

## ON-SITE PRIVATE SEWAGE TREATMENT SYSTEMS

### On-Site Sewage Treatment Systems

On-site sewage treatment systems are used where public sewers are not available.

A septic tank and a leaching field (soil absorption system) is considered an on-site sewage treatment system. Many of the soils in Sandusky County are not conducive to absorption systems. There are approximately 7,439 septic systems in Sandusky County which serve an estimated population of 29,759. It has been estimated by the Sandusky County Health Department that approximately 29% of home sewage treatment systems are not functioning properly and that 106 systems discharge off lot.

Where there is not enough land available or soils are unsuitable, alternative systems may be used. These systems are designed to discharge to a stream or ditch. Typical alternative systems consist of a septic tank with a leach field or a subsurface sand filter.

In Ohio, sewer treatment regulations are split between Ohio EPA and Ohio Department of Health (ODH). County health districts represent ODH at the local level. Residential sewage systems for single, two, or three family units are regulated by ODH. Sewage systems for commercial establishments, and residential systems serving four or more families are regulated by Ohio EPA. State laws set general design standards and regulations for both septic and packaged treatment systems. Detailed regulations are set by the County Health District and Ohio EPA.

Sewage system failure is defined in a number of ways. There are a variety of reasons that failures occur, including system age, poor design, and system site conditions, poor operation and maintenance, along with overloadings and direct discharges. When the system failure contributes to a discharge that contaminates surface and/or groundwater, corrective measures need to be taken. State water quality standards have been established for levels of fecal coliform, E. Coli, odor, and visual manifestations of sewage.

The Ohio Department of Health recommends and suggests that proper siting, design, and installation of sewage treatment system should reduce the need for public sewers and treatment facilities.

Discharges that exceed public health nuisance standards can be related to the predominant use of system designs for direct discharges of aerobic treatment units or older septic tanks that flow to sand filters. These systems were commonly installed when soil conditions or site limitations did not permit the use of soil based systems. This practice is no longer permitted in Sandusky County.

Unincorporated areas within the County, such as Wightman's Grove, Timpe Road, and areas of Hayes Avenue have created a public health nuisance will require centralized sewer collection and treatment improvements as compared to individual residents that live in areas with less population density.

In the less populated areas where failed systems have caused or have the potential to cause a public health nuisance, alternatives to correct these problems may not include central sewers.

In areas where central collection and treatment is not available, individual residences must provide for treatment with an approved household treatment system. Existing systems that do not discharge to waters of the state and are considered failed can be allowed to upgrade or to make corrective measures that will eliminate the public health nuisance. On the other hand, existing systems that do discharge to waters of the state will be required to connect into a central sewer collection system or upgrade the system and apply for a National Pollutant Discharge Elimination System (NPDES) permit that will set effluent water quality standards for Home Septage Treatment Systems. Federal and State laws require that any discharge of pollutants to waters of the State of Ohio be regulated under the NPDES permitting program. This program provides the framework (monitoring, reporting, and operating) to ensure that discharges from household sewage treatment systems (HSTS) protect water quality and human health. There are two NPDES permitting programs in place, the first is the individual program, where a permit is developed and issued based upon site-specific conditions for a given facility. The second is a general permit which will allow for coverage for many systems. This rule will impact areas that currently discharge to streams and consideration will have to be on a case by case basis whether it is cost effective to add

required treatment to meet water quality standards to individual HSTS or to abandon the system and build central sewage collection and treatment. Additional information as it relates to this rule can be attained at [www.epa.state.oh.us](http://www.epa.state.oh.us) (Division of Surface Water). The local health department has been given the responsibility to oversee this program.

Additional unincorporated communities such as Millersville, Vickery, Whites Land, and Rollersville to name a few will most likely require septage treatment improvements or central sewer collection and treatment some time in the future. There are approximately 28 unsewered unincorporated communities located in Sandusky County.

Water quality both ground and surface water can be impacted by failed onsite systems. The primary pollutants that cause water quality problems are nitrogen, phosphorous, and pathogens.

Onsite sewage systems shall be abandoned and connected to public sewers when the Board of Health or Ohio EPA have determined that sewers are available and accessible. Sandusky County's criteria for accessible public sewers is as follows:

Must tap into an available public sanitary sewer that the Board of Health has determined to be accessible. The Board of Health will make a determination on a lot-by-lot basis, depending on Designated Management Agency's (DMA) accessibility assessment, 208 Facility Planning Area, whether the site is a Critical Sewage Area, density of housing units, and environmentally sensitive areas.

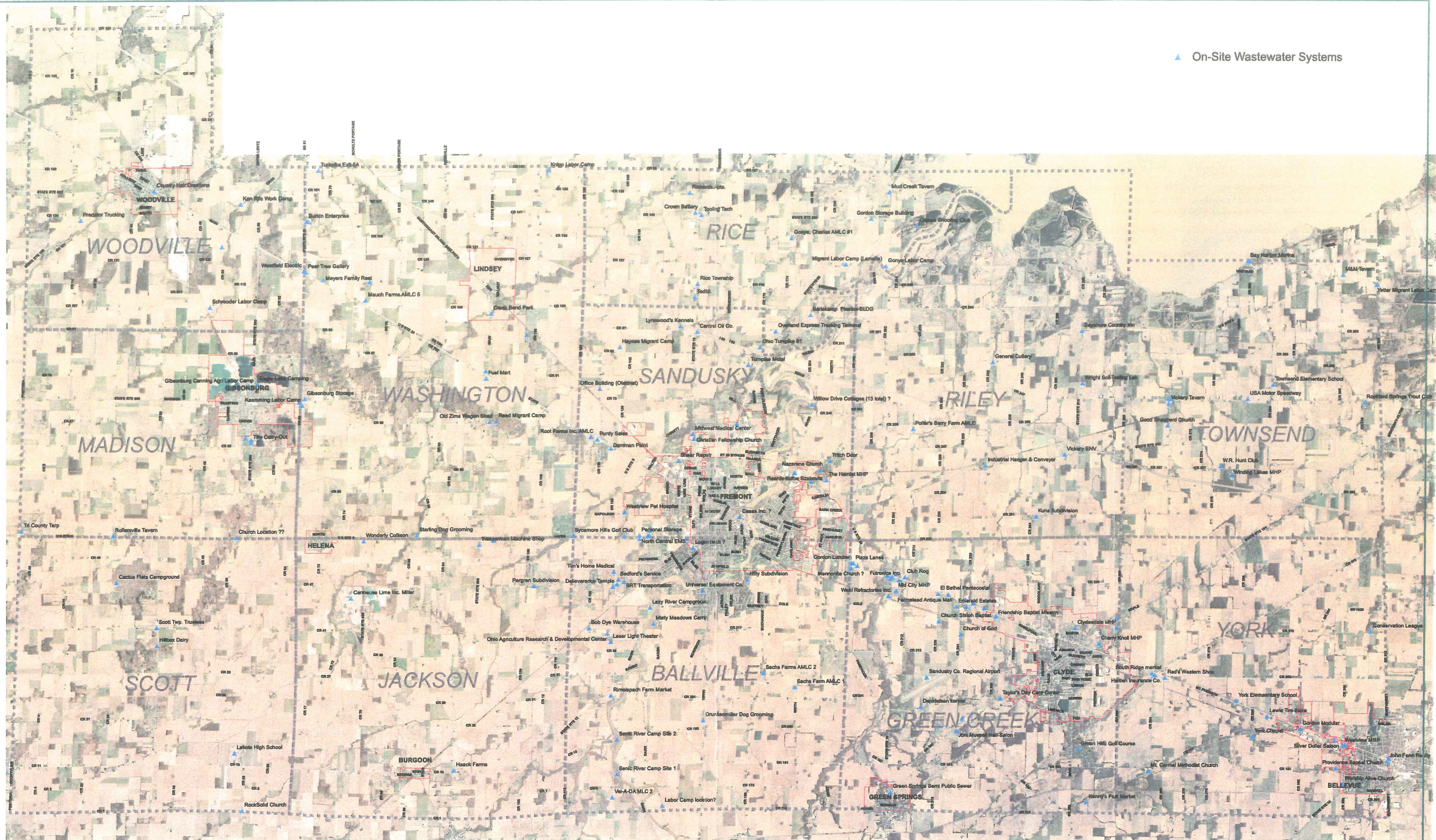
Additional information as it relates to onsite sewage treatment in Sandusky County can be obtained at the County Health Department or at Toledo Metropolitan Area Council of Government (TMACOG).

The number of on-site sewage treatment systems that are regulated by Ohio EPA and not considered residential are listed as follows:

TABLE 8 OHIO EPA LISTED ON-SITE TREATMENT SYSTEMS	
Township	Number of On-Site Systems
Ballville	28
Green Creek	39
Jackson	6
Madison	10
Rice	19
Riley	10
Sandusky	35
Scott	5
Townsend	16
Washington	22
Woodville	10
York	17
TOTAL	217

Plate 5 shows the location of each of the on-site treatment systems.

▲ On-Site Wastewater Systems



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SANDUSKY COUNTY  
ON-SITE WASTEWATER SYSTEMS  
PLATE 5

SANDUSKY COUNTY  
COMPREHENSIVE WATER & SEWER  
GENERAL PLAN

