

Cumberland Area Long-Range Transportation Plan Addendum

final report

prepared for

Cumberland Metropolitan Planning Organization
Maryland Department of Transportation

prepared by

Cambridge Systematics, Inc.

with

Toole Design Group

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Date

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About the Plan Addendum

This addendum to the Cumberland Metropolitan Planning Organization (MPO) Long-Range Transportation Plan (LRTP) is intended to satisfy applicable Federal metropolitan transportation planning requirements in a manner appropriate for the size and complexity of the Cumberland metropolitan area. This addendum supplements the LRTP by addressing additional planning provisions as outlined in the Safe Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Once the addendum is adopted, the comprehensive LRTP will continue to guide surface transportation investment in the MPO area. This document is organized into several sections, with a brief description of each section's contents listed below:

- **Section 1.0: Safety** – This section focuses on ongoing safety-related transportation activities in the Cumberland MPO area.
- **Section 2.0: Security** – This section addresses activities related to transportation security occurring in the Cumberland MPO area.
- **Section 3.0: Environmental Mitigation** – This section provides an assessment of environmental mitigation activities and considerations undertaken in the Cumberland MPO area.
- **Section 4.0: Bicycle and Pedestrian Walkways** – This section updates bicycle and pedestrian activities occurring in the Cumberland MPO area.
- **Section 5.0: Transportation Operations** – This section reviews a number of operational strategies to relieve vehicular congestion and improve performance of existing transportation facilities.
- **Section 6.0: Goods Movement** – This section details current and future freight transportation systems in the MPO area.

Developing the Cumberland Metropolitan Area Long-Range Transportation Plan Addendum

The Cumberland Long-Range Transportation Plan represents a comprehensive and coordinated attempt to consider planning on a regional basis. This document serves as an addendum to the LRTP for the Cumberland MPO study area. MDOT supported development of this LRTP by providing general oversight and guidance.

During the development of this LRTP addendum, information on transportation needs and issues was collected and synthesized from local, state, and Federal sources, including County Comprehensive Plans and other planning documents provided by Maryland State Highway Administration, Allegany County,

Maryland and Mineral County, West Virginia as well as the Cities of Cumberland and Frostburg, Maryland.

Finally, this LRTP addendum identifies current and future issues affecting transportation and mobility in the Cumberland MPO study area through 2030, including safety, security, environmental considerations, bicycle and pedestrian walkways, transportation operations, and goods movement, and articulates strategies to address these issues. Much of the information on the issues facing the Cumberland MPO study area was collected through existing LRTP materials, but also through interviews with key stakeholders, including state, county, and local agencies. Throughout the development of the LRTP addendum, special emphasis was placed on the planning areas delineated in Federal transportation legislation.

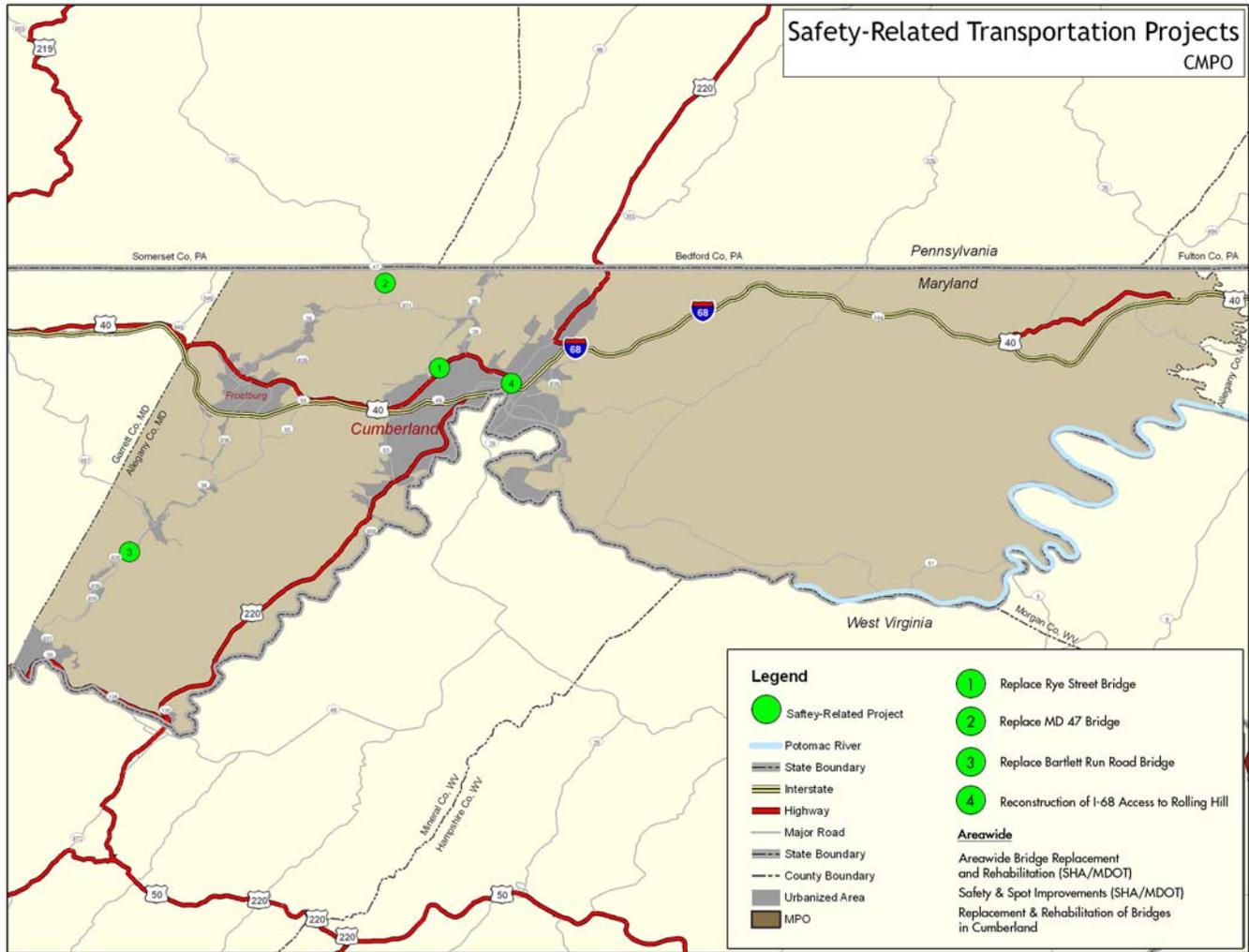
Public Involvement Process

Input from MDOT and supporting agencies as well as local agency staff who worked on the plans referenced in this document has been considered and incorporated where appropriate. A draft of the MPO's LRTP will be made available at the Allegany County Department of Community Services, Planning Services Division and at the Mineral County Office of Planning for public review and comment before adoption by the MPO Board. A local newspaper advertisement will be posted with the *Cumberland Times News* and on the Allegany County web site announcing the availability of the draft LRTP addendum. All public comments received during this process have been considered in preparation of this LRTP addendum.

1.0 Safety

Safety is one of eight planning factors required by SAFETEA-LU for state and local departments of transportation and MPOs to consider. Maryland first developed its own multi-agency statewide safety plan in 2003. The passage of SAFETEA-LU provided the State with the opportunity to improve that plan and Maryland completed its current Strategic Highway Safety Plan (SHSP) in the fall of 2006. Efforts are now being made to develop the implementation guide of the SHSP and to integrate its goals, objectives, and strategies into statewide and metropolitan long-range transportation plans as well as transportation improvement programs so that safety receives the same amount of attention as other planning factors when choosing or evaluating new and continuing projects and initiatives. Figure 1.1 highlights some of the safety-related transportation projects planned for the MPO study area.

Figure 1.1 Safety-Related Transportation Projects



1.1 TRAFFIC SAFETY IN MARYLAND

In Allegany County, 2005 data shows that 11 people lost their lives in the 761 police-reported traffic crashes (accounting for 1.8 percent of the statewide fatalities) and an additional 453 people were injured. Table 1.1 presents Allegany County's historical fatality rates along with Maryland statewide data.

Table 1.1 Comparison of Allegany County and Maryland Fatality Rates 1996-2005

Year	Fatalities	Rate per 100m VMT		Rate per 10,000 Population		Rate per 10,000 Licensed Drivers		Rate per 10,000 Registered Vehicles	
		Allegany County	Maryland	Allegany County	Maryland	Allegany County	Maryland	Allegany County	Maryland
1996	11	1.41	1.34	1.51	1.21	2.14	1.83	1.84	1.62
1997	7	0.90	1.30	0.97	1.20	1.37	1.80	1.16	1.57
1998	6	0.69	1.25	0.84	1.19	1.18	1.78	0.99	1.53
1999	12	1.38	1.22	1.69	1.15	2.39	1.74	1.96	1.48
2000	8	0.92	1.23	1.07	1.17	1.61	1.72	1.30	1.47
2001	11	1.25	1.27	1.48	1.23	2.22	1.83	1.75	1.52
2002	10	1.11	1.23	1.34	1.22	2.04	1.80	1.59	1.50
2003	8	0.95	1.19	1.09	1.18	1.59	1.73	1.26	1.45
2004	9	1.09	1.17	1.22	1.16	1.78	1.68	1.42	1.40
2005	11	1.28	1.08	1.49	1.10	NA	NA	NA	NA

Source: Traffic Safety County Fact Book, 2005.

Table 1.2 details some of the contributing factors to crashes in Allegany County and their respective percentage of total fatalities in 2005.

Table 1.2 Contributing Factors To Vehicular Crashes

Contributing Factors	Percent of Total Allegany County 2005 Fatalities
Nighttime Crashes	64%
Speeding	64%
Fixed Object Crashes	36%
Alcohol Related	18%
Large Trucks	18%
Motorcycles	18%
Pedestrians	18%
Intersections	9%

Source: Traffic Safety County Fact Book, 2005.

1.2 SAFETY STRATEGIES

Maryland State Highway Administration

Allegheny County falls within SHA District 6, in which the District Engineer (DE) is responsible for overseeing all areas of state road operations, including traffic, construction, maintenance, engineering systems, right-of-way, and utilities, with a attention to following established safety standards. The DE reviews data produced by the Office of Traffic and Safety identifying high-crash locations on state roads (i.e., road sections, intersections, ramps, etc.), and makes recommendations for the distribution of safety funds, such as Fund 76 programs aimed at hazard elimination. In addition, the DE looks at all fatal crashes, regardless of what system they are on, provides comments to county and city officials regarding crash sites on local roads, and provides support, as necessary, to County and City Engineers.

Road safety-related projects identified in the Maryland Consolidated Transportation Program (CTP) for fiscal years (FY) 2007-2012 include:

- **Oldtown Road** - Collier Run Road to 0.09 mile west of Kirk Hall Road; super-elevation correction of curve, signing and replace existing traffic barrier with concrete jersey barrier.

Allegheny County, Maryland

The Traffic and Transportation Advisory Committee reviews safety issues on County and City roads, as requested by the Board of County Commissioners, with a focus on engineering and law enforcement issues. Represented on the Committee are the Allegheny County Board of Education; Department of Public Works (Roads Division and Transit Division); Emergency Services; Health Department Safety;; Sheriff's Department; and the City of Cumberland Engineering Department; Police Department; Street Department; the Maryland State Highway Administration; and the Maryland State Police.

Monthly meetings are held to consider case-by-case crash locations, citizen complaints, new development plans, law enforcement issues, etc., which may result in recommendations such traffic signal installation, additional signage, and speed zones. In Allegheny County, minor projects (under \$50,000) are implemented under regular operation and maintenance programs. Line striping is performed every other year with guardrail maintenance conducted in the off years. Lighting and signage are constantly installed/repaired upon request. The Traffic and Transportation Advisory Committee also reviews and comments on new development plans with consideration to public safety.

The following road safety-related projects are included in the Allegheny County Capital Improvement Plan (CIP) for fiscal years 2007-2011. Bridge safety has been a major emphasis area for Allegheny County.

- **Bartlett Run Road Bridge A-13** - Replacement of bridge impacted by heavy coal truck traffic to maintain safe travel.
- **50/50 OP Road Paving** - Assist residents on OP Roads to pave them to improve serviceability and safety.
- **Pea Vine Run Road Bridge 1** - Replacement of bridge to maintain a safe traveled way between MD 807 and Valley Road.
- **Orleans Road South Bridge** - Replacement of bridge to maintain a safe traveled way and to raise the existing structure out of the floodplain.

Mineral County, West Virginia

Safety activities for Mineral County in West Virginia are implemented through the Eastern Panhandle Community Traffic Safety Program, the regional office of the Governor's Highway Safety Program. A task force representing law enforcement, local schools, health services, fire/rescue squads, insurance agencies, planning and development agencies, meets regularly to determine priorities and plan efforts such as saturation patrols, sobriety checkpoints, and public service announcements that have focused primarily on impaired driving and occupant protection.

County and City engineers in West Virginia oversee local subdivision roads, which tend to be lower speed routes, and focus proactively on such issues as sight distance, signage, and guardrails. The majority of West Virginia roads are state run and fall under the responsibility of District Engineers who ensure compliance with state safety standards.

1.3 PUBLIC EDUCATION AND LAW ENFORCEMENT EFFORTS

State Highway Administration

Each of Maryland's counties has a designated Coordinator for the Community Traffic Safety Program (CTSP), which is the grant program managed by the Maryland Highway Safety Office (MHSO). Allegany County's CTSP Coordinator leads the Community Traffic Safety Coalition, a diverse group representing the following:

- Allegany County Board of Education
- Allegany County Board of Public Works
- Allegany County Health Department
- Frostburg Police Department
- Allegany County Liquor Board
- Maryland NRP

- Allegany County Sheriff's Department
- Allegany Driving School
- Child Passenger Safety (CPS) Instructor
- Cumberland Police Department
- Cumberland Times-News
- Division of Parole and Probation
- Maryland State Highway Administration - District 6
- Maryland State Police
- MVA - Cumberland Branch
- Overnite Transportation Company
- Western Maryland Health System
- Westernport Police Department

The Coalition meets quarterly to discuss traffic safety problem areas and plan activities to address the problems, results from activities that have been implemented, and any additional concerns from members.

The State of Maryland has received National Highway Traffic Safety Administration (NHTSA) funding for many of the following activities (listed below) that are included in the 2007 Project Agreement. Note that many of these programs are locally implemented and pay particular attention to impaired driving and aggressive driving.

Aggressive Driving Prevention

- Obtain appropriate materials from MHSO; distribute at presentations and displays.
- Prepare agreements, obtain signatures, and monitor funding to Law Enforcement (LE) agencies.
- Use the PowerPoint slides developed in 2006 to incorporate into other presentations.
- Plan with Garrett County to continue the LE task force with an activity to highlight aggressive driving, DUI, and seat belt use.

Bicycle Safety

- Provide educational materials and bicycle helmet seed funding from the MHSO for the helmet distribution program and in the schools.
- Provide booklets to the after-school program director for the Bicycle-Pedestrian Safety training.
- Bring the enforcement, engineering, and education together to plan and write the Safe Routes to School grant application.

Impaired Driving Prevention

- Prepare agreements, obtain signatures, and monitor funding to LE agencies giving them target locations and times for prime enforcement.

- Maintain the pamphlet racks at the outpatient addictions unit at least quarterly.
- Use the NHTSA web site to download graphics for posters to be printed and delivered to bars and restaurants during 3D Month, Halloween, and St. Patrick's Day celebrations; provide the newspaper with a press release.
- Use the NHTSA web site to download graphics for producing fliers for pizza delivery boxes for Super Bowl.
- Catalogue educational items to be loaned as community resources and maintain them.

Inattentive Driving Prevention

- Submit a press release on Work Zone Safety to the newspaper in April; distribute posters received from the Federal Highway Administration (FHWA).
- Use NHTSA's Inattentive Driving PowerPoint presentations; contact businesses regarding availability of program.
- Contact the Public Relations staff from Western Maryland Health System (WMHS) to help with distribution of Drowsy Driver materials.

Motorcycle Safety

- Budget for slides, making contact with the company to have them shown during months noted.
- Prepare ribbons and tags; procure materials from MVA; distribute at two local events.
- Procure materials from MVA and take them to the dealerships.
- Produce PowerPoint slides from NHTSA and MHSO info to use with other presentations to community and business groups.

Occupant Protection

- Continue observational survey at sites and days used previously, reporting results to MHSO.
- Plan for press coverage during CPS Week and Buckle Up America and incorporate seat belt use into other press opportunities.
- Cooperate with LE for Chiefs' Challenge and Pacesetters programs, supporting them with ideas and resources.
- Budget to support the Kids in Safety Seats (KISS) program by purchasing seats; continue the Bucklebear program and prenatal informational classes and supplying educational literature for all CPS programs.

Older Driver Safety

- Support of the 55 Alive Driving for Seniors course at Allegany College by buying the workbooks and helping with promotion; make presentations and encourage participation by Coalition members.
- Obtain educational literature from MHSO and use the senior driving display at appropriate events.
- Contact the Senior Centers to promote the continued use of Roadwise Review.

Pedestrian Safety

- Coordinate with at least one school for a Walk to School event.
- Maintain contact with event planners in Downtown Cumberland to establish a walking program; possible cooperation with the wellness program of WMHS.
- Young Driver Safety.
- Budget: for the overtime use of cadets and LE; coordinate with the Liquor Board to target suspected establishments.
- Use the Maryland Safety Plan format to draft an MOU and distribute it for approval; obtain signatures of agencies.
- Maintain contact with the physics teachers and crash recon deputy to schedule presentations and expand to other high schools.
- Encourage cooperation between Driver's Education instructors and members of the Coalition to use their knowledge and resources to help new drivers.

1.4 SAFETY CONCLUSIONS

Maryland is moving forward with implementation of the statewide SHSP and integrating those goals and objectives into local and regional programs. At the same time considerable efforts continue to be made by a diverse group of stakeholders in the Cumberland MPO study area to address traffic safety through a variety of both 'hard and soft' approaches. While additional work is necessary to further reduce fatalities and injuries resulting from motor vehicle crashes, a strong base exists of coordinated 'hard' side strategies (i.e., roadway design and maintenance standards; signage, signaling, and pavement markings; barriers; sidewalks) and 'soft' side strategies (i.e., law enforcement and public education campaigns addressing impaired driving, aggressive driving, and occupant protection).

2.0 Security

Under national transportation legislation known as SAFETEA-LU, the security and safety planning provisions have been decoupled so that each is a stand-alone planning factor and receive more consideration in transportation plans. However, many transportation agencies are at different stages of drafting and adopting LRTPs that address transportation security, with many still in the process of defining how the security planning provision applies to their particular state or region. Furthermore, it should be recognized that there exists a range in the types of security threats faced across the nation, which means that the depth and emphasis on transportation security in one region is likely to differ from another region.

Effective integration of security planning is critical, particularly in large metropolitan areas where populations and regional economies may be vulnerable to security threats. The following sections describe transportation security planning efforts undertaken in the MPO study area. It should be noted that security planning is often conducted by a number of different agencies (i.e., local emergency responders, regional planning agencies, state offices of homeland security, state departments of transportation, and Federal agencies) and that security planning efforts in Maryland and West Virginia are currently being undertaken by a number of transportation and non-transportation agencies.

2.1 TRANSPORTATION SECURITY PLANNING OVERVIEW

The nation's transportation infrastructure supports mobility and goods movement, but it also plays a critical role in rendering aid and evacuating areas affected by a security-related event. September 11, 2001, the 2004 train bombings in Madrid, and the Tokyo subway attack involving the release of sarin gas illustrate how transportation systems can be used both as a weapon and as a means by which to expand the scale of an event. Direct attacks like those involving a dirty bomb release in a major seaport or airport, or even accidental ones, such as major spills of hazardous waste due to a train derailment, could have damaging effects not only on a region's transportation network, but on the nation's as well.

Given the MPO study area's proximity to the major metropolitan centers of Baltimore, Maryland and Washington, D.C., it is important to consider the logistical feasibility of efficiently mobilizing large numbers of people in a short period of time. The Federal Emergency Management Agency (FEMA) developed a guidebook to assist state and local agencies in their development of an emergency

operations plan.¹ Another resource for professionals engaged in transportation security is a National Cooperative Highway Research Program (NCHRP) Report 525 titled *Incorporating Security into the Transportation Planning Process*,² which is a comprehensive three-volume report that discusses the challenges of incorporating security into the transportation planning process.

Incorporating security into transportation planning can be a difficult endeavor given that security has traditionally been conducted by specialized agencies at the Federal level and not by transportation agencies. It is further complicated when considering mobility dependent populations, such as the elderly, disabled, and transit dependent households. Coordination with the public, within an agency, and between agencies (e.g., state and Federal) can be difficult given that events can affect multiple transportation modes and can extend beyond regional and state boundaries.³

Furthermore, there often exists a disconnect between the planning and operations elements of security-related transportation plans in terms of their creation and implementation. Following is an excerpt from a forthcoming NCHRP research project that highlights ways to improve the link between planning and operations in disaster response plans.

“Increase in the programming and funding of intelligent transportation system (ITS) technologies. ITS, such as closed-circuit television cameras and real-time traffic dissemination systems, can provide the dual benefit of mitigating the impact of some no-notice events and also can improve the efficiency of response and system management in the aftermath of a disaster.

Leverage of transit/multimodal resources during a disaster. Agencies can collaborate by marshalling resources and expanding transportation logistics support in order to implement the transportation element of disaster response.

Movement from “table-top” exercises to field exercises. Changing traditional disaster response strategies to action-oriented field exercises is one way to more thoroughly test disaster response plans and help bridge any gaps between planning and operations personnel perspectives and/or plans.”⁴

¹ State and Local Guide 101: “Guide for All-Hazard Emergency Operations Planning.”

² NCHRP Report 525. “Incorporating Security into the Transportation Planning Process.” http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_525v3.pdf.

³ Cambridge Systematics “Publication Pending”, NCHRP 8-36 (Task 69), Disaster Response in Transportation Planning Peer Exchange Report, Washington, D.C.

⁴ Ibid.

2.2 SECURITY PLANNING IN THE MPO STUDY AREA

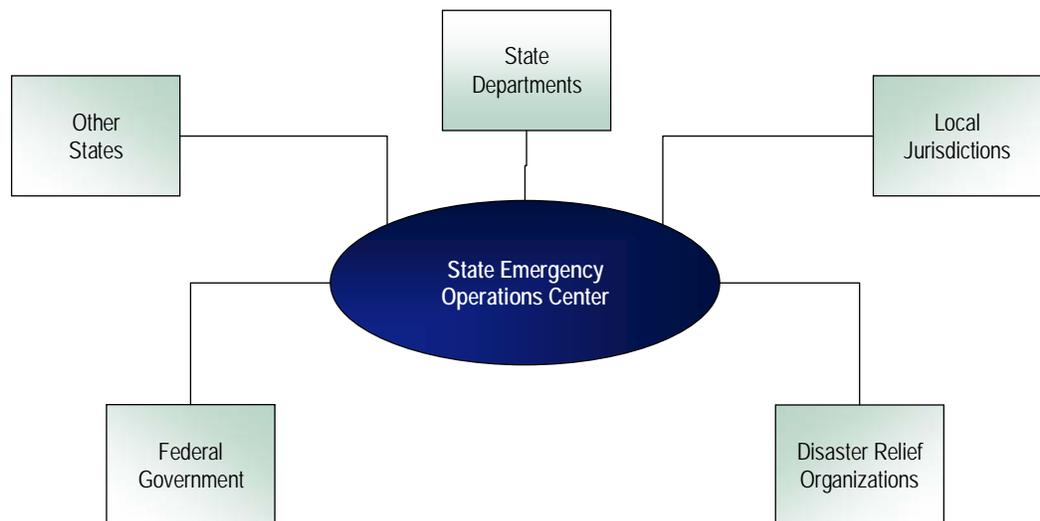
Security planning efforts often focus on preventing events from occurring, mitigating the results by responding when they occur, and recovering following the event. Following are some of the efforts underway to address transportation security at the state and regional level.

Maryland

Maryland Department of Transportation and Maryland State Highway Administration

Maryland's Emergency Management Agency (MEMA) is responsible for coordinating a state response, including supporting local governments, during large-scale emergencies, whether natural or manmade. Revised in 2006, the Maryland Emergency Operations Plan (EOP) is a cooperative effort, including state, local, and private agencies with the assistance of Federal agencies for the deployment of resources when an event occurs. Maryland's emergency management partnerships are illustrated in Figure 2.1.

Figure 2.1 Emergency Management in Maryland



Source: State of Maryland Emergency Operations Plan.

Transportation is listed in the EOP as the first emergency support function (ESF), of which there are 16. The ESFs are meant to be used across all Maryland jurisdictions. The Maryland Department of Transportation (MDOT) is listed as the primary agency responsible for this function whose purpose is to “To coordinate the use of transportation resources and services necessary to support emergency

response or recovery operations or other disaster assistance initiatives.”⁵ MDOT actively works with local jurisdictions in coordinating emergency response and, when an incident occurs, is able to pool its modal resources and direct them where appropriate in order to restore service.

A \$1.4 million Homeland Security grant was awarded to the State of Maryland to support its efforts in developing Continuity of Operations (COOP) plans and programs at state agencies and at local governments. COOP plans are designed to ensure continued performance of government functions during times of emergency. According to MEMA, “continuity of operations is achieved through the development of plans, procedures, and provisions for alternate facilities, personnel, resources, interoperable communications, and vital records, systems, and databases.”⁶ SHA developed a comprehensive Continuity of Operations Plan, which was subsequently certified by MEMA.

In its fiscal year 2004-2007 Business Plan, SHA presents “Transportation Emergency Preparedness” as an agency objective with specific metrics to evaluate whether SHA is meeting its objective to develop transportation emergency preparedness plans. One way this is being accomplished is through SHA’s development of Freeway Incident Traffic Management Plans (FITM), which essentially act as emergency detour routing plans. The FITMs address primary and secondary routes for every interchange to interchange movement on the Interstate system, which includes I-68 in the MPO study area as well as the nearby Interstates of I-70 and I-81. Should an event occur, the detour plans go into place in order to appropriately direct traffic. The Statewide Operations Center supports these plans by implementing different types of communication devices (e.g., variable message signs) to disseminate information. SHA, in cooperation with local emergency managers, is in the final stages of developing a long-range plan, known as the Rural Strategies Management and Operations Plan, outlining devices to help monitor surface transportation systems in the event of natural or manmade disasters. SHA has received funding to support real-time evacuation modeling and is currently helping Maryland’s counties and supporting agencies (e.g., emergency services) develop surface transportation evacuation plans, which often incorporate considerations for staging and decontamination areas.

SHA employs a dedicated Homeland Security Coordinator, with efforts currently being directed toward combining all existing emergency operations plans into one EOP. Using Mississippi’s model of a Comprehensive EOP, SHA’s EOP would roll up all plans in order to reduce redundancies across plans, provide better organization using key appendices for evacuation and nuclear plans, FITMs, and so forth. Before creating a Comprehensive EOP, SHA plans to

⁵ State of Maryland Emergency Operations Plan, June 2006.

⁶ <http://www.mema.state.md.us>.

update all existing plans, for example by making some applicable portions National Incident Management System (NIMS) compliant.⁷

West Virginia

West Virginia Department of Transportation

Housed within the West Virginia Department of Military Affairs and Public Safety (DMAPS), the West Virginia Division of Homeland Security and Emergency Management (WVDHSEM) has also developed an Emergency Operations Plan with a transportation component. Similar to the Maryland EOP, the West Virginia EOP serves as the blueprint for the State's response to disasters, with the cooperation of state and local agencies. As part of the response section of the EOP, the basic purpose of the transportation operations element is to facilitate efficient coordination of transportation operations for transporting people, supplies, and equipment in the event of an emergency. WVDOT has also developed Standing Operating Procedures, which acts as a COOP during emergencies.

West Virginia DOT employs a Homeland Security Coordinator who works with state and local agencies on matters related to transportation security. Some of the functional areas that WVDOT engages in related to transportation security include:

- Involvement in the Urban-Rural task force, which is charged with evaluating western migration evacuation routing and associated issues (e.g., land, air and water route management);
- Attendance at regular roundtable discussions with DMAPS and WVDHSEM as well as with other supporting agencies;
- Engaging counties and local emergency responders on issues related to homeland security;
- Representing WVDOT at the 2nd Annual Regional Evacuation Conference, funded through the National Transportation Safety Board (NTSB) and DMAPS, which brings together surrounding states to exchange information;
- Involvement in conducting risk assessments and identifying critical infrastructure for use in homeland security efforts;
- Deployment of emergency response trailers (currently 12) equipped with ITS (e.g., message boards) during an event as one means for information dissemination;

⁷ NIMS is a nationwide standardized approach to incident management and response.

- Representation at the Emergency Operations Center when an event occurs in order to help respond and coordinate assistance; and
- Instituting an ITS focused communications “Smart Center” tied to emergency responders for traffic management.

Allegheny County, Maryland

Allegheny County has established a Department of Public Safety and Homeland Security. In addition to Allegheny County’s current EOP, the County is in the process of drafting supplements to address all 16 emergency support functions, including transportation and hazardous materials. Allegheny County’s EOP uses an all hazards approach, with the basic plan identifying partners, establishing responsibilities, and detailing communication and coordination with other partners should an emergency occur. Allegheny County has also developed Annex T as part of its EOP, which focuses on terrorism and weapons of mass destruction.

Allegheny County is working to build relationships with CSX Transportation in order to facilitate communication with the railroad in times of emergency. Given some of the sensitive infrastructure in its jurisdiction, such as railroads that carry hazardous materials, Allegheny County is also reviewing the Department of Homeland Security’s *National Infrastructure Protection Plan*. This plan defines roles for Federal, state, local, tribal, and private sector security partners for a coordinated approach to critical infrastructure protection responsibilities. Allegheny County Transit has also developed a Safety, Security, and Emergency Preparedness Plan.

Allegheny County continuously evaluates evacuation and sheltering issues and plans and is currently working on a COOP plan as well as ways to expand considerations for sheltering plans. The County works closely with local, regional, state partners and closely monitors evacuation plans derived from partners from the national capital region.

Mineral County, West Virginia

Mineral County is awaiting word regarding a Federal Emergency Management Performance Grant for funding the development of a COOP plan and a Continuity of Government (COG) plan. As part of its COOP planning efforts, Mineral County has registered with Priority Telephone Services (GETS/WPS/TSP). Grant funding is also being pursued to update the County’s EOP so that it is compliant with NIMS.

Under the Mineral County Office of Emergency Management and Homeland Security (OEM), the County Hazmat Team is responsible for responding to all incidents involving hazardous materials cargo. The Team of 20 to 30 trained responders is equipped with complete hazmat response gear. Though not approved, Mineral County OEM applied for a Federal grant for identical three and four gas meters for all fire and emergency medical service companies.

Mineral and Preston County, West Virginia as well as Allegany County, Maryland are preparing to enter into a three-county/two-state pilot project that would provide satellite technology for interoperable communication between counties. Furthermore, the County is cooperating with the State on a statewide interoperability project.

The Mineral County OEM also engages in regular meetings with the Potomac Valley Transit Authority (PVTa) in an effort to develop a Memorandum of Understanding to address human transit/security issues between PVTa and the surrounding counties. Staff from OEM also sit on the Human Services and Transit subcommittee in an effort to represent security and homeland security focuses in the decision-making processes.

2.3 PROTECTING KEY INFRASTRUCTURE

Building and maintaining the nation's transportation system has generally focused on productivity and efficiency. However, given the climate of heightened security across the nation, transportation networks are now being evaluated in terms of their security-related vulnerabilities. Protecting the nation's transportation assets has increasingly moved to the forefront of public policy given its critical role in the nation's economic prosperity.

In Allegany County, I-68 serves as a major freight thruway and also connects to I-70. Table 2.1 below illustrates the amount of truck tonnage traveling to, from, within, and through Allegany County.

Table 2.1 Allegany County Freight Tonnage by Direction
2003 and 2030

Direction	2003			2030		
	Truck Tons	Total Tons	Percent Share	Truck Tons	Total Tons	Percent Share
Inbound	3,829,594	4,237,105	5.21%	7,055,254	7,760,514	5.30%
Outbound	3,364,508	3,585,398	4.41%	5,692,957	5,888,387	4.02%
Internal	112,077	140,389	0.17%	314,098	354,761	0.24%
Through	48,095,350	73,311,173	90.20%	90,816,590	132,419,055	90.44%
Total	55,401,529	81,274,065	100.00%	103,878,899	146,422,717	100.00%

In 2003, 68.2 percent of all goods transported in, out, within and through Allegany County moved by truck and is forecast to grow to 70.9 percent by 2030. Though not the dominant mode, rail does play a critical role in transporting freight in the MPO study area. Given the transportation assets utilized for freight transport in the MPO study area, maintaining secure passage on these key pieces of infrastructure is critical to both the regional and national economy.

2.4 SECURITY CONCLUSIONS

National surface transportation legislation recognizes that the nation’s extensive and accessible transportation network is vulnerable to security threats. Although security incidents are the responsibility of security and public safety agencies, the new security planning provision seeks to encourage metropolitan planning agencies to engage in security/disaster planning given the MPOs’ “role as a forum for cooperative decision-making in a metropolitan area, and its responsibility for allocating financial resources to improving the performance of the transportation system.”⁸ To that end, the Cumberland MPO will continue to provide a forum for communicating about security issues. In the future, Cumberland MPO may consider activities that support the study area’s transportation security needs and strategies for both the short- and long-term such as:

- Cataloguing all available emergency resources, including local government resources and private contractors;
- Reviewing existing EOPs and evaluate whether specific security elements need to be addressed (e.g., terrorism); and
- Utilizing Department of Homeland Security grants to help cover the cost of developing plans, conducting studies, and making system upgrades and enhancements.

⁸ Meyer, Michael D. “The Role of the Metropolitan Planning Organization (MPO) In Preparing for Security Incidents and Transportation System Response.” <http://www.planning.dot.gov/Documents/Securitypaper.htm>.

3.0 Environmental Mitigation

The construction of new transportation infrastructure is of special concern in environmentally sensitive areas. Allegany County has actively engaged in protection of such sensitive areas, such as through the purchase of scenic overlooks and flood plain properties in several creek basins and also through consistent enforcement of its Floodplain Regulations and steep slope requirements. The County has purchased over 215 flood-prone properties and an additional 175 properties have been identified for possible acquisition.⁹ Because of Allegany County's array of sensitive areas, this document outlines several planning processes and strategies to mitigate against the adverse effects of existing, and especially future, transportation infrastructure.

3.1 ENVIRONMENTAL CONSIDERATIONS

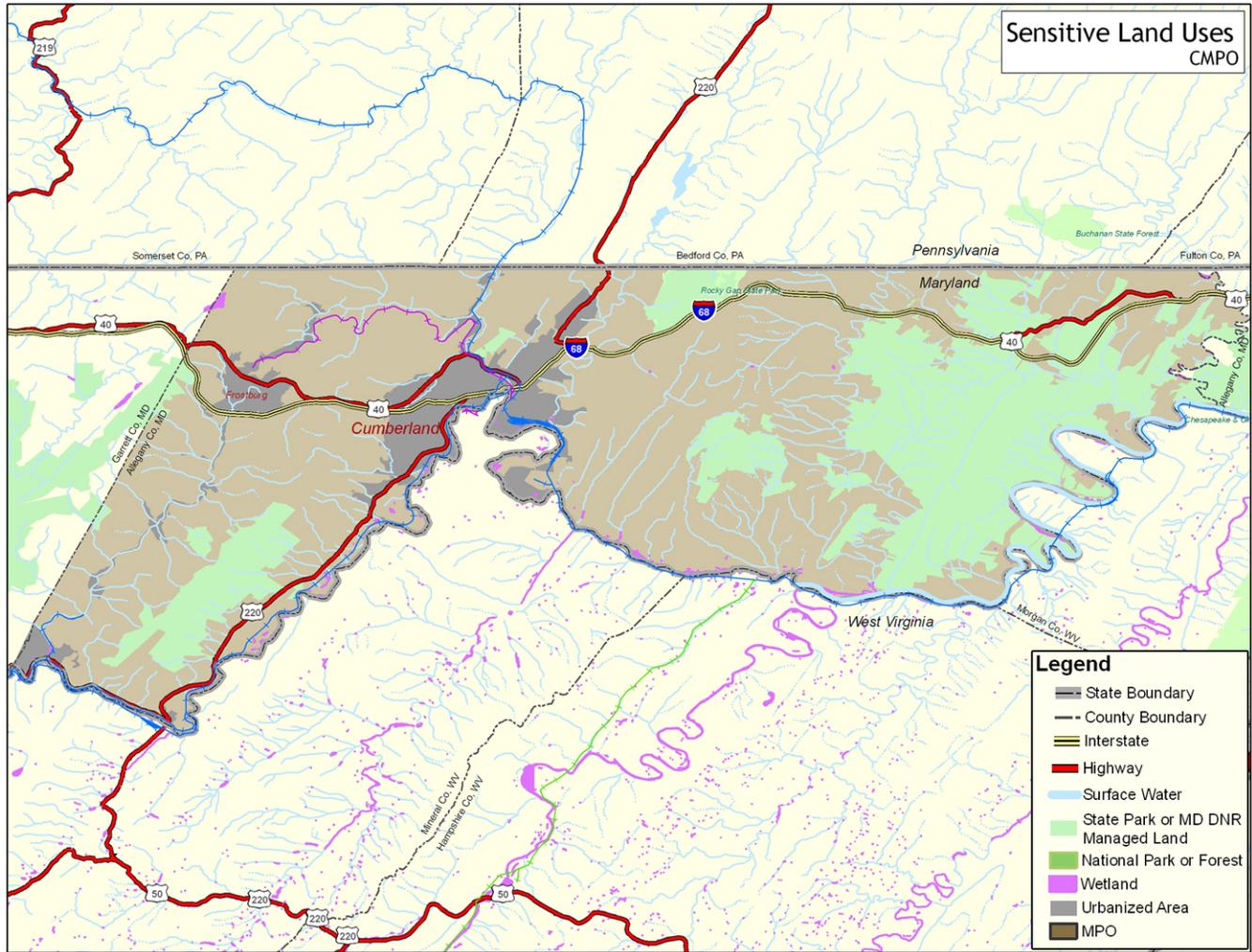
Transportation often generates negative externalities affecting safety, human health, and the natural environment. For this reason, the environment is one of the eight planning factors included within SAFETEA-LU. Externalities occur from both the construction and maintenance of infrastructure and the operation of motor vehicles. Infrastructure externalities include effects on water systems (dewatering, runoff, sediment loadings, and erosion), soil processes (material-related pollution), and ecosystems (habitat destruction, degradation, and fragmentation).¹⁰

Transportation infrastructure improvements typically make land more attractive for commercial and especially residential development. Such pressures have not been as high as typical in this regard, yet still represent a significant potential concern to be addressed with regard to natural as well as other resources. In this context, transportation infrastructure projects in Allegany County warrant the consideration of potential ecological and environmental effects. Various environmental regulations and mitigation measures aim to minimize the impact of road projects proposed in this document. Figure 3.1 highlights some of the environmentally sensitive land uses in the MPO study area.

⁹ Allegany County *Local Land Preservation, Parks, and Recreation Plan*, March 2006.

¹⁰Runoff pollution contaminants from roads include sediment, oils and grease, heavy metals, debris, and road salts.

Figure 3.1 Regional Sensitive Land Uses



Environmental Safeguards

Conservation, water, and air quality regulations are the most applicable environmental safeguards for transportation projects. In fact, projects advanced by Maryland State Highway Administration must comply with a number of environmental requirements. The National Environmental Policy Act (NEPA) requires an environmental review process when Federal funds are applied to transportation projects. Table 3.1 presents the two generic documents prepared for environmental reviews under NEPA.

Table 3.1 National Environmental Policy Act Environmental Review

Document	Description
Environmental Assessment (EA)	Provides evidence/analysis for determining whether a transportation project will cause significant impacts. ^a
Environmental Impact Statement (EIS)	Describes the purpose and need for the proposed action, the proposed alternatives, the affected environment, and the environmental consequences of the alternatives. ^b

^a National Environmental Policy Act explains in detail the concept of “significance” based on two criteria: context and intensity.

^b Air quality is covered in the environmental review process.

There are other environmental safeguards applicable to transportation project planning in the State of Maryland and protected areas within Allegany County. A number of these procedures are outlined in Table 3.2. Together, if properly implemented, these procedures also comprise compliance with SAFETEA-LU requirements for integrating environmental considerations into the planning process.

Table 3.2 Environmental Safeguards

Procedure	Description
U.S. Army Corps of Engineers Section 404 Permit and Maryland Department of the Environment (MDE) Water Quality Certificate	In compliance with the Clean Water Act, these permits regulate the discharge of dredged, excavated, or fill material in wetlands, streams, rivers, and other U.S. waters.
National Pollutant Discharge Elimination System (NPDES) Permit	This permit, issued by MDE, puts limits of pollutant discharges coming from highway materials.
Sediment and Erosion Plan Approval	Issued by the MDE, this approval is required before construction to prevent siltation due to releases of sediment from active construction sites.
Stormwater Management Plan Approval	Stormwater runoff typically increases due to the loss of ground cover and the increase of impervious surfaces. Allegany County and the city of Cumberland issue approval for these plans, which must encompass measures to control stormwater runoff via infiltration practices, shallow marshes, retention, and detention ponds.

Table 3.2 Environmental Safeguards (continued)

Procedure	Description
Wetland and Waterways Permit	Because of their linear nature, highway projects often inflict impacts on wetlands. With this permit, the MDE authorizes the maximum extent of wetlands to be affected and corresponding mitigation requirements for highway projects.
Chesapeake Bay Critical Area Regulations and Floodplain Protection Regulations	The Chesapeake Bay Critical Area laws regulate all development occurring within 1,000 feet of tidal waters, adjacent tidal wetlands, and tributaries. Tracts in this section are designated as Resource Conservation Areas (RCA), Limited Development Areas (LDA), and Intense Development Areas (IDA). It appears that these regulations do not directly apply in Allegany County. However, conceptually similar regulations apply to the first 100 feet of land adjacent to the 100-year floodplain area of river and stream watersheds. These regulations prevent the construction of new residential units and limit commercial and manufacturing facilities within this area.
Wildlife Management Area (WMA) Regulations	Allegany County hosts a total of five State WMAs comprising 14,086 acres. The largest of these is Dan's Mountain at 8,669 acres. As state properties, transportation infrastructure project proposals affecting these areas must undergo an internal review from the Maryland Department of Natural Resources in addition to other environmental considerations.

As Allegany County has experienced relatively little growth over the last several decades, the pressure for land development has not been as substantial as in many jurisdictions. Further, the county's topography and historical economy have resulted in relatively little agricultural land to protect. Nonetheless, the County participates in and encourages Agricultural Land Preservation and Conservation and Environmental Trust programs. Protection of agricultural land is also written into the County Zoning Code. Easement acquisition, where governmental institutions and/or environmental organizations (such as Nature Conservancy) purchase development rights, is a technique that incorporates market principles for preservation and is actively encouraged in the County's land policies. Greatly furthering this goal, the County has met the State's goal of 30 acres of recreational land for every 1,000 residents, and total parkland equals 26.2 percent (63,300 acres) of the county's land area.¹¹

¹¹ Allegany County *Local Land Preservation, Parks, and Recreation Plan*, March 2006.

Mitigation Practices

Maryland

According to SHA's Office of Environmental Design,¹² common mitigation practices utilized throughout the State and Allegany County during and after construction of transportation infrastructure include:

- **Wetland Management** - Impacted wetlands are replaced by creating new wetlands within the watershed where the impact occurs. Specific works include reforestation and removal of fish blockages.
- **Stream Restoration** - This measure determines an alternative flow that tailors the natural tendencies of an altered stream when road infrastructure is put in place.
- **Critter Crossings** - Instead of installing infrastructure on the ground, critter crossings (elevated passes) allow safe passage for woodland animals and help to prevent harm to forests and streams. The purpose is to keep corridors that connect ecological hubs, thus minimizing the fragmentation of ecosystems.
- **Erosion Control** - SHA utilizes devices such as silt fences, portable sediment tanks, sediment bags, geotextile materials, and bioengineering materials to meet and often exceed the requirements of MDE. Another measure is to rapidly establish vegetation on exposed soil during construction.
- **Nutrient Management** - In this mitigation practice, the use of shallow marsh ditches slows highway runoff water during storms. If left unfiltered, pollutants would be released into water streams.
- **Noise Barriers** - Noise barriers are solid obstructions built between the highway and areas along a highway. Effective noise barriers typically may cut the loudness of traffic noise by as much as 50 percent.

West Virginia

The West Virginia DOTs, Highway Engineering Division - Environmental Services Section conducts all environmental review for highway projects. Environmental Services also serves as liaison between historical and resource government agencies and other divisions within the DOT. The Engineering Division meets annually with the Program Planning and Administration Division to discuss projects, and will now be including the Environmental Services Section in these discussions as a way to link the two processes.

¹²State Highway Administration brochure "Environmental Stewardship: SHA's Contributions to Preserve and Enhance Maryland's Coastal Bays."

However, it should also be noted that more routine, but informal, communication is commonplace.

In 2006, the Engineering Division revised its Design Directives (DD) Manual. Design Directives essentially require compliance with State and Federal guidelines (i.e., stream and mitigation requirements; mitigation for cultural resources and historical and archaeological sites). Environmental mitigation activities are conducted on a project by project basis through the Engineering Division. Common mitigation practices instituted via DDs in the Cumberland MPO area include:

Project Development Process - “Environmental documentation will include the development of either an Environmental Impact Statement (EIS), Environmental Assessment (EA), or Categorical Exclusion (CE). The environmental documentation will be based on the scope, characteristics, location and initial engineering information of the project. This effort will vary from project to project and may involve outside agencies, individuals, and special interest groups. Early coordination with regulatory and resource agencies is required, in order to expedite the resolution of issues. The environmental document will meet the requirements of National Environmental Policy Act, Council of Environmental Quality Regulations, Federal Highway Administration guidance, Section 404 of the Clean Water Act, Section 106 of the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Endangered Species Act, and other environmental and cultural resource concerns. The mitigation phase will include work identified in the environmental and cultural resource mitigation portion of the environmental document, all necessary permits, and other issues identified in the environmental documentation phase.”

“Preliminary engineering is that work which is performed to further refine the preferred alternate identified during the environmental documentation phase. This work includes roadway geometrics, structural requirements, drainage, erosion control, geotechnical issues, earthwork, traffic control, safety, value engineering, and environmental and cultural resource avoidance or mitigation.”

“No final design activities (regardless of funding sources) shall proceed until the following have been completed:

- a) The action has been classified as a CE, or
- b) A Finding of No Significant Impact (FONSI) has been approved, or
- c) A final EIS has been approved and available for the prescribed period of time and a record of decision has been signed.”¹³

¹³West Virginia Department Of Transportation, Division Of Highways – Design Directive 252, July 1, 2006.

Environmental Mitigation Items – “All preparers of environmental documents shall prepare a listing of mitigation items to be incorporated into the project plans. Examples include:

1. A note will be added to the project general notes if the contractor’s work hours are to be limited.
2. Locations on the project where no construction activity is to occur shall be so noted on the plans.
3. Weirs, boulders, or other items as required for certain channel changes will be shown on the plans with bid items.

The Environmental Mitigation Items listing will be submitted to the Director of the Engineering Division with the environmental document.”¹⁴

L RTP Projects and Environmental Impacts

The projects proposed in the Maryland Highway Needs Inventory (2006) refer to enhancements of the primary system (namely, projects involving I-68, U.S. 220 and Maryland 53) and the secondary system (namely, projects involving U.S. 40, Maryland 35, Maryland 36, Maryland 47, and Maryland 807). Based on interviews with various officials and a review of proposed SHA projects in relation to natural resource and other maps derived from the *Local Land Preservation, Parks and Recreation Plan* (March 1996), Table 3.3 reveals that the bulk of proposed projects do not impact any natural resource areas, although several have the potential to do so. All of the potential road improvements are located near Cumberland or further west in that one-third of the county where lesser potential environmental impacts are generally involved. One of the three primary and five of the seven secondary potential road improvement projects are highway reconstruction within the existing alignment, making construction mitigation the dominant concern. For all projects, construction mitigation mechanisms (erosion control, detention ponds, shallow marshes, nutrient management, etc.) should be considered where appropriate for the proposed enhancements. The cases of MD 53 and U.S. 220 (primary system projects, with access control improvements and possible alignment changes) and MD 36 (two secondary system segments with possible realignment) potentially involve some new construction outside existing rights-of-way, and are described further below.

Air Quality Planning and Transportation Conformity

Pollutant emissions are the most representative transportation externality. Based on 1999 data from the Environmental Protection Agency (EPA), mobile sources in Maryland contribute with 87 percent of carbon monoxide emissions,

¹⁴West Virginia Department Of Transportation, Division Of Highways – Design Directive 200, June 16, 2006.

60 percent of nitrogen oxide (NO_x), 42 percent of particulate matter (PM) of 2.5 micron (PM_{2.5}), 46 percent of PM₁₀, 8 percent of sulfur dioxide, and 62 percent of volatile organic compounds.¹⁵ Allegany County presently complies with Federal and state standards for criteria air pollutants, although neighboring Washington County is in nonattainment for PM_{2.5} and within the “Subpart 1” designation for ozone.¹⁶ Even if in attainment, local pollutants have adverse effects on human health, agricultural productivity, fishing and commercial extraction, recreational facilities, and damage to the ecosystem. In terms of pollutant-related exposure, Allegany holds a very good position relative to other counties in Maryland, as reported by the EPA.¹⁷

¹⁵http://www.scorecard.org/env-releases/cap/state.tcl?fips_state_code=24#emissions_summary.

¹⁶<http://www.epa.gov/air/data/nonat.html?st~MD~Maryland>.

¹⁷<http://www.epa.gov/air/data>.

Table 3.3 Highway Needs Inventory Projects and Areas of Ecological Importance in Their Vicinities

Project	
Primary System	
IS 68 National Freeway – freeway reconstruct	A freeway reconstruction completely within the same right-of-way. Construction mitigation is especially noted for the cross-town bridge.
MD 53 Winchester Road – divided highway reconstruct/construct with access control improvements	Project nature will depend largely on decisions regarding U.S. 220. The project will serve as a connector between I-68 and U.S. 220, and may require some alignment shifts. No natural resources are nearby and mitigation beyond that for construction is not expected.
U.S. 220 McMullen Highway Divided highway construct/reconstruct with access control improvements	Depending on the selected alignment, this project could have a very significant environmental impact. An alignment that would encroach upon the Dan's Mountain WMA has already been effectively eliminated, whereas another intersecting the C&O Canal is still under consideration. Generally following the existing alignment is most likely, but would likely involve some minor alignment shifts that could impact upon wetlands, farmlands and/or archeological sites, as well as generating social impacts.
Secondary System	
MD 35 Eilerslie Road MD 36 to Pennsylvania state line – two-lane reconstruct	A highway reconstruction completely within the same right-of-way. Construction mitigation will be necessary.
MD 36 George Creek Road 0.5 mile south of Seldom Seen Road to Buskirk Hollow Road – two-lane construct/reconstruct	Route 36 has been upgraded piecemeal and segments still pass through difficult topography at relatively low design standards for their classification. Some alignment shifts may be necessary for this segment to meet higher standards. Among other local natural resources, historical mining practices make the project subject to sinkholes and other subsidence concerns.
MD 36 New Georges Creek Road IS 68 to U.S. 40 Alternate – Multi-lane urban reconstruct	A highway reconstruction completely within the same right-of-way. Construction mitigation will be necessary.
MD 36 RE U.S. 40 Alt. at MD 36 to MD 36 west of MD 47 – two-lane construct	This segment of Route 36 is also in need of alignment straightening and widening to meet design standards for its classification. Environmental mitigation will be required for disturbances throughout the length of this segment.
MD 47 Barrelville Road MD 36 to Pennsylvania line – two-lane reconstruct	A highway reconstruction completely within the same right-of-way. Construction mitigation will be necessary.
MD 807 Bedford Road Cumberland Corporate limits to U.S. 220 – two-lane reconstruct	A highway reconstruction completely within the same right-of-way. Construction mitigation will be necessary.
U.S. 40 AL National Highway East of Vocke Road to west limits of Cumberland – multi-lane urban reconstruct	A highway reconstruction completely within the same right-of-way. Construction mitigation will be necessary.

Note: Interviews with Cumberland MPO and MD SHA; Allegany County *Local Land Preservation, Parks and Recreation Plan*, March 2006.

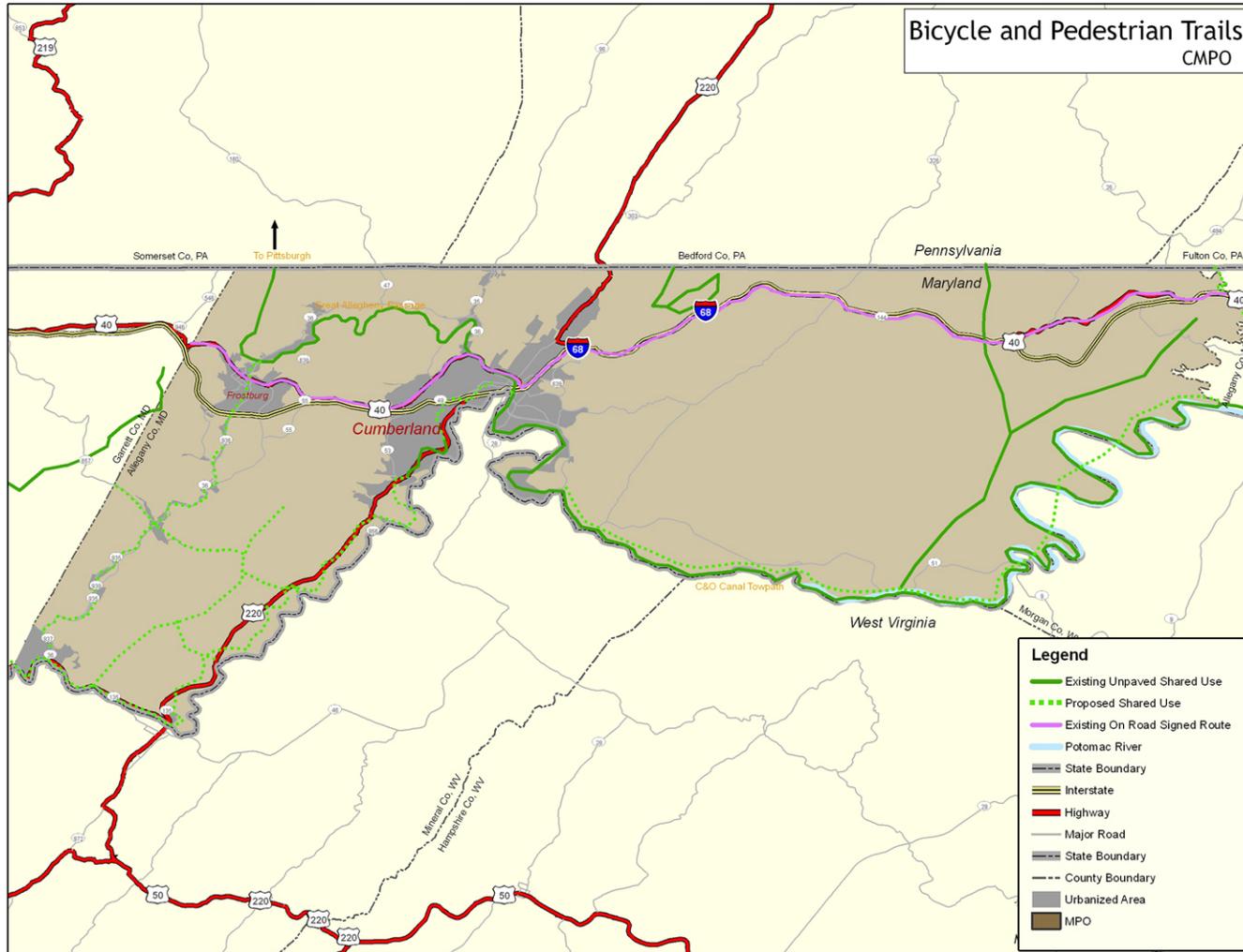
Federal regulations require that air quality issues be considered during the preparation of the LRTP. The MPO area meets air quality conformity criteria as identified in the 1990 Clean Air Act Amendments (CAAA) and subsequent 2004 amendments regarding the eight-hour ozone standard and PM_{2.5}. The Mineral County portion of the area is also in conformity. The Cumberland MPO is a

scaled down MPO with only a single staff person, and no technical committee, policy body, etc. Much of its function resides beside the Allegany County planning offices, resulting in strong informal communication, consultation and consideration of elements of the environmental planning factor as described in SAFETEA-LU. Limited resources have resulted in hampered communication with some West Virginia entities and Maryland state offices, with some documents presented as nearly final documents for comment, rather than early drafts for consultation. Given the resources available, this appears to be an acceptable, albeit not ideal, set of planning procedures.

4.0 Bicycle and Pedestrian Walkways

Planning for a connected, safe, and accessible bicycle and pedestrian network in the Cumberland Area is important for both residents and visitors. These vital efforts are supported by the States of Maryland and West Virginia and by local policy documents such as the Allegany County Comprehensive Plan and the City of Cumberland Comprehensive Plan. They are particularly important given the recent completion of the Great Allegheny Passage Trail, the cornerstone bicycle and pedestrian amenity in the Cumberland Metropolitan Planning Organization study area. This exciting new resource adds to an already vibrant bicycle and pedestrian-friendly area and it further accentuates the need to proactively plan for future bicycle and pedestrian networks throughout the region. Figure 4.1 illustrates many of the bicycle and pedestrian resources found in the MPO study area.

Figure 4.1 Bicycle and Pedestrian Resources



4.1 BICYCLE AND PEDESTRIAN PLANNING

Bicycle and pedestrian planning in the Cumberland MPO is an important and worthwhile activity for many reasons. Providing for a safe and comfortable bicycle and pedestrian network gives residents and visitors a cost-efficient and environmentally friendly transportation alternative to driving (with lower associated infrastructure investments). It provides valuable recreational opportunities and improves health and well-being. In doing so, it enhances the quality of life in the community.

Improving the safety for bicyclists and pedestrians is another important reason to improve bicycle and pedestrian facilities in the Cumberland MPO. According to the Maryland Office of Traffic and Safety, in 2005 there were two pedestrian fatalities in Allegany County – the highest number of pedestrian fatalities since 1996. In 2005, 21 pedestrians in Allegany County were involved in crashes – a 62 percent increase since 2002 (see Figure 4.2).¹⁸

Bicycle and pedestrian facilities also provide important economic benefits. In a speech at the opening ceremony for the Great Allegheny Passage Trail, Robert Flanagan, the former Transportation Secretary of the Maryland Department of Transportation, said that the Great Allegheny Passage Trail is expected to attract more than 250,000 visitors annually and bring in \$3.5 million a year in economic benefits.¹⁹ These benefits will be realized in traditional tourism-related industries such as hotels and restaurants. It will also likely benefit local businesses and downtown areas, as trail users visit towns and cities in the vicinity. As the amount of bicyclists and pedestrians in the Cumberland MPO increases, the need for facilities, educational programs, and other resources also increases.



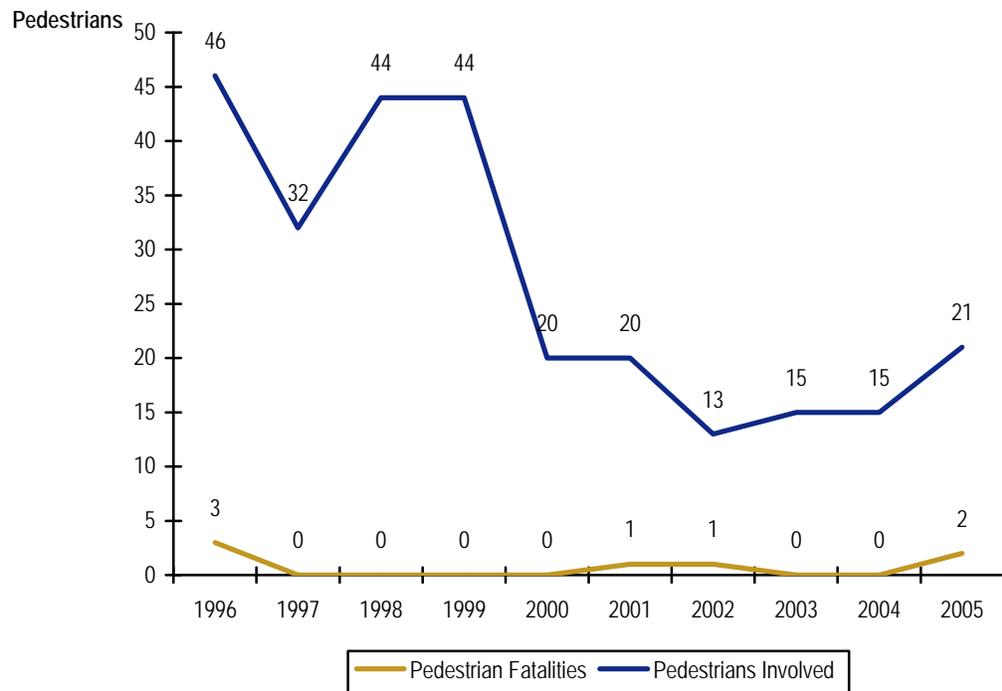
U.S. Sen. Paul Sarbanes speaks at the Great Allegheny Passage Trail Opening Ceremony.

Source: Cumberland Times-News, December 15, 2006

¹⁸Maryland Traffic Safety Facts 2005-Alegany County, Maryland Department of Transportation, State Highway Administration, Office of Traffic and Safety, August 2006, page 8.

¹⁹Smith, Maria. "Allegheny Highlands Trail now open for business." Cumberland Times-News, December 15, 2006.

Figure 4.2 Pedestrian Fatalities and Pedestrians Involved
1996-2005



Source: Traffic Safety County Fact Book 2005.

Planning for a safe and connected bicycle and pedestrian environment is supported at the state level, and also at the county and local level. Bicycle and pedestrian elements in state, county, and local plans are detailed below.

Maryland

Twenty-Year Bicycle and Pedestrian Access Master Plan

The State of Maryland has established overarching goals for bicycle and pedestrian travel. Maryland has also established a set of performance measures to track progress toward achieving its goals. The *State of Maryland's Twenty-Year Bicycle and Pedestrian Access Master Plan*, adopted in 2002, outlines the following goals regarding bicycle and pedestrian access:²⁰

- Integrate and expand the State's bicycle and pedestrian facilities, creating a connected network of on-road, off-road and transit-related accommodations

²⁰State of Maryland Twenty-Year Bicycle and Pedestrian Access Master Plan, Maryland Department of Transportation, October 2002, pages 13-19.

that will encourage and facilitate increased levels of bicycling and walking and improve access for individuals with disabilities.

- Preserve, protect and maintain the State’s existing bicycle and pedestrian facilities and rights-of-way, including bicycle lanes, roadway shoulders, sidewalks, crosswalks, trails and side paths.
- Provide safe and convenient bicycle and pedestrian accommodations for every type of trip, and for all levels of ability.
- Develop education and promotional programs that will increase bicycling and walking and foster a pro-bicycle and pro-pedestrian awareness in individuals, private sector organizations, and all levels of government.
- Work with local communities to increase their understanding of how land use, transportation and other policies and planning processes need to be modified to achieve increased levels of bicycling and walking, especially in Priority Funding Areas.

Furthermore, with the adoption of the *Maryland Statewide Bicycle and Pedestrian Access Master Plan*, five key nonmotorized transportation performance measures were established to track progress toward achieving statewide goals. These performance measures are reported annually in the *Annual Attainment Report on Transportation System Performance*. Adoption of the Maryland Statewide Bicycle and Pedestrian Access Master Plan established five key nonmotorized transportation performance measures:²¹

4. Percentage of state-owned roadway centerline miles with a Bicycle Level of Comfort (BLOC) grad of “D” or better (Scale A-F);
5. Centerline mileage of state-owned highways with designated bicycle lanes/routes;
6. Percentage of state-owned roadway centerline miles within urban areas that have sidewalks;
7. Number of bicycle fatalities and injuries on all Maryland roads; and
8. Number of pedestrian fatalities and injuries on all Maryland roads.

New Bicycle and Pedestrian Policies

Since adoption of the Cumberland LRTP in 2005, the Maryland Department of Transportation and State Highway Administration have adopted new policies affecting the provision and design of bicycle and pedestrian transportation facilities on state roadways. The following is a list of these new policies with a

²¹2007 Annual Attainment Report on Transportation System Performance, Maryland Department of Transportation, pages 9-10.

brief description and discussion of how they might relate to the Maryland jurisdictions within the Cumberland MPO.

Guidelines for Accommodating Bicyclists and Pedestrians on State Highways²² - The State Highway Administration and Maryland Department of Transportation recently developed and adopted a policy to guide the provision of bicycle and pedestrian accommodations in all appropriate roadway improvement projects. The new policy states that “The State Highway Administration (SHA) shall make accommodation for bicycling and walking a routine and integral element of planning, design, construction, operations, and maintenance activities as appropriate. It is the SHA’s goal to provide the preferred accommodations as part of all roadway projects where reasonable and feasible.”²³

This new policy marks a fundamental shift in approach, to one where providing for bicyclists and pedestrians is the standard, not the exception. The policy outlines specific circumstances which may justify a design waiver, which can only be granted with proper documentation and after all accommodation options have been tried and shown to be infeasible.

SHA Accessibility Policy and Guidelines for Pedestrian Facilities Along State Highways (December 2005)²⁴ - In 2005, the State Highway Administration developed and adopted policies and design guidelines for ensuring that all future and retrofitted pedestrian facilities on the State Highway System meet the most current accessibility guidelines and standards.

SHA Bicycle and Pedestrian Facility Design Guidelines²⁵ - This new document provides extensive detail for the design of bicycle lanes, shared-use paths, sidewalks, curb ramps, crosswalks, mid-block crossings and other bicycle and pedestrian transportation facilities. State provision of the most current design standards is very beneficial to cities and counties as it allows them to avoid the challenge and expense of developing their own design standards, while still having confidence that by following the State’s standards the local jurisdiction will remain consistent with best practices used throughout the United States.

Manual on Uniform Traffic Control Devices (MUTCD)²⁶ - SHA has developed its own version of the Manual on Uniform Traffic Control Devices (MUTCD), a

²²Guidelines for Accommodating Bicyclists and Pedestrians on State Highways, Maryland State Highway Administration, page 1.

²³Ibid.

²⁴SHA Accessibility Policy and Guidelines for Pedestrian Facilities Along State Highways, Maryland State Highway Administration, page 1.

²⁵SHA Bicycle and Pedestrian Facility Design Guidelines, Maryland State Highway Administration, 2006.

²⁶*Maryland-MUTCD*, Maryland Department of Transportation, 2006.

Federal document that outlines national guidelines for transportation signing, striping and signal design. This document includes a number of Maryland variations and additions to national standards and guidelines. A number of these variations apply to the regulation and operation of bicycle and pedestrian traffic, including Traffic Controls for School Areas, Traffic Controls for Bicycle Facilities and Pedestrian Signal Control Features. In particular, SHA provides guidance on the use of pedestrian countdown signals, which requires that all pedestrian signal indications at intersections along the state highway system shall be equipped with countdown signals. Countdown pedestrian signals include two pedestrian signal heads – one that displays the traditional Upraised Hand/Walking Person symbols and a second that displays numbers which count down the crossing time in seconds to inform the pedestrian about how much time they have to cross the street.

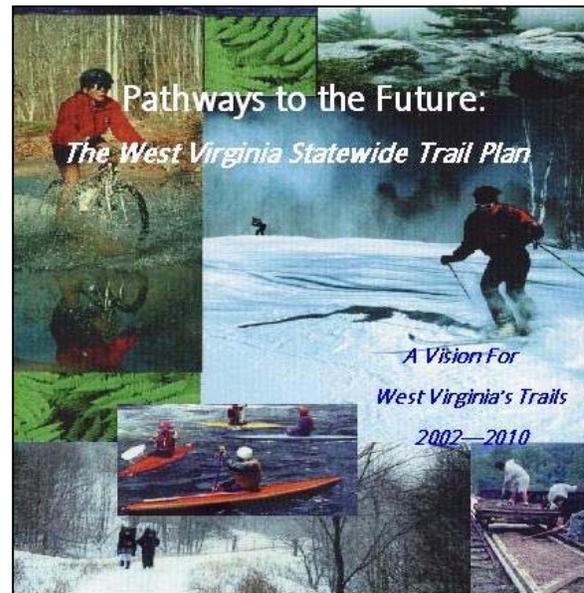
West Virginia

In 2001, the West Virginia Department of Transportation Division of Highways issued a Bicycle and Pedestrian Design Directive addressing bicycle and pedestrian accommodation on state roadways. This directive establishes the following policy:

“The goal of the West Virginia Division of Highways (WVDOH) is to design, construct, and maintain a safe, efficient, and economical highway system for the taxpayer. While motor vehicle traffic is the major concern in performing this task, bicyclists, and pedestrians must also be given proper consideration.

In order to integrate the needs of the motorized and nonmotorized users of our highway system the WVDOH, in cooperation with the Federal Highway Administration (FHWA), adopted “The Statewide Plan for Accommodation of Bicycle Transportation and Pedestrian Walkways” dated September 1997. Based on this

document it is now the policy of the WVDOH that during the design of all highway construction projects, consideration will be given, as outlined herein,



Source: 2002-2010 West Virginia Statewide Trail Plan at <http://www.wvdot.com>.

for the incorporation of facilities for the accommodation of bicyclists and pedestrians.”²⁷

The West Virginia Trail Plan Committee developed the *2002-2010 West Virginia Statewide Trail Plan*, which includes the following goals:²⁸

- Addressing accessibility issues;
- Identifying funding and maintenance sources;
- Identifying and addressing specific trail needs and issues;
- Advertising and promoting trails as attractions;
- Creating programs that involve trails in economic development;
- Obtaining trail-user, tourist, and public input;
- Acting as a consensus document, to be used as a guide in future projects;
- Encouraging the development of trails that link natural, cultural, historic and recreational areas; and
- Addressing alternative transportation issues, including the need for urban and community greenways.

Comprehensive Plans

Allegany County, Maryland

The primary purpose of the LRTP is to guide the MPO and government agencies in the transportation decision-making process. The Plan includes bicycle and pedestrian-related goals and policies from the Allegany County Comprehensive Plan and from the City of Cumberland Comprehensive Plan. These goals and policies are described in detail below.

Bicycle and pedestrian facilities contribute to a quality living environment for the citizens of Allegany County – one of the goals of the Allegany County Comprehensive Plan. The Plan also includes the following bicycle and pedestrian-related policies and procedure, which are also included in the LRTP:²⁹

²⁷Design Directive, DD-813: Bicycle/Pedestrian Accommodation, West Virginia Department of Transportation, September 1, 2001, page 1.

²⁸*Pathways to the Future: The West Virginia Statewide Trail Plan, 2002-2010*, West Virginia Trail Plan Committee, July 2002, page 10.

²⁹*Allegany County Comprehensive Plan 2002 Update*, Allegany County, March 2002, pages 24-25.

- Develop and maintain an integrated transportation system utilizing rail, air, and highway systems using both mass transit and personal transportation modes to meet the overall goal of the TEA-21 program;
- Encourage the use and development of transportation facilities that will minimize growth in automobile use;
- Encourage implementation and use of transportation alternatives to decrease the growth of automobile use;
- Promote the design and development of energy-efficient communities and travel patterns;
- Plan for, develop, and encourage the use of alternatives to single-occupant automobiles;
- Promote the use of mass transit, including bus, van, car pooling, rail, air, and related modes of transportation through a public awareness campaign; and
- Promote walking, hiking, biking, and other human-powered transport by supporting walkways, paths, and trails to tie existing urban areas together through a system of greenways and trails.

“Ultimately, the creation of trails will allow Allegany County to meet one of its Open Space goals by creating a network of trails connecting urban areas with open space lands. This trail network connecting urban areas to open space would increase recreational opportunities for residents and also be an additional inducement for increasing tourism in the County.

“Bicycling/Pedestrian Modes of Travel: Although Allegany County has embarked on the creation of a recreational trail system for hiking, biking, and horseback riding, there is no sustained effort to provide an adequate system for bicyclists or pedestrians to use these modes of travel for day to day commuting, shopping, etc. Most of the incorporated communities have a network of sidewalks connecting residential and downtown areas, but most suburban communities lack these facilities. Future efforts to enhance these modes of travel in suburban areas could be tied to the State Highway Administration’s various enhancement programs. Sidewalk and trail construction should be encouraged in new subdivisions.”³⁰

City of Cumberland, Maryland

The City of Cumberland Comprehensive Plan presents a Vision for the Year 2020 where the City is recognized as “an excellent place to live, an enjoyable place to visit, and a supportive place to build a profitable business.”³¹ Bicycle and

³⁰Ibid., page 46.

³¹*City of Cumberland Comprehensive Plan*, City of Cumberland, prepared by Wallace Roberts & Todd, LLC, April 2004, page 7.

pedestrian facilities contribute to the realization of this vision. Additional bicycle and pedestrian-related elements in the Plan include the following:³²

- Areas of Cumberland with relatively high levels of pedestrian traffic (e.g., the downtown and commercial corridors such as Virginia Avenue and North Mechanic Street/North Centre Street) have sidewalks. Although it would be desirable to construct sidewalks on all streets over time, the cost of doing so would be beyond the fiscal capability of the City.
- Past plans have identified the need to strengthen pedestrian circulation and linkages in the downtown as a major priority. The Downtown Design and Development Plan made a series of recommendations to address this issue, emphasizing improvements (signage, streetscape linkages, visual cues, etc.) to encourage pedestrian traffic between the Baltimore Street mall and Canal Place and to available public parking areas. Progress in implementing this plan should be assessed, and the implementation of additional connections (e.g., to serve the Arts and Cultural District as identified in the 2001 Community Legacy Five-Year Plan of Action) evaluated.
- Goals, Objectives, and Actions (Transportation), Goal 4 - Provide a safe and efficient transportation network, with an emphasis on improving circulation within Cumberland and connections to outside regions.
- Objective 4.5 - Promote pedestrian and bicycle travel as alternatives to the automobile and as a recreational activity for visitors and residents.
- Action 4.5.1 - Develop a strategy to target sidewalk improvements based upon condition and role in neighborhood revitalization (see also Action 7.4.2).
- Action 4.5.2 - Evaluate progress made in implementing the pedestrian circulation and linkages recommendations of the Downtown Design and Development Plan. Update the recommendations by identifying and programming pedestrian improvement priorities for the next five years, including improved connections from the downtown to Washington Street and to Cumberland Street as part of the Arts and Cultural District.
- Action 4.5.3 - Support the completion of the Allegheny Highlands Trail and efforts to develop other regional multi-use trails (e.g., a greenway trail along the Potomac River west of Cumberland as proposed by the Maryland Atlas of Greenways, Water Trails, and Green Infrastructure).
- Action 4.5.4 - As part of Action 4.5.3, establish clearly demarcated access from the terminus of the Allegheny Highlands Trail across Baltimore Street to Canal Place and along Baltimore Street to the downtown mall. Provide bicycle parking facilities and signage to orient bikers to the City.

³²Ibid., pages 36-40.

- Action 4.5.5 – Establish designated bikeways or bicycle compatible roadways where feasible as part of street reconstruction projects.
- Action 4.5.6 – Where feasible, improve the compatibility of streets for bicycles by replacing older drainage grates, providing wide curb lanes and/or smooth shoulders, and eliminating roadside hazards.

Downtown Design Plan, City of Cumberland

The City of Cumberland Downtown Design and Development Plan includes the following pedestrian circulation and linkage goals and recommendations, which have the potential to significantly improve the pedestrian network:

“Goal: Create a safe and attractive setting with strong pedestrian linkages between attractions that help visitors perceive a cohesive critical mass of activities within a walkable distance of each other. Emphasize encouragement of greater foot traffic between the Mall and Canal Place and to available public parking areas.”³³ Recommendations directly from the Plan include:³⁴

Recommendations (General Improvements):

- Clearly mark intersection pedestrian crossings to direct pedestrians and alert drivers;
- Screen parking lots and vacant street edges;
- Install a series of pedestrian-oriented kiosks and signs throughout Downtown; and
- Install a better city map outside of the Visitor Center.

Recommendations (Specific Linkage Improvements):

- Improve connections between the Mall and Canal Place along Mechanic Street;
- Improve connections along Canal Street to Baltimore Street;
- Enhance connections from City Center Garage to Canal Place and to the Mall;
- Enhance pedestrian connections from attractions to primary off-street parking lots;
- Improve pedestrian connections between the Mall and Value City; and
- Extend the Mall Thematic Treatment.

³³Cumberland, *Maryland Downtown Design and Development Plan*, City of Cumberland, prepared by The Faux Group, October 1998, page 3.

³⁴Ibid., pages 17-18.

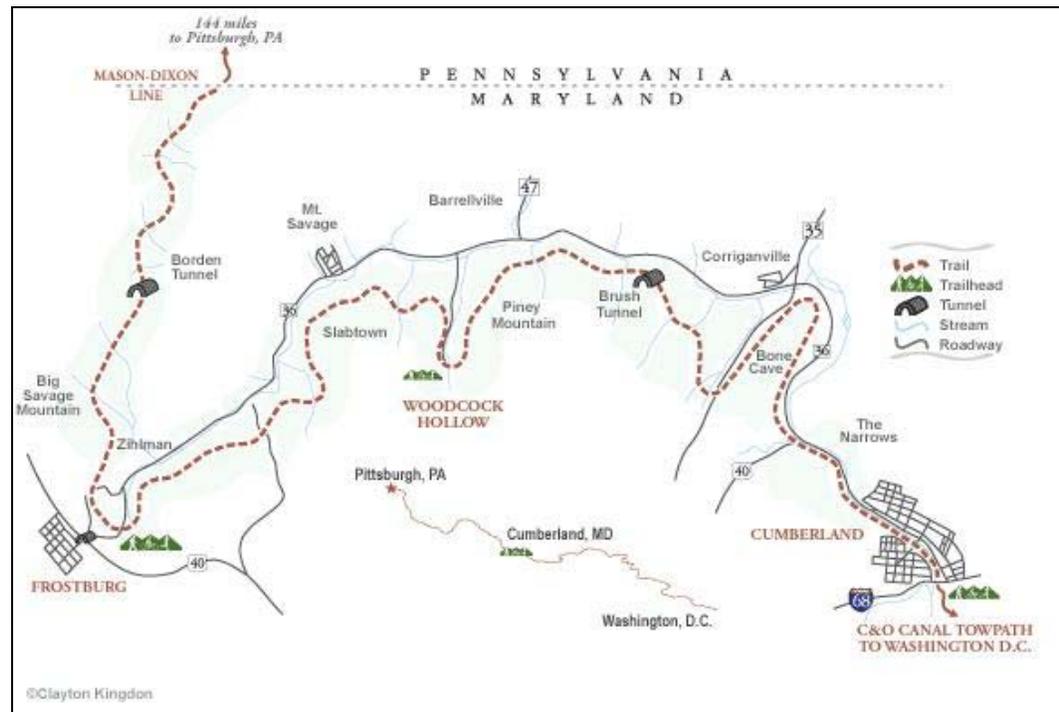
City of Frostburg, Maryland

The City of Frostburg is planning to update its Comprehensive Plan beginning spring 2007 and it is anticipated that the updated version will have a significant bicycle and pedestrian planning component.

4.2 EXISTING BICYCLE AND PEDESTRIAN TRAVEL SYSTEMS AND RESOURCES

The Great Allegheny Passage Trail is the cornerstone bicycle and pedestrian amenity in the Cumberland MPO (see Figure 4.3). Originally envisioned by George Washington, the trail provides a continuous trail connection from Georgetown in Washington, D.C. to Pittsburgh, Pennsylvania.

Figure 4.3 Allegheny Highlands Trail Map



Source: Allegheny Highlands Trail Map at <http://www.ahttrail.org>.

The portion in Maryland from the City of Cumberland to the Pennsylvania state line (formerly called the Allegheny Highland Trail) follows the route of the historic Western Maryland Railroad. It was completed since the last LRTP update. With the connection to the C&O Canal towpath in Cumberland to the Mason-Dixon Line, there are now continuous hiking and biking trails from Pittsburgh, Pennsylvania to Washington, D.C. The trail is mostly surfaced and packed with crushed limestone, though some sections are paved. This surface is suitable for most types of bicycle.

The trail will improve public safety, public health and protect the environment, while also improving the quality of life and increasing tourism. Building the final connection of the trail involved significant public investment; however, it is expected to make a significant economic contribution through increased tourism.

The Cumberland MPO has significant bicycle and pedestrian assets, including the following.

The downtown areas of the Cities of Cumberland and Frostburg are relatively well-served by pedestrian amenities. There are consistent sidewalk networks and marked crosswalks in these areas making them in large part both accessible and connected.

There is evident interest in pedestrian mobility and safety issues, specifically in the City of Cumberland. In 2005, the City of Cumberland hosted a “Walkable Communities Workshop” sponsored by the State Highway Administration. The workshop brought together elected officials, public agency staff, public health practitioners, planners, engineers, and advocates and focused attention on making communities more walkable. In doing so, it helped participants understand accessibility concerns and see where improvements are needed.³⁵

The Maryland Bicycle Map highlights roads in the Cumberland MPO that have paved shoulders that are at least eight feet wide or that have an Average Daily Traffic volume of less than 2,000 – characteristics that increase their attractiveness for bicycle riding. These include Scenic Route 40, Route 220, and State Roads 36, 51, 53, 55, 638, and 936.³⁶

There are several Maryland State Forests and Parks within the Cumberland MPO area. Dan’s Mountain State Park is located 9 miles south of Frostburg and includes a 480-acre state park and an 8,700-acre wildlife management area. Rocky Gap State Park is a 3,000-acre park located 7 miles east of Cumberland. The Green Ridge State Forest is a 40,000-acre park located 22 miles east of Cumberland. The Belle Grove and Billmeyer Wildlife Management Areas are located in proximity to the Green Ridge State Park.³⁷

The City of Frostburg has existing striped bicycle lanes between the campus of Frostburg State University and its downtown area. There are existing standards in local subdivision and zoning regulations supporting the provision of bicycle and pedestrian amenities. For example, the City of Frostburg has a requirement for bicycle parking in its Zoning Ordinance.

³⁵*Walkable Community Workshop Report*, Maryland SHA and City of Cumberland, April 2005, page 3.

³⁶*Maryland Bicycle Map*, Maryland Department of Transportation.

³⁷*Maryland Atlas of Greenways, Water Trails and Green Infrastructure*, Maryland Department of Natural Resources, August 2000.

As noted above, the Comprehensive Plans for Allegany County and the City of Cumberland include significant bicycle and pedestrian elements and the updated City of Frostburg Comprehensive Plan is expected to address bicycle and pedestrian elements and other quality of life issues.

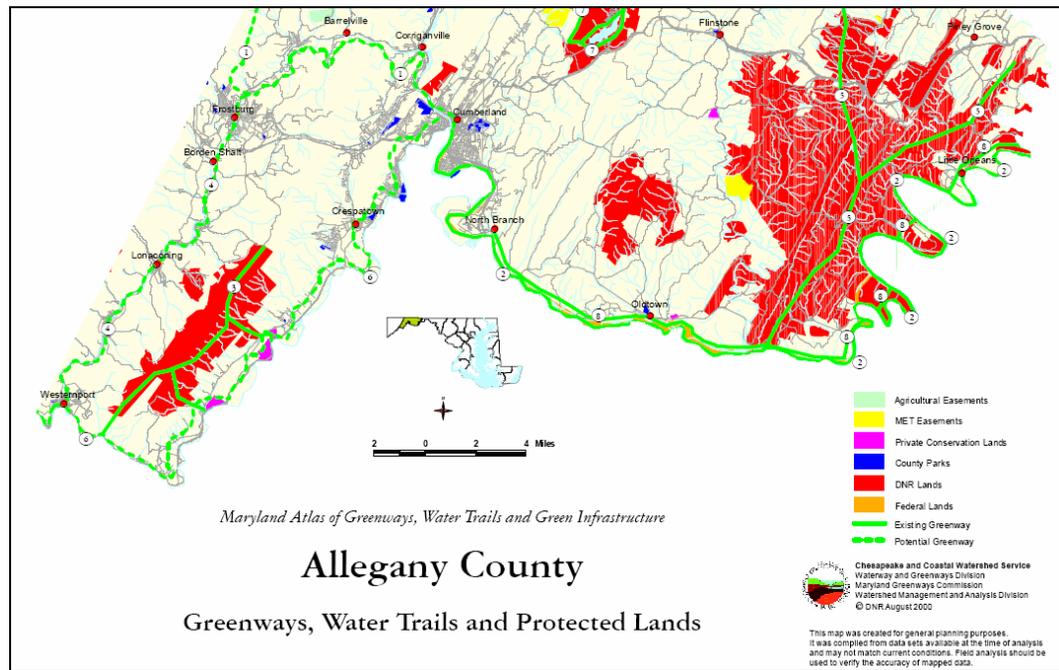
The incorporated areas of Ridgeley and Carpendale, West Virginia recently completed sidewalk projects using Mineral County Transportation Enhancement Grants.

The Maryland Atlas of Greenways, Water Trails, and Green Infrastructure highlights the following assets in Allegany County as seen in Figure 4.4:

1. Allegheny Highlands Trail (Recreational Greenway);³⁸
2. C&O Canal National Historical Park (Recreational Greenway);
3. Dan's Mountain (Ecological Greenway);
4. George's Creek Greenway (Recreational Greenway);
5. Green Ridge (Ecological Greenway);
6. Potomac River Greenway (Ecological Greenway);
7. Rocky Gap Greenway (Recreational Greenway); and
8. Western Maryland Rail Trail (Recreational Greenway).

³⁸Note: the Allegheny Highlands Trail is an existing trail as of 2007. The Allegheny Highlands Trail is a section of the Great Allegheny passage Trail that exists in Allegany County, Maryland from the C&O Canal Townpath to the Mason-Dixon line.

Figure 4.4 Allegany County Water Trails and Green Infrastructure



Source: Maryland Atlas of Greenways.

Future Opportunities

The Cities of Cumberland and Frostburg have bicycle and pedestrian facilities that are relatively well-connected and accessible. Many of the newer suburban areas in the area have fewer facilities and more traffic. Retrofitting these areas could represent an opportunity to enhance overall bicycle and pedestrian access in the area.

Planned Projects in the Cumberland MPO Study Area

Maryland State Highway Administration Bicycle- and Pedestrian-Related Projects

In Maryland, SHA receives funding for projects related to bicycle and pedestrian improvements through the CTP. The CTP provides a detailed listing of planned or proposed capital projects throughout the State over a six-year period. The most recent CTP covers the time period 2007 to 2012.

Retrofit Sidewalk Program

SHA is programmed to receive \$1,887,000 in the 2007 to 2012 CTP for the Retrofit Sidewalk Program. This program provides matching funds³⁹ for the construction of sidewalks adjacent to state highways. The program is intended to support community revitalization and to encourage pedestrian usage along state highways. Allegany County will receive \$66,000 in funding for 1,700 linear feet of sidewalk improvements to Industrial Boulevard, 0.15 miles east of White Oaks Avenue to Oldtown Road.

Transportation Enhancements

Also listed in the 2007 to 2012 CTP is funding to SHA for its Transportation Enhancements Program in the total amount of \$72,524,000. Projects approved under this program are considered local projects, and are controlled at the local level with oversight from SHA to ensure that all Federal and state requirements are met. The 2007 to 2012 CTP provides \$975,000, in funding for construction of 9.35 miles of the Allegheny Highlands Trail (Section 1.0) from Cumberland to Woodcock Hollow Road.

Other Bicycle- and Pedestrian-Related Projects

Upcoming projects in the Cumberland MPO area with the potential to include bicycle- and pedestrian-related elements include the following:

- The Cumberland Urbanized Area MPO Unified Planning Work Program includes Transportation Plans in the La Vale and Cresaptown areas and a Road Study on Willowbrook Road. These studies could potentially include bicycle and pedestrian-related elements.⁴⁰ The City of Cumberland

³⁹Fifty percent of project costs are required from local and municipal project sponsors; however, urban revitalization areas are eligible for 100 percent state funding and priority funding areas are eligible for 75 percent state funding.

⁴⁰*Cumberland Urbanized Area MPO Unified Planning Work Program*, Cumberland MPO, July 1, 2006-June 30, 2007.

Community Development Block Grant Recommended Projects include the Braddock Trail Project.⁴¹

- La Vale and Cresaptown will also be undertaking streetscape projects, which could include bicycle and pedestrian improvements.
- The City of Frostburg will be updating its Comprehensive Plan. It is anticipated that the updated Plan will include bicycle and pedestrian elements, among other “quality of life” issues.
- The Recreational Trails Program⁴² reflects plans to undertake trail and park improvements in the Cumberland MPO, such as:
 - Frostburg Trail Improvements (Recreational Trails Program Summary);
 - Improvements at Potomac-Garrett State Forest (Recreational Trails Program Summary);
 - Allegheny Park Walking Trail (Recreational Trails Program Summary);
 - Potomac River Water Trail (Recreational Trails Program Summary); and
 - Wharf Branch Trail Partnership Project (Recreational Trails Program Summary).
- A new high school, to be called Mountain Ridge High School, is being developed in the City of Frostburg. This new school will be the largest high school in the County with an anticipated enrollment of 750 to 1,000 students.
- Bicycle and pedestrian-related projects included for Allegany County in the fiscal year 2007-2012 Maryland Consolidated Transportation Program, including the following:⁴³
 - Community and Safety Enhancements (Allegany County) - U.S. 40 Alternate - MD 658 to Long Drive, U.S. 220 - Lee Street to MD 636;
 - Transportation Enhancement Program (Allegany County) - Allegheny Highlands Trail; and
 - Primary/Secondary Program (Allegany County) - U.S. 220 McMullen Highway - Bridge over Potomac River; MD 36 Lower George’s Creek Road - Bridges over Elklick Road and George’s Creek; and MD 936 - Bridge over Neff Run shoulders and sidewalk.

⁴¹2006-2007 *City of Cumberland CDBG Recommended Projects*, City of Cumberland, 2006.

⁴²*Recreational Trails Program FY 2006*, Maryland Department of Natural Resources, 2006.

⁴³*FY 2007-2012 Maryland Consolidated Transportation Program*, Maryland Department of Transportation. <http://www.mdot.state.md.us>.

Existing Cumberland LRTP

The Cumberland LRTP lists the following abandoned railroad lines as existing or potential hiking and biking and other greenways in Allegany County:⁴⁴

- The former Western Maryland Railway between Cumberland and Connellsville, Pennsylvania;
- The former Western Maryland Railway between Cumberland and Sideling Creek paralleling the C&O Canal;
- The former Western Maryland Railway between Cumberland and McCoole near Keyser;
- The former C&P Railroad between Corriganville and Shaft near Frostburg;
- The former Pennsylvania Railroad between the Narrows and Eckhart; and
- The former Georges Creek and Cumberland Railroad between the Narrows and Lonaconing; and The existing Western Maryland Railway between Westernport and Shaft.

In addition to the above trail opportunities, the Cumberland LRTP includes the following potential opportunities:⁴⁵

- A connecting link on the abandoned Pennsylvania Railroad right-of-way to Hyndman and a trail on Wills Mountain to connect with Pennsylvania State Game Lands (these trails can connect in Pennsylvania);
- A connecting trail between Rocky Gap State Park and the Buchanan State Forest in Pennsylvania;
- A connecting link between the Green Ridge Trail and the Buchanan State Forest in Pennsylvania. This trail could connect with the Mid-State Trail in Pennsylvania and eventually extend to State College, Pennsylvania;
- A connecting link between Green Ridge and Warrior Mountain along a Potomac Edison right-of-way and various gas line rights-of-way; and
- Other short trails are on existing state and local parks, including the County Fairgrounds property, the Narrows property, the La Vale District Park, and the South End recreation area in Cumberland.

Maryland Atlas of Greenways

The Maryland Atlas of Greenways, Water Trails, and Green Infrastructure includes the following list of potential trails in the area:⁴⁶

⁴⁴Cumberland MPO LRTP, pages 3-34.

⁴⁵Ibid., pages 3-35-3-36.

- A connecting link through Dan’s Mountain Wildlife Management Area to the Big Savage hiking trail in Garrett County;
- A potential rails-to-trails opportunity along a CSX line between the Potomac River and Frostburg, which could connect with the Grand Allegheny Passage Trail in Frostburg and extended into West Virginia along the former Western Maryland line and connected to trails systems in Canaan Valley;
- Potential interstate trail connection to Buchanan State Forrest in Pennsylvania through Green Ridge State Forest;
- Trail following the Western Maryland Corridor line along the North branch of the Potomac through Garrett County to the Monongahela National Forest in West Virginia; and
- Potential extension of Rocky Gap Greenway along the ridge top of Evitts Mountain to connect with the existing trail in Buchanan State Forest.

Funding and Implementation Opportunities

Maryland

Transportation Enhancements

(Federal Funds, State Administration, Local Matching Funds)

Recreational Trails Program

(Federal Funds, State Administration)

Safe Routes to School Funds

(Federal Funds, State Administration)

State Highway Administration Programs

(Sidewalk Retrofit, Bikeway Retrofit, Streetscapes, Neighborhood Conservation, Main Streets, Scenic Byways)

Program Open Space

(State and Local funds, State and Local Administration)

Agricultural Land-Preservation Program

Sensitive Area Protection Program

Conservation Easements

Land Use and Site-Design Regulations

Subdivision Review Process

⁴⁶*Maryland Atlas of Greenways, Water Trails and Green Infrastructure*, Maryland Department of Transportation.

West Virginia

Transportation Enhancements

(Federal Funds, State Administration, Local Matching Funds)

Recreational Trails Program

(Federal Funds, State Administration)

Safe Routes to School Funds

(Federal Funds, State Administration)

Scenic Byways

4.3 BICYCLE AND PEDESTRIAN WALKWAYS CONCLUSIONS

The purpose of the bicycle and pedestrian element of the Cumberland MPO's Long-Range Transportation Plan is to guide the MPO and its constituent government agencies in the transportation funding and decision-making process with regard to investment in bicycle and pedestrian travel. The Cumberland MPO has significant bicycle and pedestrian assets, including cities with well-connected pedestrian networks and roads that are well-suited for biking. The MPO and its member jurisdictions should continue to maintain its existing facilities and strive to improve and expand them to enhance the health and well-being, safety, and quality of life of its residents.

The recently completed Great Allegheny Passage Trail will make a significant contribution in this regard. It will also bring many additional visitors to the area. These visitors will likely make their way into the cities and onto the roads in the Cumberland MPO. This anticipated increase in bicyclists and pedestrians further reinforces the need for focused and strategic bicycle and pedestrian planning in the Cumberland MPO.

5.0 Transportation Operations

Transportation operations improvements are intended to draw more capacity and better performance out of existing facilities as an alternative to constructing new capacity. Federal legislation – SAFETEA-LU – requires Metropolitan Planning Organizations to examine transportation operations activities through their Long-Range Transportation Plan processes. This section briefly describes some of the transportation activities and strategies employed in the Cumberland MPO study area.

5.1 TRANSPORTATION OPERATIONS-RELATED PROJECTS

Maryland State Highway Administration

The Maryland State Highway Administration has a number of traffic management and road construction projects currently in progress or slated for future work in the Cumberland area. These projects are being conducted to provide traffic control, monitoring, and management on state facilities, upgrade existing infrastructure, and develop new roadway alignments.

U.S. 220 is identified in several documents, including the SHA Highway Needs Inventory, as a opportunity to develop a highway corridor through Maryland and West Virginia. Therefore, a major, multijurisdictional effort spanning local, state, and Federal agencies has been implemented along U.S. 220, from the I-68 interchange to the West Virginia state line via MD 55. The effort will be a Environmental Impact Assessment, funded by SHA, Federal Highway Administration, Mineral County, West Virginia, and others.

SHA has a signalization project along Alternate Route 40 in the City of Frostburg that includes the installation of Accessible Pedestrian Signal (APS) devices. APS devices will be installed at all signalized intersections, in accordance with the Americans with Disabilities Act. Installations will include several enhancements, including audible walk signals, informational Braille face plates on the user-level units (street name information, etc.), and other enhancements to aid visually impaired pedestrians. This project is set to begin on May 21, 2007.

Other projects that SHA will be conducting in the Cumberland Area include a signing project in downtown Cumberland that will address adding signage on city streets that are associated with ramps on I-68. This project is currently in the preconstruction phase. SHA will also be redecking four bridges in LaVale in late 2007. A paving and guardrail installation project is planed for MD 51 from Howard Street to South Street, near the rail bridge structure.

Allegheny County, Maryland

The 2006 SHA Highway Needs Inventory (HNI) for Allegheny County lists three projects on the primary highway system:

- I-68 (National Freeway) – 7.8 miles of freeway reconstruction from MD 53 to U.S. 220 North;
- MD 53 (Winchester Road) – 3.1 miles of divided highway reconstruction/construction with access control improvements from I-68 to U.S. 220; and
- U.S. 220 (McMullen Highway) – 13.6 miles of divided highway construction/reconstruction with access control improvements from the WV line to MD 53.

According to the Allegheny Comprehensive Plan, many of the county and municipal bridges will need to be replaced due to age and wear (32). A number of bridge projects are listed in the Allegheny Capital Improvement Plan, including three bridges that are currently under construction, one that is already completed (Beechwood Road Bridge), and a long-range project on Williams Road. These projects are part of the Allegheny County Department of Public Works, Roads, and Bridges program. An ongoing road paving program is also being administered by the Road and Bridges program.

The Capital Improvement Plan includes a 50/50 split funding pavement program, designed to assist county residents with improving their local roads. \$160,000 from the Capital Budget is earmarked to match up to \$160,000 of funding put up by county residents. Another road project listed in the Plan is a paving project on Barton Park Drive is being funded through the County's Economic Development Department.

Many areas of the greater Cumberland area are experiencing rapid commercial development, which may lead to increased congestion. The Winchester Road, Vocke Road, Alternate Route 40 triangle continues to have potential for increased commercial activity in LaVale. The major regional shopping Mall located near I-68 in LaVale has become the center for retail business for the County Service Area according to the Comprehensive Plan. Efforts to improve congestion problems in the county include residents' access to public transportation, including park-and-ride facilities.

Park-and-ride locations for local residents are currently located at:

- MD 36 south of Frostburg;
- U.S. 220 south of Cumberland;
- Christie Road at Route 144 north of Cumberland;
- Naves Crossroads at I-68 north of Cumberland; and
- Route 144 at Flintstone.

Additional potential sites identified in the Comprehensive Plan include:

- SHA District Headquarters in LaVale near I-68;
- Orleans Interchange at I-68;
- Route 36 near Westernport;
- Route 220 near McCoolle;
- U.S. 220 near Route 956;
- U.S. 220 near Cresaptown; and
- Route 51 near Mexico Farms.

City of Cumberland, Maryland

The City of Cumberland has a major, multifaceted improvement project scheduled to occur between May and December of 2007. The Rolling Mill Access Improvement Project is focused on reconstruction of Maryland Avenue from I-68 to Spring Street and the reconstruction of Cecelia Street from Maryland Avenue to Park Street. As part of the project, improvements will be made to the intersection of Maryland Avenue and Williams Street; along with some sidewalk improvements to portions of Spring Street. Other projects will also be implemented as part of the Rolling Mills efforts. Signage, pavement marking, crosswalks, and other traffic-related items will be upgraded and/or replaced, as necessary. The project is funded through three different sources: the Appalachian Regional Commission, Community Development Block Grant, and the City of Cumberland.

City of Frostburg, Maryland

The City of Frostburg does not currently have any projects scheduled and does not anticipate any to be scheduled for the near future. A representative from the City indicated that the project currently in progress within the City limits, is the previously mentioned traffic signalization project being carried out by SHA.

Mineral County, West Virginia

Research done for the Mineral County Comprehensive Plan indicates that because of increased development there will likely be a significant increase in congestion problems in the county by the year 2015. Five areas of the county have been identified as locations with the most potential for congestion problems:

- Alternate Route 28;
- Route 28 from Wile Ford to Fort Ashby;
- Route 46 from the Industrial Park into Keyser;

- U.S. 220 from Keyser to Route 50/Hampshire County line; and
- Route 972 from U.S. 220 to Route 50.

The County recognizes that work will need to be prioritized in order to make the best use of limited funding available for needed road improvements.

SHA has several projects scheduled on U.S. 220 in Mineral County, including two traffic management-related projects. A traffic signal project and a signage project will be conducted in Keyser, in 2007 and 2009, respectively.

Cumberland Metropolitan Planning Organization

The Cumberland Urbanized Area Metropolitan Planning Organization has several projects slated for the fiscal year 2007, as part of the Unified Planning Work Program. These programs include three transportation operations projects: the LaVale Area Transportation Plan, the Cresaptown Area Transportation Plan, and the Willowbrook Road Study.

The Cumberland Transportation Improvement Plan (TIP) (2006-2008) includes a number of transportation operations projects related to capacity and performance improvements. Projects include: construction, repair, and congestion management activities around the Cumberland Urbanized Area.

Area-wide urban street reconstruction and revitalization projects are planned on multiple state routes in the MPO. Included are: U.S. 220 from Lee Street to north of MD 636, and Alternate Route 40 from MD 658 to Long Drive. Resurfacing projects are also scheduled for ancillary road features and state roads.

The Cumberland TIP also identifies a number of congestion management projects, including traffic engineering, signing, lighting, traffic control, Automatic Traffic Recorder and Closed-Circuit Television projects, for which almost \$6 million has been earmarked. At the beginning of fiscal year 2007, approximately \$4.6 million had been used.

The transportation projects identified in the current Cumberland Capital Improvement Plan are primarily safety-related projects, with the exception of a parking lot rehabilitation project at the Allegany County Nursing Home.

5.2 TRANSPORTATION OPERATIONS CONCLUSIONS

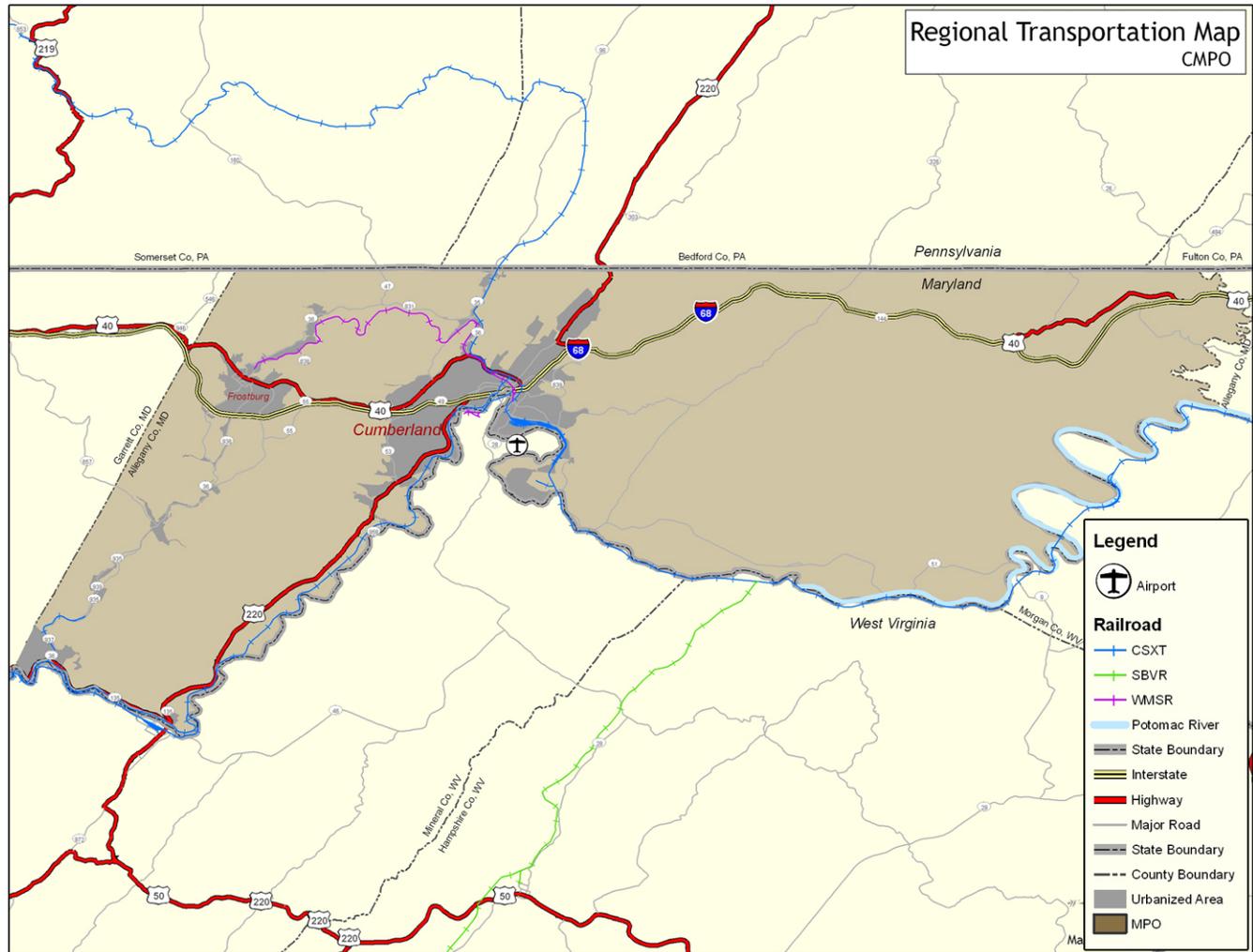
Developing integrated management and operation systems for transportation facilities is an ongoing process conducted by the MPO member jurisdictions. Transportation professionals in the MPO study area continue to identify operational and management projects and strategies that will help to improve the performance of existing facilities. These projects will help to relieve vehicular congestion and maximize the mobility of people and goods throughout the study area and have the potential to create residual effects that reach beyond the immediate region.

6.0 Goods Movement

Freight-related transportation infrastructure found in Maryland and West Virginia is integral to supporting the regional economies found in the MPO study area. Goods move across this transportation network, which includes highway, rail, and airport providers. In fact, goods movement is so integral to growing economies that it is recognized by the Allegheny County, Maryland Comprehensive Plan.⁴⁷ Figure 6.1 illustrates the freight-related transportation network along the study area.

⁴⁷Mineral County, West Virginia was in the process of updating their Comprehensive Plan at the time development of this addendum.

Figure 6.1 Cumberland Metropolitan Planning Organization Freight Transportation Network



The following sections describe the existing transportation network, focusing on how the MPO study area transportation network serves the interests of goods movement. Analyzing the transport of goods, including what commodities are moved, by what mode, and in what direction is important to understanding the current impact of freight movement on the transportation network as well as what impacts freight movements will have under anticipated future conditions.

6.1 TRANSPORTATION NETWORK

Highway

Across the nation, trucks move the overwhelming majority of freight measured by both tonnage and value. The story is no different in the Cumberland MPO study area. Allegany County, Maryland located at the northwestern edge of the State is nestled in between two state lines – Pennsylvania and West Virginia. Nearby are two the major interstates of I-81 and I-70, which provide north, south, east, and west access to locations in Maryland, West Virginia, Pennsylvania, and beyond. These interstate corridors allow for travel clear across the country to Utah or north to Canada. As a crossroads for travel, these interstates provide mobility for passenger travel and also facilitate the movement of goods to both domestic and international markets. I-70 is easily accessed via I-68, which traverses through the Allegany County. U.S. 220 also provides access to Pennsylvania and West Virginia. As a gateway in, out, and through the MPO study area, these highways serve as principal arteries for freight movement in the region.

Railroad

Known as the Cumberland Subdivision, this rail line is owned and operated by CSX Transportation (CSXT) and traverses through the MPO study area. CSXT main lines provide access to Pittsburgh and Washington as well as the coal mining areas of West Virginia. According to the 2002 updated Allegany County Comprehensive Plan, “Rail activity is centered at the CSX yards in South Cumberland where trains are made up for travel both east and west of Cumberland. Composition of freight trains includes general freight, trailer trains, and special coal trains.”

According to the Allegany County Department of Economic Development, there are a number of industries in the MPO study area that use rail for raw materials delivery. CSX operates a rail classification yard in South Cumberland, used to separate general freight, trailer trains, and special coal trains onto different tracks before trains head to their destination. Trains often stop at the CSX yards located in the City of Cumberland for rail classification, essentially making the City a hub for CSX. For example, coal from West Virginia often comes into Cumberland in 100+ unit chains and are classified at the CSX yards for Baltimore. In addition, CSX operates large maintenance facilities in the study

area, one for rail car maintenance and the other for diesel engine maintenance. CSX has approximately 1,100 employees for all CSX functions in the MPO study area. Currently, Allegany County is supporting freight deliveries in Cumberland through the donation of property, which is necessary for one company in the area that handles large quantities of plastic resin to accommodate a third siding. Already, many freight generating industries situation in industrial parks located in the MPO study area have sidings located adjacent to CSX track.

Airport Facilities

The MPO study area is served by the Greater Cumberland Regional Airport, a general aviation airport.

Overall, the nation's cargo industry has experienced tremendous growth, with air cargo traffic representing the fastest-growing segment of the nation's freight movement system according to the Bureau of Transportation Statistics. Compared to its modal counterparts, air transport offers the competitive advantage of speed in long-haul markets and flexibility, since cargo can be transported in commercial cargo holds, or the belly, of passenger airlines or on aircraft designed exclusively to carry freight. Despite increased security concerns since the September 11, 2001 events, domestic and international air cargo activity continues to grow. In fact, expansion in domestic (3.2 percent) and international (6.3 percent) markets by U.S. commercial carriers are collectively expected to experience average annual growth of 5.2 percent from 2005 to 2017.⁴⁸ This outpaces growth in passenger traffic to and from the United States on both U.S. and foreign flag carriers.⁴⁹ Over time, this growth may have implications for the role of airports that serve the MPO study area in the States of Maryland and West Virginia.

6.2 FREIGHT FLOW MOVEMENT

Presented below are current (2003) and anticipated future (2030) freight flows, including freight flows by commodity, mode, and direction. The primary data source for the following analysis is the TRANSEARCH commodity flow database purchased by MDOT for its ongoing statewide freight planning efforts.⁵⁰ TRANSEARCH is a commercial data product developed by Reebie Associates (now a part of Global Insight, Inc.). TRANSEARCH provides estimates of

⁴⁸Federal Aviation Administration, Aerospace Forecast Fiscal Year 2006-2017.

⁴⁹Ibid.

⁵⁰Portions of this commodity flow section were extracted from the Draft Maryland Freight Profile report (2005) completed by Cambridge Systematics, Inc. for the Maryland Department of Transportation.

county-to-county and state-to-state freight flows by truck, rail, air, and water.⁵¹ These estimates can be further aggregated into larger geographical areas, such as the U.S. Census Bureau Regions used to report external freight flows. TRANSEARCH also provides separate estimates for different commodity types. TRANSEARCH utilizes proprietary data to estimate truck flows; the Federal Railroad Administration Waybill Sample data for rail flows; and other public sources for air and water flows.

Following is an analysis of statewide commodity flow freight movement for the State of Maryland, with particular emphasis on Allegany County freight movement. The data set does not include freight for the West Virginia or Pennsylvania member jurisdictions of the Cumberland MPO, and no publicly available sources of freight data allow for inclusion of freight information for areas outside Allegany County.

Types of Movement

- **Inbound** movements are defined as movements from any other region⁵² or an adjoining state to Maryland.
- **Outbound** movements are defined as movements from Maryland to any other region or adjoining state.
- **Intrastate** movements are defined as movements between any two counties in Maryland. This tonnage is counted only once, rather than counting it at both its origin county (as an outbound move) and its destination county (as an inbound move).
- **Through** movements are defined as movements between any two external (outside of Maryland) regions or adjoining states that are routed through Maryland, according to TRANSEARCH model assignments.

Truck Commodity Flow Freight Movement

Like most states in the United States, the majority of freight in Maryland is transported by trucks. In 2003, the truck share of total commodity movements by weight was 84 percent (around 554.2 million tons). Trucks provide critical first-mile/last-mile connections for rail, water, and air cargo. In 2030, truck

⁵¹TRANSEARCH data captures domestic commodity tonnage moving within the United States and does not capture “nonfreight” vehicle movements (empty trucks or railcars, service vehicles, etc.) or international movements. Two limitations of the TRANSEARCH data are its low estimates for waterborne and air cargo tonnage, due largely to the international nature of such movements, which is not fully captured in the database.

⁵²For this analysis, “regions” represent the nine regions designated by the U.S. Census Bureau.

tonnage is estimated to have a 90 percent share of total tonnage.⁵³ More than half of the truck tonnage is through (56.3 percent in 2003, and 53.9 percent in 2030); another 18.1 percent to 19.1 percent (in 2003 and 2030, respectively) is inbound; a smaller 15.8 percent to 16.0 percent (in 2003 and 2030, respectively) is outbound; and the remaining share is intrastate: 9.8 percent to 11.0 percent (in 2003 and 2030, respectively).

Inbound truck movements of freight destined for Allegany County from another region or adjoining state to Maryland in 2003 carried 3,829,594 tons and were valued at \$13,743,556,945. By 2030, the tonnage of goods carried by truck destined for Allegany County is forecast to increase 84.2 percent to 7,055,254 and value is forecast to increase 81.9 percent to \$24,997,808,880.

Outbound truck movements that export shipments by truck from Allegany County to any other region or adjoining state to Maryland are not as high as inbound truck movements. Outbound flows from Allegany County carried 3,364,508 tons and were valued at \$6,677,715,917 in 2003. By 2030, the tonnage of goods carried by truck destined for locations outside Allegany County is forecast to increase 69.2 percent to 5,692,957 and value is forecast to increase 87.9 percent to \$12,545,495,613.

Internal truck movements comprise the smallest amount of tonnage and value for both 2003 and 2030. Intrastate flows within Allegany County carried 112,077 tons and were valued at \$290,618,846 in 2003. By 2030, the tonnage of goods carried by truck within Allegany County is forecast to increase 180.3 percent to 314,098 and value is forecast to increase 250.3 percent to \$1,017,992,159.

Through truck movements that transport shipments by truck through Allegany County from one region or adjoining state to another region or state account for the majority of truck movements for both 2003 and 2030. Truck flows through Allegany County carried 48,095,350 tons of commodities valued at \$178,686,226,450 in 2003. By 2030, the tonnage of goods carried by truck originating and destined for a location outside Allegany County is forecast to increase 88.8 percent to 90,816,590 and value is forecast to increase 101.3 percent to \$359,627,299,113.

Rail Commodity Flow Freight Movement

Rail carries nearly 10 percent of Maryland's total tonnage and serves high-weight commodities, accommodates long-haul movement of containers and autos, and links seaports with inland markets. More than half of the rail tonnage is through (54.6 percent in 2003, and 52.1 percent in 2030); around one-third of the tonnage is inbound (32.4 percent in 2003, and 32.7 percent in 2030); around one-tenth is

⁵³In contrast to the 2003 tonnage, which includes data for truck, rail, water, and air in the total tonnage calculation, the 2030 tonnage includes only those modes for which data are available; namely, truck and rail.

outbound (9.7 percent in 2003, and 11.5 percent in 2030); and a small share is intrastate (3.4 percent in 2003, and 3.8 percent in 2030). Rail is often broken out into different “submodes” – intermodal (the movement of shipping containers), unit bulk (long trains carrying a single bulk commodity such as coal or grain), and carload (different types of railcars and commodities). In 2003, nonintermodal shipments comprise 93.4 percent of inbound rail tonnage to Maryland, while intermodal shipments comprise a much smaller share of 6.6 percent. In 2030, the share of intermodal increases to 9.5 percent, while the share of carload decreases slightly to 90.5 percent.

Inbound rail movements of freight destined for Allegany County from another region or adjoining state to Maryland in 2003 carried 407,388 tons and were valued at \$1,865,640,856. By 2030, the tonnage of goods carried by rail destined for Allegany County is forecast to increase 73.0 percent to 704,847 and value is forecast to 50.4 percent increase to \$2,805,784,881.

Outbound rail movements that export shipments by rail from Allegany County to any other region or adjoining state to Maryland are projected to drastically outpace inbound rail movements by 2030. Outbound flows from Allegany County carried 220,692 tons of commodities valued at \$751,188,639. By 2030, the tonnage of goods carried by rail destined for a location outside Allegany County is forecast to decline 11.5 percent to 195,254, but value is forecast to increase 6.6 percent to \$800,787,184.

Internal rail movements comprise the smallest amount of tonnage and value for both 2003 and 2030. Intrastate flows within Allegany County carried 28,312 tons and were valued at \$148,143,340 in 2003. By 2030, the tonnage of goods carried by rail within Allegany County is forecast to increase 43.6 percent to 40,663 and value is also forecast to increase 43.6 percent to \$212,771,836.

Through rail movements that transport shipments by rail through Allegany County from one region or adjoining state to another region or state account for the majority of rail movements for both 2003 and 2030. Rail flows through Allegany County carried 25,215,824 tons of commodities valued at \$62,325,587,084 in 2003. By 2030, the tonnage of goods carried by rail originating and destined for a location outside Allegany County is forecast to increase 65.0 percent to 41,602,464 and value is forecast to increase 43.9 percent to \$89,692,914,374.

Air Commodity Flow Freight Movement

Air freight is generally transported to and from the large domestic and international airports in the region, including Baltimore/Washington International Thurgood Marshall Airport, Philadelphia International Airport, John F. Kennedy International Airport, or Washington Dulles International Airport. Limited air cargo activity occurs at the Greater Cumberland Regional Airport, but it represents a small percentage of freight traffic in the metropolitan area. According to airport officials, FedEx operates one daily scheduled flight, with cargo drayed

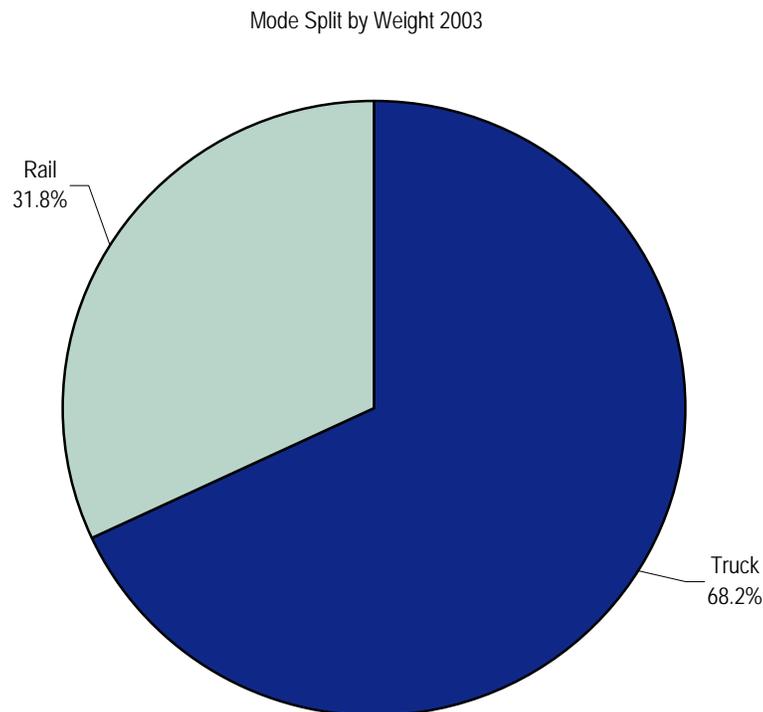
via FedEx trucks. FedEx also contracts with the United States Postal Service. The airport is currently in the property acquisition phase of runway expansion, having completed the necessary Environmental Assessment for the project. Once complete, the runway will be able to accommodate larger jet aircraft.

6.3 COMMODITY FLOW FREIGHT MOVEMENT

Mode Split

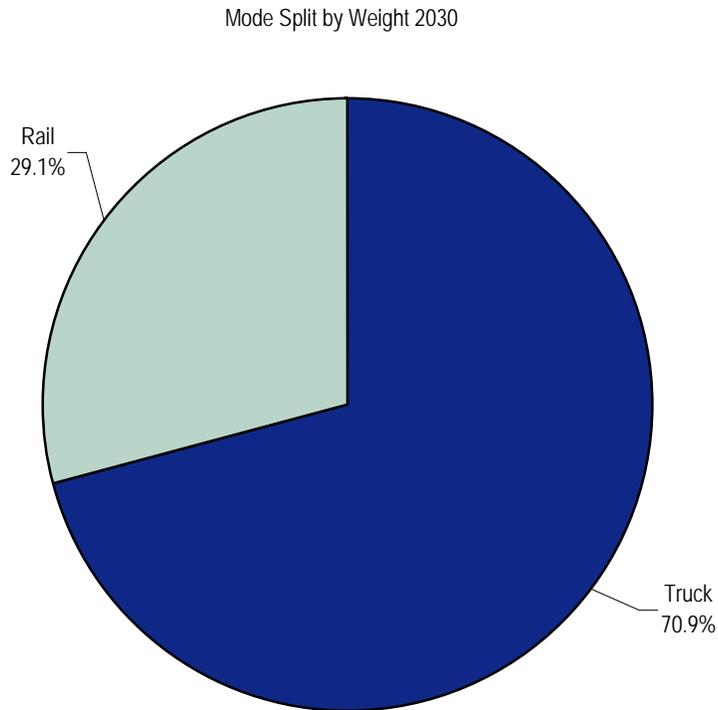
An analysis of TRANSEARCH data reveals that trucks carry the majority of freight tonnage in Allegany County. The mode share for truck and rail⁵⁴ are provided in Figures 6.2 and 6.3. Note that water data queries resulted in zero findings for Allegany County. These mode shares are based on actual 2003 freight tonnage data as well as on projected mode share. Given the predominant use of trucking in transporting freight as revealed by this analysis, the mode split is not expected to change significantly over the long term.

Figure 6.2 Freight Mode Share in Allegany County
2003 (Tons)



⁵⁴Air is excluded from the dataset due to data limitations.

**Figure 6.3 Freight Mode Share in Allegany County
2030 (Tons)**



Allegany County Top Commodities

The total top commodities (by tonnage) that move in, out, and internally Allegany County by truck and rail are illustrated in Figure 6.4. In terms of tonnage, the two commodity categories expected to experience the most growth through 2030 include secondary traffic (246.2 percent), which is comprised of principally consumer goods warehousing and distribution, and clay, concrete, glass or stone (101.6 percent). Both categories will grow disproportionately to all other Allegany County top commodities and will be driven by the development demands of an increasing population and consumer spending. In 2003, the highest share of total commodities was nonmetallic minerals (21.3 percent). By 2030, secondary traffic will represent the largest share of total commodities (24.2 percent). A closer review of Allegany County goods movement characteristics reveals that the predominant direction of freight movement for truck and rail for Allegany County are through moves. As seen from Figure 6.5, the directional patterns apparent in 2003 are not forecast to change significantly in the long term by 2030, with the exception of through movements.

Figure 6.4 Top Commodities Moved by Truck and Rail in Allegany County 2003 and 2030 (Inbound, Outbound, and Internal)

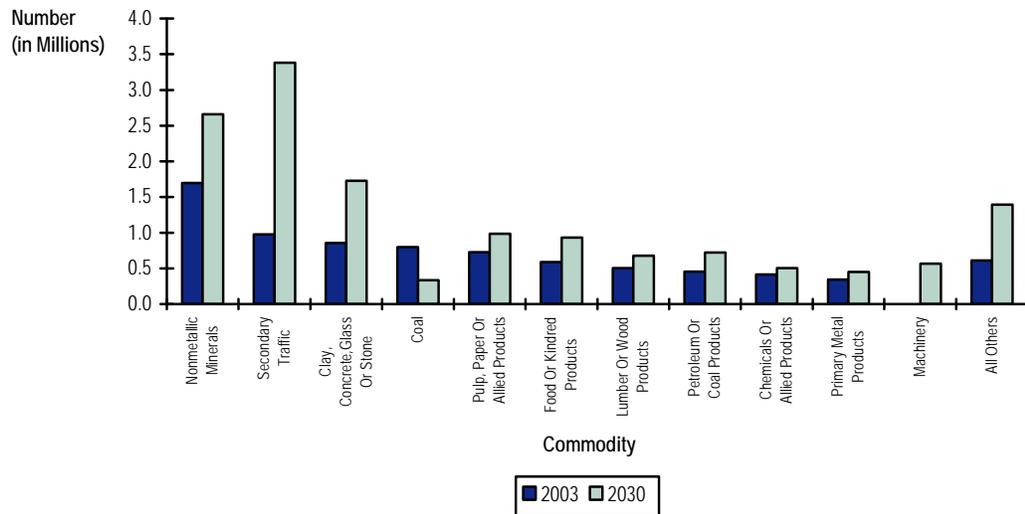
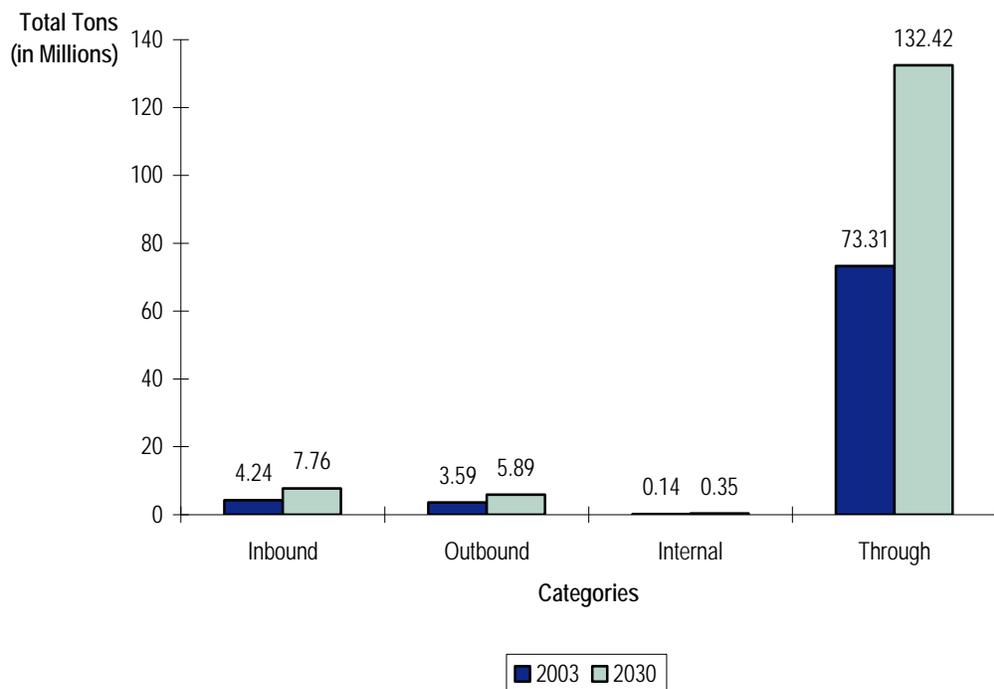


Figure 6.5 Direction of Goods Movement by Truck and Rail 2003 and 2030



6.4 MARYLAND'S TRADING PARTNERS

Trading partners include top origins for flows into Maryland, as well as top destinations for flows outside the State.⁵⁵ Census regions are defined in Table 6.1. In 2003, Maryland's top three trading partners – Pennsylvania, Virginia, and Census Region 3 – account for about 50 percent of total flows by weight. These three accounted for about 51.7 percent of inbound flows, and about 47.7 percent of outbound 2003 flows by weight. In terms of 2003 value, the top five partners – Census Region 3, Pennsylvania, Virginia, Census Region 5, and Census Region 7 – accounted for about 52 percent of total value. The top five accounted for about 56.5 percent of inbound value and 45.9 percent of outbound value.

By weight, the top through traffic flows for the State of Maryland are south-to-north movements between Census Region 5 (South Atlantic States of Florida, Georgia, and the Carolinas) and Census Region 2 (Middle Atlantic State of New York), and between Census Regions 5 and 1 (New England States of Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island). In 2003, these moves accounted for about 17.4 million and 14.7 million truck tons, respectively, and many of these moves are likely to utilize the I-95 corridor that spans Florida to Maine. Other high through movements include traffic between the adjoining states of Pennsylvania and Virginia (14.4 million and 16.3 million truck tons), followed by northeast-bound moves from Census Region 7 (West South Central states of Arkansas, Louisiana, Oklahoma, and Texas) to New Jersey and to Census Region 1. In 2003, these latter moves comprised 14.2 million and 13.2 million truck tons, respectively. The Cumberland MPO study area is most affected by intrastate through moves between South Atlantic states and other Mid-Atlantic states on I-81 and I-70.

Trading partners in 2030 mirror those in 2003 – namely Pennsylvania, Virginia, and Census Region 3 – and account for about 48.9 percent of total flows by weight. These three accounted for about 52.4 percent of inbound flows, and about 44.3 percent of outbound flows by weight. These percent shares are very close to the reported 2003 data described above. In terms of 2030 value, the top five partners show identical shares of total, inbound, and outbound value in comparison to 2003. This is expected because the 2030 values were simply inflated over the 2003 values, and therefore preserve the same value distributions.

⁵⁵Only trading partners for truck and rail moves could be reliably identified.

Table 6.1 Maryland’s Geographic Trading Partners: U.S. Census Regions

Census Division	Comprising States	
Census Region 1		
New England	<ul style="list-style-type: none"> • Maine • Massachusetts • Connecticut 	<ul style="list-style-type: none"> • Rhode Island • New Hampshire
Census Region 2^a		
Middle Atlantic	<ul style="list-style-type: none"> • New York 	
Census Region 3		
East North Central	<ul style="list-style-type: none"> • Indiana • Illinois 	<ul style="list-style-type: none"> • Michigan • Ohio
Census Region 4		
West North Central	<ul style="list-style-type: none"> • Iowa • Kansas • Minnesota • Missouri 	<ul style="list-style-type: none"> • Nebraska • North Dakota • South Dakota •
Census Region 5^b		
South Atlantic	<ul style="list-style-type: none"> • Florida • Georgia 	<ul style="list-style-type: none"> • North Carolina • South Carolina
Census Region 6		
East South Central	<ul style="list-style-type: none"> • Alabama • Kentucky 	<ul style="list-style-type: none"> • Mississippi • Tennessee
Census Region 7		
West South Central	<ul style="list-style-type: none"> • Arkansas • Louisiana 	<ul style="list-style-type: none"> • Oklahoma • Texas
Census Region 8		
Mountain	<ul style="list-style-type: none"> • Arizona • Colorado • Idaho • New Mexico 	<ul style="list-style-type: none"> • Montana • Utah • Nevada • Wyoming
Census Region 9		
Pacific	<ul style="list-style-type: none"> • Alaska • California • Hawaii 	<ul style="list-style-type: none"> • Oregon • Washington

^a Excludes New Jersey and Pennsylvania, which were broken out separately.

^b Excludes Delaware, Maryland, Virginia, West Virginia, and Washington, D.C., which were broken out separately.

Allegany County’s top trading partners are projected to remain relatively consistent over time. Table 6.2 details these trading partners for inbound and outbound freight movements for truck and rail combined, including their rank. Further analysis of Allegany County’s top trading partners reveals that no new trading partners will be added between 2003 and 2030. However, some trading partners will grow faster than others, with Census Region 1 growing faster (134.5 percent) than trade with Census Regions 5 and 7 (86.0 and 24.1 respectively) by 2030. While the share of trade with other counties in Maryland will continue to steadily increase, West Virginia’s share of trade with Allegany County is projected to experience the most significant decline by 2030.

**Table 6.2 Allegany County Top Trading Partners
(Inbound and Outbound Tonnage)
2003 and 2030**

2003				2030		
Rank	Partner	Tons	Percent Share	Rank	Tons	Percent Share
1	Maryland	1,966,238	25%	1	4,011,683	29%
2	Pennsylvania	1,462,835	19%	2	2,355,017	17%
3	West Virginia	997,835	13%	3	1,119,135	8%
4	Census Region 3	957,313	12%	4	1,452,845	11%
5	Virginia	500,976	6%	5	908,266	7%
6	Census Region 7	406,760	5%	6	504,835	4%
7	Census Region 1	302,401	4%	7	709,104	5%
8	Census Region 5	299,694	4%	8	557,432	4%
9	Census Region 2	183,106	2%	9	442,661	3%
10	Delaware	177,801	2%	10	379,934	3%
	All Others	567,544	7%		1,207,988	9%

6.5 SPATIAL DISTRIBUTION OF FREIGHT INTENSIVE INDUSTRIES

The relationship between land use⁵⁶ and transportation infrastructure is often complex, yet it is integral to analyzing freight movement and transportation corridors that will be heavily impacted. The following analysis identifies important trends in land use and, therefore, in freight trip generation. The data provide the ability to forecast trends affecting freight-intensive industries, which, in turn, is useful for Allegany County when identifying operational, regulatory, and capital improvements that may be needed to accommodate future goods movement demands.

The data for this analysis are from Global Insight's Business Demographics Model, which is an integrated historical and long-term (25-year) annual forecast covering the number of establishments, employment, and output (in nominal and real terms) for all four-digit North American Industry Classification System (NAICS) classification industries for all counties and metropolitan areas of the United States. The dataset acquired for this analysis includes Maryland at the county level and the surrounding states in the Census region at the state level.

⁵⁶Real output of freight-intensive industries at the county level is the proxy used for land use in this analysis.

The aggregate distribution of freight-intensive real output is concentrated in Maryland's geographic core, roughly in and around a triangle between Baltimore, Washington, D.C., and Frederick County. However, there appears to be some spatial variation of freight-intensive industries throughout the State when broken down by sector. There are five freight-intensive industries grouped into the following five sectors that operate throughout Maryland: manufacturing, merchant wholesaling, transportation, mining, and electric power generation.

Manufacturing

Manufacturing is defined by the U.S. Census Bureau as “establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in ... construction.”⁵⁷ Much of Maryland's manufacturing output currently is concentrated in and around Baltimore City, in the suburban counties to the north of Washington D.C., and in Frederick and Washington Counties.

With the workforce in Allegany County expected to contract, the quantity of freight generated in Allegany County due to the manufacturing sector can also be expected to decrease along with its real output. In fact, only one other county other than Allegany County is not expected to follow strong statewide manufacturing real output growth. Forecasts show that Allegany County is projected to experience an actual decline in real manufacturing output between 2000 and 2030 from \$1,363 million to \$771 million.

Merchant Wholesaling

Wholesaling is defined by the U.S. Census as businesses that “sell merchandise to other businesses and normally operate from a warehouse or office.”⁵⁸ These warehouses and offices are characterized by having little or no display of merchandise and are not intended to solicit walk-in traffic. Merchant wholesale establishments typically maintain their own warehouses, where they receive and handle goods for their customers.

Merchant wholesaling currently is concentrated in six counties (Anne Arundel, Baltimore, Howard, Montgomery, Prince George's, and Baltimore City), which account for more than 82 percent of all real output in the State. In addition to a reduction of employment in the merchant wholesaling sector, Allegany County is also expected to experience an actual decline in merchant wholesaling real output between 2000 and 2030 from \$422 million to \$333 million.

⁵⁷U.S. Census Bureau.

⁵⁸U.S. Census Bureau.

Transportation

The transportation sector includes industries providing warehousing and storage of cargo as well as its transportation. The warehousing included in this sector differs from that in the wholesaling sector in that transportation firms do not own the merchandise stored.⁵⁹

Activity in the transportation sector is primarily clustered in the Baltimore and nearby surrounding areas, with over 77 percent of the total growth forecasted in transportation real output is expected to occur in the following three industries: general freight trucking, warehousing and storage, and specialized freight trucking. Allegany County is projected to have declining real output in this sector in the period between 2000 and 2030 from \$86 million to \$67 million.

Mining

Firms in the mining sector primarily engage in “mining, mine site development, and beneficiating (i.e., preparing) metallic minerals and nonmetallic minerals, including coal. The term ‘mining’ is used in the broad sense to include ore extraction, quarrying, and beneficiating (e.g., crushing, screening, washing, sizing, concentrating, and flotation), customarily done at the mine site.”⁶⁰

Mining is a relatively small sector in the State in terms of real output. It is less than one percent the size of either the manufacturing or the merchant wholesaling sectors. However, mining remains a significant sector in Maryland due to its particularly freight-intensive nature and the projection that it will grow to more than seven times its current size by 2030.⁶¹ While each of the mining industries in the State is projected to grow, expansion of the coal mining industry accounts for over 72 percent of the growth in the entire sector. Solid growth is also expected in the nonmetallic mineral ore mining and quarrying sector. As of 2000, eight counties in Maryland had no mining activity at all. While Allegany County’s share of statewide mining output will decrease from 6.6 percent in 2000 to 5.6 percent by 2030 as will employment in this county for this sector, the County will rank third by 2030 in terms of its real output, up \$104 million from

⁵⁹For this analysis, several industries identified by the U.S. Census as being part of the transportation sector were excluded because they were not directly related to freight movement. These excluded industries are related to transit, sightseeing, pipelines, taxi service, and postal service. Air transportation was also excluded because at the four-digit North American Industry Classification System (NAICS) level, approximately 85 percent of employment and revenue is generated by air passenger service and not air freight service. The passenger and freight segments are broken out only at the five-digit NAICS level.

⁶⁰U.S. Census Bureau.

⁶¹Real output growth statewide is forecast at 736.9 percent.

2000 levels. The nearest neighbor to the west, Garrett County had the largest real output (\$68 million) in 2000, a trend that will continue to 2030 (\$1,373 million).

Electric Power Generation

The electric power generation industry is represented by its own four-digit NAICS code and is part of the utilities sector as defined by the U.S. Census Bureau. It is the only utility included in this section because electric power generation consumes large quantities of coal that must be shipped over Maryland's transportation network.

Electric power generation output in Maryland is clustered in Baltimore City, producing nearly half of the total state output in 2000 and is expected to produce more than 90 percent of the State's expanding real output in this sector. With the exception of Baltimore City, Frederick County, and Queen Anne's County, every other county in the Maryland is projected to experience declining real output (or zero output) in this industry, including Allegany County.

6.6 ALLEGANY COUNTY GOODS MOVEMENT CONCLUSIONS

Maryland handles a huge amount of freight, with about 661 million tons of freight transported into, out of, within, and through Maryland in 2003, accounting for approximately \$431.8 billion in combined truck and rail value. By 2030, the overall tonnage is estimated to increase by about 75 percent, comprising about 1.2 billion total tons and \$959.2 billion of value (an increase of 122 percent over 2003 value).

Maryland is decidedly a "through" state. More than half of Maryland's freight tonnage in 2003 and in 2030 is comprised of through movements, which do not originate nor terminate in any of its 24 counties. Freight moves in different directions and for different purposes. Inbound and outbound tonnage supports economic activity between Maryland and other regional, national, and international markets. Intrastate tonnage supports Maryland's internal economic activity and through tonnage occupies space on Maryland's scarce transportation infrastructure.

Statewide real output of Maryland's freight-intensive industries is expected to grow from \$103 billion in 2000 to \$226 billion by 2030, a 119 percent increase. Growth, however, is uneven across the State. Of the 24 jurisdictions in the State of Maryland,⁶² the top 10 account for nearly 90 percent of all freight generating activity⁶³ in the State. Allegany County is the only jurisdiction in Maryland that

⁶²Twenty-three counties and one independent city (Baltimore).

⁶³In terms of real output.

is expected to have a collective real output decline among freight-intensive industries, dropping 33.1 percent from \$1.9 billion in 2000 to a forecasted \$1.3 billion in 2030.

Freight transportation is integral to Allegany County's economic vitality and the Cumberland MPO area in general. While rail does by a critical role in transporting freight in the MPO study area, trucking remains the dominant mode, with the share of total tonnage carried by trucks projected to increase from 68.2 percent in 2003 to 70.9 percent in 2030. Railroad trade also supports the area's economy and has a larger market share than some other counties in Maryland, but is expected to slightly lose market share to trucks over the coming decades. In the future, the MPO should promote strategies that increase the share of tonnage carried by airborne and railway modes to counter the forecast. Support for intermodal freight movement is one way in which the MPO can promote a more balanced freight transportation system. Intermodal connections and availability of multimodal freight transportation options in the MPO study area are key to providing a comprehensive transportation system, especially one that seeks to minimize some of the negative impacts of truck freight transportation. For example, moving goods on a rail car as opposed to a truck translates into less congestion on the roadway network and less pollution.⁶⁴

⁶⁴Railway and waterborne commerce expel less pollutants than trucks on a ton-mile basis.