

Strategic Water Quality Initiatives Fund (SWQIF) Guidance

Michigan Department Environmental Quality

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Introduction

The Strategic Water Quality Initiatives Fund (SWQIF) resulted from a package of the state of Michigan legislative bills that were signed into law on May 30, 2002 (Public Acts 396, 397, and 398 of 2002), by then Governor John Engler. This legislation created the Great Lakes Water Quality Bond Fund and placed a one billion dollar state bond issue on the November 2002 ballot to finance sewage treatment works projects, stormwater projects, and nonpoint source projects. This state ballot proposal (Proposal 2) was subsequently approved by Michigan voters on November 5, 2002, and the associated legislation is codified as Parts 52 and 197, 1994 PA 451, as amended, of the Natural Resources and Environmental Protection Act (NREPA).

The SWQIF is a low-interest loan program that is administered by the Michigan Department of Environmental Quality (DEQ) and is monetarily supported entirely with state funds. Qualified municipalities can receive loan assistance to finance the construction of water pollution control projects designed to protect public health on private property. To apply for a SWQIF loan, a municipality must first submit a project plan to the DEQ that complies with the requirements provided in Part 52, Part 53, and the SRF Rules. Since SWQIF projects involve construction on private property, they are **ineligible** to receive State Revolving Fund (SRF) loan assistance. However, companion work on facilities that are, or will be, publicly-owned, such as storm sewer connections, may be financed under a separate SRF loan provided all other eligibility requirements are met.

The SWQIF program was created to fund two types of projects:

1. the disconnection of house footing drains tied into private sump pumps to cost-effectively eliminate excessive groundwater or stormwater (causing operational problems such as basement backups) from entering a public sanitary sewer, and;
2. upgrades or replacements of failing privately-owned, on-site septic systems that are adversely affecting public health, the environment, or both.

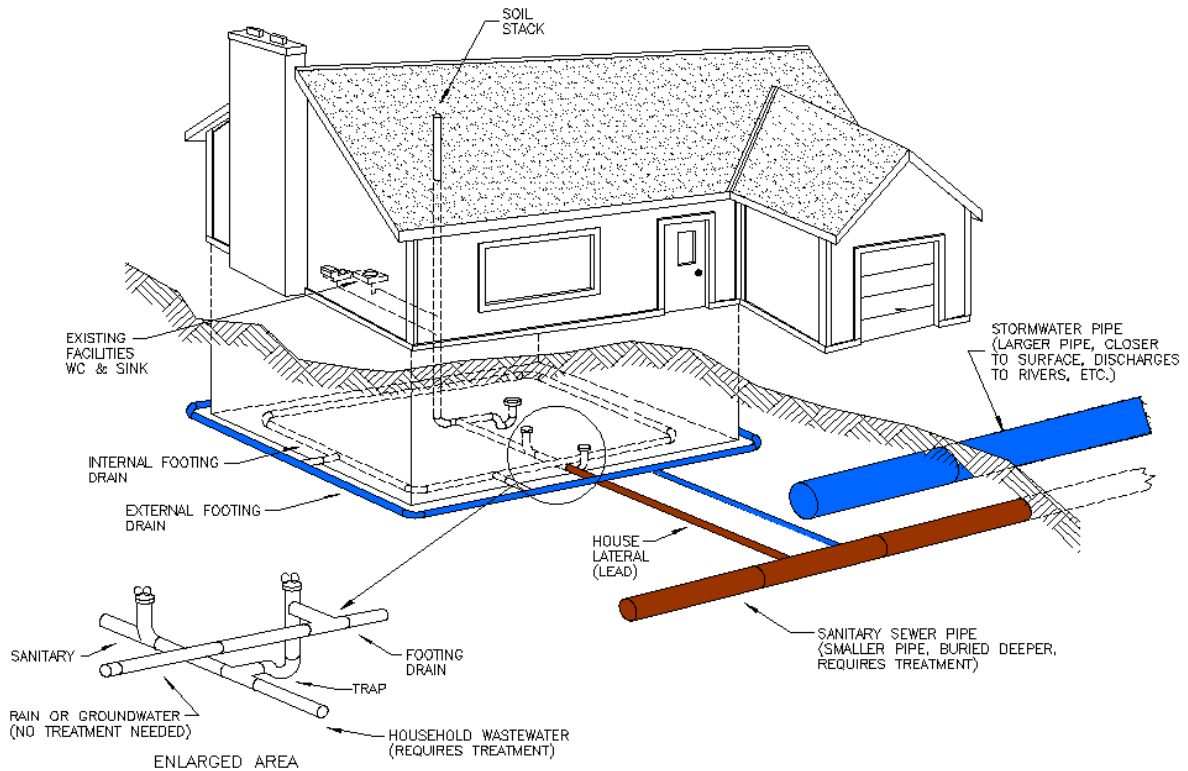
Passage of Proposal 2 did not provide legal authority for local units of government to incur public debt for improvements on private property. Subsequent amendments to the Home Rule City Act and Charter Township Act allowed for footing drain disconnection (FDD) projects to proceed under the SWQIF by defining such projects as providing a “public benefit.” This “public benefit” designation is legally necessary in all state bonding statutes for the objective of financing wastewater or stormwater infrastructure capital improvements. Replacement of private on-site systems (septic tanks, drain fields), by contrast, have yet to justify being required for public benefit.

Moreover, the Michigan Finance Authority (MFA) requires every revolving loan fund applicant to obtain an investment grade bond rating, which normally entails a limited tax general obligation pledge. Some small communities may need to negotiate an agreement with their county government to achieve this rating for a SWQIF project.

Since SWQIF loan assistance has, to date, been limited to FDD projects, the remainder of this guidance document will focus entirely upon these projects. The phrase “footing drain disconnection” as used in this guidance is meant to also include the disconnection from the sanitary sewer of downspouts, roof drains, foundation drains or “French drains,” and perimeter drains. The replacement and/or rehabilitation of privately-owned sanitary sewer leads as the

cost-effective option to address a documented water pollution control/public health problem caused by clear water infiltration could potentially also be a SWQIF eligible project.

Diagram of a Footing Drain Connected to the Sanitary Sewer System



Photos of a Completed Footing Drain Disconnection



Planning Phase

All potential SWQIF applicants and their consultants must become intimately familiar with the *Clean Water State Revolving Fund Project Plan Preparation Guidance* and *Applicant Actions Related To Project Planning* documents (both available on the DEQ Web site) because they contain information pertinent to the SWQIF program that will not be repeated here. Any community contemplating the preparation of a SWQIF Project Plan (or combined SWQIF/SRF Project Plan) is assumed to be experiencing operational problems in their sewer system that are known, or at least strongly suspected to be, a result of excessive clear water derived from private property sources (such as FDD from private sump pumps into the public sewer).

Be sure to contact the DEQ early in the pre-planning stage to arrange a meeting with a Revolving Loan Section project manager who can assist with the project plan preparation process and answer any questions. A pre-planning meeting is an excellent opportunity to discuss project plan contents and program requirements. It is strongly advised that a draft

version of the project plan be submitted to the DEQ project manager for review at least 90 days before the final SWQIF Project Plan is due. This will enable both the project manager and the district engineer to provide review comments back to the community for assistance in making the final project plan complete and approvable. A complete final project plan will form the basis for prioritizing your project for SWQIF (and/or SRF) loan funding. Two copies of the final project plan must be submitted to the address listed on the front cover of this guidance document by July 1 of any given year for prioritization on a Project Priority List for the following fiscal year (October 1 to September 30). Note that a completed *SRF/SWQIF Project Plan Submittal Form* must accompany the final SWQIF Project Plan.

Infiltration and Inflow (I/I) Analysis

SWQIF applicants are expected to perform an I/I Analysis and Sanitary Sewer Evaluation Survey (SSES) to confirm that excessive I/I from private property footing drains is a major source and cause of problems being experienced in the sewage collection system. Information gathered from these studies will become the crucial element driving the need for a SWQIF Project Plan or combined SRF/SWQIF Project Plan. Therefore, all SWQIF/SRF applicants must follow the I/I Analysis and SSES guidelines set forth in the *SRF Project Plan Preparation Guidance*.

Major Components of the Project Plan

As with an SRF Project Plan, the major components (“chapters”) of a SWQIF Project Plan are: Project Background, Alternatives Analysis, Selected Alternative, Environmental Impacts Evaluation, Mitigation of Environmental Impacts, and Public Participation.

Project background covers a wide gamut of material including the study area delineation and map, the description of existing facilities, the existing and projected population, existing environmental setting, existing and projected flows (including estimated I/I), economic characteristics, and, most importantly of all, the documentation of system needs. Key components for the SWQIF project plan will include descriptions of suspected privately-owned commercial or residential facilities that may be contributing to a public water quality or public health issue, as well as the compilation/tabulation of data relating to specific problems such as records of sewage overflows, surcharging, basement backups, and the like.

Specific to the SWQIF alternatives analysis will be the comparison of various transportation and treatment options with different methods (or combinations of methods) of I/I removal. Only a private source I/I removal (i.e., FDD) alternative has the potential to become a SWQIF project. Each feasible alternative is compared on a present worth cost evaluation basis, as well as for environmental impacts, technical considerations, and social acceptance.

If FDD is, indeed, shown to be cost-effective compared with other alternatives, at least for particular areas of concern in the sewer, then FDD becomes the basis for a proposed “selected alternative” in the project plan. Anticipated costs for each homeowner undergoing FDD must be carefully outlined, including fees for noncompliance.

To establish the matter of legal authority, a sewer use ordinance, or similar legal instrument, must be in place that prohibits private sources of clear water from discharging into the sanitary sewer. This essential documentation verifies that the proposed SWQIF project is implementable and that the municipality has a basis to claim a public benefit in order to initiate a bond sale.

For a SWQIF project, the environmental impacts discussion focuses on private property concerns such as in-house noise and construction disturbance; lawn and garden disturbance/restoration; driveway/sidewalk disturbance/restoration; tree removals (if any); and water/power shutoffs (if any). For public portions correlating to the SWQIF project and/or for corresponding SRF projects, continue to follow the SRF planning guidance. Remember to include both positive and negative impacts of the project in a level of detail appropriate to the project's extent of influence.

Mitigation of impacts for a SWQIF project will concentrate on the private property measures needed to minimize construction impacts to neighborhood residents and homeowners, and business owners, if applicable, except to the extent the project's sphere of impact also influences public facilities such as new drains or storm sewers needed to accommodate clear water flow being removed from the sanitary system. See the SRF planning guidance for additional information.

SWQIF projects are likely to have a significant public participation component beyond the normal requirements of an SRF project. There may be extensive efforts at public education and outreach, special public meetings, press releases, Web site content, public notices/emails, postcards, door-to-door surveys, and so forth. Experience has shown that a well-executed public education program, with an emphasis on water pollution control and public health benefits, can help promote the need for FDD in a neighborhood (some residents may not have had the misfortune of sewage in their basements and its associated property damage). All these important efforts are summarized and documented in the project plan. As with the SRF, a formal public hearing with transcript is a requirement (see the SRF guidance for further requirements in this regard).

As with SRF projects, the DEQ will publish a "Finding of No Significant Impact" determination based on an environmental assessment of the SWQIF Project Plan. Following the 30-day public notice expiration (barring substantive negative comment from the public), an approval of the project plan will be declared.

Project Priority List (PPL)

A completed *PPL Scoring Data Form* (available on the DEQ Web site) must accompany the final SWQIF Project Plan due on or before July 1. Page 3 requests Pre- and Post-Project flow data under the remedial design storm event standard to confirm the quantity of I/I expected to be removed as a result of completing the proposed FDD project. Column headings may be modified as necessary in order to serve this purpose. Pay close attention to the instructions for providing information requested for all PPL scoring data categories. Applicants should contact their assigned DEQ project manager with any questions about the *PPL Scoring Data Form*.

SWQIF Project Plans on the PPL are scored on a points system and ranked accordingly for funding opportunity. SRF Project Plans are ranked on a separate list independently, including those with companion SWQIF components.

Milestone Schedule

A municipality choosing to proceed with an application is required to negotiate a project milestone schedule with its assigned DEQ project manager. Important deadlines are highlighted on the schedule in coordination with the MFA to target a loan closing in either the 1st,

2nd, 3rd, or 4th quarter of the fiscal year. Failure to adhere to the agreed-upon schedule could result in reserved funds being used for other projects on the PPL.

Loan Application

Application forms are available on the DEQ Web site (or a hard copy can be mailed to you if requested) and consist of Parts I & II (combined) and III. Although these forms are the same as those used for the SRF program, an applicant pursuing both a SWQIF and SRF loan (for the same related project or different ones) will have to submit separate application forms for each.

Part I provides applicant contact information and documentation used to assess the financial capability of the municipality to manage bond indebtedness. The MFA reviews and approves Part I.

Part II contains a project cost worksheet and a list of covenants, assurances, and certifications. All costs, estimated or incurred, must have adequate supporting documentation as described in the application instructions. Applicants may choose to place a cap on the per-home cost of their FDD program, which multiplied by the estimated number of homes requiring the work (as determined by the I/I flow to be cost-effectively removed as established in the SSES and project plan), can form the basis for a total estimated construction cost in the SWQIF loan. Comparative quotes from two or more plumbing contractors can also be used to establish the cost, or if applicable, information obtained from a completed FDD pilot study.

For Part III, applicants will provide a copy of their Request For Qualifications (RFQ) and list of pre-qualified contractors.

Eligibility

I/I removal projects (from either private or public sources) must be based on a water quality and/or public health issue being experienced by the wastewater collection and treatment system. I/I removal projects driven solely by operation and maintenance savings are not eligible for the SWQIF (or SRF) program. Furthermore, eligibility is limited to the work necessary to eliminate the quantity of flow determined to be cost-effective to remove in the SSES. For an FDD project, this flow is tied to a specific number of homes estimated to require disconnection.

Examples of eligible FDD-related cost items include:

- home inspection;
- building permit fees to perform the FDD;
- sump pump installation;
- disconnection from the sanitary system;
- FDD-related in-home restoration (flooring, etc.);
- backwater valve (if none exists or the existing valve is defective);
- an outlet pipe to carry disconnected flow to a storm drain or other acceptable location;
- necessary electrical upgrades (dedicated receptacle w/capacity meeting standard codes) for sump pump;
- lawn/yard/pavement restoration, etc., needed to construct the outlet pipe;
- connection of storm flows to an existing drain;
- basement floor drain if needed for FDD or to replace a damaged one; and
- FDD-associated engineering and administration costs.

Anything not on this list should be discussed with your DEQ project manager for an eligibility determination.

Ineligible costs include:

- sump pumps provisioned with battery backup power;
- any improvements (including sump pumps) for homes not requiring FDD (exception: backwater valve if home lacks one and has a history of basement backups despite not needing FDD);
- FDD work that exceeds the quantity threshold established as cost-effective in the approved SSES/Project Plan;
- radon remediation measures;
- reimbursement for private property damage claims; and
- reimbursement for pilot studies.

Rate Methodology Review and Legal Documents

For SWQIF projects (unlike the SRF), the DEQ's rate methodology review is focused on ensuring and verifying that a legal instrument exists in the applicant community to charge private users for the FDD program and ensuring that no reconnections can take place, under penalty of law, by a homeowner in the system. Once this verification has been established via submittal of the appropriate documentation (for example, an amended sewer use ordinance), the DEQ will issue a letter that concludes there is the legal authority in place to protect the integrity of the wastewater system.

Design Phase/"Bidding"

For FDD projects, previous applicants have found that traditional competitive bidding procedures do not apply, since the actual construction contract is between the individual homeowner and a plumbing contractor. Instead, the municipality publishes an RFQ advertisement to recruit contractors interested in performing the work. In the advertisement and/or application package, contract specifications and workmanship standards are delineated for the various tasks associated with the FDD program. Following a review of the interested FDD applicant firms and their qualifications, the municipality approves a list of pre-qualified contractors from which each homeowner can choose to perform FDD in his or her home (it may or may not be the same contractor who performs the initial home inspection). Documentation of the RFQ procedure and the accompanying list of pre-qualified contractors is submitted to the DEQ with the SWQIF Part III application. Thus, a "normal" set of bidding plans and specifications, typical for an SRF project, is not prepared or submitted, and a Part 41 construction permit is not needed. A local publication of the RFQ notice is acceptable – it is not necessary to advertise statewide, such as on the Michigan Infrastructure and Transportation Association Web site, as is typical for an SRF project.

Order of Approval/Loan Closing

Once all components of the application are complete and approved, the DEQ will issue its Order of Approval to the MFA on the date corresponding to the project's quarterly milestone schedule. This action represents a binding commitment of funds dedicated to the project. The MFA will schedule a conference call with the project authorized representatives and finance consultants to confirm bonding details to proceed toward a loan closure.

SWQIF bonds are taxable revenue bonds because the benefits occur on private property. As with an SRF loan, the applicant must obtain a sufficient credit rating from Standard & Poor's or a similar rating agency. Execution of the loan agreement constitutes final loan closure such that the project can immediately enter the construction phase and the applicant may initiate a disbursement request for prior-incurred costs.

Construction Phase (Including Disbursement Procedures)

Following an inspection of their home plumbing, homeowners required to have an FDD performed will be expected to select a contractor, after being offered a quote for the work deemed necessary, from the list of pre-qualified firms approved by the municipality (they may or may not select the company who had performed the initial inspection). Once authorized to proceed, the selected contractor will commence with the FDD in accordance with the agreed-upon specifications and work standards. When the contractor is finished, the municipality (or its consultant) will certify by final inspection the completion of the work and obtain the homeowner's signed acceptance of the work. Only then will the contractor get payment.

Unlike a standard bid contract (such as typical for SRF projects), there will not be a formal change order when changes are proposed to accomplish FDD at a particular home address. Instead, any cost increases or deviations from standard specs that the contractor proposes will be reviewed in advance for acceptability by the municipality's representative (or consultant). If allowed, they will become part of the contractor's final invoice to the homeowner. Potentially significant changes should be brought to the attention of the DEQ project manager beforehand. Otherwise, eligibility review by the DEQ can wait upon submittal of the FDD documentation in a subsequent loan disbursement request.

The DEQ project manager and/or district engineer may request an on-site visit to view the project during construction. However, any viewing inside a home before, while, or after undergoing FDD is strictly up to the discretion and approval of the homeowner.

Each disbursement request for incurred construction costs must include the following information or its functional equivalent:

- spreadsheet summary of invoices from each contractor and the accompanying list of addresses where work was performed;
- signed, approved contractor invoices;
- property owner "release form" indicating acceptance of the work performed;
- private property sanitary sewer inspection report with plan drawing for each home address invoiced; and
- contractor's itemized final quote worksheet with scope of work described and diagrammed.

Disbursement forms are available on the DEQ Web site.

Project Closeout

An "initiation of operation" date will be declared after each home in the FDD program is certified as completed. The DEQ project manager will send a *SWQIF Certification of Project Completion form* to the project authorized representative to complete and sign to initiate project closeout. A final disbursement request will be processed and the final costs reviewed. If necessary, the

SWQIF loan amount will be adjusted downward, thus, triggering a revised debt service schedule.

Helpful Supplementary Documents (see DEQ Web site to view/obtain copies)

Clean Water State Revolving Fund Project Plan Preparation Guidance

Applicant Actions Related to Project Planning

SRF/SWQIF Project Plan Submittal Form

SRF/SWQIF Application For Financial Assistance (Parts I, II, III)

SWQIF Frequently Asked Questions

PPL Scoring Data Form

SRF/SWQIF/DWRF Request For Funds Disbursement Form