

Funding Mechanisms for Correcting Illicit Connections

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PROBLEM STATEMENT

This White Paper summarizes the financing options available to public works professionals to carry out sewer infrastructure improvements that are needed to eliminate illicit connections, primarily failed septic systems. The communities that make up the Alliance of Rouge Communities (ARC) have complied with the Municipal Separate Stormwater Sewer System Permit requirements and as such have instituted Illicit Discharge Elimination Programs (IDEP) through which they have identified numerous failed and failing septic systems in urbanized areas. However, for a number of technical, financial, and political reasons, repairing, replacing, or eliminating these systems remains a challenge for public works professionals. This summary presents the funding mechanisms available in Michigan and describes how communities throughout the nation have chosen to finance the repair of failing septic systems.

No single option is recommended in this summary. The information is only provided to aid public works professionals in determining how best to proceed in their community.

1.0 INTRODUCTION

Many communities in the Rouge River Watershed, across Michigan, and throughout the nation face a common problem of illicit sanitary sewage discharges from failing septic systems. In more rural areas the problem is most often addressed by county health departments who can identify the isolated failing system and require the owner to perform necessary onsite upgrades and improvements.

In suburban communities, residential septic problems are more likely a legacy issue. Homes that were constructed prior to installation of sanitary sewers were served by a range of treatment devices. Some structures were connected to simple cesspools without adequate means of settling and removing solids and with infiltration limited to the circumference of the structure. Others were served by “modern” septic systems with septic tanks and drain fields that were improperly sited or have exceeded their functional life. As publicly owned sewer systems were constructed, it was not unusual for clusters of homes or sporadic individual houses to remain privately served within neighborhoods generally serviced by the local wastewater utility.

Individual system failures were often difficult to identify since the development often also brought improvements to the stormwater drainage systems to which failed septic systems could easily “short circuit.” It has been documented that direct connections from individual residential systems to enclosed storm drains were often allowed. And, increasingly, it is being found that

costs associated with extending sanitary service to clusters of septic-served homes or making connections of individual homes to nearby sanitary sewers is cost prohibitive.

In other instances, sanitary sewer leads were illicitly connected to a storm sewer due to careless or unscrupulous contractors. Other times, during combined sewer separation projects, the sanitary leads were not completely identified leaving them connected to the storm sewer.

When new subdivisions are developed, the cost of utilities, including lateral sewer and house lead construction, is born by the developer and builder. It is then incorporated into the sale price of homes as they are constructed and sold. An economy of scale is in place as dozens or even hundreds of lots are serviced at one time. When sanitary sewers need to be extended to provide service to small clusters of homes, or when individual homes need to be connected through a maze of underground infrastructure and under roadway pavement, the cost per connection soars.

It is the intent of this paper to identify funding mechanisms that are available to assist southeast Michigan communities in correcting the illicit connections within sewered areas. This paper describes an illicit connection problem area (Section 2.0) and funding challenges (Section 3.0) within the Rouge River watershed that prompted the need for this research. Available funding mechanisms include the State Revolving Fund (SRF) program, the Community Block Development Grant program, and the Michigan Drain Code are described in Section 4.0, along with the current status of the amendments to Michigan's SRF program as described in Section 5.0. Finally, several examples are provided in Section 6.0 on how other states are addressing funding for rectifying onsite sewer infrastructure issues.

2.0 CURRENT PROBLEM AREA DESCRIPTION

Through December 2011, the Alliance of Rouge Communities working with the Oakland County Water Resources Commissioner's office (OCWRC) and City of Farmington Hills identified 13 illicit connections in a neighborhood located in the southeast corner of Farmington Hills. The identified illicit connections discharge to various Chapter 4 Drains, which flow into the Main Branch of the Rouge River. Further investigations are ongoing within this area and field crews feel that additional illicit connections will likely be discovered. It is noteworthy that the Drain Code limits the assessment for maintenance of Chapter 4 Drains to \$2,500 per mile per year.

The illicit connections found thus far include direct connections of a home's plumbing to a storm drain, connections between the septic tanks and storm drains, connection of part of the home to the storm and part to the sanitary, and connections that were, apparently, allowed upon storm drain installation. Within this area, the problem properties are not concentrated in one area, rather they are scattered across several blocks. Many of these homes were built in the 1920s and many of the residents are low income. In most areas, a sanitary sewer is available, although access is not necessarily straightforward. Some preliminary estimates indicate that in many cases the

correction costs may be 25 – 50% of the home’s value. The sewer repairs could force some of these homeowners into foreclosure, if they are not provided some financial relief.

3.0 FUNDING ISSUES

Sanitary sewer construction, repair and rehabilitation can be funded through various sources. Traditionally, illicit connections from homes or businesses have been treated as health code violations and the property owner has been responsible for making – and paying for – the corrective action. Similarly, when a private wastewater treatment system – septic system – fails its owner is required under the health code to make the necessary upgrades.

When new sanitary sewers are constructed in a neighborhood, most municipal utility departments require that any home within a certain distance of the sewer make a connection. Often this disconnection from septic and connection to community sewer is done in conjunction with the sewer construction and charged back to the customer at reduced rates. Where septic systems are allowed to remain in service adjacent to sewer lines, the property owners are usually required to connect either upon sale of the property or when the system fails. These costs are borne by the property owner.

Issues arise when connection costs escalate beyond that reasonable for property owners to absorb. This is compounded by the drastic reduction in home values seen throughout the U.S., but even more dramatically in southeast Michigan. As mentioned above it is estimated that in some cases sewer connection costs could approach half the total home’s value.

Communities may decide they want to remove the illicit connections solely through enforcement, not considering the financial and social impact on the homeowners. However, it is more likely that community leaders will attempt to either assist property owners by extending their costs over time or considering the disconnection a public improvement and covering costs through existing revenues or available grants/loans.

The use of grants and loans brings with it the complexities of the various programs available. Implicit to the problem posed by septic system abandonment and connection to public sewers is the fact that 1) work need be performed on both private and public property and 2) the work involves both stormwater and sanitary sewer infrastructure. Many of the existing programs’ requirements limit funding to private vs. public facilities or sanitary vs. storm systems.

While some of the programs would allow partial funding through various grants, the process of multiple applications without certainty that funds from both sources will be secured is too costly for most communities to undertake.

4.0 POTENTIAL FUNDING SOURCES

Several funding sources are potentially available to southeast Michigan communities: special assessment districts, state revolving fund programs, Community Development Block Grant program, the Michigan Drain Code, Public Act 342 and stormwater utilities. Each is described in the remainder of this section.

4.1 Special Assessment Districts

The cost of improvements to municipal infrastructure that benefits a group of properties can be recovered through special assessments to the benefited properties. Special assessments may be imposed for many types of improvements and even services for which specific statutory and other local implementing authority is found.

Typical subjects of special assessments are water and sewer improvements, street improvements, including paving, curb, gutter and sidewalk improvements. To impose a special assessment, a municipality must first have the statutory authority to make the improvement or provide the service for which the assessment will be imposed. Second, the municipality must have the statutory authority to assess for that type of improvement or service.

The lands proposed to benefit from and specifically assessed comprise the special assessment district. The assessments are apportioned among the landowners in the district. Assessments may be required to be paid in a single payment or allowed to be repaid in multiple installments. Interest may be charged on unpaid installments.

Procedural requirements vary widely depending on the particular local statute, charter or ordinance involved. The following are key elements to any assessment process:

- A resolution is required. The council, by resolution, may determine that the whole or a part of the expense of a local public improvement or repair shall be defrayed by special assessment.
- It takes a 2/3 majority vote of council to impose a special assessment.
- The complete special assessment procedure to be used shall be provided by ordinance.
- The ordinance shall include the time when special assessments may be levied; the kinds of improvements for which a hearing is required on the resolution levying the assessments; the preparing of plans and specifications; estimated costs; the preparation, hearing, and correction of the special assessment roll; collection; the assessment of single lots or parcels; and any other matters concerning the making of improvements by the special assessment method.
- The city, village or township may borrow money and issue bonds in anticipation of the payment of special assessments in 1 or more special assessment districts.

- The council may specially assess lands in sewer districts and special assessment districts, for the expense of grading, paving, and graveling streets, for constructing drains and sewers, and for making other local improvements charged in proportion to frontage or benefits, such sums as they consider necessary to defray the cost of the improvements.
- Once confirmed, assessments may become a lien on the assessed property.

Special Assessments provide a means to recover costs from benefited parcels; however, the up-front cost of the improvement needs to be obtained from other sources. Where statutory authority exists, municipalities will often finance an improvement through the issuance of bonds in anticipation of special assessments, secured primarily by the assessments and secondarily by the general fund of the municipality.

Improvements can also be funded through an “improvement revolving fund.” Public Act 188 of 1954 provides for the making of certain improvements by townships; paying for the improvements by the issuance of bonds; levying of taxes; assessing the whole or a part of the cost of improvements against property benefited; and issuance of bonds in anticipation of the collection of special assessments. It also allows for the creation of a fund to be known as the township improvement revolving fund. The township board may transfer to the township improvement revolving fund from the general fund an amount not exceeding 2 mills of the taxable value of the real and personal property in the township each year until that fund equals 5 mills of the taxable value of the real and personal property in the township.

4.2 Clean Water State Revolving Funds

4.2.1 National Perspective

Clean Water State Revolving Fund (CWSRF) programs provided more than \$5 billion annually in recent years to fund water quality protection projects for wastewater treatment, nonpoint source pollution control, and watershed and estuary management. Key features of the program include:

- **Low Interest Rates and Flexible Terms**—Nationally, interest rates for CWSRF loans average 2.2%, compared to market rates that average 4.5%.
- **Significant Funding for Nonpoint Source Pollution Control and Estuary Protection**
- **Assistance to a Variety of Borrowers**—The CWSRF program has assisted a range of borrowers including municipalities of all sizes, farmers, homeowners, small businesses, and nonprofit organizations.
- **Partnerships with Other Funding Sources**—Various states use CWSRFsto partner with banks, nonprofits, local governments, and other federal and state agencies.

From the U.S. Environmental Protection Agency's perspective, the CWSRF is a far more flexible program than its predecessor the Construction Grants program. Under the CWSRF, states have a wide range of options. States may choose from a variety of assistance options, including loans, refinancing, purchasing, or guaranteeing local debt and purchasing bond insurance. States can also set specific loan terms, including interest rates (from 0% to market rate) and repayment periods (up to 20 years). States have the flexibility to target resources to their particular environmental needs, including contaminated runoff from urban and agricultural areas, wetlands restoration, groundwater protection, brownfields remediation, estuary management, and wastewater treatment.

States may also customize loan terms to meet the needs of small and disadvantaged communities. In 2009, 77% of all loans (23% of funding) were made to communities with populations less than 10,000. In addition, some states provide specialized assistance for communities that are disadvantaged or experiencing financial hardship. These states might offer lower or no-interest loans to provide greater subsidies for disadvantaged communities.

The Michigan Department of Environmental Quality (MDEQ) establishes the level of flexibility for these programs within the state.

4.2.2 Michigan Clean Water Revolving Funds

The State of Michigan administers two separate funds under state-established guidelines: 1) the State Revolving Fund and 2) the Strategic Water Quality Initiatives Fund.

Michigan's Water Pollution Control Revolving Fund, better known as the State Revolving Fund (SRF), is a low interest (currently 2.5%) loan financing program that assists qualified local municipalities with the construction of needed water pollution control facilities.

The Strategic Water Quality Initiatives Fund (SWQIF) is a low interest (currently 2.5%) revolving loan program that allows qualified municipalities to access financing for the construction of needed water pollution control facilities that cannot qualify for SRF assistance. Two types of projects can be financed under the SWQIF: the onsite upgrade-replacement of septic systems and the removal of groundwater or stormwater from sewer leads.

SRF funding can be used for:

- Municipal Sewage Treatment Facilities,
- Interceptor Sewers,
- Collection Systems,
- Inflow/Infiltration Correction,
- Combined Sewer Separation,
- Septage Treatment Facilities,
- Nonpoint Source Pollution Control, and

- Stormwater Treatment Facilities.

SWQIF funding can be used for:

- Removal of excessive infiltration and inflow from privately-owned sources that flow into sanitary or combined leads, and
- Replacement of privately-owned failing septic systems that are adversely affecting public health or the environment.

House Lead Eligibility

Only the portions of sewer laterals (house leads) within the public right-of-way are SRF eligible. House leads on private property may be eligible for replacement/rehabilitation as part of the SWQIF. The exception is grinder pump/septic tank effluent pump (S.T.E.P.) systems where only the portion of pipe between the tank or pump and the house is ineligible. Individual grinder pump units and the onsite components of a S.T.E.P. system are eligible if the homes or businesses to be served were in existence prior to the date of DEQ's issuance of a Finding of No Significant Impact (FNSI), and the units are part of a small diameter collection system to be publicly owned.

Septic Tank/Tilefield Replacement/Upgrade

Eligible costs under the SWQIF include the installation of the new onsite system, any fees for health department permits/inspections, in-kind site restoration, and abandonment of existing systems being replaced. A municipality interested in SWQIF loan funding for an onsite septic system upgrade/replacement project will need to provide advanced notice to and request comments from the local health department. This is analogous to the regional planning agency notification in the SRF program.

4.3 Community Development Block Grant (CDBG)

The Community Development Block Grant (CDBG) is a program of the U.S. Department of Housing and Urban Development. It provides funds for local community development activities such as affordable housing, anti-poverty programs, and infrastructure development. CDBGs differ from categorical grants, made for specific purposes, in that they are subject to less federal oversight and are largely used at the discretion of the state and local governments and their subgrantees.

The stated national objectives of the program are to 1) Assist low and moderate income persons (70% of CDBG expenditures must benefit low or moderate income persons); 2) Prevent or eliminate slums and blight; and 3) Meet an urgent community need where no other funding is available.

Typical CDBG Projects include the following:

- Water and sewer installation,

- Street improvements,
- Sidewalk replacement,
- Senior citizen centers,
- Recreational facilities,
- Historic preservation,
- Parks and recreation programs,
- Beautification, and fire protection facilities,
- Minor home repair,
- Chore services,
- Senior programs,
- Youth programs, and
- Transportation programs for senior citizens, and the disabled.

For a project to be considered for funding it must be included within the community action plan which is usually prepared annually. The action plans are either prepared at the county level or by individual communities. Lists of Oakland and Wayne County communities under each program are shown in Tables 1-3.

It should be noted that these funds have traditionally been used for housing or community revitalization projects as opposed to public works endeavors. Since funds are limited, any proposed sewer infrastructure project would compete with projects more familiar to community development department personnel and more visible in the community.

For example, Oakland County allocates approximately one-third of its annual CDBG funds to a Home Improvement Loan program benefiting low and moderate income residents. However, these loans may be available to individual homeowners for sanitary/septic improvements. Strict eligibility requirements must be met. Examples of home improvement work that can be financed with a home improvement loan may include, but are not limited to, the following: wells, septic systems, structural repairs, plumbing, electrical, heating, roofs, masonry, energy saving items, siding, windows, doors and barrier free access.

The CDBG program has another component where funding is directed to individual homeowners. The Home Improvement Program is designed to improve the condition of existing housing. With a home improvement loan residents can:

- Make needed repairs to their home,
- Maintain or increase the value of their home, and/or
- Decrease their utility bills.

As a qualified homeowner, loans are available for up to \$18,000. This loan will be deferred, with no interest or monthly payments until the resident no longer resides in the home. There are income limitations (Oakland County example) ranging from \$37,200 for single person

households to \$70,000 for eight person households. Gross income includes the earnings of all adult household members plus the benefits of all household members. Benefits include child support, Social Security benefits, alimony, etc.

In Oakland County, the remaining two-thirds of CDBG funds are allocated to participating communities to implement local revitalization projects. Funds are distributed based on the total population and the number of low/moderate-income residents in the community. Citizen input is involved. To be considered, a detailed project description must be completed. This description must include what will be done, the location of the project, the type of materials that will be used, and who will do the work (if known). Sewer projects can be included though they would compete with other community initiatives.

Table 1. Communities Participating in Oakland County’s CDBG Program

City of Auburn Hills	Twps of Bloomfield
City of Berkley	Twps of Brandon
City of Birmingham	Twps of Commerce
City of Bloomfield Hills	Twps of Groveland
City of the Village of Clarkston	Twps of Highland
City of Clawson	Twps of Holly
City of Farmington	Twps of Independence
City of Ferndale	Twps of Lyon
City of Hazel Park	Twps of Milford
City of Huntington Woods	Twps of Oakland
City of Keego Harbor	Twps of Orion
City of Lathrup Village	Twps of Oxford
City of Madison Heights	Twps of Rose
City of Northville	Twps of Royal Oak
City of Novi	Twps of Springfield
City of Oak Park	Twps of West Bloomfield
City of Orchard Lake Vlg	Twps of White Lake
City of Pleasant Ridge	Vlgs of Beverly Hills
City of Pontiac	Vlgs of Franklin
City of Rochester	Vlgs of Holly
City of Rochester Hills	Vlgs of Lake Orion
City of South Lyon	Vlgs of Leonard
City of Sylvan Lake	Vlgs of Milford
City of Troy	Vlgs of Ortonville
City of Walled Lake	Vlgs of Oxford
City of Wixom	Vlgs of Wolverine Lake
Twps of Addison	

Table 2. Communities Participating in Wayne County’s CDBG Program

Allen Park	Inkster
Belleville	Melvindale
Brownstown Twp.	Northville
Ecorse	Northville Township
Flat Rock	Plymouth
Garden City	Plymouth Township
Gibraltar	River Rouge
Grosse Ile Township	Riverview
Grosse Pointe	Rockwood
Grosse Pointe Farms	Romulus
Grosse Pointe Park	Southgate
Grosse Pointe Shores	Sumpter Township,
Grosse Pointe Woods	Trenton
Hamtramck	Van Buren Township
Harper Woods	Wayne
Highland Park	Woodhaven
Huron Township	

Table 3. Community-Specific CDBG Programs

<u>Oakland County</u>	<u>Wayne County</u>
City of Farmington Hills	Canton Township
City of Royal Oak	Dearborn
City of Southfield	Dearborn Heights
Township of Waterford	Detroit
	Lincoln Park
	Livonia
	Redford Township
	River Rouge
	Taylor
	Westland

4.4 Michigan Drain Code

The Michigan Drain Code allows for the implementation of wide ranging projects to deal with drainage issues. Stormwater drainage is the most typical reason for creation of a county drain, but sanitary sewage issues can be handled by drainage districts. The Drain Code states:

Sec. 423.

- (1) A person shall not continue to discharge or permit to be discharged into any county drain or intercounty drain of the state any sewage or waste matter capable of producing in the drain detrimental deposits, objectionable odor nuisance, injury to drainage conduits or structures, or capable of producing such pollution of the waters of the state receiving the flow from the drains as to injure livestock, destroy fish life, or be injurious to public health.

(2) Disposal plants, filtration beds, and other mechanical devices to properly purify the flow of any drain may be constructed as a part of any established drain, and the cost of construction shall be paid for in the same manner as provided for in this act for other drainage costs. Plants, beds, or devices may be described in the petition for the location, establishment and construction of drains or in the petition for the cleaning, widening, deepening, straightening, or extending of drains, or in the application for the laying out of a drainage district. Petitions for the construction of plants, beds, and devices for use on any established drain may be filed by the same persons and shall be received and all proceedings on the petitions in the same manner as other petitions for any drainage construction under this act.

(3) *[The following language is included in the Drain Code....but apparently has never been invoked.]*

If the Department of Environmental Quality determines that sewage or wastes carried by any county or intercounty drain constitutes unlawful discharge ... (and) that 1 or more users of the drain are responsible for the discharge of sewage or other wastes into the drain, and that the cleaning out of the drain or the construction of disposal plants, filtration beds, or other mechanical devices to purify the flow of the drain is necessary, the Department of Environmental Quality may issue to the Drain Commissioner an order of determination identifying such users and pollutants ... The order of determination constitutes a petition calling for the construction of disposal facilities or other appropriate measures by which the unlawful discharge may be abated or purified.

County drains are officially established by petition of landowners who form a drainage district. Improvement and maintenance costs are assessed back to communities or property owners. Each drainage district is a separate public corporation and the construction and maintenance of the drain is financed by special drain assessments to the landowners within the district. Each drain has an established right-of-way for the location and maintenance the drain.

Many existing drains to which illicit connections discharge, such as the example in Farmington Hills, are classified as Chapter 4 Drains. Since the Drain Code allows minimal funds to be expended for maintenance of these drains, they are not an appropriate vehicle for funding septic system remediation.

Petitions from the community could allow formation of a Chapter 20 Drain to study, design and implement remedial actions. This would shift the administrative, design and construction responsibility from the city, village or township to the Drainage District. Assessments, however, would revert back to the community or to all properties within the Drainage District. Thus, the use of an established County Drainage District would allow the project to be completed using grant or bond funds and extend the payments over time. But the total cost would still be borne by the residents of the Drainage District.

4.5 Public Act 342

The County Public Improvement Act -- Act 342 of 1939 -- authorizes counties to establish and provide water, sewer, or sewage disposal improvements and services within or between cities, villages, townships, charter townships, and to establish and provide garbage or rubbish collection and disposal facilities and services for such units of government. It allows the counties to acquire, purchase, construct, own, maintain, or operate water mains, trunk and connecting lines, water pumping and purification plants, sewers, sewage interceptors, sewage disposal plants, settling basins, screens and meters, incinerators and disposal grounds. The act authorizes counties to establish, administer, coordinate, and regulate a system of water, sewer, or sewage disposal improvements and services, and garbage and rubbish collection and disposal facilities and services, within or between local units of government.

Additionally, the act allows the counties to provide methods for obtaining money for the allowed purposes, to provide for the loan of money to such units of government for the purposes, and to provide methods for collection of rates, charges, or assessments.

The act authorizes counties to enter into contracts with any unit of government providing for the acquisition, construction, and financing of improvements or facilities and for the pledge of the full faith and credit of each unit of government for the payment of their respective shares of the cost. It authorizes counties to issue bonds secured by the full faith and credit pledges of each unit of government and authorizes counties to pledge their full faith and credit as additional security on such bonds and to impose taxes without limitation as to rate or amount to the extent necessary for the payment of such bonds.

It is under the broad authority of this legislation that many counties operate regional wastewater collection and treatment systems or construct and operate local water supply and distribution systems within individual communities. It appears that the scope of the public works construction and operation allowed under this legislation is limited only by the agreements that can be negotiated between a county and the individual municipalities.

In 2001, Genesee County designated the Drain Commissioner's Office as the county agency responsible to engage in watershed management activities and establish a system of stormwater management services under Act 342, Public Acts of Michigan, 1939, as amended ("Act 342"). Although not all of the communities located within Genesee County are regulated under the NPDES Phase II program, all the communities have signed a contract under Act 342 with the Genesee County Drain Commissioner's Office to provide stormwater management services which includes:

- Apply for Certificate of Coverage on communities' behalf under Michigan's Phase II Watershed-based Stormwater Permit;
- Organize and direct the development of a Public Participation Plan;

- Organize and oversee subcommittees for Public Education and Participation, New Construction Standards and Post Construction Practices, and Monitoring and Mapping;
- Organize and direct the watershed workgroup in developing the Stormwater Management Plan;
- Assist the contract communities in preparing individual SWPPIs; and
- Coordinate between the communities and the school districts that have signed contracts as nested jurisdictions.

This act provides a broad scope of authority for traditional public works projects and has recently been used to deal with stormwater control programs through the development and implementation of a watershed management plan. If failing septic systems are creating illicit discharges to drainage systems and are identified as problems within an approved watershed management plan, their remediation could be conducted under an Act 342 agreement between the designated county agency and the local municipality or municipalities.

4.6 Stormwater Utilities

The MDEQ defines a stormwater utility as a “source of funding for the construction and maintenance of stormwater management facilities. User fees are typically charged based on the amount of runoff that may be anticipated from a property.” Like any public utility, a stormwater utility is an organization that maintains the infrastructure for a public service. Water supply and wastewater infrastructure and operations have historically been operated as utilities. Municipal stormwater management has often been paid for through a community’s general fund. However, general fund revenues are based on property values not on the quantity of runoff a parcel generates. And certain large contributors of runoff – such as hospitals, schools and state/county roadways -- are exempt from property tax.

Increased requirements have been placed on municipalities for managing stormwater and it is up to each municipality to secure funding in the most equitable way to assure that all mandated rules and regulations are being met. Stormwater Utility revenue would provide a dedicated funding source to provide for stormwater management and leave the other funding sources available for their appropriate services.

Since the 1980s there has been an increasing trend to view the management of stormwater – both from quantity and quality standpoints – as a utility. Throughout the country numerous Stormwater Utilities have been created. While providing a new revenue source for maintenance of stormwater infrastructure their implementation has proven controversial. Many residents were unhappy about having to “pay” for a service that previously had been provided “free.” Between 1984 and 1997, several Michigan communities instituted stormwater utilities. They are Ann Arbor, Harper Woods, Adrian, St. Clair Shores, Berkley, Marquette, Lansing (since rescinded), Chelsea, New Baltimore and Brighton (which has been on hold since 2004).

Litigation has caused certain complications to stormwater utility implementation in Michigan. The City of Lansing instituted a stormwater utility in 1995. A property owner (Bolt) challenged Lansing's newly imposed stormwater utility fee, arguing that the fee was a tax levied without voter approval in violation of the Headlee Amendment to the Michigan Constitution (MichConst 1963, art 9, sections 25 and 31). Lansing had imposed the stormwater fee on virtually all properties in the city to pay for the city's stormwater and sanitary sewer separation project costs as permitted under state statute. At issue was whether municipalities could fund certain costs as a fee imposed as a regulation or as a tax requiring voter approval under the Headlee Amendment.

The Michigan Supreme Court ruled that the stormwater service charge imposed by Lansing was unconstitutional and void on the basis that it was a tax for which voter approval was required and not a valid use fee. It is noteworthy, however, that the court was split. Ten judges heard precisely the same case. Five said it was a "tax" (Markman, Weaver, Brickley, Kelly, and Taylor). Five said it was a "fee" (Saad, Wahls, Mallett, Boyle, and Cavanagh).

But, the Bolt Opinion did not say that stormwater utilities are "illegal" in that it stated the following:

- "This is not to say that a city can never implement a stormwater or sewer charge."
- "Where the charge for either storm or sanitary sewers reflects the actual cost of use...sewerage may properly viewed as a utility service for which usage-based charges are permissible..."

The Court established three criteria for distinguishing between a fee and a tax: 1) a user fee must serve a regulatory purpose rather than a revenue-raising purpose; 2) a user fee must be proportionate to the necessary costs of the service; and 3) a user fee must be voluntary—property owners must be able to refuse or limit their use of the commodity or service.

Lansing rescinded its stormwater utility based on the decision. No new Michigan stormwater utilities were created between 1997 and 2011. In April of 2011, the City of Jackson implemented its stormwater utility. However, in December 2011 a lawsuit was filed – by Jackson County-- against the City over the utility. There has not as yet been a determination in that case.

Since elimination of illicit discharges from storm drains would easily meet the three criteria, a stormwater utility could use revenues toward septic/IDEP remedial actions. However, municipal leaders will need to be willing to deal with the legal uncertainties of implementation before a stormwater utility can become a viable funding mechanism for these purposes.

5.0 POTENTIAL CHANGES TO SEWER FUNDING IN MICHIGAN

The funding of sewer projects at the local level has evolved over time. A system of grants for construction of municipal sewage treatment plants was authorized and funded. In the initial program, the federal portion of each grant was up to 75% of a facility's capital cost, with the remainder financed by the state. In subsequent Clean Water Act amendments, Congress reduced

the federal proportion of the grants and in the 1987 the fund was transitioned to a revolving loan program.

5.1 State Advisory Committee Findings

In 2010, the State Legislature created the State Water Pollution Control Revolving Fund Advisory Committee (Committee) to make recommendations to the DEQ and the legislature for achieving three outcomes:

1. Increasing the level of investment in sewage collection and treatment systems,
2. Providing incentives for action that not only improve water quality but result in pollution prevention, and
3. Optimizing the cost benefit ratio of alternative designs of sewage collection and treatment systems.

The Committee had the following notable findings:

- Michigan is under investing in its entire infrastructure system;
- Underinvestment does not save tax payer dollars. It actually results in rapidly escalating costs;
- Implementation of the Committee's recommendations will save taxpayer money and decrease long-term reliance on state and federal funding;
- There is a serious shortfall in fiscal resources needed to sustain Michigan's aging sewer systems;
- Federal government support for sewer infrastructure is minuscule compared to that of roads. Federal support for sewers is declining and will likely continue to decline;
- The first step in this process is to use the \$654 million in remaining bond funds authorized by Michigan voters in 2002;
- Achieving the three outcomes stipulated in Public Act 231 of 2010 requires balancing the need to address urgent water quality problems with proactive investments in infrastructure that result in long-term cost savings; and
- While all funding in the federally-subsidized SRF low-interest loan program is subject to federal oversight and requirements, funds derived from a state bond could be used in a separate loan program free of unnecessary, costly regulations.

The Committee proposed a two-part strategy for achieving the three desired outcomes. They agreed that proactive investments in infrastructure result in tremendous cost savings because assets are protected, last much longer, and perform much better. Their recommendations were premised on the need for a policy approach that emphasizes strategic investment of dollars in vital infrastructure to protect water quality as well as the creation of more long-term, self-sustained funding. The two parts to this policy strategy are described below.

Part 1: Creation of a state grant program and expanded use of a state loan program to stimulate investments that protect infrastructure assets and reduce long-term costs to the public.

Part 2: Institution of reforms to the existing SRF program to stimulate investments in large scale sewer system improvement projects that address chronic water quality problems.

The full Committee report can be accessed at: http://www.michigan.gov/documents/deq/deq-ess-mfs-CWSRF-advisorycomm-FinalReport_364766_7.pdf

5.2 Legislative Action

The Michigan Legislature has taken up the need for changes to sewer system funding and is acting on legislation to institutionalize an increasing level of investment in sewer infrastructure/water quality improvements. They agreed that a problem exists in that the current loan program is full of federal red tape and the bond program is underutilized. And they noted that Michigan voters already approved \$1 billion for bonding to improve quality of Michigan waters (Proposal 2 of 2002); and of that \$654 million still remaining.

Four bills were introduced in each chamber to address the problem. Tables 4 and 5 provide information on the bill numbers, sponsor and sections of PA 451 being modified. As of September 19, 2012 all of these bills have been passed in-kind by both chambers and have been “referred to second reading”. Once this step is complete the legislation is sent to the Governor for signature.

Table 4. House Sewer Infrastructure Funding Bills introduced May 24, 2012

Bill Number	Principal Sponsor	Modifies
HB 5673	Rep. Pscholka	Part 52, Strategic Water Quality Initiatives
HB 5674	Rep. Opsommer	Part 53, Clean Water Assistance
HB 5675	Rep. MacGregor	Part 54, Safe Drinking Water Assistance
HB 5676	Rep. Kowall	Part 197, Great Lakes Water Quality Bond Implementation

Table 5. Senate Sewer Infrastructure Funding Bills introduced May 31, 2012

Bill Number	Principal Sponsor	Modifies
SB 1155	Sen. Kowall	Part 52, Strategic Water Quality Initiatives
SB 1156	Sen. Proos	Part 53, Clean Water Assistance
SB 1157	Sen. Pavlov	Part 54, Safe Drinking Water Assistance
SB 1158	Sen. Hildenbrand	Part 197, Great Lakes Water Quality Bond Implementation

This legislative action will allow implementation of the recommendations of the Committee by:

- Creating a grant program to incentivize up front activities that improve efficiency and reduce costs; and
- Creating a State-operated loan program free of federal red tape for larger capital projects, while still maintaining a separate SRF program.

The bills moving through both the House and Senate modify PA 451 of 1994: Natural Resources and Environmental Protection Act to do the following:

- **Part 52**, the Strategic Water Quality Initiatives (SWQI) will be the vehicle to expand the current state-based loan program and to create a state-based grant program;
- **Part 53**, Clean Water Assistance, or the State Revolving Fund (SRF), and **Part 54**, Safe Drinking Water Assistance will be updated to allow for more accessible funding to disadvantaged communities. Changes to the criteria in Part 54, mirrored in Part 53, will allow more communities to qualify than with the current definition; and
- **Part 197**, Great Lakes Water Quality Bond Implementation amendments are intended to make the remaining bond available through SWQIF.

5.3 Agency Implementation

Following passage of this legislation it will be up to the DEQ to establish rules, processes and procedures to implement the changes. It is incumbent on all communities to work with DEQ staff to formulate process that are flexible and meet both the legislative intent and the pragmatic needs of the public works departments that need to implement physical upgrades and additions to the infrastructure.

6.0 FUNDING PROGRAMS IN OTHER STATES

In other states, funding mechanisms for failed septic systems have been formally incorporated into their revolving loan programs. This demonstrates the flexibility of the program as intended when instituted at the federal level. When appropriate emphasis is placed on the problem of septic systems as sources of illicit discharge, state agencies have successfully established procedures for funding. A sampling of programs from other states follows.

Ohio

To meet the need for system repairs and upgrades, the Ohio Department of Health partnered with the Ohio Environmental Protection Agency (Ohio EPA) Division of Environmental and Financial Assistance to develop a program to help fund repairs or replacement of failing home wastewater systems for low-income homeowners. This program uses the state Water Pollution Control Loan Fund (WPCLF). The program is based on a successful American Recovery and Reinvestment Act (ARRA) funding project implemented in 2009 and 2010. The ARRA project provided \$3.2 million in funding for the repair and/or replacement of 470 home wastewater

systems across Ohio. It used ARRA's Green Project Reserve fund allocations where decentralized system upgrades were part of the Environmentally Innovative Green Project Reserve category.

WPCLF funding historically has been used to fund public water and wastewater projects. The ARRA project was innovative because it was the first time a state had used this type of funding to assist homeowners in rural and suburban areas with the repair and replacement of individual home systems.

In February 2010 — on the first anniversary of the ARRA project funding — U.S. EPA Administrator Lisa Jackson recognized Ohio for the successful implementation of the project and innovative approach.

Building on the success of the ARRA project, Ohio EPA and the Ohio Department of Health set aside \$6 million from the WPCLF in 2011 to fund the repair and replacement of failing home wastewater systems.

The funds are provided as zero interest, principal-forgiveness loans to a county or city (water and sewer districts also are eligible) that applies for funds to repair or replace an identified number of wastewater systems in its jurisdiction. After receiving an award, the county or city then typically designates the county housing improvement program or a similar local agency to conduct the work of accepting and reviewing local applications, securing bids and local contracts, overseeing system installations, and fulfilling reporting requirements to the state.

The work is bid out to local contractors by the county agency, which then pays the contractor after successful installation and inspection of the system. Local health districts coordinate with the county agency on the identification and certification of the failing home wastewater systems, as well as the subsequent design, permitting, inspection, and final approval of the treatment systems' repair or replacement installation.

Low-income homeowners have been targeted for assistance during the initial implementation of this program. Homeowners with income levels up to 100% of poverty guidelines are eligible to receive 100% funding for replacement costs, including all permit costs. Homeowners with income levels between 100% and 200% of poverty guidelines are eligible to receive 85% of all system costs, with a 15% local match, which can be provided by the homeowner or other organizations or programs.

The Ohio Department of Health hopes to expand the scope of the program by offering assistance to homeowners with progressively higher income levels.

For the 2011 project year, 49 counties and one city applied for funding. Project awards ranged from \$40,000 to \$160,000 per county. After the funding is awarded, up to 18 months is allowed for the completion of all system installations within the county or city. This period allows for system installations to span two construction seasons and better ensure that all applicable system repairs or replacements are completed. Ohio EPA anticipates offering this funding each year while Green Project Reserve projects are authorized under WPCLF federal funding.

Massachusetts

In Massachusetts, communities may provide long-term low cost financing to homeowners for the repair, replacement, or upgrade of failed septic systems by providing Betterment Loans. The program is coordinated through local Boards of Health. In addition, the Massachusetts Housing Finance Agency (MHFA) offers low-cost financing to those who qualify.

Any Massachusetts property owner who occupies the property as his or her principal residence is allowed a tax credit for the expenses incurred in the repair or replacement of a failed cesspool or septic system. The maximum amount of the credit that may be claimed in any tax year is \$1,500. The maximum aggregate amount of the credit that may be claimed is \$6,000.

Rhode Island

In Rhode Island, the Community Septic System Loan Program (CSSLP) provides loans to homeowners for the repair or replacement of substandard, failed or failing septic systems within areas identified in the participating towns. The CSSLP gives communities without centralized wastewater treatment facilities access to the SRF that is administered by the Rhode Island Clean Water Finance Agency.

The Agency uses federal dollars recycled from previous SRF loans to provide the source of funds for the CSSLP. Communities are able to access these funds after completing an Onsite Wastewater Management Plan, securing approval of the Plan from Department of Environmental Management, and completing an application process with the RI Clean Water Finance Agency. Once in the program, communities can then make loans to individual homeowners for septic system repairs or replacement.

The Rhode Island Housing and Mortgage Financing Corporation is the homeowner loan administrator for the Program. The borrowing cost for the homeowner will be 2% for a term up to ten years. Each town sets its own eligibility criteria and application procedures and sets the maximum loan amount, up to \$25,000.

Delaware

As part of its SRF program Delaware reserves a sub-category for septic issues: the Septic Rehabilitation Loan Program. Under this program, up to \$25,000 is available to homeowners for

septic repair, replacement, hookup to central sewer and abandonment. Loans are available at 3% or 6% fixed rates depending on income levels for terms up to 20 years. Special programs are also available for rental properties, investment properties, and mobile home parks. This program is revolving with annual federal allocations.

Maryland

The mission of the Maryland Water Quality Financing Administration is to provide low interest rate loans under the two Revolving Loan Fund Programs and grants under the State Bay Restoration Fund Program for point and nonpointwater pollution control projects, drinking water system upgrade projects and “septic system upgrade projects using best available technology to achieve nitrogen removal on onsite sewage disposal systems consistent with the State Bay Restoration Fund Act.”

The Maryland legislature established the Bay Restoration Fund (BRF) that provides for a dedicated source of revenue by assessing a \$30/year per equivalent dwelling unit fee to all homes and businesses connected to wastewater treatment plants and a \$30/year fee to each user of an onsite septic system. The statute allocates 60% of the BRF septic fees to Maryland Department of Environment (MDE) and 40% to the Maryland Department of Agriculture for the Cover Crop Program.

Maine

The Maine Municipal Bond Bank (MMBB) and the Maine State Housing Authority (MSHA) entered into a Memorandum of Understanding to make low-interest loans to finance septic systems for owner-occupied, singlefamily residences through the MSHA loan programs. The funds are used for the rehabilitation or replacement of septic systems. The interest rate is set at 1% with a maximum term of 20 years. TheMSHA remits to the MMBB on a monthly basis any repayments for loans received during the prior month, which are put back in the SRF.

Pennsylvania

Pennsylvania instituted a program to fund onsite sewage disposal systems for individual homeowners using their SRF. The Pennsylvania Infrastructure Investment Authority, the Pennsylvania Housing Finance Agency, and the Pennsylvania Department of Environmental Protection collaborated on the development of this special funding program, which allows a homeowner to borrow up to \$25,000 at an interest rate of 1% per annum to fund the rehabilitation, improvement, repair, or replacement of an existing onsite treatment system. These loans are processed through participating local lending institutions.

Minnesota

Minnesota created several sub-programs within its SRF to address nonpoint source pollution. Once such program is the Tourism Loan Program, which is administered through the Department

of Trade and Economic Development and loans SRF funds to private owners of small lake resorts for replacement or upgrade of onsite treatment systems. The loans are made in participation with a local bank, with the state financing 50% of the costs at 2% interest and the bank financing the remaining 50% at a market rate. The Department also administered the Small Cities Loan Program, which provided SRF loans at 0% to small, unsewered communities to upgrade or replace all failing onsite systems. The Small Cities program has since been replaced by other funding mechanisms for small, unsewered areas.

Non-Government Entities

Funding can also come from non-profit sources as shown in this eastern Kentucky example.

Eastern Kentucky PRIDE, Inc., founded in 1997, is a nonprofit organization serving 38 counties of southern and eastern Kentucky. Among other programs, PRIDE administers a Homeowner Septic System Grant Program for either septic system installation or connection to a public sewer in place of damaged, unsanitary or nonexistent wastewater treatment systems. Eligible applicants include low-income homeowners in the PRIDE service region. Applicants must provide proof of income, copy of deed, and utility bill bearing the property's physical address. Grant amounts vary by project need. Grants are awarded on a first-come, first-served basis while funds are available. More information can be found at www.kypride.org.

7.0 CONCLUSIONS

There are no easily accessible funding options for repairing failed septic systems or other illicit connections. Septic system repairs/upgrades can be financed through the CDBG program, but this program is very competitive and infrastructure projects would compete with other more visible projects. Alternatively, a community or group of communities could petition the county to form a drainage district. However, this would not relieve homeowners of any financial burden.

Currently, funding through the state revolving fund would require two applications: one to the SRF program to address public infrastructure repairs/upgrades and another to the SWQIF program to address the private property portion of the project. Applications to both funds are arduous and would only be developed if a community was addressing multiple illicit connections. The state revolving fund amendments currently being considered by the Michigan Legislature are intended to streamline the application process. Hopefully, this will allow the revolving fund to be more readily available to communities with multiple illicit connection issues.

Stormwater Utilities could provide a source of funds if implemented by the communities in a manner that will withstand potential legal challenges and at the same time provide a revenue source for other stormwater related expenses.

Special Assessment Districts can be established to provide communities with a mechanism to recover costs from benefited parcels. However, the up-front cost of the improvement needs to be obtained from other sources.

Act 342 provides a broad scope of authority for traditional public works projects and has recently been used to deal with stormwater control programs. It would require that the county entity with ACT 342 authority enter into an agreement with the local community to provide the services needed. The agreement would define methods for collection of rates, charges, or assessments.

Other states have programs dedicated to funding the repairs of septic systems. Some have dedicated SRF funding while others have nonprofit agency funding available. Many programs allow for direct applications from homeowners which lessens the burden on public works staff.

Remediation of many septic/IDEP problems requires work to be performed on both public and private property. Funding sources, such as the SRF, often exclude improvements on private property. Other sources, such as SWQIF and CDBG specifically allow certain improvements on private property to be funded. And the distinction between public and private is less well defined for other sources. Table 6 provides a guide to the understanding of this issue.

Table 6. Available Funding Mechanisms for Public and Private Property Improvements

Funding Mechanism	Can be applied to improvements on	
	Public Property	Private Property
Special Assessment Districts (SAD)	Yes	Defined by Local Ordinance
State Revolving Fund (SRF)	Yes	No
Strategic Water Quality Initiatives Fund (SWQIF)	Yes	Yes
Community Development Block Grants (CDBG)	Yes	Yes
Michigan Drain Code	Yes	Yes
Public Act 342	Yes	Defined by County/Community Agreement
Stormwater Utilities	Yes	Probably

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ABOUT THE ALLIANCE OF ROUGE COMMUNITIES

The Alliance of Rouge Communities (ARC), a 501(c)(3) organization, is a voluntary public watershed entity currently comprised of 35 municipal governments (i.e. cities, townships and villages), three counties (Wayne, Oakland and Washtenaw), Henry Ford Community College, University of Michigan-Dearborn and four cooperating partners (i.e. other organizations) as authorized by Part 312 (Watershed Alliances) of the Michigan Natural Resources and Environmental Protection Act (MCL 324.101 to 324.90106) as amended by Act No. 517, Public Acts of 2004.

The purpose of the ARC is to provide an institutional mechanism to encourage watershed-wide cooperation and mutual support to meet water quality permit requirements and to restore beneficial uses of the Rouge River to the area residents.