



State of the Region: Infrastructure Report

2015



METROPOLITAN WASHINGTON
Council of Governments



About the Metropolitan Washington Council of Governments

The Metropolitan Washington Council of Governments (COG) is an independent, nonprofit association that brings area leaders together to address major regional issues in the District of Columbia, suburban Maryland, and Northern Virginia. COG's membership is comprised of 300 elected officials from 22 local governments, the Maryland and Virginia state legislatures, and U.S Congress.

Region Forward is COG's vision. It's a commitment by COG and its member governments, who together seek to create a more accessible, sustainable, prosperous, and livable National Capital Region. COG's mission is to advance *Region Forward* by being a discussion forum, expert resource, and catalyst for action.

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A Letter from Chairman Mendelson



The **2015 State of the Region: Infrastructure Report** provides an in-depth look at both the infrastructure systems at the heart of the metropolitan Washington region, and their funding needs. These roads, bridges, transit systems and airports; water, sewer and energy utilities; communication systems; and public buildings are critical to our region's health, safety, economy and quality of life.

Infrastructure is usually under-appreciated until something goes wrong. We want transportation to run smoothly, electricity and natural gas to turn on when we flip the switch, water to flow when we turn on the tap, clear communications in an emergency, and first-class public buildings. However, maintenance and replacement costs in critical sectors have been deferred as leaders have been faced with competing priorities, and the need for investing in new systems to support growth and maintaining a state of good repair totals in the billions.

For 2014, I proposed that the COG Board of Directors focus on this critical issue, and since January, we have held discussions with experts from across the infrastructure provider spectrum. We heard from state, regional and local transportation departments and authorities about the needed investments in roads, bridges and transit, and from the heads of the region's three commercial airports who spoke to balancing growth and making investments to support current and future demand. Water officials reviewed long term plans for assuring the safety and supply of our region's drinking water, how wastewater and stormwater infrastructure have produced significant environmental improvements and outlined further investments, particularly in stormwater management, needed to restore local waterways and the Chesapeake Bay. Leaders from the region's largest energy utilities addressed plans for replacing and upgrading natural gas pipes and electric power lines as well as using new technologies to improve efficiency. These and other discussions in our series have been enlightening and—taken together—paint a detailed picture of the current capacity, gaps, and funding needs of our region's infrastructure.

I commend COG staff for drawing on its regional connections and applying its expertise across subject areas to produce this first-of-its-kind report. Now, our challenge is to put this valuable information to good use as each of our jurisdictions, authorities and other infrastructure owners and regulators set budgets and consider projects. Let's work together to identify policy, advocacy, and outreach actions that will address these needs.

The region's infrastructure connects us in so many ways. Let's pledge a renewed commitment to its maintenance, repair, and strategic expansion in order to shape stronger communities and realize our Region Forward vision for a prosperous, accessible, livable, and sustainable future.

Phil Mendelson
Chairman, Board of Directors, Metropolitan Washington Council of Governments
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Executive Summary

The metropolitan Washington region's leaders have recognized the fundamental role infrastructure plays in the ability to maintain and improve the region. However, despite regional recognition of the importance of maintaining our infrastructure, infrastructure investment is often a challenge for many organizations. Officials at the federal, state, and local level must balance an enormous number of funding needs, and sufficient funds often are not available for infrastructure needs.

To raise awareness about the importance of adequate infrastructure funding, the COG Board of Directors established Regional Infrastructure as a priority focus for

2014. This report synthesizes information considered by the Board of Directors throughout the year and explains the current status and future needs to address the region's infrastructure systems.

The COG Board of Directors focused on five critical infrastructure sectors—transportation, water, energy, local public buildings, and public safety communications. These infrastructure systems were selected as they are lifeline infrastructure systems that are regional in scope, are owned and controlled locally or regionally, or are significantly affected by government regulation.

Executive Summary

Findings

This report found that the Region has been making considerable investment in maintaining and expanding critical infrastructure. These investments are being made by local, state and federal governments, local and regional authorities, energy, telecommunication, water and wastewater utilities, and private businesses. A variety of sources are used to pay for infrastructure

investments, including tax collections, utility rates, and user fees paid for services such as on toll roads.

Despite these investments, and in light of the continued growth in the region, with more than 1.6 million new residents expected by 2040 (an increase of nearly 33%), billions of dollars in additional funding is needed to maintain our critical infrastructure. Comparing and comprehensively

quantifying the needs across the region and its major infrastructure sectors requires accounting for the different planning horizons and financing assumptions made by each infrastructure provider. Accepting that there is no standard time frame for analysis, this report conservatively estimates a funding gap of **\$58 billion** in the next 15 years.

The ability to expand and sustain the metropolitan Washington region is directly connected to the health and sustainability of the Region's infrastructure. This report highlights the need to bring infrastructure development, operations and maintenance needs to the forefront of governmental priorities. Local, state, and federal officials need to work with regional partners to secure funds and implement solutions to provide for these critical needs.

15 Year Infrastructure Funding Gaps*

Infrastructure Sector	Funding Gap	Time Frame
Transportation—Public Transportation	\$16 billion	10 years
Transportation—Roads	\$7.5 billion	15 years
Transportation—Bridges	\$1 billion	10 years
Water—Storm Water	\$10 billion	10 years
Water—Drinking & Waste Water	\$10 billion	10 years
Energy—Electric	\$4.4 billion	3 years
Energy—Gas	\$650 million	5 years
Public Buildings	\$8.5 billion	6 years
Public Safety Communications	Study for Regional NG9-1-1 in process, cost estimates available in late 2015	
Total:	\$58 billion	

*The above funding gaps are based on conservative estimates. Additional funding gaps over the next 15 years are still being quantified.

Executive Summary

Recommendations

To achieve a vibrant future for the Region, the following recommendations are made to preserve, invest in and enhance the region's systems of critical infrastructure. Taken together, these recommendations represent a commitment to support COG's *Region Forward* vision for a prosperous, accessible, livable and sustainable Region.

Five recommendations have been identified to reinforce the critical importance of the investment in the region's infrastructure. These include creation of an infrastructure partnership to formalize regional focus, public education, sharing best practices, highly innovative financing, and advocacy.

1. **Regional infrastructure exchange:** Establish a regional or mid-Atlantic infrastructure exchange in the form of an organization or council tasked with a continued focus on infrastructure needs within local governments. This group of

regional partners would prioritize infrastructure costs, funding needs and mechanisms, and continue to periodically assess the state of infrastructure in the region.

2. **Public education campaign:** Increase public awareness of the infrastructure needs in the region and the costs of implementing these needs. Local leaders, policy makers and the general public need to gain a better understanding of the large funding gaps currently existing and realize the necessity of making infrastructure a priority when allocating limited resources and funds.
3. **Continued sharing of best practices:** Coordinate with regional entities and with experts across the United States to increase the exchange of best practices and models for maintaining the current infrastructure and adequately financing the necessary infrastructure as the region continues to grow.

4. **Workshop series on unique funding mechanisms:** Facilitate a series of workshops focused on developing ideas for financing essential infrastructure projects. Experts should be brought together to brainstorm out-of-the-box funding mechanisms for infrastructure projects related to transportation, wastewater, drinking water, energy, communications and public buildings innovative and creative ideas can be identified to accomplish specific funding needs on a project by project basis.
5. **Advocacy:** Insure that the COG Board of Directors' legislative priorities and policy positions support essential investments, creation of partnerships, and champion the actions required to close the funding gaps identified in this report.

The COG staff will track and report on the status of implementation at least once a year.