

2020 Facilities Plan – Addendum 1

1.1 Introduction

This addendum has been developed to provide certain outstanding data and to address other matters in the Milwaukee Metropolitan Sewerage District's (MMSD) 2020 Facilities Plan since it was submitted to the Wisconsin Department of Natural Resources (WDNR) on June 29, 2007. The Addendum includes three items as summarized below:

- ◆ A section documenting the data, procedures and results used in the examination of all point source discharges to the watersheds studied in the 2020 Facilities Plan. Note that this information was also used in the development of the Southeastern Wisconsin Regional Planning Agency's (SEWRPC) Regional Water Quality Management Plan Update (RWQMPU).
- ◆ A section documenting the final pollutant loading data for the recommended plan alternatives discussed in the Facilities Plan Report Chapter 9, Section 9.6.
- ◆ A section documenting responses to the comments on the Final MMSD-Approved 2020 Facilities Plan as submitted to the WDNR on June 29, 2007. One comment was received on June 29th, so it was not possible to include it in the 2020 Facilities Plan Appendix 12C that documented all other comments received on the 2020 Facilities Plan Report from municipalities, consultants, non-governmental organizations, and advisory committees.

Details on each section are presented below.

1.1.1 Point Source Technical Memorandum and Associated Data

This technical memorandum (TM) was prepared during the completion of the MMSD 2020 Facilities Plan and the RWQMPU. The memorandum and the associated data were utilized for water quality modeling and determination of water quality impacts and overall pollutant loads for all point sources in the watersheds studied in the 2020 Facilities Plan and the RWQMPU. Point sources are defined in



the MMSD 2020 Facilities Plan and the SEWRPC RWQMPU as discharges from municipal wastewater treatment plants, sewer overflows including both separated sewer overflows (SSOs) and combined sewer overflows (CSOs), and permitted industrial dischargers to the watersheds.

The development of the TM was initiated in 2003, finalized in January, 2007 and finally approved and accepted by SEWRPC in July, 2007. All decisions and data outlined in the TM, however, were incorporated in the water quality modeling that was performed between 2002 and 2007. The TM is presented in this addendum in order to provide documentation of the data and processes used to develop the point source loads.

1.1.2 Final Pollutant Loading Data for the Recommended Plan Alternatives

During the development of the 2020 Facilities Plan and the RWQMPU, pollutant loading data for the various screening alternatives, preliminary alternatives and recommended plan alternatives was presented in the 2020 Facilities Plan Report in Chapter 9 and in Chapter 9 appendices. Throughout this chapter and the appendices, the data was footnoted with: “Source: SEWRPC - Preliminary Data.” This was done because the data was still in the process of being verified when the 2020 Facilities Plan Report was being finalized. The pollutant loading data compilation is completed after the water quality models are set up and run to produce the water quality modeling data shown on the 2020 Facilities Plan and the RWQMPU. The loading data is compiled through a complex process of calculations wherein the water quality model results are used to determine actual delivered pollutant loads to the receiving streams or lakes. This process proved to be a very complex and time consuming task. The compilation of the final loading data was accomplished by the combined work of the technical consultant team and SEWRPC staff and required more time to complete than originally anticipated.

One issue was discovered in the final compilation of the loading data for the recommended plan alternatives. The issue involved a change in the methodology by which watershed loads were reported as being either rural or urban, which led to some shifts in the allocation of modeled loads between urban and rural estimated pollutant loads. The methodology involved the characterization of subbasin stormwater runoff pollutant loads by the urban and rural categories. The initial methodology assumed that if the land cover within a subbasin was predominately rural – the loads



would be classified as rural loads. The same assumption was made with respect to a subbasin with primarily urban land cover. The assumptions used to categorize the nature (urban or rural) of the loads from a subbasin were used to simplify the analysis.

As the development of the two plans (the MMSD 2020 Facilities Plan and the SEWRPC RWQMPU) and the watercourse modeling proceeded, some results indicated that this assumption could be causing a potentially significant mischaracterization of the total urban and rural loads. It was suspected that pollutant loads from urban land uses located in predominately rural subbasins were actually large enough that characterization of the subbasin as all rural was resulting in too much of the loads being represented as coming from rural versus urban.

Once this suspicion was confirmed, the loads from the subbasins were recalculated. The results of this recalculation are presented in this addendum. This recalculation did not impact the water quality analysis in any way – but did change the reporting of the “split” of pollutant loads between urban and rural, with the result being that the estimate of the urban loads increased and the estimate of rural loads decreased. Urban loads include pollutant loads from commercial, industrial, transportation, communication, utility, governmental, institutional and recreational land uses. Residential areas are also classified as being urban if they are located in a primarily urban subwatershed. These land uses comprise about 39 percent of land use in the Greater Milwaukee Watersheds.

So, with this revision, the loads identified as rural loads in the final pollutant loading data for the recommended plan alternatives include only agricultural lands, residential lands in primarily rural subwatersheds, other rural land areas including water/wetlands, woodlands, and other land uses classified as either landfill, extractive, and unused or other open land. The agricultural land area is about 2/3 of the rural land area and comprises the majority (about 61 percent) of the pollutant loads characterized as rural.

1.1.3 Additional Comments received on the 2020 Facilities Plan Report from Municipalities, Consultants, Non-Governmental Organizations, and Advisory Committees on the 2020 Facilities Plan

On the 29th of June, 2007, one additional comment was received on the MMSD Approved 2020 Facilities Plan which was transmitted to WDNR on that same date. The responses to that comment are documented in this third section of the addendum.