MDOT SHA CLIMATE TOOL WARNS OF COASTAL FLOODING

Will Annapolis be underwater in 2050? What can be done to rescue roads, towns, and homes from coastal and river flooding? These are important questions, especially during April, which is Flood Awareness Month.

MDOT SHA has a powerful application to help public planners and private citizens. The MDOT SHA Climate Change Vulnerability Viewer (CCVV) is a user-friendly tool to explore areas and assets vulnerable to the risk of sea-level rise, roadway inundation and nuisance flooding. The sophisticated web app layers climate and asset management data geospatially to show how extreme weather associated with climate change may change the Maryland coastline.

The CCVV can be found, with a bit of scrolling, at the Maryland's GIS Data Catalog - MDOT Interactive Maps page. It's a GIS application that's available to the public, courtesy of MDOT SHA and Maryland Department of Information Technology (MD DOIT). It contains data that can assist people with climate change analysis and understanding how storms, sea-level rise and flooding, in general, may affect public facilities, access to amenities, communities, and personal property. For MDOT SHA, of course, it's about State infrastructure and enhancing the resiliency of the transportation system.

To make the tool more approachable to State and local practitioners, planning organizations, and the public, the Office of Planning and Preliminary Engineering (OPPE) has now debuted a video introduction at CCVV Introductory Demonstration - YouTube. You can also view it at MDOT SHA Climate Change Vulnerability (arcgis.com).

The tool was developed by MDOT SHA in partnership with Maryland Department of Natural Resources, which runs CoastSmart Communities, a program that helps coastal communities address short- and long-term coastal hazards, such as coastal flooding, storm surge and sea-level rise. Other partners are the Maryland Department of Information Technology, Maryland Department of the Environment, Salisbury University and their Eastern Shore Regional GIS Cooperative, the National Oceanic and Atmospheric Administration (NOAA), the Maryland Emergency Management Agency (MEMA) and the Federal Emergency Management Agency (FEMA). These partners supply the data behind the app.

Innovative Planning and Performance Chief Meredith Hill encourages MDOT TBUs to explore the tool and offers to work with them to bring their

infrastructure data into the application. The CCVV makes it easy to layer data, such as bridge, airport, Annual Average Daily Traffic, tide and stream gauge and CHART historical data.

The CCVV includes projections for years 2050 and 2100 to help visualize changes to the coastline from persistent sea-level rise and from storms of varying intensities, referred to as a type of storm likely to occur every 10, 25, 50, or 100 years. Using flood depth grid data, the tool shows potential breadth of flooding, flooded roadways and nuisance tidal inundation. For example, with data from Hurricane Florence, which punished North Carolina in 2018, as a model, it examines the vulnerability of Maryland's geographic features and how severely a major storm could hurt coastal areas of the State.

There's good news and there are challenges. "We no longer have to convince our partners about the science of climate change," says Meredith Hill. "That was part of the conversation when the tool was developed in 2017. The CCVV brings the science together with the impacts to show change over time and urgency for action. What we struggle with is getting the resources to act today to build resiliency for tomorrow. We live in a fiscally constrained environment and it can be difficult to generate funding for something that might happen in 20 years." The CCVV is one tool in our toolbox to help provide the information for decisions and action.

MDOT SHA's development team includes Michel Sheffer, Toria Lassiter, and consultant support from Jessica Shearer of Blackwater Environmental Group and John (Jake) Lloyd, Jr. of WBCM.
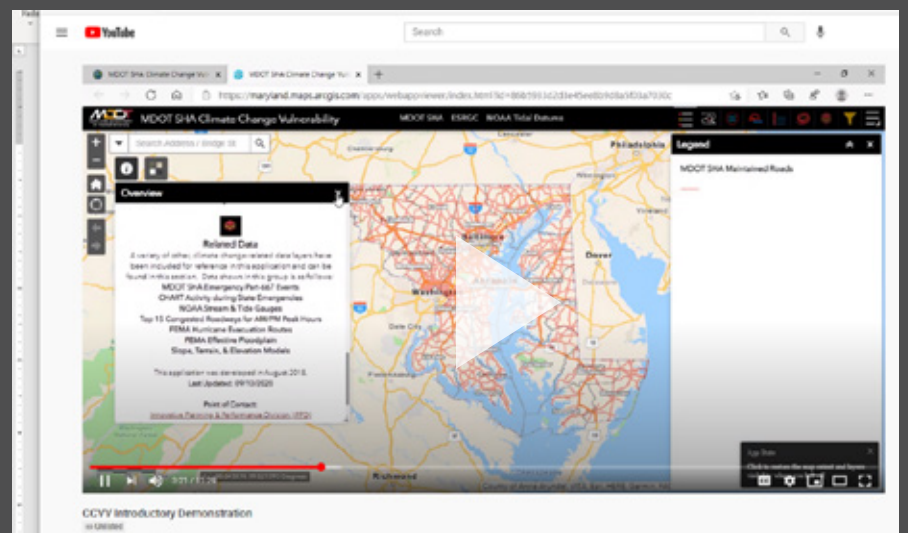
Watch a video showing how to use the CCVV climate tool.

SPIKE IN FREIGHT CRASHES LAUNCHES SAFETY OUTREACH CAMPAIGN

By Tina Regester

With fewer vehicles on our roadways due to COVID-19, you would expect fewer crashes. Unfortunately, that is not what we are seeing on Maryland's roadways. In fact, MDOT SHA saw a significant increase in truck turnovers and crashes along a portion of the I-495 Capital Beltway in Montgomery County. Where there are typically one or two turnovers per year, by the beginning of last December there were already a dozen reported.

Knowing there would be a significant increase in the volume of trucks on the roads delivering holiday packages, MDOT SHA's Connected and Automated System (CATS) Division partnered with Office of Communications and Office of Transportation Mobility and Operations (OTMO) just before the holiday season to launch an outreach plan to freight operators in an effort to prevent crashes in these high-incident corridors.

An email was sent from OTMO to freight stakeholders, including the Maryland Motor Truck Association, alerting them of the problem and reminding them not only are lives at risk, but when a crash occurs on this main thoroughfare for moving freight, it shuts down for hours and delays goods from being delivered on time. We asked for their assistance in reaching all truck drivers who travel on Maryland roadways and urging them to stay alert, travel at the posted speed limit and reduce their speed when traveling during inclement weather.

A robust social media campaign also ran in December and continues in 2021 reminding truck drivers to follow the rules of the road and telling

passenger vehicle drivers to stay alert when driving near trucks, paying special attention to when they are braking and turning.

To view and share our commercial freight safety messages, visit our social media platforms at Facebook.com/MDOTSHA, Twitter.com/MDSHA and Instagram.com/marylandstatehighwayadmin.

MDOT SHA alerts truck drivers to be especially careful driving a section of I-495 that has experienced many tractor trailer collisions.