

Asset Management for Planners

The demands on our transportation system continue to grow; increased traffic usage, weights and congestion, increased system size and complexity, safety needs, cost inflation, and increased aging and deterioration. Resources available are not keeping up, making it harder and harder to meet all the needs.

To meet the demands of this complex situation, asset management principles rely on good data such as asset inventory and inspection information, and tools such as the TAMS (Transportation Asset Management System) to improve management efficiency. This is important over both the short- and long-term.

	Performance Level 0 <i>Lowest cost, greatest risk</i>	Performance Level 1 <i>Lower cost, higher risk</i>
Investment Approach <i>(See Approach Folio)</i>	Approach C Corresponds with current investment	Approach A, B
Investment Level <i>Total</i> <i>Years 5-10 (2022-2027)</i> <i>Years 11-20 (2028-2037)</i>	\$8,447 M Remaining revenue available Base investment for other categories Pavement Condition 50.8% \$527.9 M/yr \$527.9 M/yr	\$9,242 M Remaining revenue available Base investment for other categories Pavement Condition 55.5% \$577.6 M/yr \$577.6 M/yr
Investment Description	Maintain current investment direction based on 2013 MnSHIP investment direction	Maintain Interstate at a level compliant with MAP-21. Maintain GASB 34 threshold on the NHS and Non-NHS system.

- Is a performance-based approach that uses agency goals and objectives to drive resource allocation. Asset management relates resource needs to the construction, maintenance, and operation of transportation infrastructure assets.
- Enables transportation agencies to improve accountability, decision-making, and coordination between maintenance and capital programs and better manage the available funding.

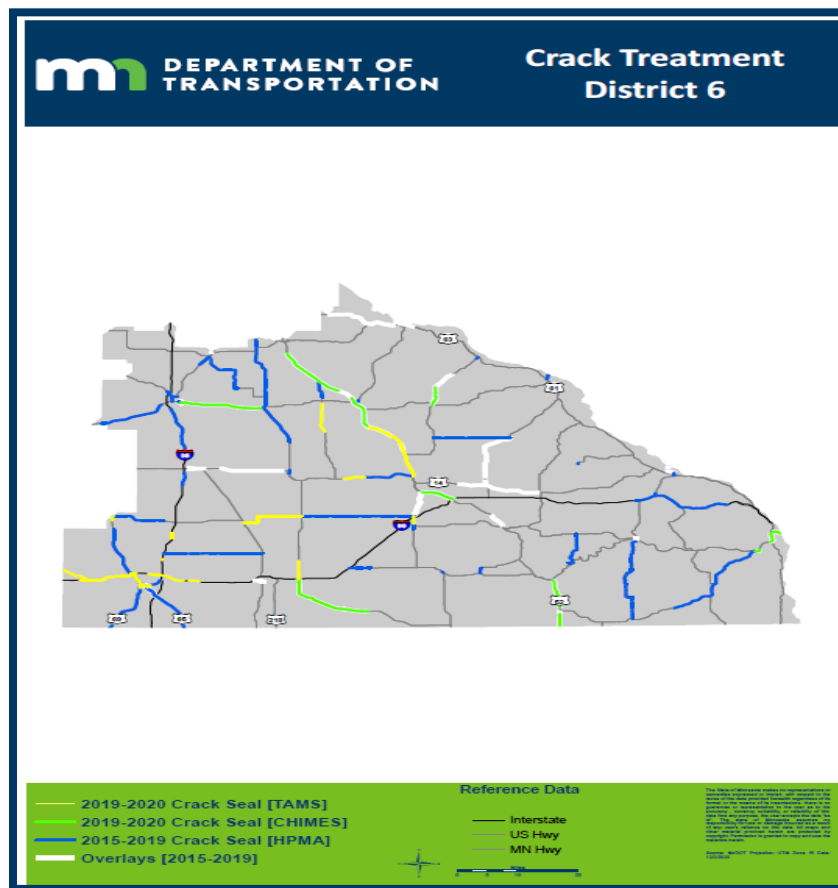
The collection, management, and analysis of quality asset inventory and condition data is a critical part of asset management. Asset management implementation benefits from well-planned information technology systems that consider the decision-making processes that agencies use to keep assets operational and safe.

MnDOT has made a strong commitment to managing our assets by adopting an Asset Management Strategic Implementation Plan, which sets a departmental vision and set of strategic objectives and action plans. In other words, MnDOT is committed “to effectively manage transportation assets by mitigating risk, optimizing return on investment, and using the best available information and tools.”

Maturing Planning Asset Management at MnDOT

Planners play a critical role in the asset management picture. The following are a few of the ways their roles help:

1. Promoting “taking care of what we have” as planning and programming decisions are made.
2. Promoting adequate Preventive Maintenance allocations and follow through.
3. Collaborating with various experts such as Materials Engineering and Maintenance to plan to meet new PM targets. (Note: In the Spring of 2022, District Planners are already taking the lead in coordinating district efforts.)

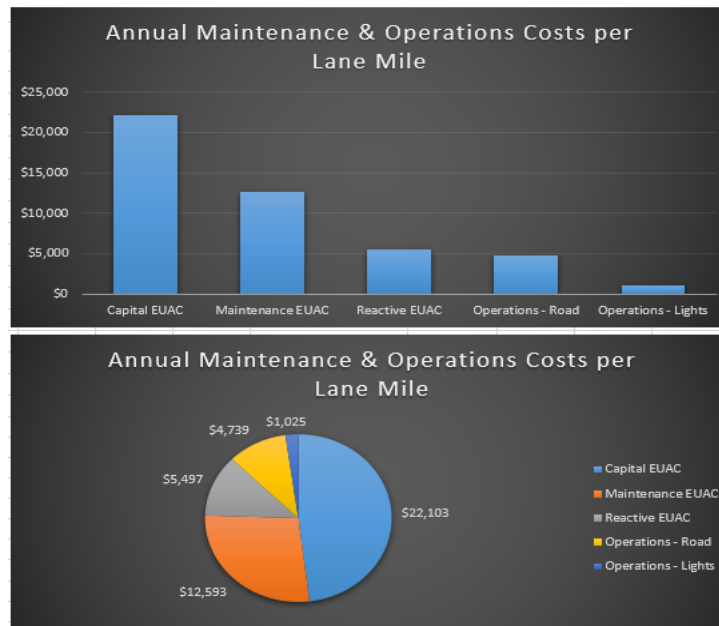


4. Programming of “Follow-Up” Preventive Maintenance projects to capitalize on opportunities to preserve “recently” newly constructed or rehabilitated assets.

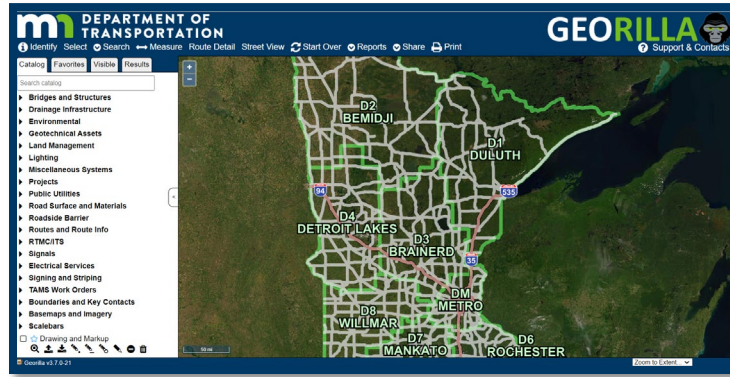
2. Implement a mechanism to more formally plan for preventive maintenance through MnSHIP and STIP creation.

- a. Establish planned investment levels based on management system (e.g. PMS and BMS) outputs and measures established in solution 1.
- b. Enhance the *Pavement Investment Evaluator* to include PM treatments to support Districts in developing balanced paving programs.
- c. The PM projects would be subject to tradeoff decisions per normal STIP development process.
- d. Districts program PM Projects in STIP and through maintenance work planning (TAMS) sufficient to achieve the annual goals.
 - i. This may require a modification to project scoping procedures to include PM set-asides as projects using a simplified scoping packet that includes work type and budget but not necessarily specific locations and may refer to another document such as a work order.
 - ii. In the year prior to planned work, the set-aside projects will be reprogrammed as fully scoped projects by the district.
- e. The value of programmed work and needed accomplishments will be estimated by the primary asset management systems, e.g. PMS and BMS.
- f. Incorporate a report out on programmed and delivered PM funding and accomplishment during District check-in meetings.

5. Capitalizing on information, such as life cycle plans and life cycle cost analyses, available in MnDOT’s TAMP.
6. Integrating of “Total Cost of Ownership” concepts into decision-making as may be possible.



7. Advancing the use of asset-related data to support planning level cost estimates.



Planners face a continually increasing array of demands. Their work significantly affects MnDOT’s future success in both the short and long term. Taking care of assets is a core responsibility of the department, and asset management principles encourage dedicating investments during “windows of opportunity” where assets can be preserved at relatively low cost. Even though asset management is just one of the demands, its implementation can provide long term benefits.