

# Purpose and Structure of the TAMP Technical Guide

# PURPOSE AND STRUCTURE OF THE TAMP TECHNICAL GUIDE

## Purpose and Scope

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The TAMP Technical Guide provides further detail on the process, methodology, and analyses conducted during the development of the TAMP. While all the information contained in the Technical Guide is relevant and may be of interest to those tasked with developing a TAMP, much of the information was considered too detailed for inclusion in the main document (in that it could potentially disrupt the flow for the reader). Therefore, this Technical Guide was developed to document such details and to serve as a reference for updates to the TAMP.

## Structure

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The TAMP Technical Guide has been designed to roughly parallel the main TAMP, with eight chapters (in addition to this Introductory chapter), each corresponding to a chapter in the TAMP and following a general format with two key sections:

- A **Process** section, with a narrative describing the processes MnDOT went through to develop each chapter of the TAMP, including the analyses and the methods of gathering the required information (with visual aids, as necessary)
- A **Supporting Documentation/Data** section, which highlights and explains the data, analyses, and results (including displays of spreadsheets and worksheets, as applicable)

Depending on the nature of the corresponding TAMP chapter, some Technical Guide chapters are weighted more toward process, while others contain more supporting documentation/data. Several (Chapters 3 and 7) are quite short due to the comprehensiveness of their parallel TAMP chapters.

- **Chapter 1 (Introduction) and 2 (Asset Management Planning and Programming Framework)** – Supplemental Information
  - This chapter provides a narrative on the process of developing MnDOT's first TAMP, including details regarding the workshops and other necessary meetings. A table is provided that maps each MAP-21 requirement to the chapter in which it appears in MnDOT's TAMP.
- **Chapter 3 (Asset Management Performance Measures and Targets)** – Supplemental Information
  - Chapter 3 of the TAMP contains information pertaining to asset management performance measures and targets. Key terms associated with targets discussed in the TAMP are the focus of this chapter of the Technical Guide.
- **Chapter 4 (Asset Inventory and Conditions)** – Supplemental Information
  - This chapter describes the steps involved in assembling the asset register/folios. Also discussed are key issues in finalizing the folios for the TAMP and general procedures to update and maintain the asset register/folios.
- **Chapter 5 (Risk Management Analysis)** – Supplemental Information
  - This chapter provides a detailed description of the various processes involved in identifying and prioritizing the risks and mitigation strategies described in the TAMP. MnDOT's approach to Enterprise Risk Management is presented in this chapter, along with the steps involved in determining the undermanaged risks presented in the TAMP.
- **Chapter 6 (Life-Cycle Cost Considerations)** – Supplemental Information
  - This chapter provides a detailed description of the various processes involved in analyzing the life-cycle costs associated with the asset categories discussed in the TAMP. Two separate aspects of life-cycle costing are documented: 1) the data used to conduct the analysis and the process for gathering the information; and 2) the metrics and assumptions used in the analysis.
- **Chapter 7 (Performance Gaps)** – Supplemental Information
  - Chapter 7 contains information pertaining to current and targeted performance levels. This Technical Guide chapter provides a brief overview of how performance gaps are discussed in the TAMP.

- **Chapter 8 (Financial Plan and Investment Strategies) – Supplemental Information**
  - This chapter provides a description of the asset management investment strategies developed as a part of the Minnesota State Highway Investment Plan (MnSHIP) and how they were incorporated into the TAMP. The investment strategies developed for highway culverts, stormwater tunnels, overhead sign structures and high-mast light tower structures are discussed in greater detail than in the main TAMP document. A summary is also included that details the envisioned process changes regarding how future TAMPs will inform MnSHIP updates.
  
- **Chapter 9 (Implementation and Future Developments) – Supplemental Information**
  - This chapter describes a process to help MnDOT decide which assets to consider adding in its next TAMP. A few asset management tools and techniques that MnDOT could potentially implement in the future are also discussed.