

National Capital Region Transportation Planning Board

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Item #10

MEMORANDUM

TO: TPB Technical Committee

FROM: Andrew J. Meese, AICP
Systems Management Planning Director

Michael Farrell
Transportation Planner

DATE: October 26, 2007

SUBJECT: 2007 CLRP Draft Transportation Safety Element

The draft Transportation Safety Element for the 2007 CLRP is attached for Committee review and comment, and will be a topic of discussion at the November 2, 2007 Committee meeting. The Transportation Safety Element is one of the components required in order for the 2007 CLRP to be compliant with SAFETEA-LU regulations, and represents the first time that the CLRP has contained a specific Safety Element (though safety has been an important consideration in previous CLRPs).

Consistent with the overall draft 2007 CLRP, the Transportation Safety Element has been formatted in the structure of interlinked Internet Web pages, which are described and numbered accordingly in the attached document. A draft outline, also attached, shows the overall structure of these Web pages.

SAFETEA-LU regulations specify that the Transportation Safety Element of the metropolitan transportation plan incorporate or summarize goals and strategies identified in the federally-required, state-level Strategic Highway Safety Plan (SHSP). For the Washington region, the District of Columbia, Maryland, and Virginia all as required have SHSPs, and these were reviewed, summarized, and incorporated as necessary into the draft Transportation Safety Element. The Transportation Safety Element was further tailored to the needs of our metropolitan area.

This Transportation Safety Element is intended to serve as the initial element, and will be enhanced in future years with the guidance of the Technical Committee and its subcommittees.

If you have any comments on the documents, please provide them either at the Committee meeting on November 2, or by Friday, November 9 to Michael Farrell at mfarrell@mwkog.org. Thank you.

Attachment

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Safety Element Outline

1. TPB role in Transportation Safety

- i. Safety and the TPB Vision
- ii. The TIP
- iii. TPB Work Program Activities
- iv. Transportation Safety Subcommittee
- v. Street Smart
- vi. Outlook

2. Traffic Safety in the Washington Region

- i. Overview
 - a. Causes and Types of Crashes**
 - b. Geographic Distribution**
 - c. Regional Safety Programs**

3. Need for a Transportation Safety Element

4. State Strategic Highway Safety Plans

5. Regional Traffic Safety Emphasis Areas

- i. Emphasis Areas for the Washington Region
- ii. Common Goals and Emphasis Areas of the SHSPs
- iii. Emphasis Areas Appropriate for Planning at the Metropolitan Scale
- iv. Emphasis Areas specifically tied to Elements of the CLRP

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Goal: Transportation Safety

Keeping transportation system users safe from death and injury is a top goal of the TPB. The Washington metropolitan area is a diverse and rapidly growing region, a major tourist destination, and a gateway for immigrants from all over the world. Growth has meant more people from more places driving, riding, and walking more miles in the Washington region than ever before. Tourists and newcomers may be unfamiliar with local traffic rules and dangers. Street design, motorist behavior, and pedestrian and bicyclist behavior must allow all to remain safe from harm.

The TPB Vision

The TPB *Vision* <hyperlink> calls for priority to the safety of all modes and facilities. Specifically, the *Vision* calls upon TPB members to provide safer transportation facilities for pedestrians, bicyclists, and persons with special needs, better enforcement of traffic laws and motor carrier safety regulations, achieve national targets for seatbelt use, and use appropriate features in facility design. Examples of safety measures encouraged in the *Vision* include red-light cameras, skid-resistant pavements, elimination of roadside hazards, and better intersection controls.

The Transportation Improvement Program

The Transportation Improvement Program (TIP) <hyperlink> provides detailed information showing which projects in the long-range plan will be completed over the next six-year period. In the TIP TPB members state how programs and projects submitted for inclusion in the TIP serve the goal of Transportation Safety, as well as identify those projects whose *primary* purpose is to enhance safety. These requirements will enable the region to track how much funding is being programmed for safety, as well as giving a better picture of the types of safety enhancements that are being programmed.

The TPB Work Program

In addition to encouraging and tracking safety projects and programs by its members, the TPB also promotes safety through its own programs. Under its Transportation Safety Planning program, the TPB compiles and analyzes regional safety data, coordinates the metropolitan transportation planning aspects of state, regional, and local safety efforts, coordinates with other TPB committee on the integration of safety considerations, and develops and maintains the safety element of the region's long-range plan. Safety also plays a significant role in TPB program areas such as Congestion Management Process <hyperlink>, Management and Operations <hyperlink>, Traffic Signals, Bicycle and Pedestrian Planning <hyperlink>, regional Bus Planning <hyperlink>, Freight Planning <hyperlink>, Access for All <hyperlink>, and the Transportation-Land Use Connections

program <hyperlink>. The Bicycle and Pedestrian Subcommittee frequently sponsors workshops which focus on safety engineering and education improvements.

Transportation Safety Subcommittee

The newly formed Transportation Safety Subcommittee <hyperlink> of the TPB Technical Committee includes representatives from a wide range of Safety stakeholders, including the State Departments of Transportation Planning, TPB member jurisdiction planning staff, law enforcement, and public health representatives. The core activity of the Transportation Safety Subcommittee will be to advise staff on the creation and maintenance of the federally-required Safety element of the long-range transportation plan for the region. This will involve coordination between TPB staff, the committee, and those staff and consultants working on the state Strategic Highway Safety Plans.

The subcommittee will also facilitate exchange of information among Safety stakeholders, and will be a means of keeping each other informed about ongoing activities and best practices. Staff will compile regional safety data and identify regional problems, and under the guidance of the new subcommittee will coordinate and cross-inform on this issue with other TPB technical activities.

The subcommittee will advise the TPB and TPB Technical Committee on Safety, and may provide regional planning recommendations from the safety perspective.

Street Smart Pedestrian and Bicycle Safety Program

Another major safety-related programs sponsored by the Transportation Planning Board is the Street Smart Pedestrian and Bicycle Safety campaign <hyperlink>, which consists of waves of advertising, media events, and concurrent pedestrian-related traffic enforcement. The program is intended to save lives by raising awareness of pedestrian and bicyclist safety, and changing motorist and pedestrian behavior.

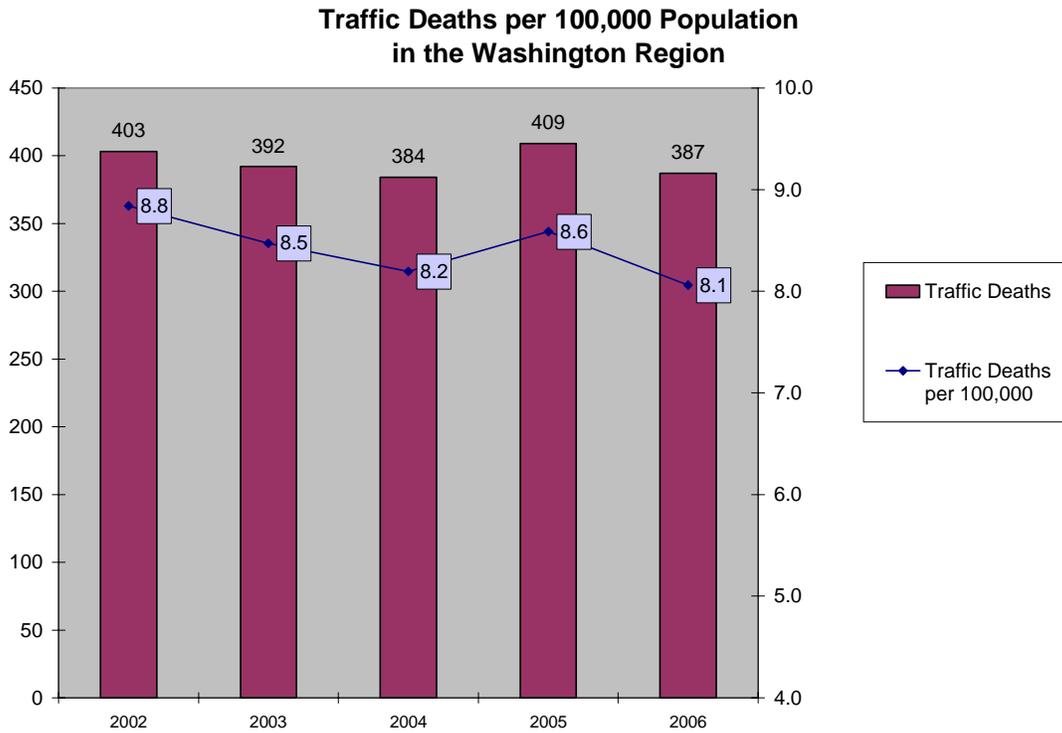
Outlook

The TPB will continue to promote safety through its work program and through the CLRP. Major activities will include tracking safety funding through the TIP process, sharing best practices through various committees, regional traffic safety data compilation and sharing, continued participation in the State Highway Safety planning process, and coordination of the metropolitan planning aspects of state, regional, and local safety efforts, especially education and enforcement. The Safety Subcommittee will advise staff on the maintenance of the Safety Element of the CLRP, exchange information on ongoing activities and best practices, and advise the TPB and TPB Technical Committee on Safety.

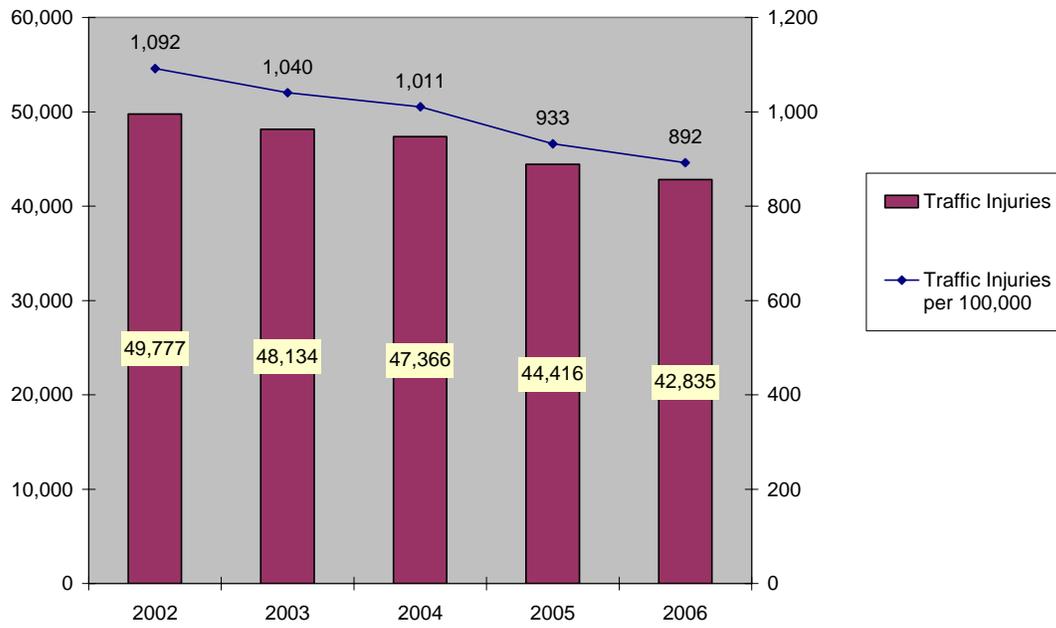
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Traffic Safety in the Washington Region

Despite the boom in population and miles traveled, overall traffic fatalities in the region have remained stable in recent years, while traffic injuries have been in decline. Still, nearly 400 people die in traffic every year in the Washington region, and about 42,000 people are injured.



Traffic Injuries per 100,000 Population in the Washington Region



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Causes and Types of Crashes

Major contributors to traffic fatalities and injuries include impaired driving, drivers and passengers not wearing seatbelts, and aggressive driving, which includes speeding. Pedestrian, bus, and motorcycle safety are areas of special concern to the Washington region. Crashes may have multiple causes and involve more than one vehicle type.

Impaired driving remains a major problem, although the Washington region is doing better than the nation as a whole. According to WRAP (Washington Regional Alcohol Program) [<hyperlink>](#), in 2005 approximately ¼ of all traffic fatalities in the Washington metro region were alcohol-related. However, alcohol involved fatalities have declined in the Washington region in recent years, and are well below the national average of 40% of fatalities, as well as the State-wide averages of 38% for Maryland and 37% for Virginia.

About 1/3 of traffic fatalities in the region involve a driver or a passenger not wearing a seatbelt. However, significant progress is being made to reduce unbelted traffic fatalities, which have fallen from 145 in 2001 to 116 in 2005.

Aggressive driving, which includes speeding, tailgating, failure to yield the right of way, and running red lights and stop signs accounts for about 1/5 of traffic fatalities in the region, but appears to be trending downwards. Inattentive driving was cited in approximately ¼ of all traffic fatalities. Some experts believe that inattentive driving may be over-reported relative to factors that might imply greater fault, such as speeding or reckless driving.

As population grows and inner suburban jurisdictions grow denser, and more people walk in places where previously pedestrians were not common, pedestrian safety problems have spread. Many newcomers and visitors may not be familiar with traffic rules, which contributes to the problem. Pedestrians account for about ¼ of the region's traffic fatalities. Fault for pedestrian crashes is evenly divided between motorists and pedestrians. Pedestrian fatalities are stable in the Washington region.

Motorcycle crashes account for only 10% of the traffic fatalities in the Washington region. However, that is a large number relative to the amount of motorcycle riding that takes place, and motorcycle deaths have been rising rapidly.

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Geographic Distribution

All areas of the metropolitan region experience traffic fatalities and injuries. In 2006, a reported 387 people died in traffic accidents in the region, including 232 in the Maryland portion of the region, 112 in Northern Virginia, and 43 in the District of Columbia.

DC, Maryland, and Virginia jurisdictions strive to lower these numbers. Unfortunately, Maryland has a particularly challenging situation with fatality rates (11.2 per 100,000 people) significantly higher than DC (8.3 per 100,000 population) or Northern Virginia (5.1 per 100,000 population). Traffic injuries are more evenly distributed.

Unbelted and impaired driver crashes appear to account for a larger absolute number and a higher proportion of the fatalities in the high-fatality areas. However, other variables such as average speed and vehicle-miles traveled may also play a role.

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Regional Safety Programs

While highway engineering and most education and enforcement traffic safety initiatives and programs take place at the State and local level, the region has come together to create several regional education and enforcement programs to combat impaired driving, aggressive driving, and to promote pedestrian safety. Since the Washington region is a single media market, a consolidated regional media and enforcement campaign can be more effective than separate efforts carried out by the different jurisdictions.

The best known of these programs is the Washington Regional Alcohol Program (WRAP) <hyperlink>, which since 1982 has been using public education and enforcement, as well as work place outreach and programs such as the Soberride free taxi, to combat drunk driving, drugged driving, and underage drinking in the Washington region. WRAP is administered by its own nonprofit with three staff staffers and an annual budget of over \$2 million. Sponsors include the District of Columbia, Maryland, Virginia, and the private sector.

The Smooth Operator <hyperlink> program has been fighting aggressive driving since 1997, with a combined mass media and law enforcement campaign. With a budget of slightly less than \$1 million, the program covers the District of Columbia, Northern Virginia, and the State of Maryland. The Maryland Motor Vehicle Administration Administers the program.

The TPB's Street Smart Pedestrian and Bicycle Safety campaign <hyperlink> has been promoting awareness of pedestrian and bicyclist safety since 2002. Using a media wave together with concurrent enforcement of pedestrian safety laws against both pedestrians and motorists, it aims to change pedestrian and motorist behavior and save lives. The Metropolitan Washington Council of Governments administers the program, which has an annual budget of approximately \$700,000.

There may be potential for similar media and enforcement efforts to combat other major safety problems such as unbelted motorists, or to meet growing challenges such as motorcycle safety. However, resources and administrative arrangements would have to be identified. Experience has been that regional efforts and commitment grow out of State and local efforts.

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Need for a Transportation Safety Element

Improving safety for all modes is critical to improving quality of life and improving access for all the citizens of the region. Transportation Safety is a critical component of the regional transportation plan, and it informs multiple elements of the plan. Crash reduction is integral to the Congestion Management Process [<hyperlink>](#), planning for Access for All [<hyperlink>](#), Bicycle and Pedestrian Planning [<hyperlink>](#) regional Bus Planning [<hyperlink>](#), Freight Planning [<hyperlink>](#), the Transportation Improvement Program [<hyperlink>](#), and the Transportation-Land Use Connections program [<hyperlink>](#).

This section of the CLRP is the required Transportation Safety Element of the Regional Long-Range Plan. Under the most recent federal transportation bill, SAFETEA-LU, the long-range transportation plan for the region must include a safety element. The Federal regulations issued on February 14, 2007 specify that the safety element must incorporate or summarize the priorities, goals, countermeasures, or projects for the Metropolitan Planning Area which are contained in the State Strategic Highway Safety Plan.

All regional plans developed after July 1st, 2007 must be SAFETEA-LU-compliant.

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The State Strategic Highway Safety Plans (SHSPs)

Under SAFETEA-LU, the States are required to develop Strategic Highway Safety Plans. A Strategic Highway Safety Plans sets broad numerical goals for safety, lays out a set of emphasis areas for action, and for each emphasis area recommends strategies. Each strategic plan must also be followed up with a detailed implementation plan, which will identify not only emphasis areas and strategies, but specific actions and the agencies and offices that will carry them out. The District of Columbia, Maryland, and Virginia have all adopted Strategic Highway Safety Plans.

To identify safety emphasis areas and set goals the States created steering committees and/or executive committees including a wide range of stakeholders. Technical working groups were then formed to identify strategies for each emphasis area. The steering committees and the technical working groups will continue to work in the development of the implementation plans.

The SHSPs are data-driven; each plan shows the number of deaths and injuries and five-year trends for each emphasis area. Common emphasis areas include occupant protection, impaired driving, aggressive driving, old and young drivers, motorcycles, pedestrians, large trucks, licensing and driver competence, information and decision support systems, run off the road, intersections, and work zone safety. All three States are moving to upgrade their traffic records and data reporting systems, to support better safety planning and performance measurement.

For each emphasis area the SHSPs propose strategies and action items. Safety Strategies tend to fall under the Four E's – Engineering, Education, Enforcement, and Emergency Medical Services. DC's plan [<hyperlink>](#) includes 139 strategies and 83 near-term action items, Maryland's [<hyperlink>](#) identifies 168 strategies, and Virginia's [<hyperlink>](#) identifies 119 strategies. A key long-term goal of the SHSP process is evidence-based deployment of strategies to save as many lives as possible with the available resources.

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Emphasis Areas for the Washington Region

SHSP goals are incorporated into this CLRP transportation safety element using the following considerations:

- Key common goals and emphasis areas of the District of Columbia, Maryland, and Virginia Strategic Highway Safety Plans
- Emphasis areas that lend themselves to being addressed at the metropolitan scale (instead of or in addition to the national, statewide, local jurisdictional, or site-specific scale)
- Emphasis areas tied to other key elements of the CLRP

The TPB's local jurisdictions follow the goal and emphasis areas in their states' SHSPs. The CLRP bolsters this through support of regional programs, compilation of state and local information, and information sharing on safety issues and best practices.

Common Goals and Emphasis Areas of the SHSPs

All the plans call for measurable reduction, on the order of 10-15%, in traffic fatalities and injuries over the next five years.

As required by federal regulation, the following emphasis areas are common to the State Strategic Highway Safety Plans and should be incorporated in the Safety Element of the long-range transportation plan:

- Impaired Driving
- Aggressive Driving
- Occupant Protection (seatbelts)
- Driver Competence and Licensing
- Young Drivers
- Older Drivers
- Pedestrian
- Motorcycle
- Large Truck
- Information and Decision Support Systems (Traffic Records)
- Run off the Road
- Intersections
- Work Zone

Emphasis Areas Appropriate for Planning at the Metropolitan Scale

All important safety areas from the Strategic Highway Safety Plans should be supported by the regional safety element. However, some emphasis areas lend themselves to focus on a metropolitan scale. These emphasis areas are included in the safety element of the regional plan.

- Education and Enforcement

Regional planning is most relevant for outreach, education and related enforcement initiatives that cut across jurisdictional and State lines, including efforts against behaviors such as aggressive driving, drunk driving, occupant protection, and behavior by and towards special users such as older and younger drivers, motorcyclists, pedestrians, bicyclists, large trucks and buses. Since the region is one media market, education through mass media is economically feasible only on a regional basis. And since drivers cross jurisdictional lines every day, the consequences of unsafe behavior do not stay inside those lines either.

- Engineering

While Engineering is primarily a national, state, and local responsibility, best practices for safety for the appropriate mode can be shared at numerous forums, including the Management, Operations and ITS Subcommittees (intersections, work zones), the Freight Subcommittee (large trucks), the Traffic Signals Subcommittee (intersections), the Bus Subcommittee, the Bicycle and Pedestrian Subcommittee, and the Access for All Subcommittee (disabled pedestrians), the Transportation-Land Use Connections program (pedestrians), and the Safety Subcommittee.

- Data and Information Sharing and Compilation

Regional data and information sharing and compilation should be an ongoing activity as State crash reporting and data collection systems improve. Consistency in data collection across state lines should be encouraged. Compiling regional data can illuminate regional safety problems and patterns not immediately evident in State and local-level data, and help inform the planning process of the TPB and its member agencies.

Emphasis Areas Tied to other Key Elements of the CLRP

The following emphasis areas are specifically tied to elements of the CLRP:

- Bus Safety – Bus Planning Subcommittee <hyperlink>, Access for All <hyperlink>

Pedestrian safety around buses is a challenge, given issues of visibility, traffic, placement of bus stops, and other factors. The Regional Bus Subcommittee and planning program provide opportunities for collaboration and information sharing to improve bus safety.

- Truck Safety – Freight Subcommittee <hyperlink>

Understanding the role of trucks in the overall safety picture of the region is important for advising, planning, engineering, and enforcement activities. The Transportation Safety Subcommittee interacts with the Regional Freight Subcommittee on this issue.

- Emergency Response – Management, Operations, and ITS <hyperlink>, Congestion Management Process <hyperlink>

Data regarding emergency response is important for consideration in the overall regional safety picture. The Transportation Safety Subcommittee interacts with COG’s public safety program on this issue.

- Bicycle and Pedestrian Safety – Bicycle and Pedestrian Planning <hyperlink>, Street Smart <hyperlink>, Transportation-Land Use Connections program <hyperlink>, Access for All <hyperlink>

Bicyclists and Pedestrians account for a quarter of the region’s traffic fatalities. The Bicycle and Pedestrian Subcommittee exchanges information on best practices, holds training workshops, and oversees the Street Smart Pedestrian and Bicycle Safety Program. The Transportation-Land Use Connections program provides technical support on pedestrian safety measures as part of planning for transit-oriented development.

- Intersections, Work Zones - Transportation Improvement Program <hyperlink>, Transportation-Land Use Connections program <hyperlink>

Funding for safety projects can be tracked in the TIP, including set-aside funds for work zone safety, and the Transportation-Land Connections program deals with intersection as well as pedestrian safety.