



The Onsite Sewage Disposal program, overseen by the Environmental Health Division of Public Health Muskegon County (PHMC) is required by the State of Michigan and is in place to ensure private and commercial sewage disposal systems are operating in a safe manner that is consistent with maintaining public health. Sanitarians are responsible for ensuring all new and replacement septic systems are installed according to minimum best practices, county and state regulations. In addition, the sanitarians ensure all malfunctioning septic systems are fixed in a timely manner so the health of Muskegon County residents is not compromised. The main aim of this program is the prevention of disease transmission through fecal contamination.

The primary highlight of 2011 is the Bailey Area Community Sewage Disposal System. After many years of working with elected and community leaders in the Bailey area, the residents voted to fund a community sewage disposal system. Casnovia Township has acquired a piece of property with suitable soils to install pressurized mounds, the engineering work of soil analysis by sanitarians is complete and the project will proceed to construction in 2012.

Victoria Webster, RS, MPA
Environmental Health Supervisor

Staff and Roles

Environmental Health Supervisor
Victoria Webster, RS, MPA

Environmental Quality Sanitarians
Adam Rosema, BS
Kathleen Gardner, BS

Clinic Clerk
Penny Boynton

Environmental Health Coordinator
David Baldwin, RS

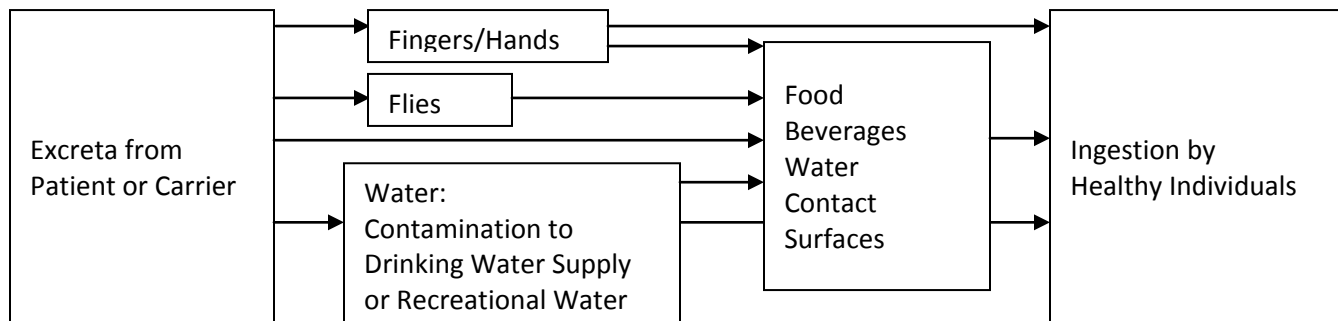
Stefanie Freeland, BS
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Basis for Program

The legislation delegating authority for regulation and oversight of onsite sewage disposal systems in Muskegon County comes from the Michigan Public Health Code. The State of Michigan has identified the on-site sewage disposal system program as a required program. Mandatory program requirements include permitting of new, replacement and repairs to existing systems and investigation of all complaints of sewage discharge. This includes failing or ponding systems and illicit discharges originating from both onsite sewage disposal systems and municipal systems.

The public health concerns associated with sewage discharges pertains to disease transmission. The Environmental Health Inspectors are also called health Inspectors and sanitarians. The early work of sanitarians across this nation resulted in the increase in life expectancy from an average age of 40 to the average life span into the 60s. This jump in life expectancy is directly correlated to safe sewage disposal.

How Disease Outbreaks Occur from Sewage Discharges



Purpose of the Program

The purpose of the onsite sewage disposal program is to prevent the spread of infectious diseases shed in human waste. Historically these included Typhoid Fever, Dysentery, Cholera, Hepatitis and Yellow Fever. Many of the human pathogens can be transmitted through sewage.

Community Data

There were 139 replacement sewage disposal systems installed in 2011, and 46 new installations. There were 28 complaint investigations, with one court ordered repair. The other sewage complaints were resolved without legal intervention.

Onsite Sewage Program Activity

	2009	2010	2011
Replacement Systems	125	148	139
New Construction	78	65	46
Complaint Investigations	31	43	28

Community Value

Proper sizing of systems

- Proper sizing of systems taking into account water table, soil type and water usage of the modern household. The large investment made by businesses and property owners in system construction is a net loss if the system doesn't function properly over the life of the property use.

Reducing impacts to our surface water, including flowing ditches, wetlands, lakes and streams

- Sewage disposal systems can release nutrients such as phosphorous and nitrogen to our surface waters. Nutrient loading can result in harmful algal blooms, and cause water bodies to fail federal total maximum daily loading requirements.
- This reduces the quality of life for the community and puts additional burdens for clean up and reconstruction/re-engineering on local governmental entities such as the Drain Commission and Road Commission. By extension, everyone in Muskegon County pays for surface water degradation.

Impact to the ground water, particularly drinking water supplies

- On-site sewage disposal systems generate nitrates and nitrites. Both of these contaminants can cause oxygen depletion or even death in infants less than six months of age and immunocompromised individuals. Proper siting and sizing of on-site sewage disposal systems is critical in eliminating this risk to our most vulnerable citizens.

Sanitarians work closely with our partners to identify and eliminate possible sewage discharges. The work can be messy, smelly and physically taxing. The sanitarians know they are eliminating potential disease causing conditions for their friends and neighbors in the community. Our partners include local watershed councils, the Muskegon Area Intermediate School District, Grand Valley State University – Annis Water Researchers, township and city governments and the average citizen who sees or smells something not quite right.

Many discharges are the result of older installations that weren't installed according to what are considered best practices by today's standards. Whether it is a floor drain turned into a basement bathroom and plumbed to a storm drain, or grandpa's "relief" line to the ditch, the entire community helps to identify these issues. Continuous updates results in the continued improvement of the quality of the environment in Muskegon County.

Fiscal Year 2011 Financial Information (Unaudited)

Revenues:	FY 2011 Actual	FY 2011 Percentage
Intergovernmental Revenue	\$48,173	20.46%
Medicaid	\$0	0.00%
Fees	\$99,902	42.43%
Access Health	\$0	0.00%
Transfers In	\$87,383	37.11%
Total Revenues	\$235,458	100.00%

Expenditures	FY 2011 Actual	FY 2011 Percentage
Program Salaries/Fringes	\$174,023	73.91%
Other Program Expenditures	\$61,435	26.09%
Total Expenditures	\$235,458	100.00%

