

Executive summary

The goals of the ‘State of the Infrastructure’ survey are: 1) to learn to what degree city, county, and state agencies are using asset management practices in Minnesota, and 2) to share collective knowledge regarding the wide range of infrastructure types in Minnesota and the characteristics of these infrastructure assets. In partnership with MN2050 and the Minnesota Department of Transportation (MnDOT), Wilder Research developed a survey that asked public works engineers and other professionals from jurisdictions around Minnesota about their asset management practices and their jurisdiction’s infrastructure assets. This survey was first conducted in 2015 and revised in 2016. The list of jurisdictions was expanded to include more small cities for the 2016 administration.

The completed surveys for 2015 and 2016 combined include 316 smaller cities (45% of all small cities that were invited to complete the survey), 129 larger cities (87%), 82 counties (94%), and two state agencies, for a total of 529 respondents (56% overall response rate). (Responses from 79 jurisdictions from 2015 were included in the 2015/2016 analysis because they did not respond in 2016.)

Asset management is a relatively new strategic process of operating and maintaining physical infrastructure assets to extend their life. It is used to identify and structure a sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve and sustain a desired state of good service over the life cycle of the asset, at minimum practicable cost.



Summary of key findings

- Just over half of Minnesota jurisdictions practice some form of asset management.
- Respondents identified multiple reasons for using asset management practices. The primary reason jurisdictions practice asset management is to preserve, maintain, and extend the life of infrastructure assets. Other reasons include budgeting, inventorying, and mapping infrastructure assets.
- On a 5-point scale (with “1” being not very effective and “5” being very effective), 79% of respondents gave their jurisdiction a rating of 3 or lower.
- Cities and counties are managing all assets listed in the survey, while state agencies are managing fewer asset types. Public infrastructure assets include more than just roads, bridges, and transit lines. Minnesota’s cities, counties, and state agencies manage many types of assets, including traffic fixtures, buildings, drinking water supply and distribution pipes, waste water collection and treatment facilities, storm sewers, storm ponds, airports, ports, railways, electrical systems, solid waste facilities, natural gas networks, parks, and fleet.

- The majority of jurisdictions in Minnesota do not know the value of the assets they manage. Less than one-third of respondents knew the value of any asset type, and for some infrastructure asset types the value was unknown by all respondents. Similarly, relatively few jurisdictions were able to report a dollar amount when they were asked to report the annual gap between infrastructure investment needs in their jurisdiction and available funds.
- It is difficult for jurisdictions to calculate the value of infrastructure assets due to a variety of factors that need to be considered and the various approaches that could be used for valuation; using common asset management practices would help jurisdictions to better, and more consistently, estimate the value of infrastructure. More research is needed to accurately estimate the value of Minnesota's infrastructure and the gap in funds needed to maintain, repair, and replace it.
- In all, over 100 different systems and tools are being used across the jurisdictions that participated in this survey to manage their different types of infrastructure assets. The most commonly used specialized software systems include MnDOT SIMS, Icon, Simple Signs, Pontis, and Cartegraph.

Recommendations

- Make resources available, especially for smaller cities and smaller counties, to implement an asset management system.
- Host conferences, training sessions, webinars, or other forms of education to help those who want to begin or strengthen asset management practices in their jurisdictions.
- Consider advocating for the use of a few select, easy-to-use asset management systems, rather than many different systems, to promote consistency, collaboration, and capacity across jurisdictions.
- Facilitate the building of relationships with neighboring jurisdictions and consortiums to build regional capacity for using asset management practices and systems.
- Explore public policy solutions that could make asset management a standard practice for every jurisdiction.
- More research is needed to understand how to best support Minnesota's cities, counties, and state agencies in their use of asset management practices and systems.

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For more information

This summary presents highlights of the 2015-2016 *State of the Infrastructure Survey*. For more information about this report, contact Nicole MartinRogers at Wilder Research, 651-280-2682.

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