By L. Preston Bryant, Jr.

Virginia will grow. Its infrastructure must, too. And that means big costs.

IN 1960, VIRGINIA'S population was about four million. More than a half century later, it's more than double that. And by 2040, according to the Weldon Cooper Center for Public Service, Virginia will have more than 10 million people and be the 10th largest state.

Virginia's population growth has accelerated in certain areas over the past 25 years, especially in Northern Virginia, metro Richmond, and Hampton Roads. But there also has been surprising growth in the northern Shenandoah Valley, the Northern Neck, and in central and western pockets, such as Lynchburg, Roanoke, Blacksburg, and Abingdon.

Accompanying this past and future growth is an extraordinary infrastructure demand. Transportation. Water, wastewater, stormwater. Schools.

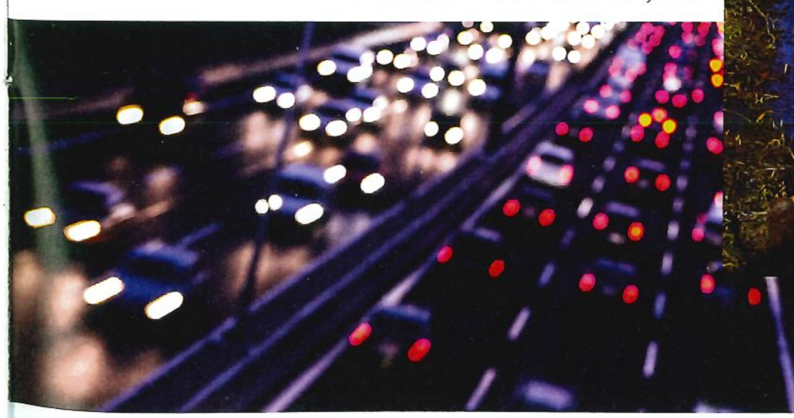
Meeting these infrastructure needs, though, is likely to fall increasingly to states and localities. Recent federal tax reform, decreasing federal assistance to states, and constraints on localities' revenue-raising options will create cash crunches.

First, a look at infrastructure trends.

Transportation

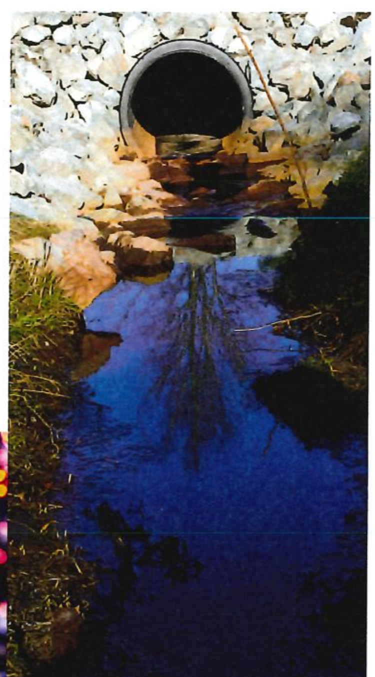
Northern Virginia has the most congested roads in the nation. New work is coming to Interstates 95, 66, and 395; the Route 1, Route 7, Route 28, and Route 50 corridors; and to the Fairfax County Parkway. Virginia Railway Express is at capacity. And Metro is burdened by operational and major upgrade needs. Billions of dollars are identified for road projects from targeted state and local taxes and fees. Funds for rail improvements are less certain.

Hampton Roads needs more bridges and tunnels, such as an expanded Hampton Roads Bridge-Tunnel and a new connection between I-564 and I-664, and I-64 needs additional new lanes. Billions of dollars are needed, with most coming from local sales and fuels taxes.



Along Virginia's western spine, I-81 requires major expansions and safety improvements. Billions of dollars are needed, with few special funds identified.

Virginia's FY18 road-building budget is $1.87 billion. The road maintenance and operations budget (including payments to cities and counties) is $2.13 billion. Northern Virginia and Hampton Roads get $492.5 million in dedicated funding for regional projects.



In cities across Virginia, transit systems are at best adequately funded for current operations, but little exists for new routes or new buses. In 2018, the state will invest $236 million in Virginia's 44 public transit agencies. In 2019, however, a significant reduction is expected to begin as a 10-year-old bond program closes. Local transit programs will see a major annual gap between transit revenues and capital needs.

Virginia's last major transportation funding initiative was in 2013, when then-Gov. Bob McDonnell and the General Assembly agreed to $6 billion in additional dedicated revenues.

Water, Wastewater, Stormwater

Water supply is a challenge in eastern Virginia. Groundwater for Hampton Roads, the Peninsula, the Northern Neck, and parts of Northern Virginia is provided by a single source, the Potomac Aquifer, which is being withdrawn at an unsustainable rate. The Department of Environmental Quality recently concluded a two-year stakeholder study of options to stabilize it. The group's major infrastructure recommendation is to support a $1 billion project to recharge the aquifer with wastewater treated to drinking-water standards. It will be paid for by local fees over many years.

Water planning is imperative in the rest of Virginia, too. Growth demands it. Many jurisdictions may begin considering regional water planning options.

Wastewater and stormwater expenses continue to rise, largely due to U.S. Environmental Protection Agency mandates to improve local water quality, especially of streams and rivers that flow to the Chesapeake Bay. Locally-owned sewage treatment plants have made big investments over the past 20 years – but EPA is now pushing new ammonia-reduction levels that may cost more than $500 million to plants across the state. And stormwater reductions also are mandated – new best management practices (BMPs) and urban retrofits will cost hundreds of millions.

Schools

Localities feel population growth pressures in schools as acutely as in any other infrastructure. Add to this the high costs of deferred maintenance from aging buildings and the capital needs are daunting.

From 2012 to 2017, localities constructed 59 new elementary, middle, and high schools for a combined cost of $1.9 billion. Another 268 schools were added on to or renovated for an additional $1.45 billion.

In the 2018 academic year, there are five new elementary schools under construction for a total of $116.6 million and 22 elementary, middle, and high schools are being expanded or renovated for a combined $224.6 million.

Unsurprisingly, the new, expanded, and renovated schools over recent decades are mostly in high-growth localities. That trend will continue. Older cities face daunting challenges as well in terms of renovating, replacing and maintaining school facilities that are decades old. And, this financial burden is carried primarily by cities, counties and the two towns that operate their own school systems. The state's role is small.

What's the funding future look like?

States and localities build and maintain the vast majority of U.S. infrastructure through taxes, fees, and borrowing. Federal assistance is sparse and unpredictable, and it's likely to continue dwindling. There will be continued pressure for states – and especially localities – to shoulder more of the infrastructure burden.

The federal Highway Trust Fund – funded by federal gas taxes to support roads and mass transit through grants to states and localities – continues its 10-year trend toward insolvency. Congress remains unlikely to raise the federal gas tax for a long-term fix. The fund has been bolstered by federal general fund transfers through 2020, but its ability to meet obligations after that remains uncertain. While Virginia has authorized major new road-building investments, there's still the trend to rely more on local and regionally-raised dollars.

Recently passed federal tax reform cut top marginal individual and corporate tax rates, making investors less interested in tax-free municipal bonds. This will result in higher interest rates, making municipalities' infrastructure borrowing costlier.

The Trump Administration has plans for a $1.5 trillion infrastructure package for roads, bridges and tunnels, airports, water and wastewater, broadband, and more. But it's reportedly exceedingly light on actual federal investment – instead, leveraging most from states, localities, and the private sector. Additionally, cuts to domestic spending are to offset the federal infrastructure investment, and those cuts, which are targeted at environmental and social safety-net programs, may affect localities.

Bottom line: Virginia remains an attractive state, with population growth for decades to come. That's good. With it comes major infrastructure demands, with fewer federal dollars, tighter state dollars, higher borrowing costs, and continued General Assembly constraints on localities' ability to raise revenue. That's not good. VTC

About the author: *L. Preston Bryant, Jr., is senior vice president at McGuireWoods Consulting. He served on Lynchburg City Council for two years and represented Lynchburg and Amherst County in the House of Delegates from 1996 to 2006, and he served as Virginia Secretary of Natural Resources from 2006 to 2010. He is a VML consultant on environmental and energy issues.*