# Protecting Current and Future Resources

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In planning for the region's future, the Baltimore Regional Transportation Board (BRTB) must be aware of the short-and long-term effects that travel and other activities will have on the region's natural environment and cultural resources. Clean air to breathe, clean water to drink, recreational and historic places that refresh, inspire, and inform — all play a vital role in the health and well being of the region's people and institutions. Preserving these resources for current and future generations is part of an established approach that seeks to balance transportation needs with environmental responsibility.



As regional decision makers, the BRTB and its partners also must consider the implications of climate change on transportation assets, local resources, and the global environment. The work the BRTB and its partners do to plan for the effects of climate change in the region and the state, and the choices made in planning, can make a significant difference in protecting natural and cultural resources and transportation assets in the future.

With respect to transportation assets, the BRTB works with its state and local partners to maintain the region's roadways, bridges, and transit assets to make sure these assets continue to effectively serve the needs of the traveling public.



# **TRANSPORTATION AIR QUALITY**

Air pollution from sources such as cars, buses, trucks, and power plants mixes together in the atmosphere, and on hot summer days, creates ground level ozone pollution. Ozone pollution is dangerous to breathe, and can be especially harmful to the health of children, the elderly, and people with existing lung conditions.

## **AIR QUALITY CONFORMITY**

Under federal law, no Metropolitan Planning Organization (MPO) can approve any project, program, or plan that does not conform to an air quality implementation plan developed by the state and approved by the U.S. Environmental Protection Agency (EPA). The region's air quality State Implementation Plan (SIP) is prepared by the Maryland Department of the Environment (MDE). The SIP must demonstrate how a state will attain and/or maintain national ambient air quality standards (NAAQS) established by the EPA.

The EPA sets the NAAQS for certain air pollutants, called "criteria pollutants," to protect public health. The EPA then determines the areas of the country that do not meet the NAAQS. The Baltimore region is currently designated by EPA as a "nonattainment" area for the 1997, 2008, and 2015 8-hour ozone NAAQS.



# 2018 Ozone Design Values



Source: Maryland Department of the Environment, 2019

For each MPO, "conformity" means that the programs and projects in its regional transportation plans will not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. A conformity determination, developed by the MPO, shows how the emissions expected from the region's transportation network in future years compare with an emissions "budget" set in the SIP.



For MPOs that are declared to be air quality nonattainment or maintenance areas, there are many special requirements in addition to the basic requirements for a metropolitan planning process. These include formal agreements to address air quality planning requirements, requirements for setting metropolitan planning area boundaries, interagency coordination, requirements for a congestion management process, public meeting requirements, and conformity determinations on the regional transportation plans and programs.



### Number of Exceedance Days Under the 2015 Ozone Standard (70 ppb) – Baltimore Region



# **INTERAGENCY CONSULTATION GROUP (ICG)**

The BRTB established the Interagency Consultation Group to carry out the consultation process for transportation conformity, and to provide a venue to discuss important air quality planning topics. The ICG meets formally to discuss and recommend appropriate procedures for determining conformity of the regional long-range transportation plan and the short-range Transportation Improvement Program. Voting members of the ICG include representatives of the Maryland Department of Transportation (MDOT), MDE, and the BRTB. In addition, the ICG includes non-voting representatives of the Federal Highway Administration, the Federal Transit Administration, and EPA. ICG meetings provide an additional forum for public participation.



The BRTB supports the work of the Clean Air Partners, a public-private partnership that raises awareness of air quality concerns and promotes voluntary actions to reduce air pollution throughout the combined Baltimore-Washington region. During its summertime media campaign, CAP encourages such actions as using public transit, ridesharing, using energy-efficient vehicles, teleworking, and refueling after dusk. These actions reduce emissions from the gas pump.

CAP also alerts the public to unhealthy conditions through the color-coded warning system. When air pollution reaches unhealthy levels, Code Orange or Code Red warnings are given. These alerts are issued through mass and social media, as well as by email and text messages to those who have signed up to receive them.





Congestion Mitigation and Air Quality Program (CMAQ) Performance Measures

The Congestion Mitigation and Air Quality Improvement (CMAQ) program provides funding for transportation programs and projects that reduce air pollution and mitigate congestion in the transportation system in nonattainment areas. The intent is for the program to help nonattainment or maintenance areas reach or maintain the NAAQS.

Under federal law, MDOT and the BRTB must monitor the performance of the transportation system with respect to how well projects funded under the CMAQ program are reducing air pollution emissions from the transportation sector. The BRTB and MDOT set performance targets for the on-road mobile emission reduction measure in 2018. Additionally, the BRTB coordinated with MDOT and the National Capital Region Transportation Planning Board (MPO for the Washington, DC area) to set performance targets for two traffic congestion measures for the Baltimore urbanized area: annual hours of peak-hour excessive delay (PHED) and percentage of non-single-occupancy (non-SOV) travel. The MPOs and MDOT are federally required to report on progress of these performance measures as well.



# **CLIMATE CHANGE ADAPTATION**

The Earth's changing climate is a threat to public health, the economy, and the resilience of the region. The BRTB recognizes this, and as such works with its partners to understand the best ways to achieve a resilient region. In addition to higher temperatures, more heat waves, and more extreme rain events, the region is expected to see continued sea level rise. Extreme events as well as the "new normal" weather will challenge the region's transportation infrastructure and affect safety, mobility, and resources (funding, equipment, and personnel).

The BRTB, through BMC staff, coordinates with MDOT State Highway Adminstration (MDOT SHA) on its climate vulnerability planning to ensure that members of the BRTB and its subcommittees are aware of resilience planning for the region's transportation system. To address this issue in long-range transportation planning, the BRTB uses BMC-created interactive mapping to assess the proximity of sea level rise in the future to potential long-range plan transportation projects. BMC staff members also investigate ways to inform public works and transportation agencies about actions to consider to improve operational resilience.



# MAINTAINING ROADWAY AND TRANSIT ASSETS

An important part of the federal emphasis on performance-based planning and programming is ensuring that the region's roadways, bridges, and transit assets continue to serve the traveling public effectively. BMC staff worked with staff from MDOT and the local jurisdictions to gather data on the condition of the region's roadways, bridges, and transit assets. Another important partner in these efforts is the Transportation & Public Works (T&PW) Subcommittee. The T&PW Subcommittee is one of the groups that provides technical advice to the BRTB and gives state agencies and local jurisdictions a forum for sharing information related to maintaining transportation assets.

Building on this data gathering work, the BRTB, in coordination with MDOT, adopted a series of performance measures and targets to support the vital task of managing transportation assets in the region. These measures cover the condition of pavement on the National Highway System, the condition of bridges throughout the region, and the condition of transit vehicles and facilities, including those owned and operated by both the MDOT Maryland Transit Administration (MDOT MTA) and locally operated transit providers.

The BRTB, through BMC staff, will continue to work with MDOT SHA and MDOT MTA to improve the processes for gathering data for performance measures, with the ultimate goal of keeping the region's transportation assets in a state of good repair for the traveling public.



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