



INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN

The Staggering Economic and Fiscal Costs to Water Supply Disruptions in the National Capital Region

A disruption in water supply in the National Capital Region could cause a loss of more than \$6.5 billion in Gross Regional Product (GRP) and hundreds of millions in tax losses within two weeks.

In a new study commissioned by the [Interstate Commission on the Potomac River Basin \(ICPRB\)](#), researchers assessed potential economic consequences of disruptions in the availability of raw water from the Potomac River.

The Potomac River is the source of all drinking water to homes, businesses, and government facilities in the District of Columbia (served by DC Water) and Arlington County, both supplied by Washington Aqueduct, and of most drinking water to surrounding suburban areas in Maryland and Virginia. Although they each have a non-Potomac reservoir, WSSC Water and Fairfax Water—without the Potomac River—cannot meet the water needs of retail and wholesale customers in Montgomery, Prince Georges, Charles and St. Mary’s Counties in Maryland, and Fairfax, Loudoun, Prince William Counties, the Cities of Alexandria, Fairfax, Falls Church, the Towns of Herndon, Vienna, Fort Belvoir, and Dulles Airport, in Virginia.

Using peer-reviewed academic research, researchers evaluated business operational resilience to a disruption in the availability of treated water by the industry sector. They then calculated the impact on Gross Regional Product,

a measure of the value added by an industry’s activities, including net earnings plus taxes on production and imports. Additionally, an economic model was used to estimate losses in tax revenue for federal, state, and local governments.

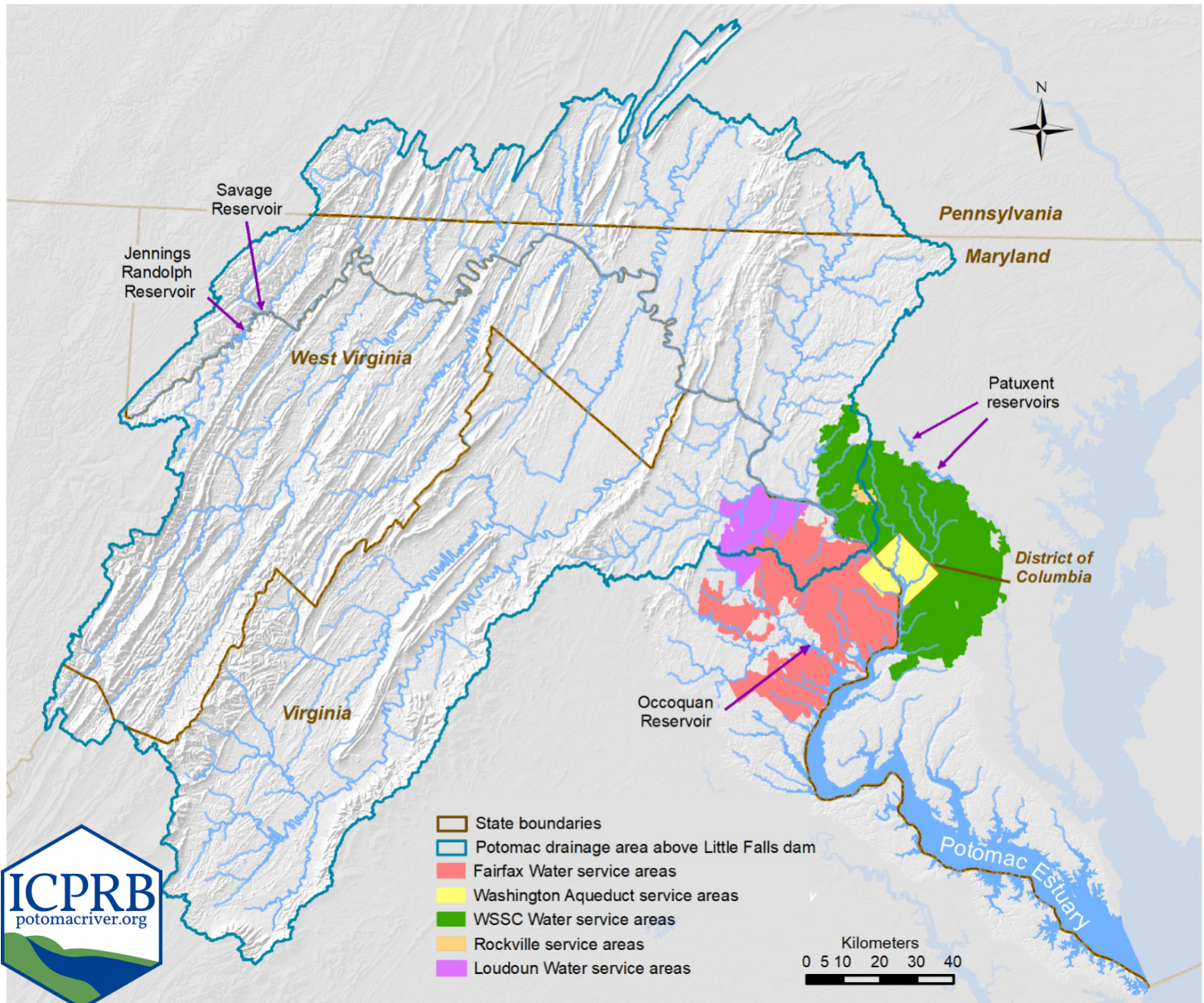
Results show that by the end of the first day of service disruption, losses across all measured industry sectors in the District of Columbia will reach about \$146.9 million per day. After one week of disruptions, the losses will increase to \$196 million per day, and by the one-month mark, losses to GRP will be more than \$224 million per day. The cumulative daily total of lost economic activity quickly becomes staggering, with a total cumulative loss reaching more than \$2.6 billion for the District of Columbia alone, within two weeks of supply service disruption. For the same timeframe, losses in GRP in Arlington, Fairfax Water, and WSSC Water service areas approximate \$459 million, \$1.6 billion, and \$1.8 billion, respectively. This is a total of more than \$6 billion for the region. The federal government’s cumulative losses from foregone business activity will total \$286 million in two weeks.

Total Economic and Fiscal Losses of Water Supply Disruption for District of Columbia, Arlington, Fairfax Water, WSSC Water

	GRP	Total Taxes	Federal Taxes	State Taxes*	Local Taxes
2-Week	\$6,544,950,263	\$(286,992,518)	\$(208,618,506)	\$(54,512,871)	\$(23,861,141)
Month 1	\$14,875,569,670	\$(652,285,660)	\$(474,154,730)	\$(123,898,574)	\$(54,232,356)

The largest long-term impacts of a loss of water supply will be felt by the most vulnerable economic sectors and the employees that rely on them. The analysis highlighted larger economic losses for industry sectors with a small employee headcount and lower wages, indicating that business losses will be borne disproportionately by small businesses and women-owned and minority-owned businesses, due to capital and resource availability. According to the study, some of the most vulnerable industries are lodging and restaurants.

Even a short-term loss of water service will spark a devastating reduction in economic activity and severely disrupt federal, state, and local government revenues in the National Capital Region. As indicated in the report, the cost of doing nothing to address water supply vulnerabilities in the District of Columbia and the larger National Capital Region is too high. The authors note that the risks can be effectively mitigated, and regional resiliency can be increased, by the construction of a backup supply of water.



Washington metropolitan area water supply system service areas and resources.

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