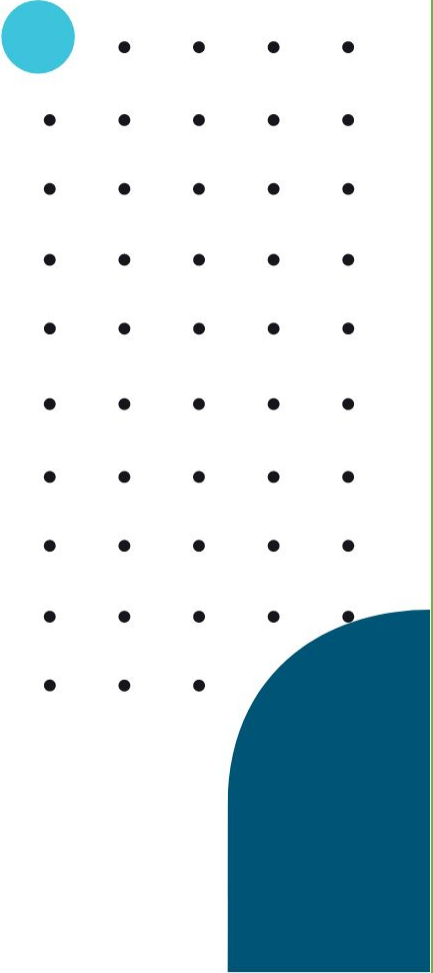


The Bill is Coming Due: Calculating the Financial Cost of Climate Change to Ohio's Local Governments

September 27th, 2022





*The Bill is Coming Due:
Calculating the Financial Cost of
Climate Change to Ohio's Local
Governments* – is a first of its
kind report that accounts for the
costs of impacts of climate change
on municipal budgets in Ohio.

Ohio Municipal Climate Cost Accounting Report: Goals of the Report



- **Introduce the concept of the municipal cost of climate statewide and provide resources on these costs in Ohio**
- **Empower local officials to take action on climate - through both policy and litigation**
- **Serve as a tool to spur further discussions and research to spur future local climate action**

Ohio Municipal Climate Cost Accounting Report: Structure of the Report



- **Deep dives on ten future costs of climate change to local governments by 2050**
 - Includes comparison of costs in Ohio localities to localities in other Midwestern states
- **Accounting for 50 major climate impacts on Ohio municipal budgets**
- **Summary analysis:** the projected impact of climate change on local government budgets in the state of Ohio.

Ohio Municipal Climate Cost Accounting Report

- Accounts for ten major climate impacts on Ohio municipal budgets
- Estimates \$1.8 billion to \$5.9 billion increase in Ohio municipal spending annually by 2050 to keep up with current spending levels



Ten costs of climate change for major impacts on Ohio local governments expected by 2050



A/C Installation

Electrical Costs of increased A/C

Cool Roofing

Cooling Centers

Road Repair

Drinking Water Treatment

Storm Recovery

Power Lines

Stormwater Management

Elevating Roads

Total Costs of Climate Change by 2050

Table 12. Total costs of climate change for major impacts on local governments expected by midcentury

Impact	Low-End Estimate	High-End Estimate
A/C Installation	\$1.4 million	\$6.8 million
Electrical Costs	\$5.4 million	\$79 million
Cool Roofing	\$0	\$4.6 million
Cooling Centers	\$52 million	\$590 million
Road Repair	\$170 million	\$1 billion
Drinking Water Treatment	\$580 million	\$2.2 billion
Storm Recovery	\$35 million	\$78 million
Power Lines	\$140,000	\$18 million
Stormwater Management	\$140 million	\$150 million
Elevating Roads	\$858 million	\$1.7 billion
Total	\$1.8 billion	\$5.9 billion

Table 12: Total costs of climate change for major impacts on local governments expected by midcentury.



“The Bill Is Coming Due” for Cincinnati: Cooling Costs & Cool Roofing



The report estimates the additional cost to **install cool roofing statewide would be roughly \$4.6 million per year** if Ohio cities dedicated even just 1% of new construction to include cool roofing by 2050.

- Cincinnati has already started to encourage the use of cool roofs with the 2018 Green Cincinnati Plan recommending deployment of cool roofs on new construction in the city.
 - The city recommended the building of cool roofs on new construction in the city to reduce reliance and provide an alternative for traditional air conditioning systems.

“The Bill Is Coming Due” for Cincinnati: Extreme Precipitation and Flooding Protection



“A 2020 study of flood risk by a consortium of scientists and engineers from academic institutions including University of California Berkeley, George Mason University, and Rutgers University concluded that **eight percent of Ohio properties are at risk for flooding and are concentrated in Ohio’s major urban areas of Cincinnati, Cleveland, and Columbus,**” (pp. 45). ”



Table 8. Estimated statewide annual costs by 2050 associated with an increase in severe weather events

Event	Low-End Estimate	High-End Estimate
Flooding	\$1.3 million	\$3 million
Drought	\$21 million	\$44 million
Hurricane Winds	\$11 million	\$28 million
Severe Storm	\$1.5 million	\$3.4 million
Total	\$35 million	\$78 million

Table 8. Estimated statewide annual costs by 2050 associated with an increase in severe weather events.



“The Bill Is Coming Due” for Cincinnati: Extreme Precipitation and Flooding Protection



- Lick Run Project:
 - 500 million gallons of stormwater runoff
 - Green Infrastructure
 - Dedicated Storm Sewers
 - Real Time controls



“The Bill Is Coming Due” for Cincinnati: Road Repair



“Frequent extreme heat events, higher temperatures, more rapid freeze/thaw cycles, and increased flooding from heavy rains can significantly affect the safety and longevity of major roadways... Statewide, Ohio will be facing costs of \$170 million to \$1 billion per year with a likely value of \$410 million per year for road repair related to climate change by midcentury (pp. 19)”



Table 6. Estimated annual costs expected to incur by midcentury for road repair and rehabilitation associated with future changes in temperature, precipitation, and freeze-thaw cycles

Area	Low-Cost Estimate	Expected Cost	High-Cost Estimate
Dayton	\$1.1 million	\$2.6 million	\$6.5 million
Lima	\$97,000	\$230,000	\$570,000
Marion	\$86,000	\$210,000	\$510,000
Washington County	\$220,000	\$530,000	\$1.3 million
Youngstown	\$710,000	\$1.7 million	\$4.2 million
Ohio	\$170 million	\$410 million	\$1 billion

Table 8. Estimated statewide annual costs by 2050 associated with an increase in severe weather events.



“The Bill Is Coming Due” for Cincinnati: Road Repair



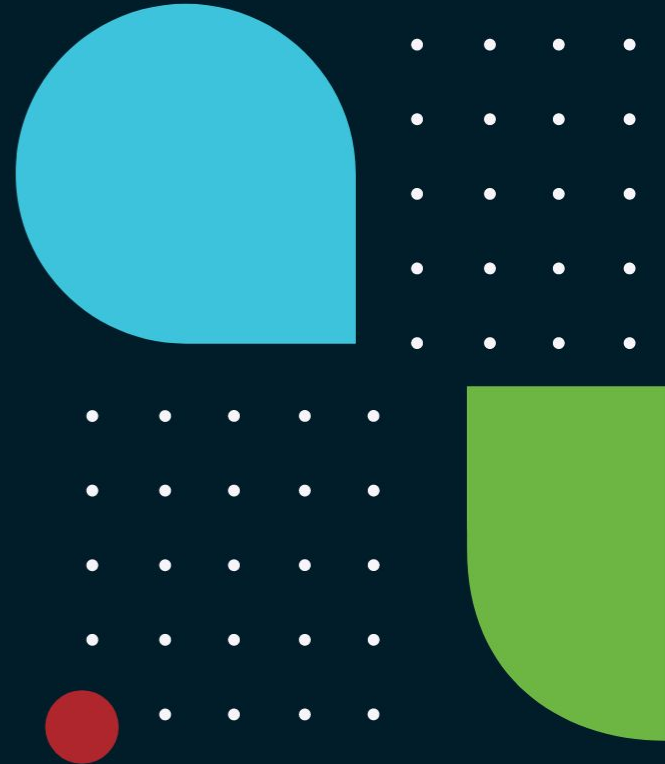
- Ohio's roads received a “D” Rating from the American Society for Civil Engineers in 2021
- Pavement costs projected to increase 3-9% over 30 year period
- Western Hills Viaduct
- Bridge Repair



All of the costs outlined in the report are conservative estimates.

We know that the true costs and impacts of climate change will be much higher.

We need to act now to protect our communities.



The Bill is Coming Due for Cincinnati.

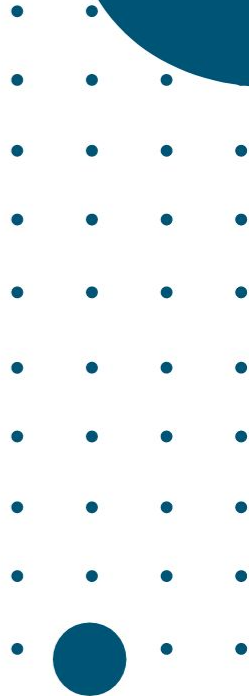
What can be done?

Local climate action will be critical in facilitating carbon emissions and reducing the dire impacts of climate change on Ohioans.



Next steps

- 1) Host a briefing on “The Bill is Coming Due” report for local council members.
 - a) Use this report as a resource to facilitate future local climate action.
- 2) Utilize report to inform Green Cincinnati Plan
- 3) Work with Power a Clean Future Ohio
- 4) Join Leaders for Climate Accountability



THANK YOU!

