

## CONTACT INFORMATION

If you have any questions, please call your regional DENR Aquifer Protection Section for more information.

Asheville Regional Office  
2090 U.S. Highway 70  
Swannanoa, NC 28778  
Phone: (828) 296-4500

Fayetteville Regional Office  
225 Green Street, Suite 714  
Fayetteville, NC 28301-5094  
Phone: (910) 433-3300

Mooresville Regional Office  
610 East Center Avenue  
Mooresville, NC 28115  
Phone: (704) 663-1699

Raleigh Regional Office  
3800 Barrett Drive  
Raleigh, NC 27609  
Phone: (919) 791-4200

Washington Regional Office  
943 Washington Square Mall  
Washington, NC 27889  
Phone: (252) 946-6481

Wilmington Regional Office  
127 Cardinal Drive Extension  
Wilmington, NC 28405  
Phone: (910) 796-7215

Winston-Salem Regional Office  
585 Waughtown Street  
Winston-Salem, NC 27107  
Phone: (336) 771-5000



# Single-Family Residence Wastewater Irrigation Systems



Presented by:  
Division of Water Quality  
Aquifer Protection Section

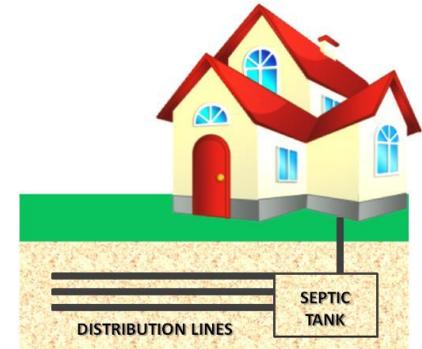


## Single-Family Residence Wastewater Irrigation Systems

The North Carolina Department of Environment and Natural Resources (NCDENR) requires that all wastewater disposal systems be permitted based on their specific use. Typically, homeowners have the ability to connect to a community wastewater collection system (i.e. sewer). However, when a sewer system connection is not available, homeowners must explore alternative options for permitted wastewater disposal on their own property. Below are three such permitted options.

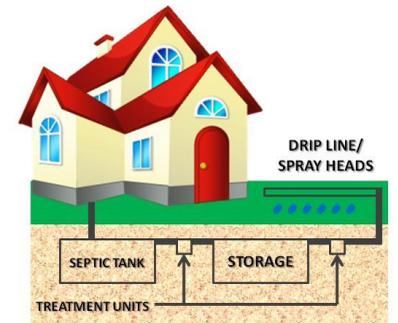
### Option 1: Subsurface Treatment and Disposal Systems

These are the most common type of single-family wastewater disposal systems. These systems treat sewage and dispose of it underground in soils that have been approved/permitted by the local health department. They are permitted under Title 15A North Carolina Administrative Code (NCAC) 18A .1900 (Sewage Treatment and Disposal Systems) with purview under The Department of Environmental Health's On-Site Water Protection Section.



### Option 2: Non Discharge Wastewater System

These subsurface systems apply treated wastewater to the ground surface through spray or drip irrigation. To apply for one these permits, a homeowner must first be denied a permit from their Local Health Department to construct a Subsurface Treatment and Disposal System on their property. These systems are permitted by the NCDENR Division of Water Quality's Aquifer Protection Section under Title 15A NCAC 02T .0600 (Single-Family Residence Wastewater Irrigation Systems) and described in further detail in this brochure.



### Option 3: Wastewater Discharge System

These subsurface systems discharge wastewater to surface waters. They are permitted by the NCDENR Division of Water Quality's Surface Water Protection Section under Title 15A NCAC 02H .0100 (Point Source Discharges to Surface Waters) and through a National Pollutant Discharge Elimination System Certificate of Coverage. These are the least preferred option since they have the potential to have the most environmental impact.



## **Non-Discharge Wastewater Systems**

### **What is needed to submit a permit application?**

In order to secure a permit from the APS, the Permittee must submit an application, which can be found on our website at:

<http://portal.ncdenr.org/web/wq/aps>

The application requires the following supporting documentation:

- Soils Report prepared by a North Carolina licensed soil scientist.
- Engineering Design Documents prepared by a North Carolina licensed professional engineer.
- Site Plans prepared by a North Carolina licensed surveyor or professional engineer.
- Property Ownership Documentation proving that the Applicant owns the property where the system is to be built (e.g. deed, contract, article of incorporation)
- Operation and Maintenance Plan addressing routine inspections, maintenance schedules, and troubleshooting.
- Denial Letter from the local County Health Department denying the site for all subsurface systems.
- Operation and Maintenance Agreement notarized and signed by owners stating that they will maintain the system.

### **Are there any fees with this type of permit?**

**Yes.** There is one-time permit application fee of \$60.00 and then the Permittee will be

required to pay an annual administering and compliance fee of \$60.00 within 30 days of being billed by the Division.

### **What are some general design considerations?**

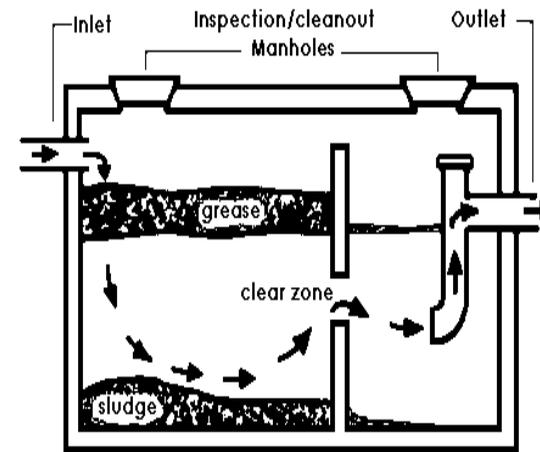
The engineer responsible for designing the system must take into account many considerations:

- Septic tanks must adhere to the guidelines in 15A NCAC 18A .1900.
- Irrigation sites must meet setback requirements. If these setbacks cannot be met, setback waivers will be required and signed by all parties involved.
- Irrigation sites must be protected with minimum two-strand wire fencing and treatment units must be locked.
- Treatment units must be protected with water-tight seal.
- Treatment units must have 100-foot setback from water supply wells and 50-foot setback from property lines.
- Pump/dosing tanks must have audible and visual external alarms to any structure.

### **Are there any maintenance requirements for the system?**

**Yes.** The permit requires that the surface irrigation facilities shall be effectively maintained and operated at all times. Some of permit maintenance requirements are as follows:

- The septic tank shall be checked annually and pumped out as needed.



General Septic Tank Profile

- Depending on the design of the system the ultraviolet disinfection unit or the tablet chlorinator shall be checked weekly.
- The storage, pump, and alarm systems shall be inspected monthly.
- The system shall be inspected monthly to verify proper operation of the spray head(s) or drip line(s),

### **How and when is my permit renewed?**

The permit is valid for five years. The Permittee shall request its extension at least six months prior to permit expiration. The Permittee may receive a letter in the mail from the APS reminding them when it's time to renew their permit.

### **Is my permit transferable?**

**No.** The permit is not transferable. In the event the facilities change ownership, or there is a name change of the Permittee, a written request must be submitted to the APS accompanied by documentation from

the parties involved, and other supporting materials as may be appropriate.

The new owners must submit a change of ownership form and a signed operation and maintenance agreement. These forms can be found at our website listed below.

### **What factors may result in the closure of my system?**

If a public or community sewage system becomes available, the Non-Discharge Wastewater System must be closed and the owner must connect to the local system.

---

For more information or a copy of the 15A NCAC 02T Waste Not Discharged to Surface Waters rules, you can visit our website

<http://portal.ncdenr.org/web/wq/aps/>

or contact us at:

DENR  
Aquifer Protection Section  
1636 Mail Service Center  
Raleigh, North Carolina 27699-1636  
Phone: (919) 733-3221  
Fax: (919) 715-0588