Bay cleanup must factor in climate change

By **David Flores**

Op-ed: The benefits of factoring climate change into the Chesapeake Bay cleanup plan are clear.

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Last summer, when floodwaters nearly wiped out Old Ellicott City, many people looked at the damage as bad luck caused by a 500-year storm. The truth is that such storms are no longer rare events. The Northeast United States has experienced a staggering 70 percent increase in intense rainstorms thanks to climate change. Unfortunately, efforts in the Chesapeake Bay region to adapt policies to address these threats are lagging far behind, and without broad and meaningful action, more property damage, injuries and loss of life are likely. Heavier and more frequent rains, among other impacts of climate change, also pose a threat to the massive effort to clean up the bay.

On Wednesday, Maryland's secretaries of the departments of agriculture, natural resources and environment will have a chance to turn the tide. They will be meeting with federal officials and their counterparts from other states in the region to discuss where we stand and where we are headed at the midpoint of the region's 15-year effort to follow a "pollution diet" for the bay.

One of the key questions before Secretaries Joe Bartenfelder, Mark Belton and Ben Grumbles is whether the bay pollution diet should factor in the effects of our changing climate. The science is strong. Increased rainfall will wash more pollution into the bay. Rising sea levels will substantially reduce the estuary's extensive tidal wetlands, reducing their ability to absorb nutrients and sediment pollution. Rain gardens, stream restorations and other "best management practices" will be less effective if they are geared to past rainfall totals rather than to future projections based on robust climate change modeling.

All told, bay experts estimate that climate change will require a modest increase in effort to reduce nutrient and sediment pollution to meet 2025 water quality goals. Further, they maintain that local jurisdictions must take into account climate change when designing and building restoration practices to ensure that restored wetlands or rain gardens, for example, can withstand future sea level rise and intensified storms.

Of course, as always, some argue that the additional effort to address climate change's impacts is too costly. That's a penny-wise and pound-foolish approach. Climate change is real, and we must address its impacts. Moreover, the investments needed to address those impacts are also key to bay cleanup efforts.

For example, bay restoration work to handle more severe storms induced by climate change — building and planting engineered landscaping to filter stormwater, for example — can also reduce and mitigate the threat of

flooding in general. Similarly, restoring wetlands can improve bay water quality by absorbing nutrients and sediment pollution, but such work can also buffer coastal communities from the threat of storm surge made worse by climate change. And trees planted in urban areas can capture nutrient pollution in stormwater while also providing cooling shade during heatwaves made more intense by climate change.

The benefits of factoring climate change into the bay cleanup plan are clear, but what about the costs of inaction? Maryland and other states have invested billions of dollars in restoration projects that could fail under future climate conditions. That would mean more basements flooded with sewage in Baltimore City; more erosion damaging local streams and degrading coastal wetlands; and crab, rockfish and oyster populations continuing to struggle from dead zones and algae blooms.

These challenges require immediate attention and urgent action. That's why Maryland's cabinet secretaries should seize the moment to address two crucial goals: restoring the bay and adapting to climate-related impacts on the region. They should start by working with the Chesapeake Bay Program's Principals' Staff Committee to adopt proposed policies that account for increased pollution from climate change and that require jurisdictions to thoroughly optimize practices for climate impacts in the next phase of the cleanup effort.

David Flores is a Baltimore resident and the climate adaptation policy analyst at the Center for Progressive Reform. His email is dflores@progressivereform.org.

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