1) Be certified pursuant to Article 5 of Chapter 90A of the General Statutes.
 - (2) Be responsible for all aspects of the construction and installation of the wastewater system and its components, including adherence to specifications and any special inspections that are prepared, signed, and sealed by the Authorized On-Site Wastewater.
 - (3) Submit a signed and dated statement of responsibility to the owner of the wastewater system, prior to commencement of work, that contains acknowledgment of the requirements of the on-site wastewater system specified by the Authorized On-Site Wastewater Evaluator

Applied Resource Management System Installation Schedule

Address: 406 Compass Point RD

ARM Project #: 240268

Installer: _____

18E Permit

.1900 Permit

Phone: _____ Email: _____

Certification #: _____ Grade/Level: _____

Septic Tank	Initial Date	Nitrification Lines/Laterals	Initial Date
Manufacture Date:		Trench/Lateral Type/Aggregate:	
State ID Number:		Trench Width:	
Capacity:		Trench Length:	
Tee/Approved Filter:		% Reduction Taken:	
Baffle:		Trench Bottom/Lateral Depth:	
Sealant:		Number of Lines/Laterals	
Tank Penetration Seal:		Trench Grade:	
Riser if Applicable:		Rock Depth & Quality (3, 4, 5, 57, 6)	
Water Tightness Test		Aggregate Cover	
Certificate by tank manufacturer (18E)			
		Dams/Step downs/Dropbox, etc.	
PUMP TANK			
Manufacture Date		Pressure Lateral	
State ID Number		Hole Spacing/Hole Sizing	
Capacity		Turn-ups/Protectors	
Waterproof/Sealant		Observation Ports	
Riser		DISTRIBUTION SYSTEM	
Water Tightness Test		Distribution Method	
Certificate by tank manufacturer (18E)		Serial Dist.	
		Pressure Manifold	
		Tap Size & Material	
PUMP			
Check Valve/Gate valve		Pipe (Size, Material & Grade)	
Anti-siphon Hole (Size)		Observation ports after manifold	
Pressure Head		Valves	
		SUPPLY LINE	
Floats/ Pressure Bell / Transducer		Location	
Drawdown (inches)		Pipe (Material)	
Electrical Components		Depth (If specified)	
NEMA 4x Box		Pipe Size	
Rate (gpm)		Hydrostatic Leak Test (if applicable)	
		LANDSCAPING	
Pump Manufacturer:		Surface Drain	
Pump Model Number:		Subsurface Drain	
Pump Removal Method:		Depth of Cover: Tank: Drainfield:	
Permanent Power		Will Shed Surface Water (Turtleback)	
		Finish Grade/Stabilize (if applicable)	
		Permanent Markers (tank)	
GREASE TRAP			
Manufacture Date		OTHER	
State ID Number		System Setbacks	
Capacity		Legal Documents/Easements	
Tee/Approved Filter (Extends		Mound Approved (Texture, Interface,	
50% of liquid depth)		Location, Length, Depth, Width)	
24" Access Opening		ORC Contract/ Company	
Water Tightness Test		Tri-Party Draft	
Certificate by tank manufacturer (18E)		Tri-Party Draft Finalized/Recorded	

Applied Resource Management System Installation Schedule

ARM Project: 240268

Installer: _____ Phone: _____ Email: _____

Certification #: _____ Grade/Level: _____

OFF-SITE SYSTEMS	INITIAL DATE	DRIP SYSTEM/ADVANCED PRE-TREATMENT	INITIAL DATE
Conditional CA for Supply Lines:		Preconstruction Meeting	
Date Issued:		Drip Manufacturer	
Date Installed:		Drip Tags Collected	
Hydrostatic Leak Test:		Headworks (above SWC)	
Permanent Markers with Lot # (AT Corners of Drainfield)		Start-up/Final Manufacturers Approval for Design	
All Weather Access Road		Field Representative Letter of Acceptance	
Easements Recorded		Installer Authorized/Approval from Manufacturer	
		Cover Turtlebacked	
Designs/ Plans Submitted		Pretreatment Product Device	
Plans Approved			
Telemetry		Designs/Plans Submitted	
As Built Provided		Plans Approved	
Designer/Engineer Letter of Acceptance		Telemetry	
		As Built Provided	
DRAINAGE		Designer/Engineer Letter of Acceptance	
Design Approved		Approval #'s	
Type: <input type="checkbox"/> GWL			
<input type="checkbox"/> Interceptor			
<input type="checkbox"/> Ditch			
<input type="checkbox"/> Swale			
Tile Size:			
Depth:			
Pump Drainage Required			
Pump Size			
Pump Manufacturer			
Power Connected/Operational:			
(Generator Not Approved)			

COMMENTS: _____
