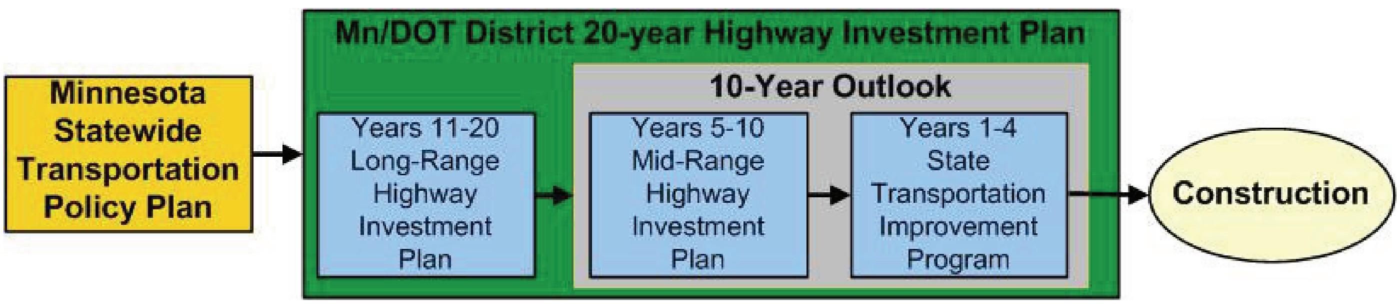
Appendix D – Statewide 20-year Highway Investment Plan 2009-2028 Executive Summary

The Highway Investment Plan links policies and strategies in the Statewide Policy Plan and capital improvements that are made to the state highway system.

Concurrent with the Statewide Transportation Policy Plan 2009-2028 (Statewide Policy Plan) update, Mn/DOT updates its Statewide 20-year Highway Investment Plan 2009-2028 (20-year Highway Investment Plan). It provides the link between the policies and strategies established in the Statewide Transportation Policy Plan and the capital improvements made to the state highway system. In providing this link, the 20-year Highway Investment Plan sets the framework for future capital improvements by satisfying two primary objectives:

- It identifies investments required to achieve and maintain highway system performance targets established in the Statewide Policy Plan; and
- It identifies priorities for available funding in four strategic priority areas: Traveler Safety, Infrastructure Preservation, Mobility, and Regional and Community Improvement Priorities (RCIPs).

Achieving and maintaining the system performance targets is the long-term vision for the state highway system.



Role of 20-year Highway Investment Plan in Mn/DOT's Highway Planning and Programming Process

The Statewide 20-year Highway Investment Plan covers three planning periods:

- The **2009 to 2012 State Transportation Improvement Program (STIP)** identifies projects generally considered commitments with well-developed scopes, cost estimates, and planned year of construction.
- The **2013 to 2018 Mid-Range Highway Investment Plan (Mid-Range HIP)** identifies investments in the planning stage though not yet considered commitments.
- The **2019 to 2028 Long-Range Highway Investment Plan (Long-Range HIP)** provides a very rough outlook on planned spending in the second 10-year planning period based on anticipated revenues and investment priorities.

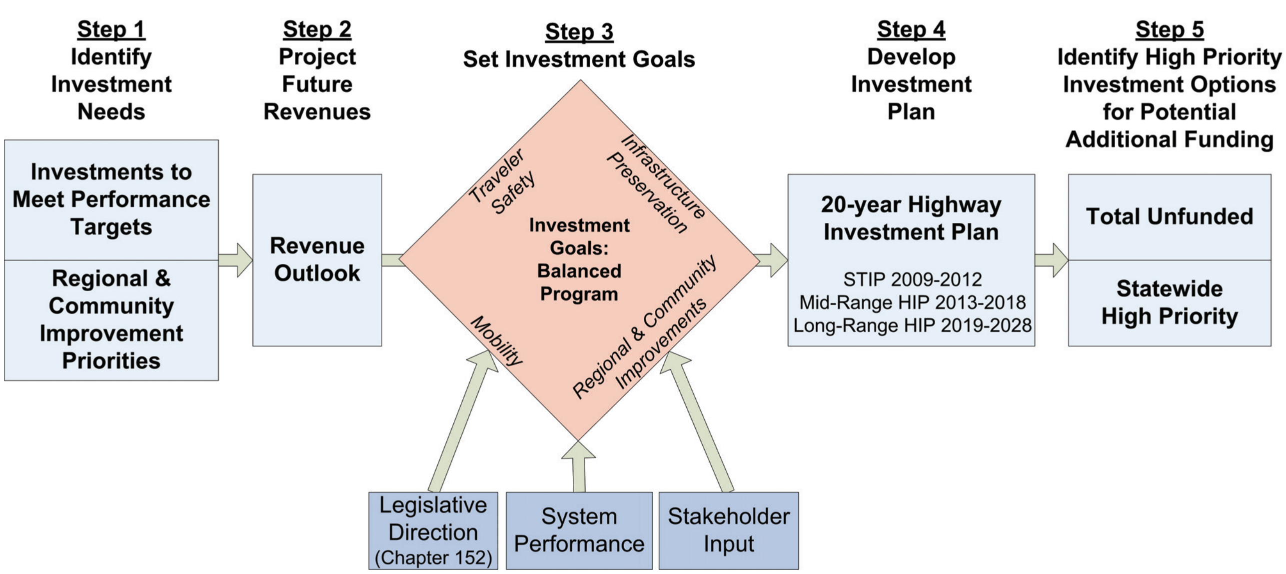
Comparing the 2009 Plan to the 2004 Plan *– While the 2009 20-year Highway Investment Plan is similar in scope and purpose to the last update in 2004, it differs in at least two important ways. First, the 2009 plan lists investment needs in year-of-construction dollars whereas the 2004 plan does so in constant dollars. Second, methodologies to calculate investment needs have undergone several changes. For these reasons, total investment needs in 2009 and 2004 cannot be directly compared. Also, unlike the 2004 investment plan which was developed after the completion of the Statewide Policy Plan, the 2009 Highway Investment Plan and Statewide Policy Plan were developed concurrently, thereby providing immediate feedback on how the policies impacted investments.*

Highway Investment Plan was developed in parallel with the Statewide Policy Plan and is the result of analysis and discussion over a two year period beginning in the spring of 2007. Stakeholders provided input on both plans at over 20 outreach meetings held throughout the state in March/April 2007, July 2008, and February/March 2009 and at two public hearings held in April 2009.

Development of the Highway Investment Plan

A five step process and investment guidelines ensured each district plan would be developed in a consistent, objective manner.

The Statewide 20-year Highway Investment Plan aggregates eight Mn/DOT District 20-year Highway Investment Plans. A five step process and investment guidelines ensured each district plan would be developed in a consistent, objective manner and that planned improvements would address statewide goals and investment priorities.



Mn/DOT 20-year Highway Investment Plan Development Process

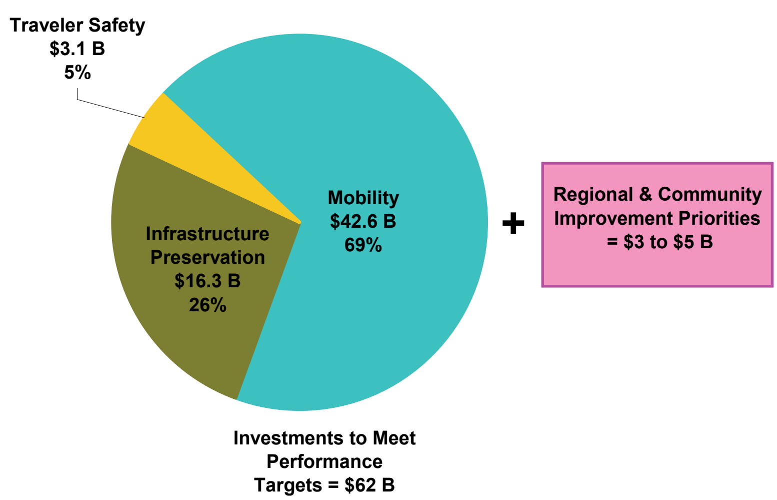
Step 1 – Identify Investment Needs

Investment needs identified in Step 1 include improvements to:

- Achieve and maintain the highway system performance targets established in the Statewide Policy Plan for Traveler Safety, Infrastructure Preservation, and Mobility; and
- Address Regional & Community Improvement Priorities (RCIPs). RCIPs are highway improvements identified by the Districts to support local business or community development goals.

Statewide, investments to meet system performance targets during the 20-year period are estimated at approximately $62 billion. Mobility needs related to interregional corridors and congestion mitigation in the Twin Cities and Greater Minnesota urban areas represent the largest portion, about $43 billion, or 69 percent of the total. For now, congestion mitigation needs in the Twin Cities have been estimated based on previously identified needs from the 2004 Metro District Plan. The approach to Twin Cities mobility and congestion mitigation will be further examined in 2009 and will likely result in a revised estimate of need. Infrastructure Preservation accounts for about $16 billion, or 26 percent, and roadway improvements targeted toward safety total about $3 billion, or 5 percent of the total needs.

An additional $3 billion to $5 billion is needed to address RCIPs. This estimate reflects the sum of each district's understanding of local concerns expressed during the past several years and, as such, does not represent a comprehensive assessment of every potential local request. It does illustrate, however, that there are many demands on available transportation funding beyond the investments needed to meet established statewide performance targets.



Investments to Meet Performance Targets and Community Priorities - $65 Billion

Source: Mn/DOT Office of Investment Management

Step 2 – Project Future Revenues

Statewide projected revenue for highway investments in Step 2 totals approximately $15 billon from 2009-2028. The revenues were projected based on the trends in state and federal revenue sources for state highway construction. No new sources of revenue were assumed but the increased bond funding for trunk highways enacted by the 2008 Legislature was factored into the projection. Construction cost trends were also analyzed and projected so that investment needs and expenditures could be estimated in year-of-construction dollars. Given the volatility in both costs and revenues the projections assumed in this plan represent a snapshot in time and will need to be updated annually as long-range investments become programmed in the four-year STIP.

Step 3 – Set Investment Goals

With investments to meet system performance targets of $62 billion, $3 billion to $5 billion in RCIPs, and only $15 billion in projected future revenue, statewide investment goals are necessary. Based on stakeholder input, statewide investment goals reflect a more balanced approach to investment across four strategic priority areas that include Traveler Safety, Mobility, Infrastructure Preservation, and RCIPs. After much discussion among District leadership, expert offices, and senior management, Mn/DOT's Transportation Program Investment Committee approved investment guidelines to further define the balanced program concept and promote consistency in approach to investment priorities across districts. These guidelines set the following priorities for the investment of each District's projected available funding over the 2009-28 timeframe:

1. **Bridge Preservation:** Allocate sufficient funding to support the Chapter 152 Bridge Program as well as support approximately 85 percent of district investment needs.
2. **Traveler Safety (Roadway Enhancements):** Allocate three times the District's Highway Safety Improvement Program Goal (including District match).
3. **Pavement Preservation:** Allocate funds as above, then Districts with adequate remaining funds to meet pavement preservation targets should do so. Districts that do not have sufficient funds to meet targets should invest about 70 percent of their remaining funds towards pavement.
4. **Other Infrastructure Preservation:** Allocate some minimum level of investment.
5. **Planned allocation** of remaining funds across the following areas is to be determined by the District in consultation with stakeholders:
   - Traveler Safety (Capacity Improvements)
   - Interregional Corridor (IRC) Mobility
   - Greater Minnesota Regional and Metropolitan Mobility
   - Twin Cities Mobility
   - Regional and Community Improvement Priorities

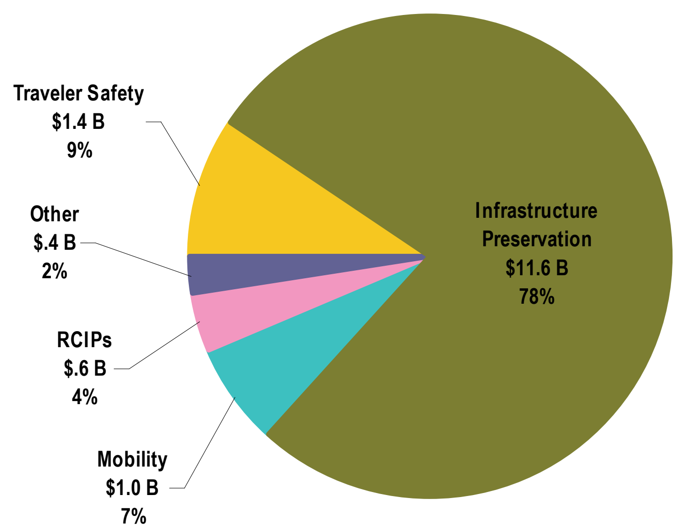
> ***Comparing the 2009 Plan to the 2004 Plan** – The statewide investment goals developed for the 2009 update of the Highway Investment Plan differ significantly from the 2004 plan. At that time, Mn/DOT identified Infrastructure Preservation as its top priority. Mn/DOT districts were directed to fully fund preservation needs before funding other priorities (e.g., Traveler Safety, Mobility and community priorities). The revenue and construction cost outlook in 2004 projected sufficient long term revenue to fully fund not only preservation needs, but to fund other areas of need as well. Since 2004, revenues have not grown as anticipated and construction costs have increased dramatically. Even with the increased transportation revenues provided through Minnesota Laws 2008, Chapter 152, the cost to fully preserve bridges, pavements, and other road infrastructure over the next 20 years will exceed projected revenue.*

Step 4 – Develop Investment Plan

About $15 billion is projected to be invested statewide from 2009 to 2028.

The 20-year Highway Investment Plan developed under Step 4 is a subset of the investments to meet system performance targets and community priorities identified in Step 1 given the projected revenues in Step 2.

About $15 billion is projected to be invested statewide from 2009 to 2028. Costs are expressed in projected year-of-construction dollars. Investments to preserve pavements, bridges, and other infrastructure average 78 percent of the total for the 20 years. Roadway enhancements and capacity improvements for safety account for 9 percent of the total, with 7 percent planned to improve mobility and 4 percent to address community priorities. Approximately 2 percent of the total investments represent overarching investments such as right of way acquisition and consultant services. These investments are not directly attributed to any specific strategic policy area.



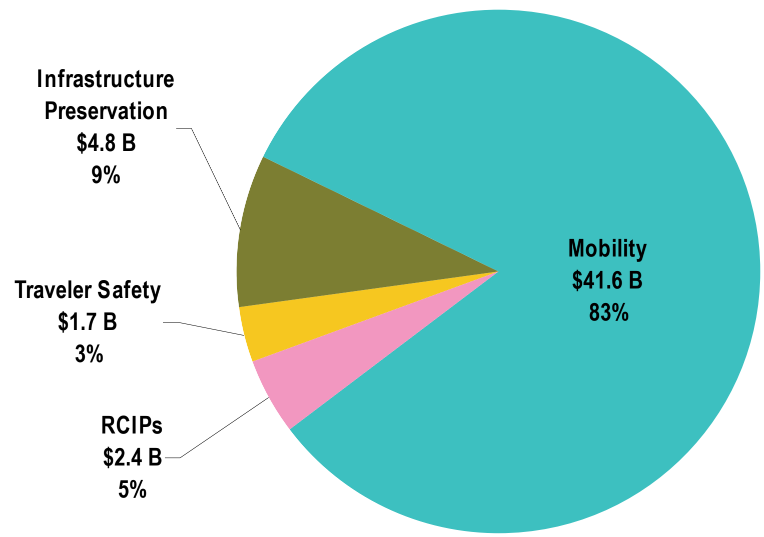
Planned Investments - $15 Billion

Source: Mn/DOT Office of Investment Management

Step 5 – Identify Investment Options for Potential Additional Funding

almost $50 billion remains in unmet needs.

With a total estimated investment need exceeding $65 billion during the next 20 years, and projected revenues of about $15 billion, almost $50 billion remains in unmet needs. To place this level of funding in perspective, every 5 cents on the motor vehicle fuel tax in Minnesota increases total revenues by $150 million per year and provides just under $100 million per year to the State Road Construction fund. To generate an additional $2.5 billion in revenue over 10 years would require the equivalent of a 12.5-cent increase in the motor vehicle fuel tax.

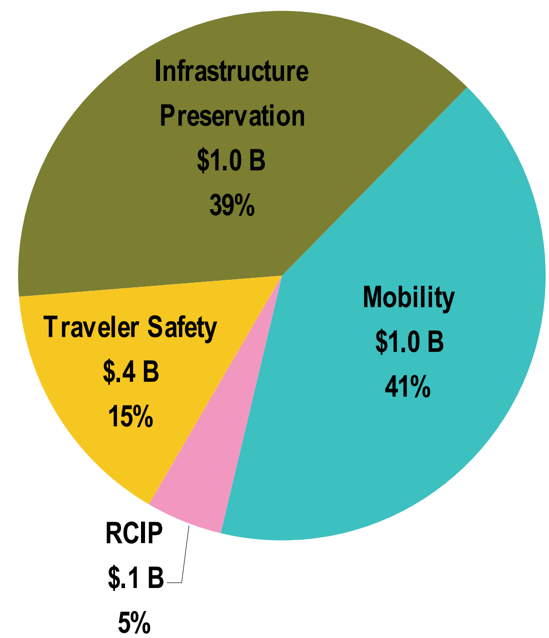


Unfunded Investment Needs - $50 Billion

Source: Mn/DOT Office of Investment Management

This plan fully acknowledges that future transportation funding will never be increased to meet almost $50 billion in "unmet need." This plan's policies and strategies, therefore, emphasize a new approach to meeting system improvement needs through stronger partnerships and innovation. This is especially evident in the plan's vision for mobility in the Twin Cities, calling for more comprehensive and fiscally realistic approach to congestion mitigation.

This plan also stresses the need to set priorities. Toward this end, Mn/DOT has identified 5 percent of the "unmet needs" as high priority investment options should additional revenue be available during the next 10 years. Additional funding, such as the American Recovery and Reinvestment Act, would likely carry specific eligibility criteria or investment direction. For this reason, the identified high priority unfunded investment options are distributed across all four strategic investment categories.



High Priority Investment Options for Potential Additional Funding - $2.5 Billion

Source: Mn/DOT Office of Investment Management

Unfunded high priorities include the need to further address Traveler Safety on rural roads and metro freeways and to improvement mobility both on under performing Interregional Corridors and in metropolitan areas through lower-cost/high benefit congestion management programs. Additional investments would also be made in bridge and pavement preservation, limited capacity expansion projects, and partnership projects in support of local economic development efforts throughout Minnesota.

System Performance and Anticipated Outcomes

Mn/DOT tracks investments using system performance targets and responds with appropriate changes to its investments on an annual basis. Anticipated project timing and expected system performance will change as revenues are realized and construction costs change. The investment plan, however, is a snapshot in time and therefore provides a framework to show how the policies and strategies within the Minnesota Statewide Transportation Policy Plan 2009-2028 guide investments and affect performance measures over the next 20 years.

Based on of the investments identified in the first ten years, 2009-2018, of the Statewide 20-year Highway Investment Plan, Mn/DOT anticipates:

- Repairing or replacing 120 fracture critical or structurally deficient bridges by 2018, consistent with Minnesota Laws 2008, Chapter 152;
- Meeting performance targets for the condition of all other bridges;
- Maintaining the number of state highway miles with pavement in good condition; however the number of miles with poor pavement condition is projected to triple, from 600 miles today to more than 1,600 miles by 2018;
- Systematically investing in other infrastructure such as signs, lighting, traffic signals, intelligent transportation systems, safety rest areas, and drainage;
- Reducing the number of fatalities and serious injury crashes on state highways through systematic lower-cost roadway enhancements such as median cable barriers and edge treatments, and cost-effective capacity improvement projects on high volume corridors;
- Meeting performance targets for Interregional Corridors, despite increasing the number of interregional corridor miles falling below target speeds;
- Complete spot improvements to maintain mobility on several urban corridors in Greater Minnesota Trade Centers;
- Optimizing throughput on the existing Twin Cities highway system; and
- Completing several RCIP projects ranging from shoulder widening and intersection reconstruction to major expansion.