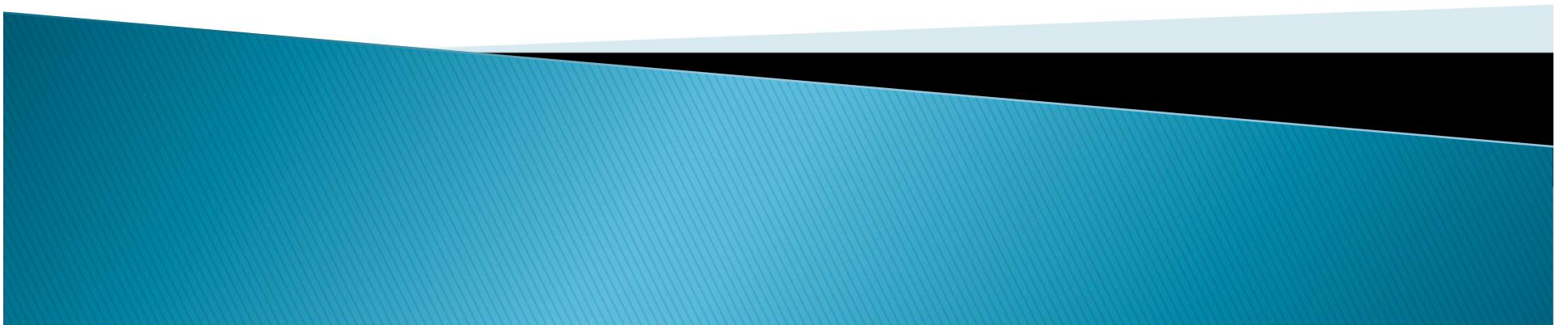


Protecting Silver Lake With Common Sense



History

- ▶ 2019 attempt at sewers were again put to rest
- ▶ From this, “*United Voice*” was Organized by Citizens and Encouraged by members of GT’s Board to Find a Common Sense way to Protect Silver Lake’s Environmental Health
- ▶ But, . . .

○ **The Problem
Still Remains**



Why?

- ▶ The problem as stated in the latest Silver Lake Improvement Board Report by RLS reasons:
 - SL has plenty of N and adding any P will cause an algae bloom (It is just waiting for Phosphate!)
 - 1 Lb of P will generate millions of blue-green algae plants
- ▶ If you do not want a sewer, then a Septic District is the **ONLY** alternative
- ▶ Because the nutrient level of Hunter's Creek is greater than the lake level, the entire chain of lakes needs to be included to prevent that single pound of P from entering SL
- ▶ We are here tonight to provide a progress report and to solicit your input on the draft ordinance



Other Communities' Solution

- ▶ Silver Lake is not alone with a high nutrient problem
- ▶ Lake communities around the state and nation have solved this issue without sewers
- ▶ EPA website cites many case studies with our type of issue
 - <https://www.epa.gov/sites/production/files/2015-06/documents/decentralized-case-studies-2012.pdf>
- ▶ Decentralized Waste Water Treatment Handbook
 - (https://www.epa.gov/sites/production/files/2015-06/documents/onsite_handbook.pdf)



Case Study – LAKE PANORAMA, IOWA

▶ PROBLEM

- High Residential growth is a challenge in un-sewered resort community.
- Quality of the lake water must be protected
- Installing conventional, soil-discharging wastewater systems is difficult in this community because of steep slopes, ravines, low-permeability soils, and small and oddly shaped lots.

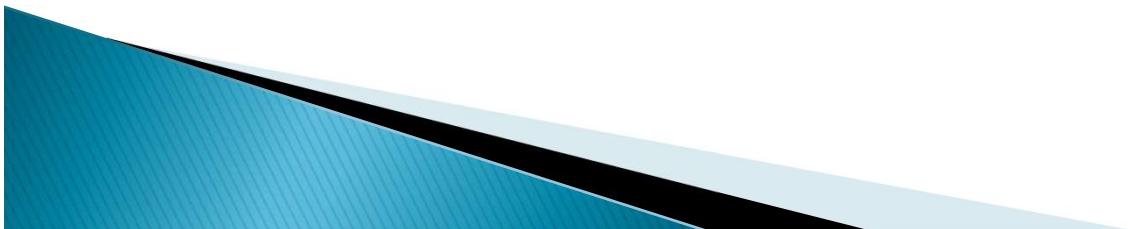
▶ SOLUTION

- The community created a management district to accommodate growth and protect water resources through the use of advanced, clustered, and innovative onsite wastewater treatment systems.



Case Study – LAKE PANORAMA, IOWA

- ▶ The program consists of:
 - Routine inspection requirements for treatment systems
 - Maintenance contract requirements and service reminders sent from the management district
 - Licensing requirements for system inspectors and septic tank pumpers
 - System inventories to track installations, repairs, and replacements



Case Study – LAKE PANORAMA , IOWA

LAKE PANORAMA, IOWA

PROBLEM

Residential growth is a challenge in unsewered resort communities like Lake Panorama, Iowa, due to the need to protect lake water quality from septic system impacts. Lake Panorama is one of the largest private lake resort communities in Iowa. Installing conventional, soil-discharging wastewater systems is difficult in this community because of steep slopes, ravines, low-permeability soils, and small and oddly shaped lots.

SOLUTION

The community created a management district to accommodate growth and protect water resources through the use of advanced, clustered, and innovative onsite wastewater treatment systems.



OVERVIEW

In 1980, the Lake Panorama Association and the Guthrie County Board of Health worked together to create the Lake Panorama Onsite

Wastewater Management District. A county ordinance authorized the district's formation, which operates under the supervision of the Guthrie County Health Department. The program consists of:

- Routine inspection requirements for treatment systems
- Maintenance contract requirements and service reminders sent from the management district
- Licensing requirements for system inspectors and septic tank pumpers
- System inventories to track installations, repairs, and replacements

ROUTINE INSPECTIONS AND MAINTENANCE CONTRACTS

The Lake Panorama Onsite Wastewater Management District manages six clustered systems, 17 sand filter facilities, 25 aeration units, 25 aeration/drip dispersal systems,

one mound unit, and one gray water collection/treatment system.

Inspections are authorized through the homeowners' association and performed by the county sanitarian. Individual systems are inspected every three years for full-time residents and every six years for part-time residents.

Maintenance contracts with manufacturer-certified technicians are required for mechanical aerobic systems. Inspections are conducted quarterly for those systems, and reports are filed with the county. Owners are responsible for system maintenance, including pumping and repairs. The district has the authority to request that the homeowners' association terminate water service for owners with noncompliant systems.

FUNDING SOURCES

Guthrie County Health Department funds the program through the collection of annual fees. The annual fee for conventional system owners ranges from \$5 to \$10, plus any repair or pumping costs. The fee for permitting a system is \$225, and the inspection fee is \$30. Tank pumping averages \$225. Cluster system users are billed at a rate of \$50 a year.

Guthrie County Health Department
200 North 5th Street
Guthrie Center, IA 50115
www.guthriecounty.org

CONTACT

Stephen Patterson
p: (641) 747-8320
e: envhlth@netins.net

RESULTS

The management programs for Lake Panorama have likely provided ongoing protection for Lake Panorama as indicated by water quality monitoring results. Bacteria concentrations at the Lake Panorama outlet are lower than that of other reaches of the Raccoon River system. Over the past few years, the district has logged only one aeration treatment unit malfunction annually, out of more than 1,000 homes on line. Additionally, system costs—though a bit higher initially—are lower than previous totals overall, as costs focus more on routine maintenance than replacement of malfunctioning systems.

The communities of Lake Panorama now better understand their onsite systems and can manage these systems appropriately to accommodate growth in the area.

Case Study – OTTER TAIL LAKE, MN

► PROBLEM

- The community around Otter Tail Lake in western Minnesota saw a decline in lake water quality.
- An environmental assessment revealed that substandard wastewater systems, untreated sewage discharges to surface waters, and intensive shoreline development contributed to high levels of phosphorus in the lake, causing elevated algae growth and an overall decline in water quality.



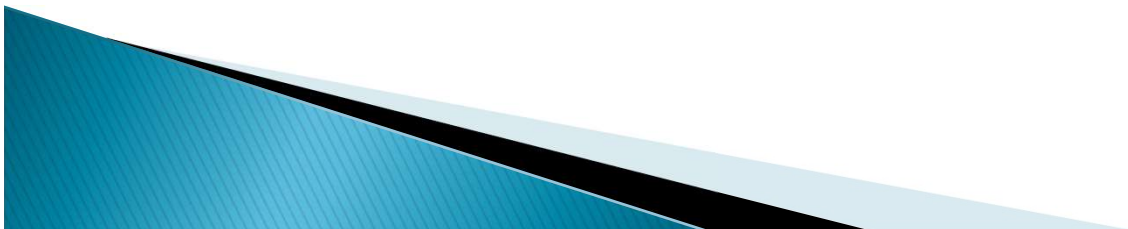
Case Study – OTTER TAIL LAKE, MN

▶ SOLUTION

- The community formed a management district to identify and repair/replace malfunctioning systems and manage the wastewater treatment systems of four townships situated on six area lakes.

▶ Program Consists Of:

- Operating permit requirements
- Routine inspection and maintenance contracts
- Maintenance of a system inventory
- Collection of groundwater and surface water monitoring data



Case Study – OTTER TAIL LAKE, MN

OTTER TAIL LAKE, MINNESOTA

PROBLEM

The community around Otter Tail Lake in western Minnesota saw a decline in lake water quality. An environmental assessment revealed that substandard wastewater systems, untreated sewage discharges to surface waters, and intensive shoreline development contributed to high levels of phosphorus in the lake, causing elevated algae growth and an overall decline in water quality.

SOLUTION

The community formed a management district to identify and repair/replace malfunctioning systems and manage the wastewater treatment systems of four townships situated on six area lakes.



OVERVIEW

Otter Tail Lake—a popular fishing and recreational lake—lies in the heart of Otter Tail County. Residential and commercial

development surrounds the majority of the lake. In 1984, the Otter Tail Water Management District (OTWMD) was formed under the authority of the Minnesota statute which governs the formation of subordinate sanitary sewer districts. The OTWMD assumed responsibility for maintaining 1,640 individual wastewater systems and 13 clustered systems. The program consists of:

- **Operating permit requirements**
- **Routine inspection and maintenance contract requirements**
- **Maintenance of a system inventory**
- **Collection of groundwater and surface water monitoring data**

ACTIVE OR PASSIVE MANAGEMENT

The district's authority includes planning, design, construction, operation, and maintenance of wastewater treatment systems. The district maintains systems for active (permanent) customers. Permanent systems are inspected every two years. System owners maintain passive (seasonal

use) systems, with oversight by the district and inspections every three years. The OTWMD contracts with independent, state-licensed, service providers in order to provide management services. The district also maintains a list of accepted installers and pumps that homeowners can hire.

The preventive maintenance program includes inspecting tanks and checking lift stations to ensure proper functioning. The OTWMD has the authority to issue compliance orders and to assign repair costs and penalties to customers' property tax statements.

Monitoring wells around clustered drainfields sample groundwater quality. The OTWMD also conducts surface water monitoring.

FUNDING SOURCES

The annual operating budget for the OTWMD is \$200,000, funded by user fees ranging from \$43 for seasonal residences to \$151 for permanent residences. The district has one full-time and two part-time employees.

RESULTS

After the program's inception in 1984, the OTWMD upgraded 850 treatment systems. The district installed 16 clustered systems for 260 connections and repaired or

Otter Tail Water Management District
27234 368th Avenue
Battle Lake, MN 56515

CONTACT

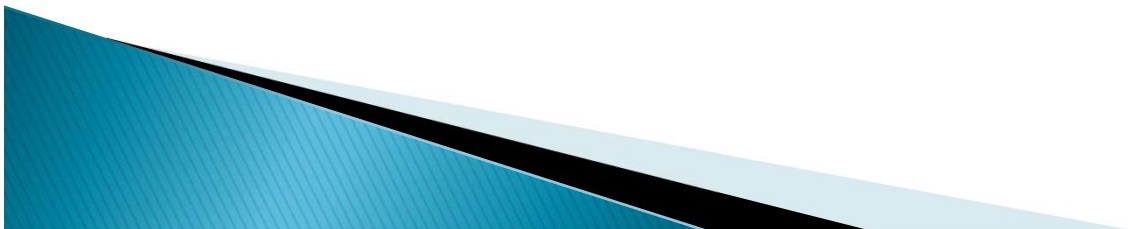
Roland Mann, Executive Director
p: (218) 864-5533
e: ottwmd@ptel.com

replaced 590 other treatment systems. The district also serviced a total of 350 other systems, including full inspections, septic tank pumping, and installation of new tank risers and covers. In the past decade, the district has replaced or repaired only 17 systems (out of nearly 1,500).

The district's actions resulted in documented water quality improvements. For example, surface water monitoring of the lake has revealed declining phosphorus and algae concentrations and overall improved water quality. Nitrate concentrations have dropped from 1 mg/L to approximately 0.2 mg/L; Secchi depth has increased from 2.4 feet to about 4 feet.

Video Conferencing

- ▶ UV broke the problem down into 5 Areas
 - Technology
 - Boundaries
 - Codes/Enforcement
 - Public Outreach
 - Funding
- ▶ Our work groups continue to meet via video conference, email and telephone
- ▶ We are here tonight to present the Codes and Enforcement results (Draft Ordinance)



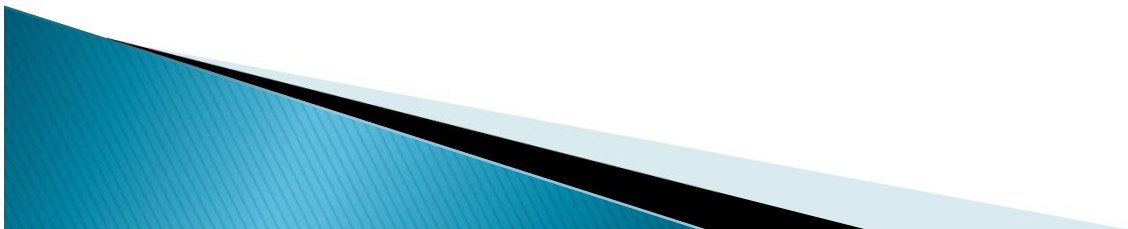
Introduction

- ▶ Define a “Septic District”
- ▶ Includes:
 - Residential Properties
 - Business Properties
- ▶ On–Site Sewage Treatment Systems (OSSTS)
 - Performance Requirements
 - Inspections
 - Permitting
 - Administration of Program



Title

- ▶ Golden Township
“Inspection and Permitting
of Residential and Business
On-Site Sewage Treatment
Systems within Golden
Township Septic District”



Purpose

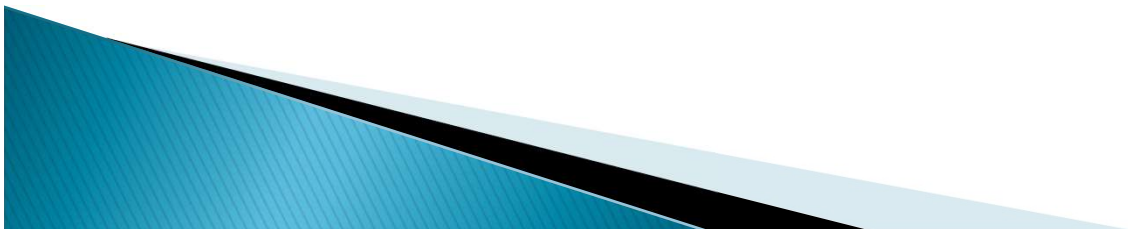
▶ MCL 41.181

- Allows Townships to create and enforce Ordinances that:

- Regulates health, safety, and welfare of persons and property and
- Provide Operating Standards and
- Penalties for violation of an Ordinance

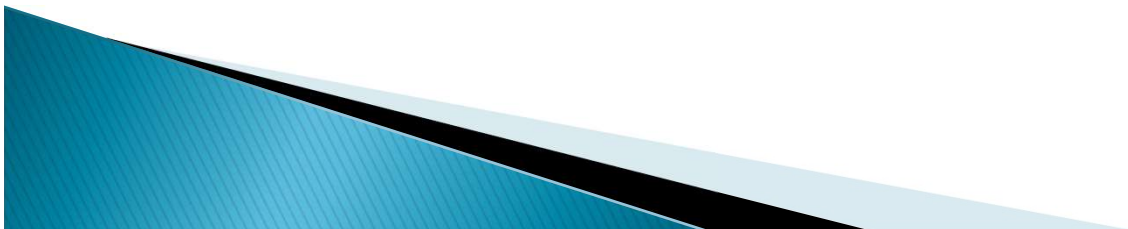
▶ This Proposed Ordinance shall:

- Minimize degradation and nutrient loading of ground water by improper or malfunctioning sewage treatment systems
 - By regular inspections every 5 years



Purpose

- ▶ This Ordinance contains minimum standards and
- ▶ Is in addition to EGLE, HD#10, Oceana County, Michigan statutes and Federal requirements
- ▶ The intent of the Ordinance is to protect public health and environmental welfare in GT Silver Lake watershed



Definitions

- ▶ There are 21 specific definitions, here are a couple of the more important ones
 - Enforcement Agent (EA) – Township employee administering the program and enforcing said ordinance
 - Evaluator – a person qualified by HD#10 to inspect OSSTS. Township approved person
 - Failure – Not meeting current HD#10 regulations or the requirements of this Ordinance
 - Septic District – parcels as listed in Attachment #1
 - Substantial Conformance – Minimum likelihood of risk to public and environmental health caused by defects found, determined at the discretion of EA

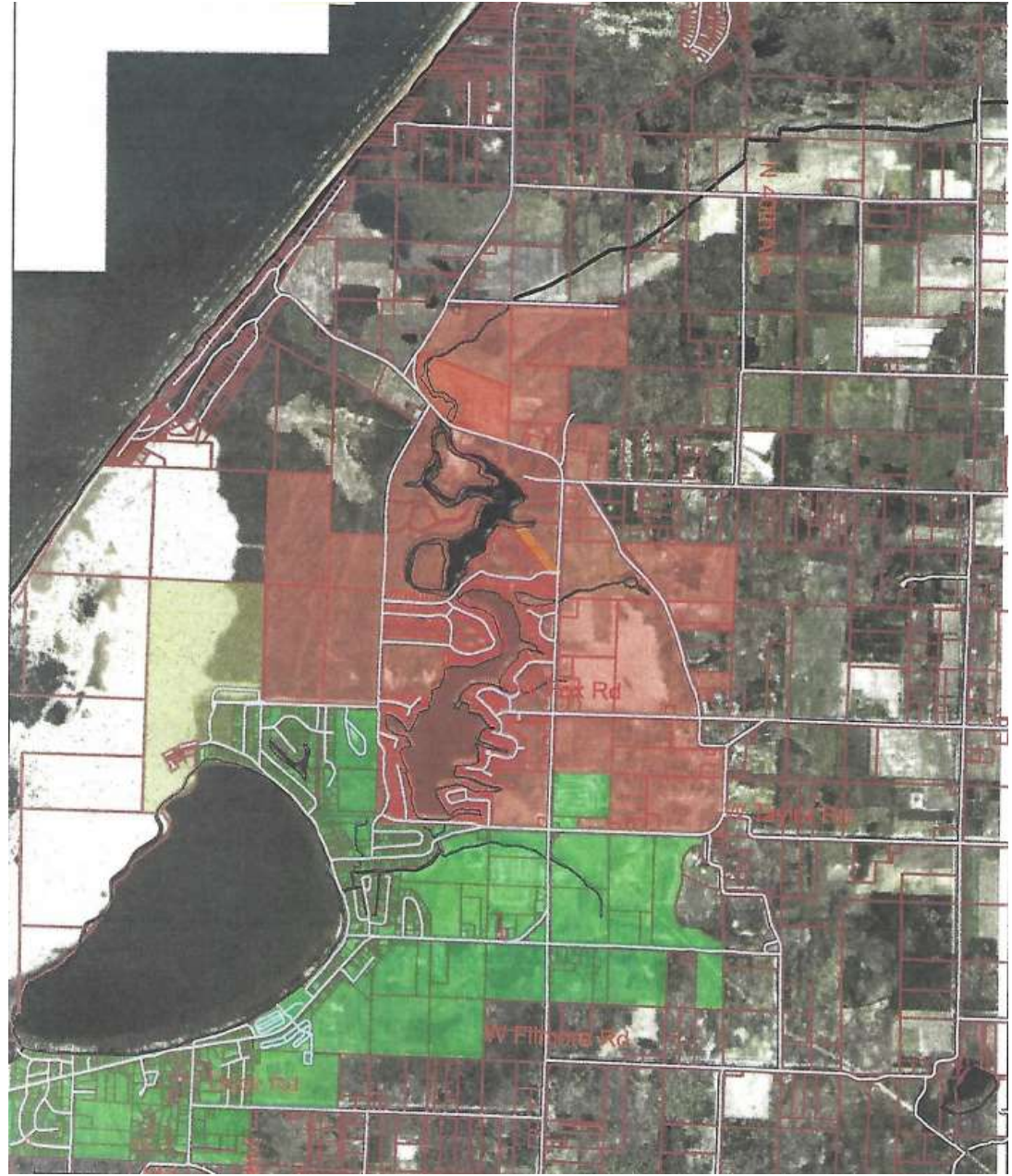


Properties Subject To This Ordinance

- ▶ Listed in Attachment #1
- ▶ Township may add properties at their annual review meeting
- ▶ Properties may be removed by appeal and positive recommendation of the EA by board vote at the annual meeting
- ▶ Board vote is final
- ▶ Proximity to open water places a property within the Septic District
- ▶ Map gives overview

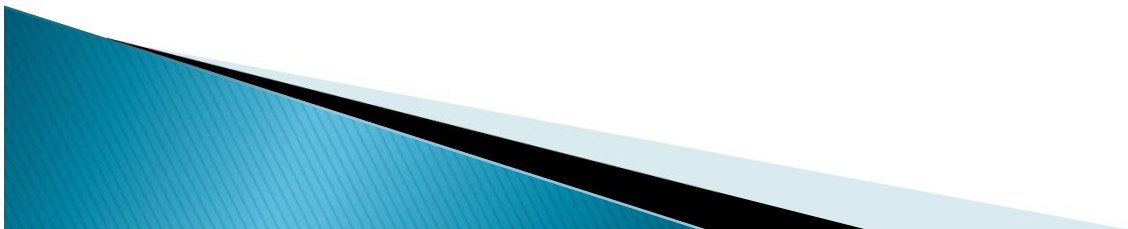


Properties Subject To This Ordinance



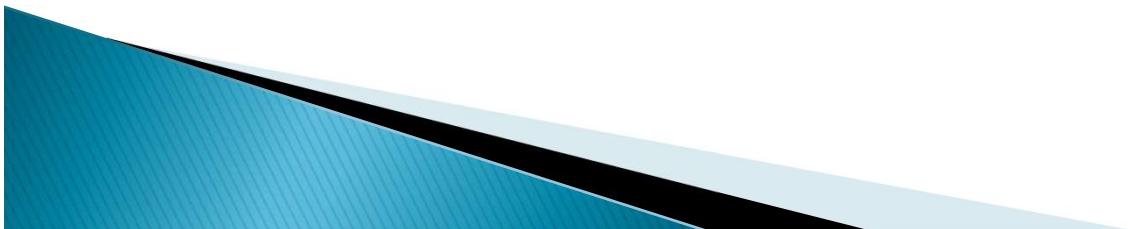
Advising Owners of This Ordinance

- ▶ Owners shall be notified of their property's inclusion in the Septic District
- ▶ Additional properties may be added at an annual meeting
- ▶ Owners are provided a 60 day notice
- ▶ Property owner may present cause to prevent their property(ies) addition to the Septic District
- ▶ The Board decision is final



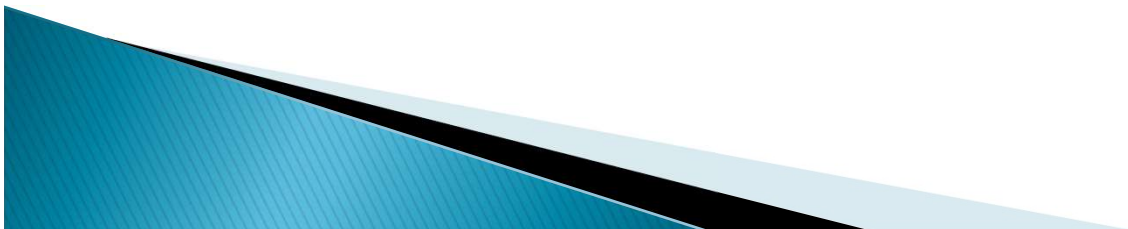
Requirements

- ▶ This Ordinance upholds HD #10 septic requirements and
- ▶ Additionally specifies Effluent Limitations
 - Biological Oxygen Demand (BOD) < 30 ppm
 - Total Suspended Solids (TSS) < 30 ppm
 - Total Inorganic Nitrogen (TIN) < 10 ppm
 - Phosphorous < 2 ppm (for those properties within 500 feet of a water body)
- ▶ Sample Point is at Septic Tank Discharge and before the Drain Field
- ▶ Perform a drain field inspection



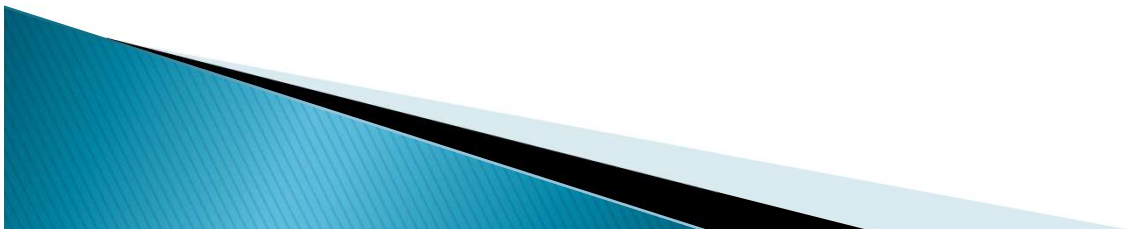
Requirements

- ▶ When using an Advanced Treatment Unit or System
 - The owner must supply a contract ensuring annual maintenance is scheduled
- ▶ Exemptions
 - New construction with proper permits
 - Current OSSTS Operating Permit
 - A Failed System under-going repair
 - A Failed System entering into a repair agreement with the EA



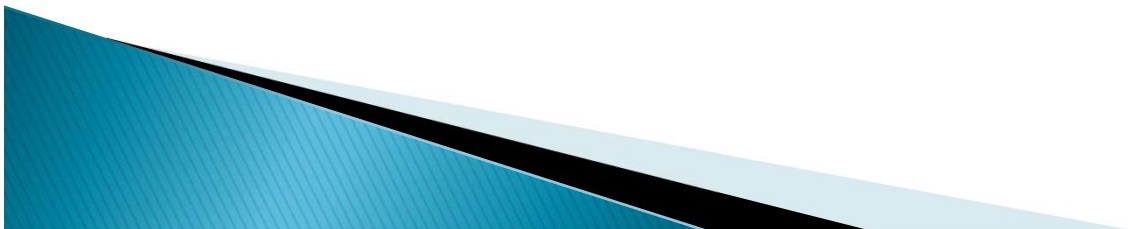
OSSTS Enforcement Agent (EA) and Evaluators

- ▶ The Golden Township Enforcement Agent must be a registered Sanitarian with the State
 - Must obtain registration within 36 months of hire date
 - EA may also conduct inspections as an Evaluator
 - Must be a HD#10 trained Evaluator
- ▶ Evaluators are trained by HD #10 and are
 - Registered with Golden Township as Evaluators
 - May be removed from registry for poor performance
- ▶ EA may be removed from position as any other Township Employee



Enforcement

- ▶ EA determines there is a violation
 - Voluntary Agreement with Owner, failing that:
 - Notice of Violation with facts sent
 - Failure to Comply
 - EA issues a violation notice every 30 days with incremental fines
 - Request HD#10 to issue and post the property as “Unfit for Human Habitation”, until resolution of the issue
 - Unpaid fines and costs associated with inspection and repair are assessed against the property
- ▶ EA may inspect OSSTS at reasonable times to collect evidence of compliance or violation for non-compliant owners



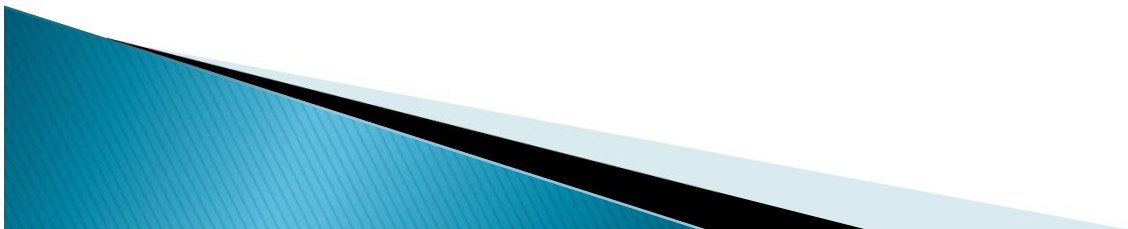
Administrative Funding

- ▶ A fee attached to property taxes to pay for EA and cost of administering this Ordinance
- ▶ Board needs to set a goal for first year costs
 - And divide by the number of properties included in this Ordinance
- ▶ Board may adjust fee in subsequent years at annual review meeting
 - Inflation
 - Capitol Costs



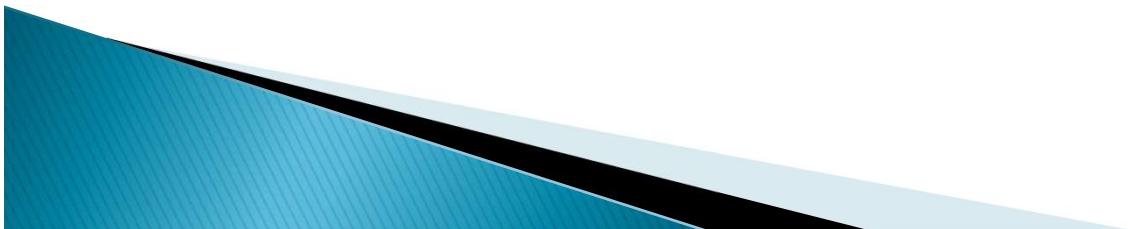
Proposed Timeline

- ▶ Now until May 2020
 - Develop Ordinance
 - UV accepts Public Comment on draft ordinance through website/email
- ▶ June 2020
 - Public Review of Completed Ordinance (Public Readings)
 - Property Owners Survey after RLS – Silver Lake Public Workshop Presentation
- ▶ August 2020 date for approval
 - Golden Township Approval
- ▶ Aug 2020 – Jan 2021
 - Infrastructure and personnel in place
 - 60 day notice for owners
 - Add Septic District Fees to Property Tax bill (after 60 days notice)
- ▶ Jan 2021 Implement Requirements
 - First Inspections to commence in Spring of 2021



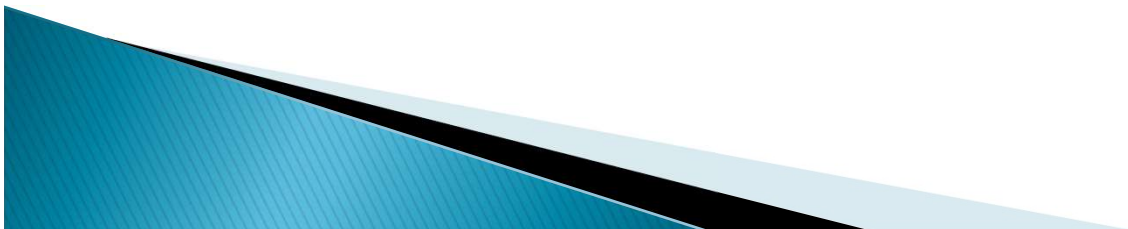
Thank You

- ▶ United Voice wants to thank the board for the opportunity to
 - Help our community
 - Improve Silver Lake Water Quality
- ▶ We stand ready to help implement this Ordinance with our support and actions
- ▶ Questions??



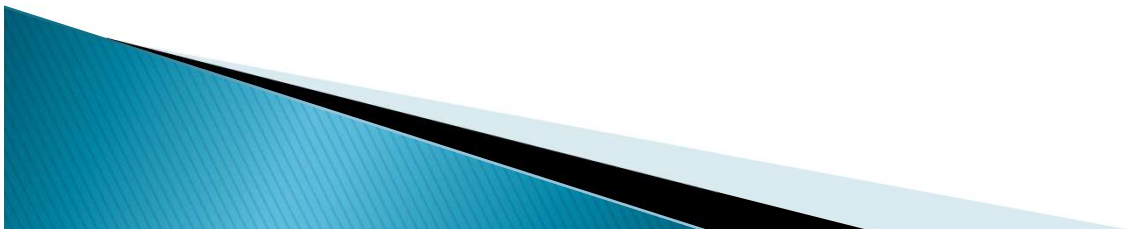
United Voice Website

- ▶ This website shall be the repository for all information related to United Voice's efforts relating to potential septic district in the Silver Lake area of Golden Township
- ▶ We will be happy to answer any questions through the email account and website.



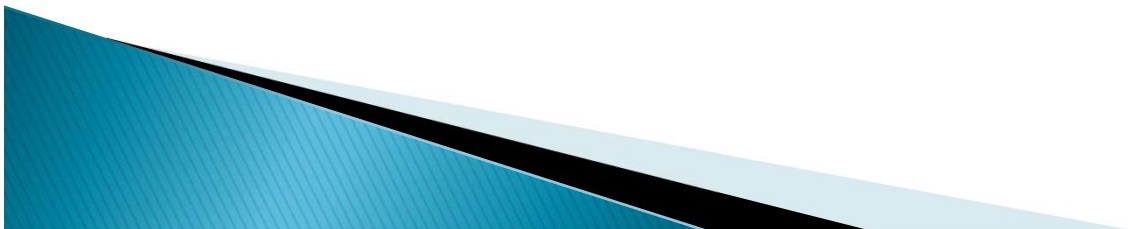
United Voice Website

- ▶ <http://www.silverlakeunitedvoice.org/>
- ▶ slunitedvoice@gmail.com



Costs

- ▶ Every property has different needs, hence different costs.
 - My ATS, 3 years ago cost \$7,500
 - If only an aerator is required, then their average cost is about ~\$2,000 – ~\$3,000 depending on system age.
- ▶ HD #10 has stated they can perform an inspection for ~\$275
 - Tank Pumping runs ~\$200
- ▶ Administrative Costs
 - Assume \$200,000 required for the first year
 - 1907 properties
 - ~\$105/property/year



Funds

▶ USDA

- 504 Program – Single Family Home Improvement Program
 - 2 Part Program
 - Grant Program for Health Hazards
 - Loan for Septic Repair/Replacement
 - Fixed Interest of 1% over 20 years (Loans)
 - Max Loan \$40,000
 - Qualifying Requirements
 - Very low income
 - No other assistance
 - Do not have resources
 - Own and Occupy home
 - Acceptable Credit History
 - Willingness to repay
 - Us Citizen or Resident Alien



Funds

▶ USDA

- 502 Program – Single Family Housing Loans Program
 - Loan Program
 - Max Amount \$7,500 payable in 10 years
 - Rural Areas
 - $\leq 80\%$ of adjusted median income
 - Requirements
 - Evidence of ownership
 - Good Credit History
 - Proper ratios of income to debt and expenses
 - No credit from another source
 - Citizen or eligible non-citizen
 - Legal Capacity to incur a loan
 - Occupy the dwelling





RURAL DEVELOPMENT DIRECT SINGLE FAMILY HOME IMPROVEMENT PROGRAM (SECTION 504)

LOAN PROGRAM

WHAT REPAIRS QUALIFY?

Repair to or replacement of water and sewage systems; install insulation; storm windows; heating systems; electrical systems; weak or damaged floor, wall, or roof. Remodel for physical disability needs or handicap accessibility. Loan funds may also be used to remove other building code violations, adding needed living space, remodeling the kitchen/bath, or otherwise modernizing the home.

WHAT ARE THE TERMS OF THE LOAN?

All loans have a fixed interest rate of 1% and a maximum repayment term of 20 years. Repayment terms are based on the applicant's repayment ability. Loans which exceed \$7,500 will require a mortgage. Loans in excess of \$25,000 must be closed in accordance with Rural Development Regulations.

Maximum loan amount is **\$40,000**.

DO I QUALIFY?

Yes, if you: 1) have an income that falls within the very low category for the county you live in; 2) cannot obtain assistance elsewhere; 3) do not have personal resources (cash or other assets) to do the repairs; 4) own and occupy a single family home; 5) have an acceptable credit history; 6) demonstrate adequate repayment ability; 7) are a U.S. citizen or resident alien.

GRANT PROGRAM

WHAT REPAIRS QUALIFY?

Grant funds may be used only to remove health and safety hazards or to make the dwelling accessible to members with disabilities.

WHAT ARE THE TERMS OF THE GRANT?

All grant recipients must sign a Grant Repayment Agreement that states that if a home that is repaired with a Section 504 grant is sold within three years of grant approval, the full amount of the grant must be repaid. No mortgage will be placed on the property.

Grants cannot exceed **\$10,000.00**.
(Lifetime assistance maximum.)

DO I QUALIFY?

Yes, if you: 1) are **age 62** or older; 2) have an income that falls within the very low category for the county you live in; 3) cannot obtain assistance elsewhere; 4) do not have personal resources (cash or other assets) to do the repairs; 5) own and occupy a single family home; 6) are a U.S. citizen or resident alien.



United States Department of Agriculture

RURAL DEVELOPMENT DIRECT SINGLE FAMILY HOUSING LOAN PROGRAM (SECTION 502) FOR REPAIRS

The Section 502 Direct Home Loan Program provides loans in rural areas for modest housing to households at or below 80% of the adjusted median income. Rural areas include open country and places with populations of 10,000 or less and under certain conditions, towns and cities between 10,000 and 20,000 populations.

A **repair loan** of less than \$7,500 that is scheduled for repayment within 10 years from the date of the loan may be secured by a promissory note alone as long as the applicant meets the following eligibility requirements:

- Provides evidence of ownership in the applicant's name only.
- Has a credit history that indicates an ability and willingness to pay the debt when due.
 - Rural Development evaluates the last three years of credit history for each applicant. An applicant's record does not have to be perfect to be eligible for a loan. A few instances of credit problems can be acceptable, if an applicant's overall credit record demonstrates an ability and willingness to repay obligations.
- Has principal, interest, taxes, and insurance (PITI) and total debt (TD) ratios that indicate that the applicant will have sufficient income to meet all obligations.
 - PITI debt ratio cannot exceed 29% for very low or 33% for low income families.
 - TD ratio cannot exceed 41%.
- The applicant's equity in the real estate, as improved, equals or exceeds the amount of the proposed loan.
- Must meet the income limits based on family size and for the area.
- Must be unable to obtain sufficient credit from another source.
- Meet citizenship or eligible non-citizen requirements.
- Must possess legal capacity to incur the loan.
- Must personally occupy the dwelling as their primary residence.

The applicant cannot receive payment subsidy on an unsecured loan.

Funding USDA Contacts

Paul Bristol

Area Specialist

USDA Rural Development

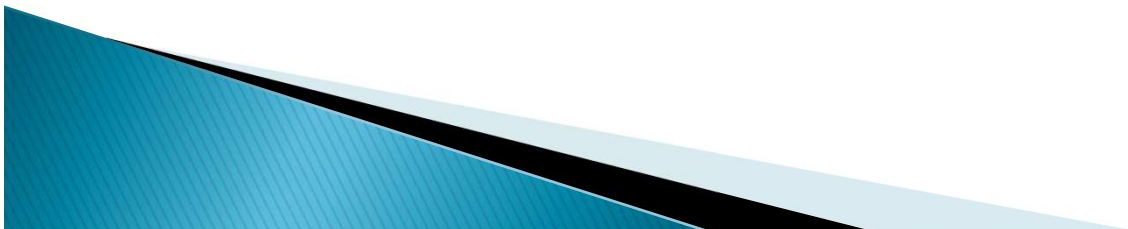
3260 Eagle Park Dr., Suite 107

Grand Rapids, MI 49525

616-222-5817 Direct

616-942-4111 ext 6

855-729-8874 eFax



Funding USDA Contacts

Ilene of USDA

Handles Oceana County

Becomes Your Funding Partner

Rural Housing Services

616-222-5824 Direct

Very Nice Lady, Eager to Help

