

INFRASTRUCTURE

The Public Infrastructure Background Report assesses the various components of Nashville's infrastructure. The city's infrastructure has kept up with the pace of development over the last 20 years, but the systems are strained and future growth will rely on an aging and limited infrastructure platform. Unless public awareness is raised and policies developed that will support future expenditure, the city's capacity to meet the needs of its citizens could be limited.

A ten point plan is outlined:

1. Discuss with citizens the status of the city's infrastructure, what the risks are of under-investing in infrastructure and educate the public on the true costs of making required upgrades or building new systems.
2. Include lifecycle costs that take long-term maintenance and repair into account for future infrastructure repairs and replacement decisions.
3. Develop an urban and regional vision for implementing future infrastructure construction and maintenance.
4. Focus on maintaining past investments and fund maintenance and repairs of the existing system to bring it up to the high quality Nashvillians deserve.
5. Explore methods of focusing development to align street, transit, water and housing in integrated land use solutions that capitalize on existing infrastructure to maximize existing capacity.
6. Integrate infrastructure systems in future growth plans to maximize efficiency and reduce cost.
7. Incorporate "green infrastructure" into the solutions mix.
8. Embrace density to accommodate more intense development along existing corridors of infrastructure.
9. Encourage cost-effective mass transit alternatives to ease traffic congestion along major corridors and reduce parking needs in the urban core.
10. Promote "total cost" consideration – citizens must evaluate their residential decisions with commuting costs in mind. Increased awareness of these costs will lead to increased support for smart-growth initiatives like mass transit and higher densities.

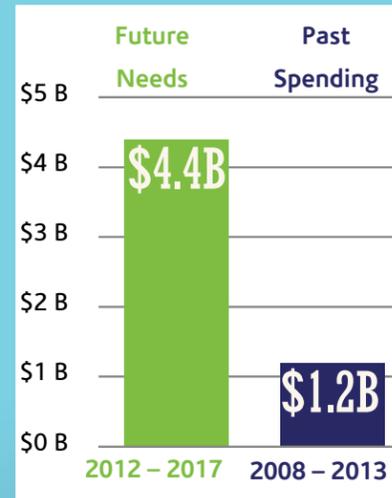
The political will and funding to make the necessary investments to sustain Nashville's high quality of life must be mustered. With an aware and committed public, and the continued excellence of Nashville's public servants, Nashville will be poised to meet the infrastructure challenges of the 21st Century.



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DID YOU KNOW?

» Nashville's anticipated investment in infrastructure far outweighs past spending on infrastructure.



» Prioritizing investments to maintain existing systems is important so deferred maintenance costs do not continue to increase.

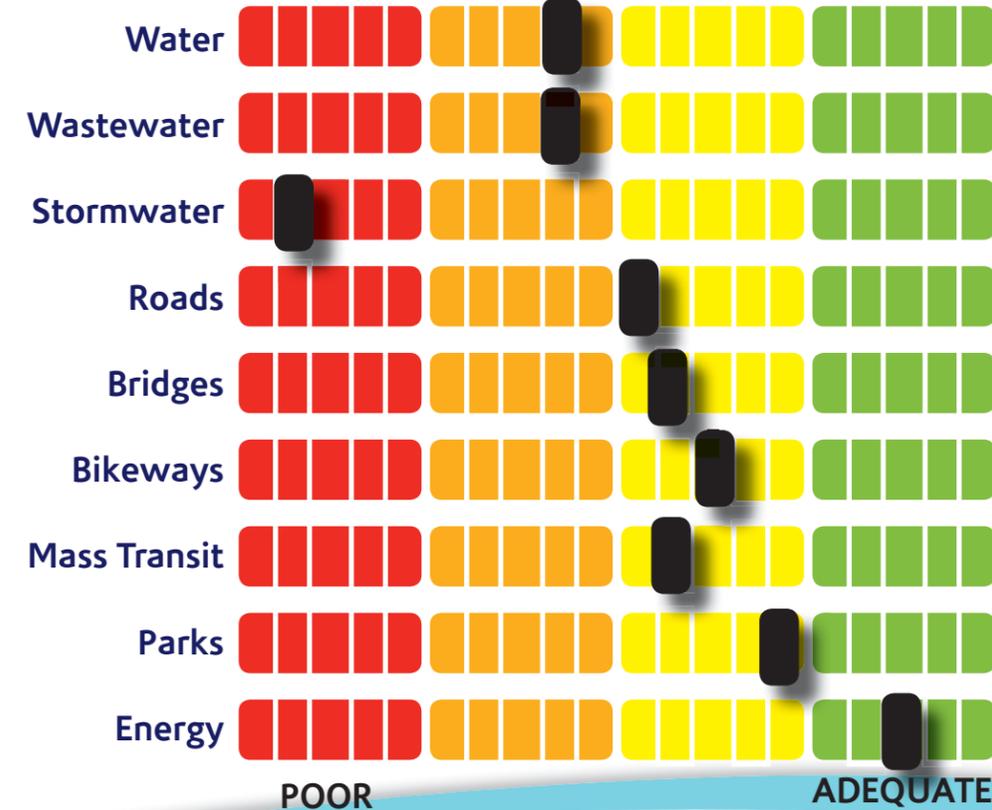
» Educating and engaging Nashville citizens on the condition and future needs of infrastructure is needed.

» Private-public partnerships will help ease budgetary constraints and allow more effective deployment of existing funds.

Green infrastructure can improve Nashville's aesthetic appeal while helping to remove pollution.



Condition of Nashville's Infrastructure



THE CONDITION OF NASHVILLE'S INFRASTRUCTURE SYSTEMS

Water

Nashville residents require approximately 57 million gallons of water per day.

Two treatment facilities for Metro Water Services have a combined capacity for 90 million gallons of water per day. By 2035, the need will increase to 68 million gallons.

Metro Water Services has 1,827 miles (64%) of water distribution lines that are greater than 40 years old. An additional 746 miles (26%) are at least 20 years old and less than 300 miles (10%) are less than 20 years old.



Roads

Nashville has more than 2,600 lane miles of roadway, managed by multiple organizations having responsibilities for planning, funding, maintenance, and operations.

Congestion in Nashville increased by 11% in just a one-year period ending in 2010.

In 2011, 52.7% of Davidson County's lane-miles were in good or better condition, a major drop from the prior year due to the May 2010 flood and harsh winter.



Mass transit

Several of Nashville's top economic competitors including Charlotte, Austin, Denver and Raleigh have recently invested billions of dollars to modernize their mass transit systems.

In a recent survey conducted by the Metropolitan Planning Organization, 83% of respondents agreed that mass transit is important for the economy and that regional mass transit would better prepare Nashville for the anticipated growth.

Bus rapid transit is being planned from Five Points in East Nashville to White Bridge Road and will be called The Amp.



Wastewater

Metro Water Services operates three wastewater treatment facilities.

MWS treats approximately 47.3 billion gallons of wastewater every year.

In Nashville's core, much of the existing piping was built in the late 1880's and carries a combination of sewer and stormwater.

Wastewater utilities are primarily supported by user rates.



Bridges

Nashville has 1,119 bridges on the public road system. The Tennessee Department of Transportation owns most of these bridges. Metro owns and maintains 326 of them.

Maintenance costs run roughly \$6-8 million per year. The available funding for the bridge network has been coming in at roughly half that figure. The accumulated funding deficit could create financial trouble in the future as bridge traffic volumes increase with population growth.



Parks, Greenways, and Open Space

Metro has 115 park locations, 114 playgrounds, 170 tennis courts, six year-round golf courses, multiple athletic fields, more than 37 miles of greenways, swimming pools, community centers, and more than 100 conditioned buildings.

In 2010, Nashville had 17 acres of parkland for every 1,000 residents. In 2013, we have approximately 12,000 acres of parkland and open space.



Stormwater

Metro Water Services maintains 4,000 miles of aging storm water drainage structures in the Metro area.

The stormwater system is barely adequate and has been plagued by a history of not having a dedicated funding mechanism, despite a new stormwater fee, instituted in 2009.

A 2008 study estimated that there is approximately an \$85 million shortfall that needs to be made up to address the backlog of projects and services identified.



Bikeways

Nashville has approximately 55 miles of greenways and multi-use paths, 33 miles of bike lanes, and 59 miles of signed bike routes.

Nashville ranks fourth in the nation for percentage of Federal transportation funds being used for bikeways.



Energy

Nashville's electricity is generated by the Tennessee Valley Authority.

Nashville Energy Service is responsible for the electricity distribution system, with 91,000 distribution transformers, 233 distribution substations, 5,721 distribution pole line miles, and 66,609 streetlights.

NES serves 360,000 customers in Davidson County and portions of six surrounding counties.

Residential customers account for 40 percent of kilowatt-hour sales.

