



**Lorain County  
Public Health**

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## Household Sewage Treatment System Factsheet

# Spray Irrigation

What is a spray irrigation system?

A spray irrigation system consists of an aeration system, a pump chamber, ultra-violet disinfection, and risers and rotary spray heads. Heavily treated sewage effluent is sprayed into a designated zone to receive additional treatment through filtration.

Why do I never see my spray irrigation system spray?

The pump serving the sewage treatment system is set on a timer designed to limit contact with people and pets. Many spray irrigation system pumps are set to dose effluent in the early morning hours of the day (4:00 a.m.)

My neighbor has a spray irrigation system, should I be concerned?

Spray irrigation systems are designed to spray in the early morning hours of the day, typically around 4:00 a.m., to reduce contact with people and pets. When spray irrigation systems are installed, isolation distances are maintained and confirmed by Lorain County Public Health to ensure the spray area is contained to only the property it is serving.

Is there a concern with spray irrigation systems freezing?

Precautions are taken during the installation of the spray irrigation system to help prevent components of the spray irrigation system from freezing (heat tape, pump line drain back into the pump chamber when not spraying, etc.) However, due to the nature of the components (risers and rotary spray heads) being above the surface and exposed to weather conditions, it is possible for spray irrigation systems to freeze. Contact a registered service provider if you experience freezing issues with your Spray Irrigation system.



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### Spray Irrigation- Operation and Maintenance

State and Local Requirements (*Ohio Administrative Code 3701-29*)

- A service contract is required with a registered service provider who meets all training requirements for the specific system components and manufacturers.
- An annual Operation and Maintenance (O&M) permit from Lorain County Public Health is required. For any questions regarding Lorain **County Public Health's O&M** program, please visit [LorainCountyHealth.com](http://LorainCountyHealth.com)

### Routine Homeowner Monitoring

| System component        | Monitoring  |
|-------------------------|---|
| Aeration Treatment Unit | <p>Ensure the aerator motor is running. You should hear it running as you approach the lid of the aeration tank that is vented (small cap). Do not enter the aeration tank, poisonous gasses may be present.</p> <p>Consult your service provider to determine the proper frequency to have your system pumped and cleaned. A typical frequency is 3-5 years, but varies based on usage.</p>            |
| High Water Alarm        | <p>On the control panel for the sewage treatment system, locate the toggle switch <b>for the alarm. Move it to "Test"</b>- you should see a flashing light and audibly hear the alarm. <b>Move the toggle back to "On" or "Auto" when done.</b> If the high <b>water alarm is left on "Test" and then silenced, you will not know if a</b> problem with the system is occurring.</p>                    |
| Dosing Pump             | <p>On the control panel for the sewage treatment system, locate the toggle switch <b>for the pump. Move it to "Hand" or "Manual". In several seconds, the system should begin spraying.</b> Once you've confirmed it is working properly, put the toggle switch back to "Auto" or "On". <b>If the pump is left on "Hand" or "Manual" it will burn it out</b> and may not be covered under warranty.</p> |

Follow all manufacturer recommendations and guidelines of your service contract.

Do not attempt to service the system



## Homeowner Responsibilities and Preventive Care

- Maintain a service agreement with a registered service provider and maintain the annual Operation and Maintenance Program permit.
- Keep all system components accessible for inspections, pumping, and service.
- Have the aeration tank pumped and system cleaned every 3-5 years, or at a frequency determined by your service provider.
- Contact your registered service provider with any problems with the system. Warning signs for a Spray Irrigation system include, but are not limited to:
  - Activation of the high water alarm light / audible warning
  - Excessive ponding of wastewater effluent near the spray heads that does not drain
  - Aerator motor not running
  - Cracked spray nozzles causing non-uniform distribution
  - Damaged risers, lids, or spray head risers
  - Plumbing backups in the house
  - Foul sewage odors
- Maintain all records of your sewage treatment system in a file

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- Divert surface water, to the extent possible without damaging or disturbing the sewage treatment system, away from the spray zones and tank areas.
- Do not access the aeration tank for cleaning, pumping, or servicing. Poisonous gasses may be present and pose a serious health risk. Contact a registered sewage hauler or your service provider.
- Do not allow anyone to drive or park over any components of the sewage treatment system. Some, but not all, distribution pipes may be suitable to drive over if they are protected by a sleeve. Contact Lorain County Public Health for a diagram of your system if you are unsure.
- Avoid flushing the following items:

Coffee Grounds, Disposable Diapers, Sanitary Napkins, Tampons, Cigarette Butts, Condoms, Dental Floss, Cat Litter, Gauze, Fats Greases and Oil, Paper Towels, Paints, Varnishes, Thinners, Waste Oils, Photographic Solutions, Pesticides, and other hazardous or harmful chemicals that require special disposal.



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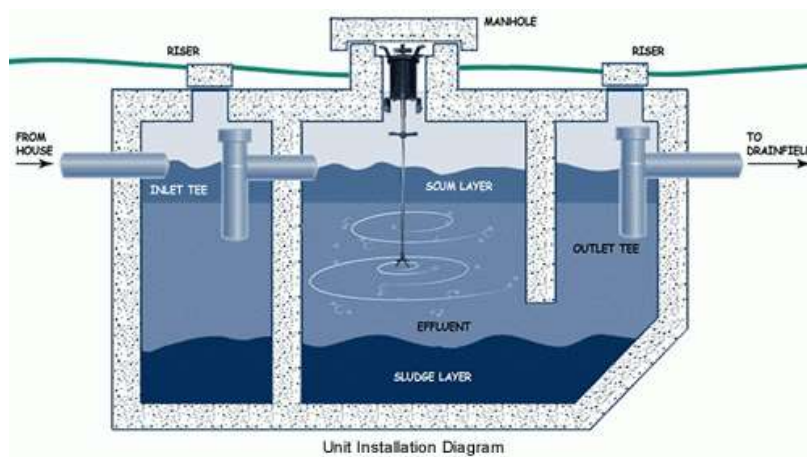
## Spray Irrigation System Components & Functions

*Models, Manufacturers, and Products will vary. Consult your Service Provider. LCPH does not endorse any particular manufacturer of sewage treatment system components.*

### Aeration Treatment Unit (Consists of Aeration Tank and Aerator)

- Traps scum and solids, provides treatment through retention time and aerobic bacteria digestion, settles solids before effluent enters the dosing chamber.

Tank: (Note the three lids. This is not three tanks. These are access ports for inspection and maintenance for the aeration tank. **DO NOT ENTER THE AERATION TANK.**)



Aerator:





## Ultra-Violet Disinfection

- Treats sewage effluent with Ultra-Violet disinfection to meet state rules and regulations.



## Control Panel

- Electrical wiring, fuses, and toggles and switches for system operation and testing. Traditionally houses controls for the aerator, the pump, and the high water alarm.





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### Dosing Chamber (Consists of Tank, Pump, and Activation Floats)

- Provides effluent retention volume, pumps effluent, and provides homeowner notification of improper drainage with high water alarm float.



### Rotary Spray Heads and Risers

- Sprays sewage effluent at a pre-determined pressure, angle, and degree of rotation to meet state rules and regulations.





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## Required Signage & Color Coding

- Provides notification to reduce contact between people and the spray irrigation area.



Contact your service provider with any questions  
**regarding your system's components and their**  
operation.