



Milwaukee Metropolitan Sewerage District

Sewer Plan Review Submittal Toolkit

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1. Introduction

The sewer plan review process provides a means for the District to assure that sewers, both public and private, tributary to the District's system are designed to conform to the Rules and Regulations of the Milwaukee Metropolitan Sewerage District. The District originally adopted the Rules and Regulations in 1982, and has made various updates since that time. As examples, in 1998 a major update was adopted to include provisions related to implementation of the District's infiltration/inflow (I/I) control program and in 2007 further revisions included requirements for municipal Capacity, Management, Operation & Maintenance Program and established peak flow rate limits as part of the Wet Weather Peak Flow Management Program. Review of local sewer plans was also a regular practice of the District's predecessor organization, the Sewerage Commission of the City of Milwaukee. Documentation of this activity dates back to the early 1920s.

The following chapters of the Rules and Regulations contain specific provisions relevant to the sewer plan review process and the District's authority to conduct such reviews:

- Chapter 2: Planning, Design, and Construction of Sewers and Ancillary Facilities
- Chapter 3: Management, Operation, and Maintenance of Tributary Sewers
- Chapter 13: Surface Water and Storm Water

The above chapters, along with all District rules, are available on the District's web site, www.mmsd.com. Following are brief descriptions of the information included in each of the above chapters:

Chapter 2: Planning, Design, and Construction of Sewers and Ancillary Facilities

This chapter contains District requirements for sewer plan submittals, including a description of sewer projects that must be submitted for approval, descriptions of construction and system plan requirements that must be followed when preparing plans for submittal, and other general requirements governing the submittal of plans. This section also establishes a 60-day District review period. Following District review, plans that require Wisconsin Department of Natural Resources (WDNR) approval are forwarded by the District to the WDNR for its review and approval. The WDNR then advises the District of the results of its review. The District then notifies the municipality of its approval, conditional approval, or disapproval of submitted plans. The District considers the 60-day review period to begin with the submittal of a complete set of plans and specifications as outlined in Chapter 2, and to end with the forwarding of plans to the WDNR.

Chapter 3: Management, Operation and Maintenance of Tributary Sewers

This chapter contains requirements for the Capacity, Management, Operation and Maintenance Program and the Wet Weather Peak Flow Management program, information concerning prohibited connections and inspections for prohibited connections, as well as other sewer design and construction requirements for the exclusion of infiltration to the maximum extent possible and the total exclusion of inflow for the structures described in the plans.

Chapter 13: Surface Water and Storm Water

This chapter contains information on watercourses and flood abatement procedures. Included in this section are guidelines on the submittal of storm water management plans for approval by the District. Chapter 13 is referenced in this submittal kit because the requirements that apply to storm water management structures are separate from those that apply to sewers, whether they be sanitary, combined, or storm sewers. Storm water management plan submittals should conform to the requirements of Chapter 13 and not the requirements for sanitary, combined, and storm sewers described in this document.

2. Sewer Plan Submittal

All plans are to be submitted electronically to the District using the established Electronic Sewer Plan Submittal site (<http://sphome.mmsd.com/esps>). A user name and password is required to access the site. Each municipality has been provided its established user name and password, and has also been provided with a User Guide for the site. See Appendix A for a flow chart of the electronic process, including the naming convention for plan submittal.

3. Sanitary and Combined Sewer Plan Review Process

The plan review process normally includes the following steps:

- Administrative review for completeness of submittal
- Technical review for compliance with technical criteria
- Operations review of connections to District facilities (if directly connected to District-owned sewer)
- Routing of plans conforming to Rules and Regulations to Executive Director for approval
- Plans submitted to WDNR for review
- Notification of the plan's originator
- Filing of the plans and findings
- Quality assurance inspection
- Submittal of as-built drawings by the municipality

Steps of the sanitary and combined sewer plan review process are discussed below.

Administrative Review. When a sewer plan is submitted to the District, the plan set is logged into the District's tracking database. If a submittal is incomplete, the District contacts the municipality to request the missing information. When the submittal is complete, District Technical Review commences. The following types of information are tracked in the database for each submittal:

General submittal information:

- Name of municipality submitting plans
- Project name
- Unique numerical identifier of project (established by the District)
- Location of project within municipality
- Description of project (type, size of connections, length of sewer extensions, etc.)
- Determination of need for WDNR review of submittal

Submittal review milestones:

- Date submittal received by the District
- Date submittal considered complete and District began its technical review
- Date the District completed its technical review
- Date submitted to WDNR for review
- Date completed WDNR review received by the District
- Date of Commission (or Executive Director) approval
- Date approved plans returned to municipality

Technical Review. During the Technical Review, plans are checked for consistency with the District Rules and Regulations, the current District facility plan, and applicable design standards. Examples of items reviewed are:

- Whether area tributary to the proposed sewer is in the approved District service area

- Whether projected flows are within the planned growth allowance of the approved facilities plan for the sewershed
- Compliance with NR210 and the state plumbing code
- Consistency of calculated flows with the District Rules and Regulations and the Facility Plan
- Compliance with District's requirements for water tightness and durability
- Whether proposed sewer will result in future operational problems for District

Operations Review. If there are elements to the plan that may impact future District operations or if the plans include a direct connection to a District metropolitan interceptor sewer (MIS) or other District structure, they are forwarded to Contract Operations for further review of the potential impact on operations.

Routing of Recommendations to Executive Director. After completion of the District's technical and operations review, recommendations for approval are sent to the Executive Director for action. The Commission has delegated the authority to the Executive Director to approve plans that are consistent with District rules. If plans are not consistent with the Rules and Regulations or otherwise require an exemption, the plans will need to be acted on at a Commission meeting to determine if an approval will be granted.

Submittal of plans to WDNR for review. After completion of District technical and operations review, plans are forwarded to the WDNR for review, if required (private sewer plans do not require WDNR review). Municipalities are responsible for including with their submittals to the District any additional forms required by WDNR; the District will forward these forms to WDNR along with plans on behalf of municipalities. If WDNR approves the plans, an approval letter is sent to the District. Copies of WDNR forms that may be required for sewer plan reviews are provided in Appendix B (further information on the WDNR review process can be found at the following address: <http://dnr.wi.gov/topic/wastewater/municipalsystems.html>)

Private Interceptor Main Sewer approval by State of Wisconsin Department of Safety & Professional Services. Private Interceptor Main sewers are approved by the Wisconsin Department of Safety & Professional Services (DSPS). The DSPS approval shall be obtained prior to submittal of the sewer plans to the District; a copy of the DSPS approval shall be submitted to the District with the sewer plans.

Notification to Originator. Upon completion of District Commission and WDNR action, the District notifies the plan originator of the action taken.

Filing of Plans and Findings. Reviewed plans and the findings of the review are filed after completion of the review process.

Quality Assurance Inspection and Submittal of As-Built Drawings. The municipality must arrange for a quality assurance inspection during construction to ensure that the plans and specifications approved by the District are followed. Inspections must be performed according to the requirements in Section 2.404. Within six months of construction, the municipality must submit to the District as-built drawings of the constructed facilities.

4. Storm Water Management Plans

Volume, timing, and peak flow rate of storm water runoff from development or redevelopment must be managed consistent with District Rule Chapter 13, Surface Water and Storm Water.

If development or redevelopment either (a) increases imperviousness by one-half acre or more, or (b) disturbs an area larger than 2 acres, a stormwater management plan must be submitted to demonstrate compliance with Chapter 13.

Other than as a component of a stormwater management plan, municipal and private storm sewers do not require District approval and therefore need not be submitted.

5. Plan Submittal Cover Sheet

As part of its effort to increase the efficiency of sewer plan reviews, the District developed a standard cover sheet to be used by municipalities submitting sewer plans for District review. This cover sheet contains a checklist of required submittal items to assist municipalities in assembling complete applications, resulting in fewer delays caused by submittals that are incomplete, requiring review staff to follow up with municipality officials for further information. A copy of the required cover sheet is provided in Appendix C.

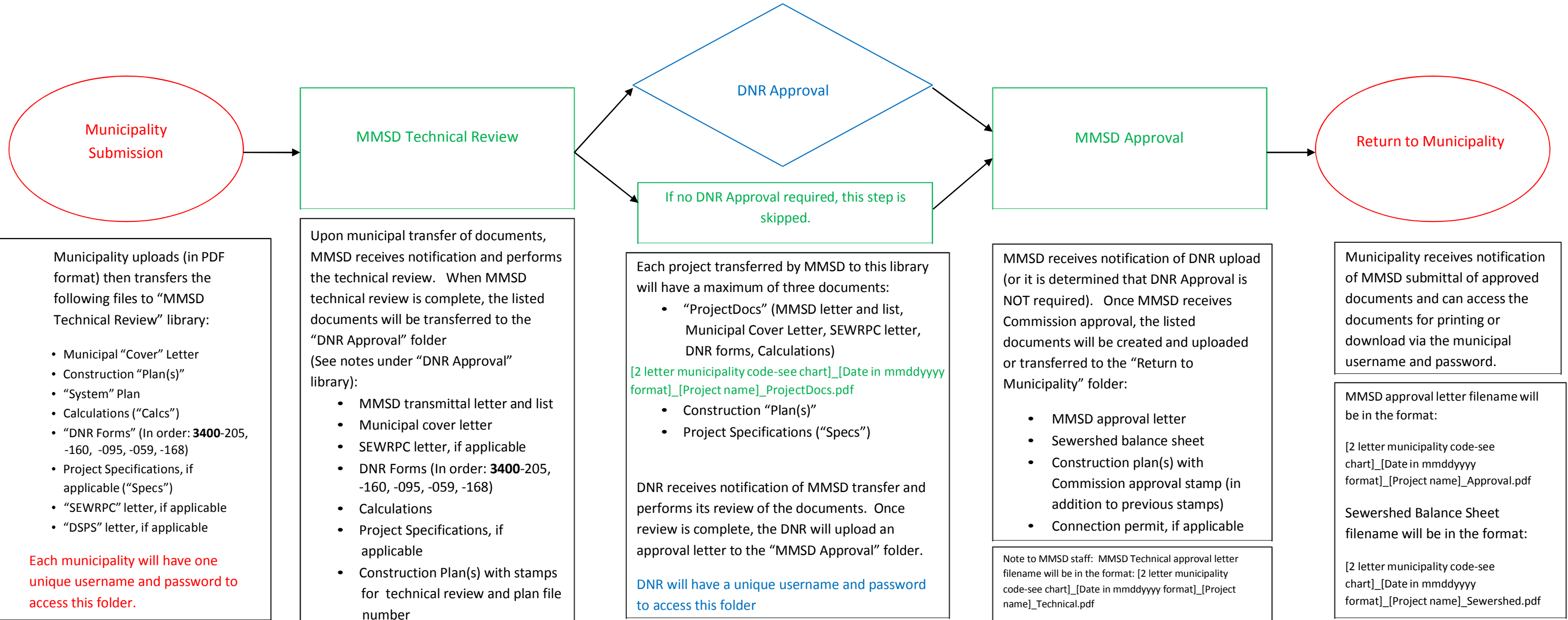
6. Project Web Site

The District has created a plan review project link in its web site to enable municipalities to easily track the review status of their sewer plan submittals and therefore better plan the schedules of their sewer projects. With this system, each municipality may be provided a login name and password to be used to login to the web site and view the review status of their active submittals, as well as those projects reviewed within the last one-year period. Besides allowing for improved communication of plan review status, use of the web site frees up District review staff for reviewing plans instead of responding to municipal requests for review status, further minimizing the amount of time required for review. Detailed instructions on the use of the project web site are provided in Appendix D.

Appendix A

Electronic Sewer Plan Submittal Flow Chart

ELECTRONIC SEWER PLAN SUBMITTAL (ESPS) FLOW CHART FOR SHAREPOINT



File naming format for the documents above, shall be as follows, respectively:

- [2 letter municipality code-see chart]_[Date in mmddyyyy format]_[Project name]_Cover.pdf
- [2 letter municipality code-see chart]_[Date in mmddyyyy format]_[Project name]_Plans.pdf
- [2 letter municipality code-see chart]_[Date in mmddyyyy format]_[Project name]_System.pdf
- [2 letter municipality code-see chart]_[Date in mmddyyyy format]_[Project name]_Calcs.pdf
- [2 letter municipality code-see chart]_[Date in mmddyyyy format]_[Project name]_DNRforms.pdf
- [2 letter municipality code-see chart]_[Date in mmddyyyy format]_[Project name]_SEWRPC.pdf
- [2 letter municipality code-see chart]_[Date in mmddyyyy format]_[Project name]_DSPS.pdf
- [2 letter municipality code-see chart]_[Date in mmddyyyy format]_[Project name]_Specs.pdf

Municipality	Code	Municipality	Code	Municipality	Code	Municipality	Code
Bayside	BA	Franklin	FR	Milwaukee (City)	MI	State Fair	ZZ
Brookfield	BR	Germantown	GE	Milwaukee County	ZZ	Thiensville	TH
Brown Deer	BD	Glendale	GL	Muskego	MU	Wauwatosa	WA
Butler	BU	Greendale	GD	New Berlin	NB	West Allis	WE
Caledonia	CV	Greenfield	GF	Oak Creek	OC	West Milwaukee	WM
Cudahy	CU	Hales Corners	HC	River Hills	RH	Whitefish Bay	WB
Elm Grove	EG	Menomonee Falls	MF	Saint Francis	SF		
Fox Point	FP	Mequon	ME	Shorewood	SH		

Appendix B

WDNR Forms for Sewer Plan Reviews

The table below lists the various applicable WDNR forms. Fillable PDF forms can be downloaded from the WDNR website at:

<http://dnr.wi.gov/topic/wastewater/adequatesubmittal.html>

WDNR Form No.	WDNR Form Title
3400-205	Wastewater System Approval Request
3400-160	Sanitary Sewer or Lift Station Project Approval Request
3400-095	Sewer Specification Checklist
3400-059	Sanitary Sewer Submittal
3400-168	Lift Station Design Checklist

Appendix C

District Sewer Plan Review Submittal Cover Sheet

District Sewer Plan Review Request

Municipality: _____
Name of contact person: _____
Project name: _____

Date submitted: _____
Telephone number: _____

Instructions: Fill out Section 1, 2, or 3 based on the type of sewer project proposed.

1. Sanitary and Combined Sewers

Project Type (check all that apply)

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Sanitary sewer extension |
| <input type="checkbox"/> | Sanitary relay sewer |
| <input type="checkbox"/> | Sanitary relief sewer |
| <input type="checkbox"/> | Combined relief sewer |
| <input type="checkbox"/> | Sewage lift station or force main (including any modifications that increase capacity) |
| <input type="checkbox"/> | Private interceptor main sewers |
| <input type="checkbox"/> | Other (indicate) _____ |

Submit the following with sanitary and combined sewer projects:

1. Plans and specifications (plans and specifications need signature and seal of designer and signature of municipal official approving/submitting plans)
2. Relevant system plan
3. Design computations (not required for 8" diameter sanitary sewers designed to carry a peak flow less than or equal to 0.7 cubic feet per second (cfs) when ½ full)
4. Immediate and Ultimate landuse and service area (in acres) for sanitary sewer extensions
5. SEWRPC 208 letter indicating conformance with regional land use plans (sanitary extensions only)
6. For public sewer systems, the following WDNR forms:
 - 3400-205
 - 3400-160
 - 3400-095 (not necessary if no sewer work included)
 - 3400-059
 - 3400-168 (only necessary if lift station included)

2. Stormwater Management Plan

See District website for submittal checklist for stormwater management plans.
(<http://www.mmsd.com/rulesandregs/manuals>)

3. Other Review Request

Describe review request:

Contact the District to determine submittal requirements.

Submit completed submittal packages to:

District SharePoint Website
See Flow Chart for more Information

Appendix D

Sewer Plan Review Status
Instructions

If Municipal staff would like access to the Sewer Plan Review Status Login on the District website to view the status of sewer plan submittals, the Municipal staff must contact Debra Jensen, Planning Services Supervisor (414-225-2143 or djensen@mmsd.com) to create an account.