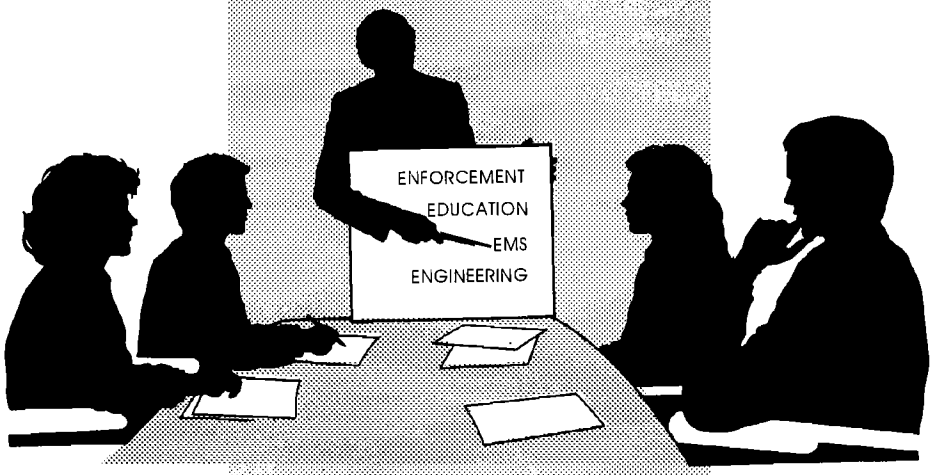
A STRATEGIC PLAN FOR THE DESIGN AND CREATION OF A SAFETY MANAGEMENT SYSTEM FOR THE COMMONWEALTH OF VIRGINIA



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16. Abstract

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 required that states develop systems for managing highway pavement, bridges, safety, congestion, public transportation, and intermodal transportation. This document is Virginia's work plan for establishing and implementing the required safety management system (SMS). Although Virginia already has many of the components necessary for an SMS, an inventory and assessment of Virginia's highway safety-related programs revealed five challenges Virginia needs to meet to build its SMS. These challenges are (1) to coordinate and integrate safety efforts more fully; (2) to provide guidelines for the replacement and upgrade of safety hardware, highway elements, and operational features; (3) to increase the sharing of data and the integration of data systems that support transportation safety; (4) to provide for more rigorous evaluation of transportation safety efforts; and (5) to target injury reduction. A schedule of activities needed to implement Virginia's SMS by October 1, 1996, is included.

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A STRATEGIC PLAN FOR THE DESIGN AND CREATION OF A SAFETY MANAGEMENT SYSTEM FOR THE COMMONWEALTH OF VIRGINIA

Jack D. Jernigan
Senior Research Scientist

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies)

Virginia Transportation Research Council
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the University of Virginia)

In Cooperation with the U.S. Department of Transportation
Federal Highway Administration

October 1994

VTRC 95-R8

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INTRODUCTION

The enactment of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 marked the end of an era in U.S. transportation policy. The era had begun with the Federal-Aid Highway Act of 1956 during the Eisenhower administration. That measure called for construction of the interstate highway system, which was lauded at the time and for years afterward as the world's largest public works project. In essence, the 1956 legislation designated personal motor car transportation and commercial truck freight conveyance as the preferred modes of transportation. Perhaps more significant, however, was the fact that it ushered in a period of emphasis on, and attention to, a single mode of transportation without collateral requirements that the impact of highway transportation on the other modes be addressed. In contrast, ISTEA emphasizes issues such as pavement and bridge maintenance, relief of traffic congestion, multimodalism, intermodalism, and highway safety in addition to highway planning and construction and flexibility in meeting transportation needs.

Among other things, ISTEA requires that states develop, establish, and implement systems for managing (1) highway pavement of the federal-aid system, (2) bridges on and off the federal-aid system, (3) highway safety, (4) traffic congestion, (5) public transportation facilities and equipment, and (6) intermodal transportation facilities and systems. Thus, Virginia is currently in the process of refining its bridge and pavement management systems and developing management systems for the other four areas. This document addresses the development, establishment, and implementation of the system for managing highway safety.

Federal regulations define a highway safety management system (SMS) as follows:

> . . . a systematic process that has the goal of reducing the number and severity of traffic crashes by ensuring that all opportunities to improve highway safety are identified, considered, implemented as appropriate, and evaluated in all phases of highway planning, design, construction, maintenance, and operation and by providing information for selecting and implementing effective highway safety strategies and projects. 23 C.F.R. § 500.403 (1993).

Federal regulations also require that plans, processes, procedures, and practices be established to implement, coordinate, and evaluate programs, projects, and activities in five major areas:

(1) Coordinating and integrating broad base safety programs (such as motor carrier, corridor, and community based traffic safety activities) into a comprehensive management approach for highway safety;

(2) Identifying and investigating hazardous or potentially hazardous highway safety problems, roadway locations and features (including railroad-highway grade crossings) and establishing countermeasures and priorities to correct the identified hazards or potential hazards;

(3) Ensuring early consideration of safety in all highway transportation programs and projects;

(4) Identifying safety needs of special user groups (such as older drivers, pedestrians, bicyclists, motorcyclists, commercial motor carriers, and hazardous material carriers) in the planning, design, construction, and operation of the highway system; and

(5) Routinely maintaining and upgrading safety hardware (including highway-rail crossing warning devices), highway elements, and operational features. 23 C.F.R. § 500.407.

In addition, these plans, processes, procedures, and practices are to include, as appropriate:

(1) Establishment of short- and long-term highway safety goals to address both existing and anticipated safety problems as well as substandard highway locations, designs, and features, and to allocate resources;

(2) Establishment of accountability by identifying and defining the safety responsibilities of units and positions;

(3) Recognition of institutional or organizational initiatives through identification of disciplines involved in highway safety at the State and local level, assessment of multi-agency responsibilities and accountability, and establishment of coordination, cooperation, and communication mechanisms;

(4) Collection, maintenance, and dissemination of data necessary for identifying problems and determining improvement needs. Data bases and data sharing shall be integrated as necessary to achieve utilization of existing and new data within and among the agencies responsible for the roadway, human, and vehicle safety elements.

These records, as a minimum, shall consist of information pertaining to: crashes, traffic (including number of trains at highway-rail crossings), pedestrians, enforcement activities, vehicles, bicyclists, drivers, highways, and medical services;

(5) Analysis of available data, multi-disciplinary and operational investigations, and comparisons of existing conditions and current standards to assess highway safety needs, select countermeasures, and set priorities;

(6) Evaluation of the effectiveness of activities that relate to highway safety performance to guide future decisions;

(7) Development and implementation of public information and education activities to educate and inform the public on safety needs, programs, and countermeasures that affect safety on the nation's highways; and

(8) Identification of skills, resources, and current and future training needs to implement the State's activities and programs affecting highway safety, development of a program to carry out necessary training, and development of methods for monitoring and disseminating new technology and incorporating effective results. 23 C.F.R. § 500.407.

PROBLEM STATEMENT

The establishment of an SMS, as well as the other management systems outlined in ISTEA, is tied to federal-aid transportation funds. Up to 10 percent of a state's federal-aid transportation funds may be withheld beginning January 1, 1995, if the state fails to certify annually each management system. 23 C.F.R. § 500.109.

In order to be certified as being in compliance with the requirement to develop an SMS, a state must by October 1, 1994, develop a work plan that identifies major activities and responsibilities and includes a schedule for full implementation and operation of the system by October 1, 1996. 23 C.F.R. § 500.409. The work plan is to be submitted to the Federal Highway Administration (FHWA) with a request for certification by January 1, 1995. 23 C.F.R. § 500.107. By October 1, 1995, a state must show that its SMS is complete or underway in accordance with its work plan. By October 1, 1996, the SMS is to be fully operational. In each subsequent year, the SMS must be recertified. 23 C.F.R. § 500.409.

PURPOSE AND SCOPE

This document is Virginia's work plan for establishing and implementing an SMS. Although many of the elements required for an SMS already exist in Virginia, there are additional needs. Further, the requirements of an SMS call, at a minimum, for better and more complete coordination of Virginia's resources and better evaluation of results.

METHODOLOGY

The following steps were taken to develop this work plan.

1. *Initiate the identification of the agencies and key personnel who are to represent each agency with an interest in Virginia's SMS.* This was accomplished by consultation with staff of the Virginia Department of Transportation (VDOT) and the Department of Motor Vehicles (DMV).

2. *Develop the mission statement, goals, and objectives for Virginia's SMS.* This was done in conjunction with the Transportation Safety Policy Committee.

3. *Initiate the identification of the highway safety–related data needs of each agency and the role each agency plays in the planning, design, construction, maintenance, and operation of highways.* This was done through a survey of agencies with an interest in Virginia's SMS.

4. *Initiate the identification of existing data sources that might be useful in identifying highway safety problems, and initiate the identification of data systems that could be better coordinated.* This was accomplished through a survey of the identified agencies.

5. *Initiate the identification of existing programs that are designed either to identify safety problems or to correct identified safety problems.* This was accomplished through a survey of the identified agencies.

6. *Initiate the development of evaluation measures and a monitoring system that stress the results of safety efforts in reducing highway safety problems.* This includes conducting a literature review on problem identification and evaluation studies to determine a methodology for identifying highway safety problems and assessing and evaluating the impact of countermeasure programs. This activity is ongoing.

7. *Initiate the identification of ways to build safety into each phase of highway planning, design, construction, maintenance, and operation as a first level consideration.* This

included the formation of task groups, which were consulted for their input on existing programs.

8. *Initiate the development of a plan for establishing a training program with the Virginia Transportation Technology Transfer Center (VTTTC) to assist localities in the implementation of Virginia's SMS.* This activity is ongoing.

9. *Initiate the development of a strategy for implementing Virginia's SMS.* This was accomplished by assessing the statewide programs and determining opportunities for enhancing safety through an SMS.

HIGHWAY SAFETY TRENDS IN VIRGINIA

The idea of providing for the safety of the traveling public is not new. In response to an increasing number of highway casualties and Ralph Nader's exposé on the automobile industry, *Unsafe at Any Speed*, Congress passed the National Traffic and Motor Vehicle Safety Act of 1966 and the Highway Safety Act of 1966. The National Traffic and Motor Vehicle Safety Act led to the establishment of specific standards to ensure that motor vehicles would be more crashworthy. Similarly, the Highway Safety Act was passed in an attempt to ensure a safer physical environment on the highways and that drivers would be adequately trained and take necessary precautions to minimize traffic crashes, injuries, and fatalities. The Act further required each state to implement a highway safety program. Virginia's highway safety efforts were greatly expanded in 1969.

Figure 1 shows that vehicle miles of travel (VMT) have more than doubled since 1969. Today, Virginia's roads and highways support more than 60 billion VMT each year. Despite this increase, however, Figure 2 shows that the number of traffic fatalities has generally been

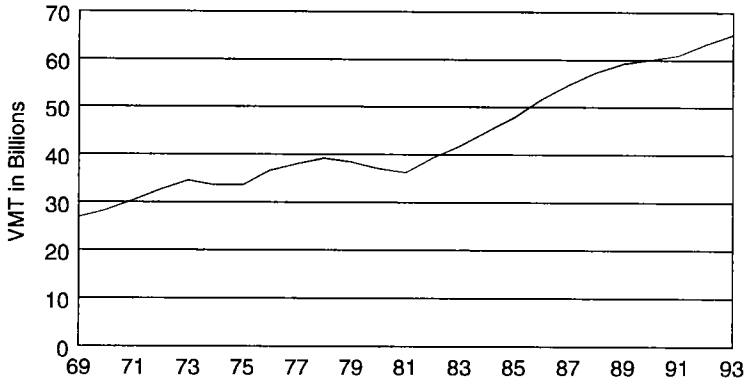

Figure 1. Vehicular Mileage in Virginia

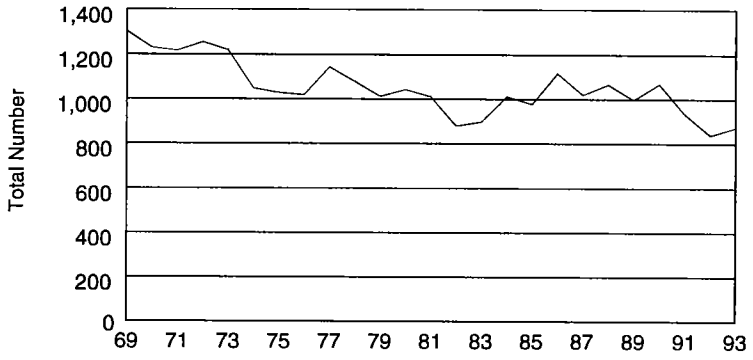

Figure 2. Annual Fatalities in Virginia

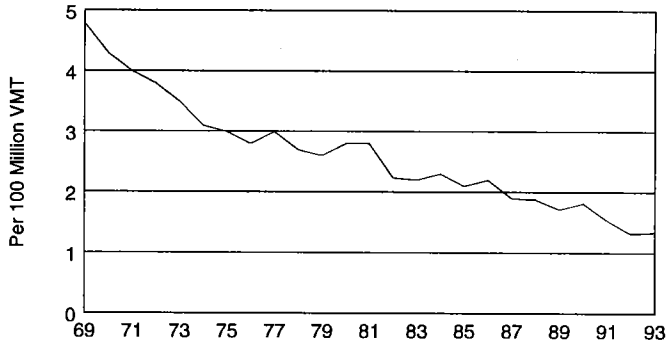

Figure 3. Death Rate

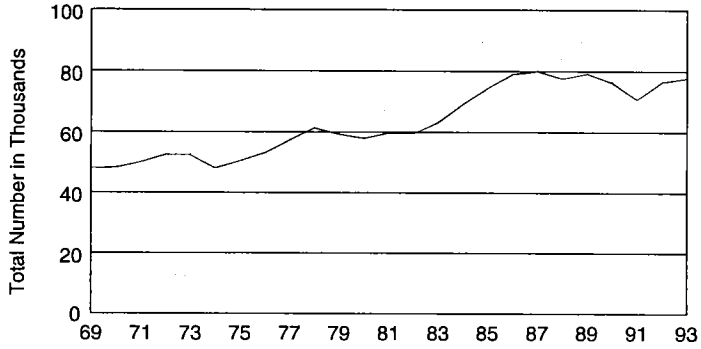

Figure 4. Annual Injuries in Virginia

declining. Figure 3 shows that these two trends have combined to produce a drastic reduction in Virginia's death rate. Unfortunately, Figure 4 shows that annual traffic injuries have generally been on the increase.

It is very difficult to determine whether the number of alcohol-related crashes has increased or decreased. One way to investigate this is to examine crashes that occurred during the time periods drunk driving is known to be prevalent. Figures 5 and 6 show that both late night and weekend fatal crashes have been declining. However, this decline may just be part of the overall decrease in fatal crashes. Yet Figures 7 and 8 show that weekend and nighttime fatal crashes have declined as a proportion of all fatal crashes as well. Thus, these data suggest that the proportion of crashes that involve drunk driving has declined.

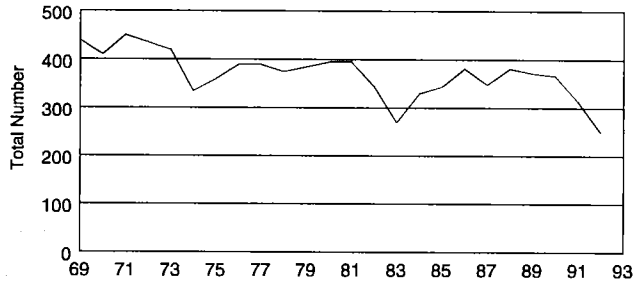

Figure 5. Friday and Saturday Fatal Crashes

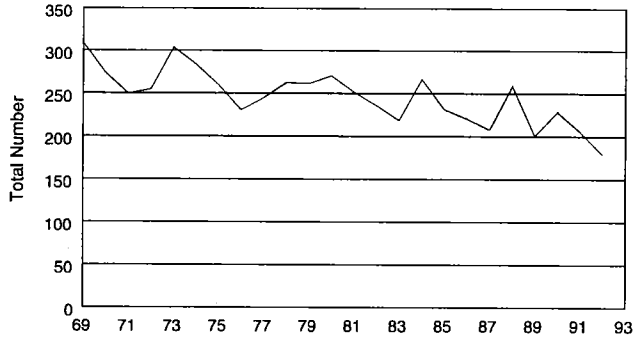

Figure 6. 10 p.m. to 4 a.m. Fatal Crashes

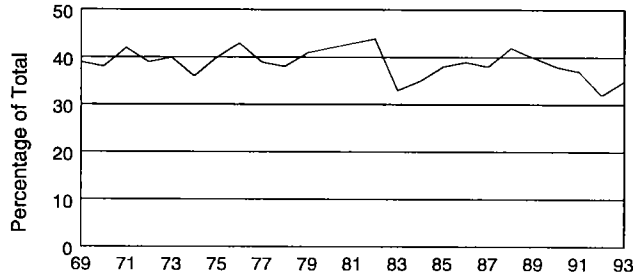

Figure 7. Friday and Saturday Fatal Crashes

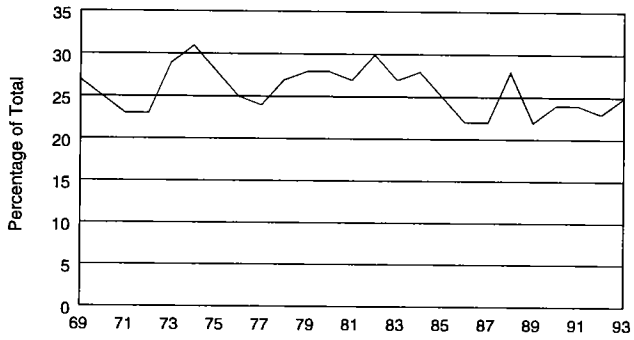

Figure 8. 10 p.m. to 4 a.m. Fatal Crashes

ASSESSMENT OF VIRGINIA'S CURRENT HIGHWAY SAFETY EFFORTS

In light of the overall success of Virginia's efforts to improve highway safety, it was decided that the best way to begin the development of Virginia's SMS was to assess current safety efforts and build on that foundation. Thus, an inventory of Virginia's statewide highway safety programs was conducted and is included in the Appendix. Each program was classified and assessed based on the five areas and eight elements specified by federal regulations for an SMS. In general, Virginia's safety efforts are comprehensive. However, Virginia can improve upon them in light of the federal regulations concerning safety management systems.

The Five Areas an SMS Must Address

The first area is coordinating and integrating broad-based safety programs into a comprehensive management approach. Although Virginia has a number of initiatives, task forces, and programs that have such a goal, all of these efforts fall short of the objective of full integration. Virginia, perhaps like all states, has an extensive management process that involves planning, organizing, staffing, directing, controlling, operating, reporting, and budgeting—but the process is fragmented. Each agency has its own mission, and much of this fragmentation is dictated by the nature of the various players in transportation safety and by laws and regulations. For example, dealing with traffic crashes is only a part of the mission of the Office of Emergency Medical Services (OEMS), which is, by state law, within the Department of Health. Given these limitations, perhaps the best that can be expected of any state is to coordinate programs. Yet Virginia also falls short of full coordination of efforts, although it is clearly moving in the direction of providing for it. The Transportation Safety Policy Committee, the Corridor Safety Improvement Program (CSIP), and Community Traffic Safety Programs (CTSP) are good examples of efforts that facilitate coordination. In addition, even though CSIP and CTSP deal with relatively limited areas of transportation safety, they, along with the Transportation Safety Policy Committee, encourage communication and cooperation, both of which open the door to coordination.

The second area is investigating hazardous or potentially hazardous highway safety problems, roadway locations, and features and establishing countermeasures and priorities to correct the identified hazards or potential hazards. The agencies involved in providing for transportation safety in Virginia all have the capability to use data to target problem areas. Each agency can point to an issue it seeks to address and show that the issue is indeed a transportation safety problem. However, without an integrated or coordinated management approach, setting priorities for the entire system is impossible. Further, there is little evidence that benefit/cost analyses are performed for most programs to determine which countermeasures would potentially have the greatest expected result.

The third area is early consideration of safety in highway transportation programs and projects. This is perhaps the strongest component of Virginia's safety efforts. Each agency involved in the transportation and transportation safety system has safety as a primary goal. In fact, safety is often formalized. For example, highway and bridge designers and traffic operations engineers are directed by guidelines that have been determined through practice and research to promote traffic safety. In many areas, there are supplemental guides to aid designers and field personnel in providing for a safe transportation system.

The fourth area is identifying the safety needs of special user groups in the planning, design, construction, and operation of the highway system. This is a relatively new and yet developing area. For example, programs have been developed to reduce the potential safety hazards presented by large trucks and hazardous materials carriers. For some projects, pedestrian and bicycle safety measures are being built in under plans developed by Metropolitan Planning Organizations and VDOT. VDOT has sponsored research on the special needs of older drivers, and DMV has sponsored research on the special needs of at-risk drivers.

The fifth area is routinely maintaining and upgrading safety hardware, highway elements, and operational features. The installation of new features at high-accident locations is a strong point of Virginia's safety efforts. Similarly, new applications are subject to guidelines that are designed to promote safety. However, the replacement and upgrade of safety hardware, highway elements, and operational features lack clear direction. For instance, the installation of highway signs is directed by established guidelines that ensure the visibility of a sign, but there are no guidelines to alert a field engineer to when a sign can no longer be seen clearly. Likewise, many roads, guardrail, and other highway equipment were designed in times of less stringent guidelines.

The Eight Elements To Be Included in Each Area

The first element is the establishment of short-term and long-term highway safety goals to address both existing and anticipated safety problems, as well as substandard highway locations, designs, and features, and the allocation of resources. Most of the highway safety programs have operational goals that address tasks to be accomplished. Likewise, program areas

generally have goals that are established for each fiscal year. However, no long-term goals have been set except for the general guiding principles of enhancing safety and reducing traffic fatalities, injuries, and crashes. Likewise, there are few goals that relate to the coordination of highway safety activities, and there is none that relates to the overall allocation of all highway safety resources.

The second element is the establishment of accountability by identifying and defining the safety responsibilities of units and positions. Roles and responsibilities are clearly defined in virtually every program. Perhaps the only exception concerns the relationship of the Governor's highway safety representative and the SMS focal point. In a sense, each has been assigned the task of ensuring that all opportunities to enhance safety are seized. Clearly, these roles and responsibilities need to be defined before the full implementation of Virginia's SMS.

The third element is the recognition of institutional or organizational initiatives through identification of disciplines involved in highway safety at the state and local level; assessment of multiagency responsibilities and accountability; and establishment of coordination, cooperation, and communication mechanisms. Virginia is also well positioned for fulfilling the requirements of this element. There is a long history of communication and cooperation among the involved agencies, and there have been several efforts in recent years to coordinate programs. DMV sponsors the Annual Conference on Transportation Safety and the Annual Judicial Conference, both of which bring together diverse parts of the transportation safety system. Likewise, VDOT sponsors the Annual Traffic Engineering Conference and the Statewide Incident Management Conference. Certainly, increased coordination can be achieved, but these conferences and efforts such as the Transportation Safety Policy Committee, CSIP, and CTSP show that Virginia is already moving in the direction required.

The fourth element is the collection, maintenance, and dissemination of data necessary for identifying problems and determining improvement needs. This element emphasizes that data shall be integrated as necessary to achieve utilization of existing and new data within and among the agencies responsible for the roadway, human, and vehicle safety factors. It is this element that may prove the most challenging for Virginia. Virginia's agencies involved in transportation safety generally do share data, particularly on cooperative ventures. However, data systems are widely fragmented, and there is little opportunity for the merger of data bases under the current data systems. VDOT, DMV, OEMS, the Department of Education, the Commission on VASAP (Virginia Alcohol Safety Action Program), and numerous localities maintain data systems. Some systems overlap, and others provide information that may be beneficial in supplementing data captured by other data systems. Increased sharing of data and cooperation among agencies should be relatively easy to achieve, and data integration may be facilitated if the various systems can be linked.

The fifth element is the analysis of available data, multidisciplinary and operational investigations, and comparisons of existing conditions and current standards to assess highway safety needs, select countermeasures, and set priorities. On a micro level, Virginia's agencies

appear to be somewhat data driven in that certain programs target problem areas. For example, drunk driving programs are encouraged in localities that have a documented problem and at locations where the problem has been prevalent. The Micro Traffic Records System is targeted for implementation in localities that have no efficient data retrieval system. The hazard elimination program targets locations that have unusually high accident rates. However, there seems to be little attempt at a more macro level analysis of data. That is, there is no rational decision-making process based on available safety data to determine resource allocation among the engineering, emergency medical services, education, and enforcement disciplines. Likewise, there is no rational decision-making process based on available safety data to determine which efforts within a discipline have the greatest need or the greatest expected benefit/cost ratio. Instead, each agency often is given a budget and determines how much will be allocated for general program areas without much consideration of safety data.

The sixth element is the evaluation of the effectiveness of activities that relate to highway safety performance to guide future decisions. Although many programs are subjected to an administrative evaluation, few are evaluated to determine whether they had an impact. Certainly, an impact evaluation does not need to be performed for every sign erected or every training class held. Many programs have been evaluated and shown to be effective. These programs are those that generally have little or no need for additional evaluation. Unproven programs are the ones that require an impact evaluation to determine their effectiveness.

The seventh element concerns the development and implementation of public information and education activities to educate and inform the public on safety needs, programs, and countermeasures that affect safety on the nation's highways. There are a number of public information and education efforts in Virginia that support safety in general or a specific program. However, since there is generally no evaluation of these programs, there is no way to determine whether these efforts are adequate or effective.

The eighth element is the identification of skills, resources, and current and future training needs to implement the state's activities and programs affecting highway safety; development of a program to carry out necessary training; and development of methods for monitoring and disseminating new technology and incorporating effective results. VTTTC and the Transportation Safety Training Center (TSTC) are valuable resources that are already training highway and highway safety professionals. Training workshops and courses are offered in areas where there are identified needs. However, these programs may benefit from an increased use of safety data to determine which training needs are greatest.

CHALLENGES FOR THE FUTURE

Virginia has a solid foundation for building an SMS. Yet to develop an SMS, a state must stress all three components: safety, management, and system. It is clear that Virginia's transportation program is safety oriented. However, the management process is fragmented and

largely carried out at a micro rather than a macro level. Further, having a system implies having a set of interrelated parts. The various parts of Virginia's safety efforts are more or less independent of each other.

The first challenge is to coordinate and integrate Virginia's safety efforts more fully. Cooperative ventures need to be taken from a project-specific to a more global perspective. The SMS Steering Committee is perhaps the best vehicle for moving forward on this point. It is further recommended that the steering committee work to establish a vision of the short- and long-term goals of Virginia's SMS. Likewise, the committee must find ways to use available data to establish priorities at a macro level.

The second challenge is to provide guidelines for the replacement and upgrade of safety hardware, highway elements, and operational features. Although guidelines exist to establish standards for the design and installation of such features, field personnel should be given assistance in deciding when the features need to be upgraded or replaced. Once such guidelines are established, priorities must be established and resources allocated to enable and encourage field personnel to establish and implement an upgrade and replacement program.

The third and perhaps greatest challenge involves the increased sharing of data and the integration of data systems that support transportation safety. Increased sharing of data and cooperation among agencies should be relatively easy to achieve. Requirements for data integration and data system linkage should be based on the results of the ongoing traffic records inventory and audit. However, because linking data systems is relatively complex, the SMS Steering Committee must determine the degree of integration it wants or needs.

The fourth challenge is to provide for more rigorous evaluation of transportation safety efforts. Although small programs and programs that have been proven effective elsewhere may not require evaluation, large-scale programs must be evaluated in order to provide management a tool for assessing their impact and cost-effectiveness. Additionally, national and other states' initiatives should be assessed periodically to determine which could be transferred successfully to Virginia's transportation safety efforts.

The fifth challenge is to target injury reduction. Over the past two decades, the number of fatalities and the fatality rate have decreased. However, the number of injuries has steadily increased. Programs that target injury reduction should have the greatest potential impact.

SMS STEERING COMMITTEE

The SMS Steering Committee was formed to address the challenges for the future. This group has the task of overseeing the development of Virginia's current safety efforts into a full-scale SMS in accordance with federal regulations. This group will continue to function as the leader in coordinating and integrating Virginia's programs to ensure the ongoing operations of

Virginia's SMS and the attenuation of traffic crash injuries. The steering committee is composed of the following representatives.

Executive Committee

Assistant Commissioner for Operations, *Focal Point,* VDOT
Deputy Commissioner for Transportation Safety, DMV
Director of Field Operations, Virginia State Police
Executive Director, Commission on VASAP
Director, Office of Emergency Medical Services, Department of Health

Committee Members

Designee, Department of Education
Designee, State Corporation Commission
Designee, Bristol Metropolitan Planning Organization
Designee, Charlottesville Metropolitan Planning Organization
Designee, Danville-Pittsylvania Metropolitan Planning Organization
Designee, Fredericksburg Metropolitan Planning Organization
Designee, Hampton Roads Metropolitan Planning Organization
Designee, Central Virginia Transportation Planning Council
Designee, Richmond Metropolitan Planning Organization
Designee, Roanoke Metropolitan Planning Organization
Designee, Tri-Cities Metropolitan Planning Organization
Designee, National Capital Region Transportation Planning Board
Designee, Kingsport Metropolitan Planning Organization

Agency Liaisons

Transportation Safety Administrator, DMV
Assistant Director, Office of Emergency Medical Services, Department of Health
Division Administrator, Traffic Engineering Division, VDOT
Deputy Executive Director, Commission on VASAP
Major, Field Operations, Virginia State Police

Task Groups

Data Systems

Designees, Traffic Engineering Division, VDOT
Designee, Transportation Safety Administration, DMV
Designee, Management Information Services Administration, DMV
Designees, Safety Team, Virginia Transportation Research Council (VTRC)
Designee, Safety Division, FHWA

Highway System Hardware

Designees, Traffic Engineering Division, VDOT
Designee, Location and Design Division, VDOT
Designee, Maintenance Division, VDOT
Designee, Socioeconomic and Transportation Systems Team, VTRC

Emergency Response

Designees, Department of Health
Designee, Chesterfield County

Drivers/Human Factors

Designee, DMV
Designee, State Corporation Commission
Designee, Department of Education
Designee, Commission on VASAP
Designee, Safety Team, VTRC

Public Information and Education

Designees, VDOT
Designees, DMV
Designees, Virginia State Police
Designee, Department of Health
Designee, Department of Education

Enforcement

Designee, Virginia State Police
Designee, Hampton Police Department
Designee, Charlottesville Police Department

Vehicles

Designee, DMV
Designee, State Corporation Commission
Designee, Virginia State Police

Evaluation

Designee, Virginia Transportation Safety Training Center
Designee, DMV
Designees, Safety Team, VTRC

VDOT Good Practices Committee

Designee, Traffic Engineering Division, VDOT
Designee, Office of Public Affairs, VDOT
Designee, Transportation Planning Division, VDOT
Designee, Location and Design Division, VDOT
Designee, Structure and Bridge Division, VDOT
Designee, Maintenance Division, VDOT
Designee, Employee Safety and Health, VDOT
Designee, Environmental Quality Division, VDOT
Designee, Equipment Division, VDOT
Designee, Right-of-Way Division, VDOT
Designee, Materials Division, VDOT
Designee, Safety Division, FHWA

Management Systems Steering Committee

Assistant Commissioner for Operations, VDOT
Division Administrator, Traffic Engineering Division, VDOT
Division Administrator, Maintenance Division, VDOT
Division Administrator, Transportation Planning Division, VDOT
Division Administrator, Structure and Bridge Division, VDOT
Director, Virginia Department of Rail and Public Transportation

MISSION STATEMENT AND GOALS

The SMS Executive Committee determined that the mission of Virginia's SMS is to identify and seize all opportunities to enhance the safety of Virginia's roads by reducing the risk of traffic fatalities, injuries, and crashes. The goals are as follows:

- to apply a coordinated, integrated, and systematic management approach to minimizing the risk of traffic fatalities, injuries, and crashes
- to coordinate transportation safety efforts in emergency medical services, education, enforcement, and engineering
- to improve the quality of Virginia's vehicles, drivers, and driving environment with respect to safety
- to identify traffic safety problems, establish priorities for addressing those problems, and implement countermeasure programs to reduce the risk of traffic fatalities, injuries, and crashes
- to ensure the early consideration of safety in all highway transportation programs and projects
- to establish a plan for sharing data and integrating data systems among agencies involved in providing for highway safety.

SCHEDULE

In order to implement Virginia's SMS, the following tasks will concentrate on injury reduction and will be accomplished by the date indicated:

10/1/95 *Identify agencies, organizations, and key personnel who represent each agency and organization with an interest in Virginia's SMS.* This phase will be conducted by VTRC and will concentrate on federal and local government agencies and citizen and special interest groups.

10/1/95 *Identify the highway safety–related data needs of each agency and the role each plays in the planning, design, construction, maintenance, and operation of highways.* This will be accomplished by DMV and VDOT contracting with a consultant to build upon the findings of a traffic records inventory and assessment that is being conducted by VTRC under the sponsorship of DMV.

10/1/95 *Identify data sources that might be useful in identifying highway safety problems and establish a plan for better coordination and integration of Virginia's data systems.* This will be accomplished by the steering committee by using the findings of the traffic records inventory and assessment.

10/1/95 *Identify and assess programs that are designed either to identify safety problems or to correct identified safety problems.* Although some statewide programs have yet to be identified, it is anticipated that much of this effort, conducted by VTRC, will involve surveying federal, state, and local government agencies and citizen and special interest groups.

10/1/95 *Develop evaluation measures and a monitoring system that stress the results of safety efforts in reducing highway safety problems.* This will include a continuation of the literature review by VTRC.

10/1/95 *Identify ways to build safety into each phase of highway planning, design, construction, maintenance, and operation as a first level consideration.* This will involve the continuing efforts of the task groups and VDOT's Good Practices Committee in cooperation with VTRC.

10/1/95 *Identify and set priorities for training needs.* This will be accomplished by the steering committee in cooperation with VTTTC and TSTC.

10/1/95 *Formalize the roles of the members of the steering committee and formalize increased cooperation among the agencies and organizations with an interest in highway safety through an interagency agreement initiated by DMV.*

10/1/95 *Formalize the relation of the focal point and the Governor's highway safety representative through an interagency agreement initiated by DMV.*

10/1/95 *Determine ways to provide for the safety needs of special user groups.* This will be accomplished through use of the task groups under the leadership of the Drivers/Human Factors Task Group.

10/1/95 *Develop a strategy that will enable the steering committee to examine highway safety problems and programs based on their relative risks and benefit/cost ratio.* This will be accomplished by a consultant under the sponsorship of VDOT and DMV.

10/1/95 *Submit documentation to FHWA to show that Virginia's SMS is underway in accordance with the Work Plan.* The documentation will be generated by the focal point in cooperation with the steering committee and be submitted by the Secretary of Transportation.

10/1/95 *Establish a plan to integrate Virginia's SMS with the other management systems that are required under ISTEA.* This will be accomplished by the Management Systems Steering Committee determining the data requirements of each system.

10/1/95 *Obtain information/perceptions on highway safety in Virginia from the public and private sectors through focus groups with representatives of bicycle advocacy groups and agency representatives, the business community, the American Automobile Association (AAA), Mothers Against Drunk Driving (MADD), Virginians Opposing Drunk Driving (VODD), and others concerned with highway safety.* This will be accomplished by the Drivers/Human Factors Task Group in cooperation with VDOT, DMV, and VTRC.

10/1/95 *Prepare Virginia's Five-Year Strategic Plan for SMS Implementation and Maintenance to address organizational issues, fiscal and staff needs, data and software needs, coordination needs, training needs, and scheduling issues.* This will be accomplished by the steering committee with the help of a consultant under the sponsorship of VDOT and DMV and in cooperation with VTRC.

10/1/95 *Coordinate development of an SMS Management Information System in coordination with other ISTEA management systems.* This will be accomplished by the SMS focal point in cooperation with the Management Systems Steering Committee, DMV, and VTRC.

10/1/95 *Obtain necessary SMS support staff.* This will be accomplished by all involved agencies.

10/1/95 *Develop training courses and materials and initiate staff training in SMS methodologies.* This will be accomplished by VTTTC and TSTC in cooperation with the steering committee and VTRC.

10/1/96 *Develop a management plan that will use benefit/cost analysis and risk assessment to establish priorities.* This will be accomplished by a consultant under the sponsorship of DMV and VDOT with the aid of VTRC and the task groups.

10/1/96 *Develop guidelines and a plan for the replacement and upgrade of highway safety hardware, highway elements, and operational features.* This will be accomplished by a consultant under the sponsorship of VDOT with the cooperation of the steering committee and VTRC.

10/1/96 *Provide input to the development of the Highway Safety Plan, the Motor Carrier Safety Assistance Program State Enforcement Plan, and the Statewide*

Transportation Plan and Improvement Program. The input to these plans will be coordinated by the steering committee.

10/1/96 *Submit documentation to FHWA that Virginia's SMS is fully operational.* This documentation will be generated by the focal point in cooperation with the steering committee and will be submitted by the Secretary of Transportation.

APPENDIX

Current Virginia Highway Safety Programs

LIST OF ACRONYMS

ABC	Alcohol Beverage Control
AASHTO	American Association of State Highway Transportation Officials
ASAP	Alcohol Safety Action Program
DOE	Department of Education
DMV	Department of Motor Vehicles
EMS	Emergency Medical Services
FTA	Federal Transit Administration
FHWA	Federal Highway Administration
HOV	High-Occupancy Vehicle
MPO	Metropolitan Planning Organization
MTRS	Micro Traffic Records System
NHTSA	National Highway Traffic Safety Administration
OEMS	Office of Emergency Medical Services
TSTC	Transportation Safety Training Center
UVA	University of Virginia
VASAP	Virginia Alcohol Safety Action Program
VCU	Virginia Commonwealth University
VDOT	Virginia Department of Transportation
VSP	Virginia State Police

VTRC	Virginia Transportation Research Council
VTTTC	Virginia Transportation Technology Transfer Center

AREA 1:

EXISTING PROGRAMS THAT COORDINATE AND INTEGRATE BROAD-BASED SAFETY PROGRAMS INTO A COMPREHENSIVE MANAGEMENT APPROACH

Virginia Alcohol Safety Action Program

Program Description

Program is designed to ensure that the general public is aware of the inherent dangers of drinking and driving motor vehicles. The program provides specific deterrence and treatment to persons convicted of driving under the influence of alcohol and/or other drugs (DUI) and general deterrence to the public at large.

Goals

1. To develop and maintain local ASAP programs available to all DUI offenders.
2. To ensure the continued self-sufficiency of the ASAP system.
3. To increase public awareness of the transportation safety issues related to DUI.
4. To provide materials and supplies to local staff to assist in the prevention of transportation fatalities and injuries through public information and education activities.

Responsibility

VASAP has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VASAP, DMV, VSP, VDOT, local police agencies, local rescue squads, local fire departments, local governments, local schools, the media, business, and citizen groups.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

Each local program is reviewed every 2 years to determine compliance with goals and assess programmatic impact.

Public Information and Education

Public information activities are planned at the state level and implemented at the local level.

Training

Provided at least every 6 months.

Statewide Incident Management System

Program Description

Program is designed to provide quick response to nonrecurring events that reduce roadway capacity.

Goals

1. To reduce the detection time of nonrecurring incidents.
2. To improve emergency response time.

3. To provide for the cooperation of agencies to ensure effective scene management.
4. To provide timely and accurate information to affected motorists and other citizens.
5. To provide for timely scene clearance.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, OEMS, VSP, local police agencies, local fire departments, local rescue squads, and the media.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Establishment of priorities is a critical focus of this system.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

None.

Corridor Safety Improvement Program

Program Description

Program is designed to coordinate and integrate state and local resources in identifying and targeting corrective programs for traffic safety problems on a rural and an urban corridor.

Goals

1. To identify traffic safety problems on a rural and an urban corridor.

2. To coordinate and integrate state and local resources to address identified traffic safety problems.

Responsibility

VDOT and DMV have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, DMV, VSP, OEMS, VASAP, ABC Board, DOE, NHTSA, FHWA, local transportation safety commissions, MPOs, local police agencies, local fire departments, local ASAPs, local rescue squads, local schools, and citizens.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established by local task forces based on crash and other safety-related data.

Evaluation

Quantifiable results will be evaluated.

Public Information and Education

Public information and education are integrated into the program.

Training

None.

Highway Safety Plan Police Traffic Services

Program Description

Program is designed to provide direct support to state and local police agencies in enforcing traffic laws.

Goals

1. To provide direct support to state and local police agencies in enforcing traffic laws.
2. To provide for the training of law enforcement and other highway safety personnel.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VSP, NHTSA, and local police agencies.

Data Sharing

Data are shared by the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

DMV evaluates activities conducted and federal funds expended.

Public Information and Education

DMV contacts state and local police agencies.

Training

Specialized training of law enforcement and other highway safety personnel is supported.

Highway Safety Plan Traffic Records Program

Program Description

Program is designed to maintain and modify Virginia's traffic records systems, which are used in problem identification and evaluation efforts.

Goals

1. To maintain and modify Virginia's traffic record systems.
2. To provide for the acquisition of MTRS for localities.
3. To provide for the training of traffic records users.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VDOT, VSP, OEMS, TSTC, VCU, NHTSA, and localities.

Data Sharing

Data are shared by the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set each fiscal year.

Evaluation

DMV evaluates activities conducted and federal funds expended.

Public Information and Education

DMV and TSTC provide information on MTRS to localities.

Training

Training on the use of MTRS is provided by TSTC.

EMS Planning and Development

Program Description

Program provides for the statewide coordination of EMS efforts.

Goals

1. To assess the adequacy of EMS personnel requirements.
2. To identify personnel deficiencies in the EMS system.

3. To standardize and provide for the training of EMS personnel.

4. To provide for the licensure and certification of EMS agencies, vehicles, and personnel.

5. To set criteria for trauma centers and specialty care centers.

Responsibility

OEMS has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of OEMS, trauma and specialty care centers, and local rescue squads and fire departments. Some funding is provided by NHTSA through DMV.

Data Sharing

Data are shared to establish the statewide trauma registry.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

OEMS evaluates the adequacy of training of EMS personnel.

Public Information and Education

The general public is informed on how to use the EMS system properly and prevent injuries. Prehospital providers of care are informed of proper safety and personal protection measures.

Training

EMS personnel are provided continuing education opportunities. Basic and advanced life support courses are offered.

Transportation Safety Board

Program Description

Board is to provide the best-informed advice and support to the Commissioner of Motor Vehicles, the Secretary of Transportation, and the Governor in order to save lives and prevent injuries, encourage and foster the best transportation safety plan for Virginia, and ensure public stewardship of all available resources to achieve the overall transportation goals of Virginia.

Goals

1. To advise the Commissioner of DMV, the Secretary of Transportation, and the Governor on transportation safety matters.

2. To oversee DMV's transportation safety program.

3. To identify the unique safety needs of each mode of transportation used in Virginia.

4. To identify the common elements of safe transportation operation, regardless of mode of transportation.

5. To adapt proven safety practices and technology in use in one mode to other modes of transportation.

6. To identify the common elements of accident situations.

7. To allocate grant funds made available by DMV.

Responsibility

Board is appointed by the Governor and confirmed by the General Assembly to advise the DMV Commissioner, the Secretary of Transportation, and the Governor on transportation safety issues.

Coordination, Cooperation, and Communication

Board requires communication with DMV, Office of the Secretary of Transportation, Office of the Governor, state and local government agencies, private industry, and representatives of the various modes of transportation.

Data Sharing

Board uses data that are supplied through shared data generated from crash reports.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

No formal evaluation.

Public Information and Education

Board's regular meetings are published in the *Virginia Register*.

Training

Training is conducted for new board members.

Transportation Safety Policy Committee

Program Description

Committee is composed of senior representatives of DMV, VDOT, VSP, VASAP, and OEMS. Its purpose is to coordinate transportation safety issues in Virginia.

Goals

1. To conduct transportation safety problem identification on a statewide level to identify areas of concern.

2. To serve as the executive steering committee for the Transportation Safety Research Advisory Committee.

3. To coordinate statewide public information campaigns and provide policy guidance on the dissemination of information concerning transportation safety issues.

4. To coordinate the compilation of a calendar of events and activities related to transportation safety.

5. To provide for policy oversight and review of transportation safety data use and issues.

6. To coordinate and combine, where appropriate, individual transportation safety conferences into one large safety conference with several information tracks in the early spring of each year.

7. To be briefed periodically by DMV's Crash Investigation Team (CIT), advise CIT as to areas of concentration for in-depth analysis, and provide a forum for the presentation of studies completed by CIT before publication.

8. To submit an annual report to the Transportation Safety Board on the committee's accomplishments.

Responsibility

DMV representative serves as the committee's chairperson, but the representatives of VDOT, VSP, VASAP, and OEMS are also responsible for the duties of the committee.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VDOT, VSP, VASAP, and OEMS.

Data Sharing

Committee uses data supplied through shared data generated from crash reports.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

No formal evaluation.

Public Information and Education

Coordinates public information and education campaigns concerning transportation safety issues.

Training

None.

Community Transportation Safety Program

Program Description

Uses DMV representatives to develop, build, and maintain community traffic safety efforts at the local level. Local or grass roots concerns are directed toward countering traffic safety problems.

Goals

1. To develop and maintain community transportation safety programs at the local level.
2. To increase public awareness of traffic safety issues.
3. To assist in the prevention of traffic fatalities and injuries through the dissemination of information and education.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VDOT, VSP, local police agencies, local emergency squads, local media, local governments, local schools, local business, and citizen groups.

Data Sharing

DMV uses data supplied through shared data generated from crash reports.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

DMV evaluates activities conducted and federal funds expended.

Public Information and Education

Each program has a public information officer who coordinates public information and education needs.

Training

Training is provided through courses sponsored by NHTSA and held at the Annual Conference on Transportation Safety.

VDOT Risk Management Group

Program Description

Group is designed to reduce VDOT's liability for tort claims. The group oversees the agency's efforts and is composed of personnel from the residencies, the districts, the Central Office, and the Office of the Attorney General.

Goals

1. To identify the activities that pose the greatest risks of tort liability.
2. To measure the severity and frequency of tort liability associated with each activity.
3. To develop methods to control or eliminate the risk of liability associated with each activity.
4. To improve the agency's ability to defend tort claims.
5. To better prepare for claims that must be paid.

Responsibility

VDOT and the Office of the Attorney General have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of individual VDOT employees, VDOT management, Office of the Attorney General, state and local police agencies, and the general public.

Data Sharing

VDOT is developing a risk management data base to assess potential tort liability areas and determine trends. The data base will contain information that will be useful to all divisions: Design, Construction, Operations, Maintenance, and Administration.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities will be continually reviewed and established.

Evaluation

No formal evaluation.

Public Information and Education

Two handbooks on *What You Should Know About Risk Management in the VDOT* have been distributed to agency employees. All new employees receive a handbook and a brief oral introduction to the roles and responsibilities of each employee.

Training

Training is provided in the form of the handbook, briefings, and periodic updates.

AREA 2:

EXISTING PROGRAMS THAT IDENTIFY, INVESTIGATE, AND ATTEMPT TO CORRECT HAZARDOUS AND POTENTIALLY HAZARDOUS SAFETY PROBLEMS

VDOT Roadside Management Operations Program

Program Description

Program is designed to provide a safe travel way and work zone for pedestrians, motorists, and workers.

Goals

1. To ensure that landscape plans and implementation meet all requirements associated with the clear zone.

2. To ensure that road crews are aware of VDOT safety policies.

3. To ensure that road crews follow VDOT safety procedures.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and private contractors.

Data Sharing

Data are shared between the interested parties.

Assessment of Highway Safety Needs and Setting of Priorities

Safety is always stressed.

Evaluation

No formal evaluation.

Public Information and Education

There is an ongoing VDOT public information campaign asking motorists to be careful when driving through work zones.

Training

Training is ongoing and can be provided by VDOT safety officers and VTTTC.

VDOT Noise Abatement Design Program

Program Description

Program is designed to ensure that the placement of noise barriers does not create a safety hazard.

Goals

1. To mandate clear zone design standards on noise abatement designs.

2. To review project design plans to ensure that they document the location of noise barriers and their potential for intrusion into the clear zone.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and private contractors.

Data Sharing

Data are shared between the parties involved.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each project individually.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

None.

VDOT Outdoor Advertising Program

Program Description

Program is designed to identify and correct outdoor advertising structures that do not comply with Virginia law.

Goals

1. To identify and correct outdoor advertising structures that do not comply with Virginia law.

2. To evaluate signs for safety when they are erected and periodically as road conditions change.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, local government, and private business.

Data Sharing

Data are shared within VDOT.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established by law.

Evaluation

No formal evaluation.

Public Information and Education

A brochure on the laws of Virginia related to outdoor advertising is available to anyone interested in erecting outdoor advertising signs.

Training

There is an annual workshop for District Roadside Development Agents.

VDOT Public Affairs

Program Description

Program is designed to alert motorists of delays, incidents, road work, and road conditions that may create safety hazards.

Goals

1. To provide weekly traffic alerts to the media.
2. To provide media advisories on major construction and maintenance projects.
3. To provide road condition reports to the media.
4. To provide highway advisory radio systems for public information.
5. To provide the highway helpline and highway project telephone hotlines for public use.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, media, welcome centers, and local governments.

Data Sharing

Data are shared among the involved parties.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

No formal evaluation.

Public Information and Education

This is a public information program.

Training

None.

Highway Safety Plan Police Traffic Services

Program Description

Program is designed to provide direct support to state and local police agencies in enforcing traffic laws.

Goals

1. To provide direct support to state and local police agencies in enforcing traffic laws.
2. To provide for the training of law enforcement and other highway safety personnel.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VSP, NHTSA, and local police agencies.

Data Sharing

Data are shared by the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

DMV evaluates activities conducted and federal funds expended.

Public Information and Education

DMV contacts state and local police agencies.

Training

Specialized training of law enforcement and other highway safety personnel is supported.

EMS Planning and Development

Program Description

Program provides for the statewide coordination of EMS efforts.

Goals

1. To assess the adequacy of EMS personnel requirements.
2. To identify personnel deficiencies in the EMS system.
3. To standardize and provide for the training of EMS personnel.
4. To provide for the licensure and certification of EMS agencies, vehicles, and personnel.
5. To set criteria for trauma centers and specialty care centers.

Responsibility

OEMS has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of OEMS, trauma and specialty care centers, and local rescue squads and fire departments. Some funding is provided by NHTSA through DMV.

Data Sharing

Data are shared to establish the statewide trauma registry.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

OEMS evaluates the adequacy of training of EMS personnel.

Public Information and Education

The general public is informed on how to use the EMS system properly and prevent injuries. Prehospital providers of care are informed of proper safety and personal protection measures.

Training

EMS personnel are provided continuing education opportunities. Basic and advanced life support courses are offered.

Workshop on Surface Treatments

Program Description

Program is designed to train personnel on proper surface treatment procedures.

Goals

1. To train personnel on proper surface treatment procedures.
2. To train surface treatment personnel on proper use of traffic control.

Responsibility

VTTTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTTTC, VDOT, local governments, and private contractors.

Data Sharing

Data are shared among the participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set by VTTTC and the instructor.

Evaluation

Workshop is evaluated subjectively by the participants.

Public Information and Education

Course announcements are distributed to VTTTC mailing list.

Training

This is a training program.

Work Zone Training and Certification

Program Description

Program is designed to train work zone traffic control workers to install and maintain worksite traffic control systems.

Goals

1. To train those who design, maintain, monitor, inspect, and remove work zone traffic control systems to install and maintain work zone traffic control systems.

2. To train those who design, maintain, monitor, inspect, and remove work zone traffic control systems to monitor the effectiveness of such systems and implement needed changes.

Responsibility

VTTTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTTTC, VDOT, local governments, and private contractors.

Data Sharing

Data are shared among the participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set by VTTTC and the instructor.

Evaluation

Course is evaluated subjectively by the participants.

Public Information and Education

Course announcements are distributed to VTTTC mailing list.

Training

This is a training program.

Asphalt Pavement Maintenance Workshop

Program Description

Program is designed to train maintenance supervisors on current practices in pavement maintenance.

Goals

1. To train maintenance supervisors on current practices in pavement maintenance.
2. To train maintenance supervisors on pavement evaluation.

Responsibility

VTTTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTTTC, VDOT, local governments, and private contractors.

Data Sharing

Data are shared among the participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set by VTTTC and the instructor.

Evaluation

Course is evaluated subjectively by the participants.

Public Information and Education

Course announcements are distributed to VTTTC mailing list.

Training

This is a training program.

Seminar on Mitigating Highway Tort Liability

Program Description

Program is designed to protect citizens from potential dangers that may be imposed by the highway and the highway environment by training personnel to identify and reduce such hazards.

Goals

1. To train personnel on the vulnerability to tort liability litigation.
2. To train personnel on how to identify potential liability situations.

Responsibility

VTTTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTTTC, VDOT, local governments, and private contractors.

Data Sharing

Data are shared among the participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set by VTTTC and the instructor.

Evaluation

Course is evaluated subjectively by the participants.

Public Information and Education

Course announcements are distributed to VTTTC mailing list.

Training

This is a training program.

Hazard Elimination Safety Improvement Program

Program Description

Program is designed to identify hazardous locations that have an abnormally high accident rate over a limited length of roadway and select locations for remediation that have a high potential for accident reduction.

Goals

1. To identify hazardous locations that have an abnormally high accident rate over a limited length of roadway.

2. To work with local governments to identify hazardous locations and analyze the need for improvements at these locations.

3. To utilize citizen complaints, reports from field engineers, and special police reports to identify potential hazardous locations.

4. To determine and implement ways to reduce the hazard.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, local governments, and police agencies.

Data Sharing

VDOT uses data supplied through shared data generated from crash reports and supplements those data with special field analysis.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are initially established using accident rates. Locations with identifiable hazards that can be reduced or eliminated are selected.

Evaluation

There is ongoing monitoring to determine whether an improvement adversely affects traffic safety or did not reduce or eliminate the hazard.

Public Information and Education

None.

Training

None.

Rail-Highway Grade Crossing Safety Improvement Program

Program Description

Program is designed to enhance the safety of the 2,400 public at-grade rail-highway crossings in Virginia by installing protective devices or utilizing other hazard elimination techniques.

Goals

1. To prioritize rail-highway crossings for submittal to FHWA for improvement using *National Cooperative Highway Research Program Report No. 50* and subsequent field analysis.

2. To install at hazardous rail-highway crossings protective devices, such as standard signs, pavement markings, active warning devices, circuitry improvements, traffic signal interconnections, illumination, surface improvements, and general site improvements.

3. To utilize at hazardous rail-highway crossings hazard elimination techniques other than protective devices, such as grade separations, crossing closures, and rail or highway relocations.

4. To conduct rail corridor studies to include feasibility studies for rail-highway crossing closures.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and FHWA.

Data Sharing

VDOT uses data that are supplied through shared data generated from crash reports and supplements those data with special field analysis.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are initially established using *National Cooperative Highway Research Program Report No. 50,* which calculates an expected accident rate, and those assessments are supplemented by field analysis.

Evaluation

There is no evaluation mechanism to determine whether the improvements enhance traffic safety; however, there is ongoing monitoring to determine whether an improvement adversely affects traffic safety.

Public Information and Education

None.

Training

None.

Motor Carrier Safety Program

Program Description

Program is designed to reduce large commercial vehicle crashes through roadside inspections of vehicles and examinations of vehicle and driver license status and the ability of the driver and vehicle to continue safely.

Goals

1. To conduct roadside inspections of commercial vehicles at weigh stations.

2. To conduct post-crash investigations of commercial vehicle crashes and hazardous materials incidents and spills to determine causative factors and if violations of laws or regulations were involved.

Responsibility

VSP has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VSP, VDOT, DMV, and local police agencies.

Data Sharing

Data are shared among the agencies involved.

Assessment of Highway Safety Needs and Setting of Priorities

Data are analyzed to determine where resources can best be spent to target motor carrier problems.

Evaluation

Post-crash investigations and investigations of hazardous materials incidents and spills are conducted to determine causative factors and whether violations of laws or regulations were committed.

Public Information and Education

None.

Training

Training includes conducting The North American Driver/Vehicle Inspection Course, the Hazardous Materials Roadside Compliance and Cargo Tank Course, and an annual inservice training program.

Transportation Improvement Program

Program Description

Program is designed to identify a priority list of planned federally funded projects and projects endorsed by Virginia's MPOs. It also provides a means for local elected officials and the public to review and comment on priorities assigned to projects.

Goals

1. To identify a priority list of planned federally funded projects and projects endorsed by Virginia's MPOs.

2. To provide a means for local elected officials and the public to review and comment on priorities assigned to projects.

3. To satisfy FHWA and FTA requirements for continuing transportation planning.

Responsibility

VDOT and MPOs have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, MPOs, FHWA, FTA, local governments, and citizens.

Data Sharing

Data are shared between VDOT and MPOs.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set, and safety is one of the factors considered.

Evaluation

There is no evaluation mechanism to determine whether the improvements enhance traffic safety; however, there is ongoing monitoring to determine whether an improvement adversely affects traffic safety.

Public Information and Education

There are public hearings on the priority lists of projects and project segments.

Training

None.

State Planning and Research Pavements and Structures Program

Program Description

Program is designed to conduct research on the design, evaluation, maintenance, rehabilitation, and application of pavement and structure management systems.

Goals

1. To support the development and implementation of pavement and bridge management systems and implementation of geographical information systems to enhance the maintenance of Virginia's transportation system.

2. To evaluate the potential uses of new materials and advanced technologies in the design, construction, and maintenance of the transportation system.

3. To extend the service life of Virginia's pavements and structures.

4. To evaluate the performance of pavements and bridges and their components through field testing in order to improve design, load rating, and rehabilitation procedures.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Materials and Environmental Program

Program Description

Program is designed to conduct research on the materials and material processes used in constructing and maintaining pavements and structures.

Goals

1. To evaluate and assess materials and material processes used in the construction and maintenance of asphalt pavements and surface-treated roads.

2. To evaluate and improve hydraulic cement concretes and concreting processes used in the construction, rehabilitation, and maintenance of bridges and pavements.

3. To evaluate and improve cathodic protection systems and electrochemical chloride removal techniques for use in preventing the corrosion of steel in concrete.

4. To evaluate and apply nondestructive test procedures for assessment of the integrity and inspection of pavements and structures.

5. To determine the microstructure and composition of aggregates and concretes and classify them as to their serviceability with respect to highway construction and maintenance.

6. To identify, assess, and evaluate polymer materials for rehabilitating, repairing, and protecting reinforced concrete structures and enhancing the quality of portland cement concretes.

7. To assist VDOT with the development of technology to protect and enhance the physical environment with respect to roadside vegetation, wetlands, scour, and highway run-off.

8. To identify and protect the structures of historical significance along the highways.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Socioeconomic and Transportation Systems Program

Program Description

Program is designed to conduct research on issues related to the allocation of resources and traffic operations and design of roadways.

Goals

1. To conduct research and develop methodologies to address financial and economic issues that affect VDOT.

2. To conduct research aimed at identifying social, behavioral, and demographic characteristics of transportation facility users and recommend system enhancements that are responsive to user needs.

3. To investigate traffic and speed control devices and design elements of transportation facilities to improve their effectiveness, safety, and efficiency.

4. To examine, review, and recommend advanced technologies and innovative traffic management techniques that will reduce congestion, enhance operational safety and efficiency, and improve traffic monitoring.

5. To enhance multimodal transportation planning by evaluating, demonstrating, and recommending ways to improve the accuracy and efficiency of VDOT's long- and short-range planning techniques.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and to the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Transportation Safety Program

Program Description

Program is designed to conduct research to determine ways to enhance transportation safety through legal, behavioral, or traffic operations changes.

Goals

1. To evaluate highway safety programs and projects.

2. To conduct research and evaluation on programs and projects designed to improve vehicle operator performance.

3. To provide assistance in legal and legislative areas of transportation safety.

4. To assess and evaluate current problems in traffic operations and safety and advise the involved agencies on selecting priorities.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, DMV, VASAP, VSP, DOE, TSTC, FHWA, and NHTSA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC and TSTC.

Transportation Safety Training Center Workshops

Program Description

Program is designed to assist local and state transportation safety agencies and organizations by providing training courses and workshops.

Goals

1. To train public safety professionals on conducting crash investigations and reconstruction.
2. To train adults how to use child safety seats properly.
3. To train interested individuals on how to teach adults to use child safety seats properly.
4. To install and provide training and technical support for MTRS applications.
5. To administer the knowledge test for the Virginia overdimensional load escort certification program.

Responsibility

TSTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of TSTC, VCU, DMV, NHTSA, OEMS, VDOT, VSP, and local governments.

Data Sharing

Data are shared among the workshop participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

Workshops are evaluated subjectively by the participants, and DMV evaluates activities conducted and federal funds expended.

Public Information and Education

There are course announcements and manuals related to traffic records, transportation safety commissions, fixed route paratransit training, accident reconstruction, occupant protection, and scale diagramming.

Training

This is a training program.

VSP Enforcement Program

Program Description

Program is designed to provide for the enforcement of laws designed to promote traffic safety.

Goals

1. To detect and apprehend drivers who commit violations that are often associated with traffic crashes.

2. To conduct the annual motor vehicle inspection program.

3. To provide for motor carrier safety by inspecting commercial motor vehicles.

Responsibility

VSP has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VSP, local police agencies, and business.

Data Sharing

Data are shared among the involved parties.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

Specialized training is provided for inspectors.

State Traffic Operations and Safety Improvement Program

Program Description

Program is designed to allow VDOT district administrators to develop and implement expedient, low-cost projects to improve traffic operations and safety.

Goals

1. To identify locations where traffic operations and safety can be enhanced through low-cost measures.

2. To develop and implement countermeasures at identified locations.

3. To reduce federal and state documentation requirements for low-cost traffic operations and safety improvements.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and FHWA.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established for each fiscal year.

Evaluation

The effectiveness of countermeasures are evaluated based on whether they alleviated a problem condition.

Public Information and Education

None.

Training

None.

Residential Cut-Through Traffic Management Program

Program Description

Program is designed to reduce cut-through traffic in residential areas while balancing the need to keep roads open to the public.

Goals

1. To investigate requests and determine whether reported cut-through routes have a substantial problem.

2. To provide solutions to reduce excessive cut-through traffic.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and local governments.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established for each request based on established policy and procedures.

Evaluation

The effectiveness of a countermeasure is evaluated 6 months after it is implemented.

Public Information and Education

None.

Training

None.

Statewide Incident Management System

Program Description

Program is designed to provide quick response to nonrecurring events that reduce roadway capacity.

Goals

1. To reduce the detection time of nonrecurring incidents.
2. To improve emergency response time.
3. To provide for the cooperation of agencies to ensure effective scene management.
4. To provide timely and accurate information to affected motorists and other citizens.
5. To provide for timely scene clearance.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, OEMS, VSP, local police agencies, local fire departments, local rescue squads, and the media.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

The establishment of priorities is a critical focus of this system.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

None.

Centralized Accident Processing System

Program Description

Program is designed to provide timely and accurate crash data.

Goals

1. To provide for the development of annual statistical crash reports.
2. To provide information to support field and research studies.
3. To serve as a centralized source of data.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VDOT, VSP, FHWA, and local police agencies.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities were established with the design of the system and are updated each fiscal year.

Evaluation

Ongoing.

Public Information and Education

None.

Training

None.

Highway and Traffic Records Information System

Program Description

Program is designed to provide timely and accurate crash, inventory, and traffic support data.

Goals

1. To provide for the development of annual statistical data relative to highway culture and characteristics.

2. To provide information to support traffic engineering, field, and research studies.

3. To serve as a centralized source of data.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, DMV, VSP, FHWA, and local police agencies.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities were established with the design of the system and are updated each fiscal year.

Evaluation

Ongoing.

Public Information and Education

None.

Training

None.

Traffic Management Center

Program Description

Program is designed to identify traffic hazards that occur on particular congested commuter routes in Northern Virginia.

Goals

1. To identify traffic hazards as they occur on congested commuter routes.
2. To inform the media and the driving public of traffic hazards, incidents, and road work.
3. To provide for the aid of motorists and others involved or threatened by highway incidents on congested commuter routes.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, VSP, local fire departments and rescue squads, and the media.

Data Sharing

Data are shared among the interested parties.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are determined based on ongoing road work projects and incidents.

Evaluation

No formal evaluation.

Public Information and Education

Ongoing.

Training

None.

Northern Virginia HOV/Rideshare Communications Program

Program Description

Program is designed to build a coalition of public and private interests to increase ridesharing and the use of HOV facilities to reduce congestion.

Goals

1. To conduct planning and research activities to identify market needs, develop appropriate responses, and assess implementation and communication efforts.

2. To establish an ongoing dialogue with local, regional, and state officials and the media.

3. To provide ridesharing information to employers.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, the media, local governments, business, and citizens.

Data Sharing

Data are shared among the interested parties.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established for each fiscal year.

Evaluation

Evaluation is based on the use of the rideshare and HOV facilities.

Public Information and Education

Ongoing.

Training

None.

Pavement Roughness Data Collection Program

Program Description

Program is designed to collect pavement roughness data to fulfill FHWA requirements relative to pavement roughness.

Goals

1. To conduct pavement roughness tests on the Highway Performance Monitoring System.
2. To conduct pavement roughness tests on all principal arterial mileage.
3. To conduct pavement roughness tests on all mileage in the proposed National Highway System.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and FHWA.

Data Sharing

Data collected by VDOT are shared with FHWA.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities were established by FHWA.

Evaluation

This is an evaluation program.

Public Information and Education

None.

Training

None.

Corridor Safety Improvement Program

Program Description

Program is designed to coordinate and integrate state and local resources in identifying and targeting corrective programs for traffic safety problems on a rural and an urban corridor.

Goals

1. To identify traffic safety problems on a rural and an urban corridor.

2. To coordinate and integrate state and local resources to address identified traffic safety problems.

Responsibility

VDOT and DMV have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, DMV, VSP, OEMS, VASAP, ABC Board, DOE, NHTSA, FHWA, local transportation safety commissions, MPOs, local police agencies, local fire departments, local ASAPs, local rescue squads, local schools, and citizens.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established by local task forces based on crash and other safety-related data.

Evaluation

Quantifiable results will be evaluated.

Public Information and Education

Public information and education are integrated into the program.

Training

None.

VDOT Risk Management Group

Program Description

Group is designed to reduce VDOT's liability for tort claims. The group oversees the agency's efforts and is composed of personnel from the residencies, the districts, the Central Office, and the Office of the Attorney General.

Goals

1. To identify the activities that pose the greatest risks of tort liability.
2. To measure the severity and frequency of tort liability associated with each activity.
3. To develop methods to control or eliminate the risk of liability associated with each activity.
4. To improve the agency's ability to defend tort claims.
5. To better prepare for claims that must be paid.

Responsibility

VDOT and the Office of the Attorney General have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of individual VDOT employees, VDOT management, Office of the Attorney General, state and local police agencies, and the general public.

Data Sharing

VDOT is developing a risk management data base to assess potential tort liability areas and determine trends. The data base will contain information that will be useful to all divisions: Design, Construction, Operations, Maintenance, and Administration.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities will be continually reviewed and established.

Evaluation

No formal evaluation.

Public Information and Education

Two handbooks on *What You Should Know About Risk Management in the VDOT* have been distributed to agency employees. All new employees receive a handbook and a brief oral introduction to the roles and responsibilities of each employee.

Training

Training consists of the handbook, briefings, and periodic updates.

AREA 3:

EXISTING PROGRAMS THAT ENSURE EARLY CONSIDERATION OF SAFETY IN HIGHWAY TRANSPORTATION PROGRAMS AND PROJECTS

VDOT Roadside Management Operations Program

Program Description

Program is designed to provide a safe travel way and work zone for pedestrians, motorists, and workers.

Goals

1. To ensure that landscape plans and implementation meet all requirements associated with the clear zone.

2. To ensure that road crews are aware of VDOT safety policies.

3. To ensure that road crews follow VDOT safety procedures.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and private contractors.

Data Sharing

Data are shared between the interested parties.

Assessment of Highway Safety Needs and Setting of Priorities

Safety is always stressed.

Evaluation

No formal evaluation.

Public Information and Education

There is an ongoing VDOT public information campaign asking motorists to be careful when driving through work zones.

Training

Training is ongoing and can be provided by VDOT safety officers and VTTTC.

VDOT Safety Program for Field Inspections, Reviews, and Studies

Program Description

Program is designed to train VDOT employees to use all reasonable precautions when working in work zones or along the highway.

Goals

1. To train VDOT employees to use proper safety equipment when working in work zones or along the highway.

2. To train VDOT employees to use all reasonable precautions when working in work zones or along the highway.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation within VDOT.

Data Sharing

Data are shared within VDOT.

Assessment of Highway Safety Needs and Setting of Priorities

Safety is always stressed.

Evaluation

No formal evaluation.

Public Information and Education

There is an ongoing VDOT public information campaign asking motorists to be careful when driving through work zones.

Training

This is a training program.

VDOT Noise Abatement Design Program

Program Description

Program is designed to ensure that the placement of noise barriers does not create a safety hazard.

Goals

1. To mandate clear zone design standards on noise abatement designs.

2. To review project design plans to ensure that they document the location of noise barriers and their potential for intrusion into the clear zone.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and private contractors.

Data Sharing

Data are shared between the parties involved.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each project individually.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

None.

Highway Safety Plan Alcohol and Drug Program

Program Description

Program is designed to reduce Virginia's drunk and drugged driving problem.

Goals

1. To reduce alcohol- and drug-related traffic injuries and fatalities.
2. To train police officers in detecting drunk and drugged drivers.

Responsibility

DMV and VASAP have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VASAP, and state and local police agencies.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

DMV evaluates activities conducted and federal funds expended.

Public Information and Education

There is a yearly public information campaign conducted by a multiagency task force.

Training

Training of police officers in detecting drunk and drugged driving is provided.

Highway Safety Plan Occupant Protection Program

Program Description

Program is designed to increase the use of safety belts, child safety seats, and motorcycle helmets.

Goals

1. To increase proper usage of safety belts.
2. To increase proper usage of child safety seats.
3. To increase proper usage of approved motorcycle helmets.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VTRC, TSTC, NHTSA, local governments, and local police agencies.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set each fiscal year.

Evaluation

Use surveys are conducted each year. DMV evaluates activities conducted and federal funds expended.

Public Information and Education

There is a yearly public information campaign conducted by DMV.

Training

There is a training program for the correct usage of safety belts conducted in cooperation with DMV and TSTC.

Workshop on Surface Treatments

Program Description

Program is designed to train personnel on proper surface treatment procedures.

Goals

1. To train personnel on proper surface treatment procedures.
2. To train surface treatment personnel on proper use of traffic control.

Responsibility

VTTTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTTTC, VDOT, local governments, and private contractors.

Data Sharing

Data are shared among the participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set by VTTTC and the instructor.

Evaluation

Course is evaluated subjectively by the participants.

Public Information and Education

Course announcements are distributed to VTTTC mailing list.

Training

This is a training program.

Work Zone Training and Certification

Program Description

Program is designed to train work zone traffic control workers to install and maintain worksite traffic control systems.

Goals

1. To train those who design, maintain, monitor, inspect, and remove work zone traffic control systems to install and maintain them.

2. To train those who design, maintain, monitor, inspect, and remove work zone traffic control systems to monitor the effectiveness of such systems and implement needed changes.

Responsibility

VTTTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTTTC, VDOT, local governments, and private contractors.

Data Sharing

Data are shared among the participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set by VTTTC and the instructor.

Evaluation

Course is evaluated subjectively by the participants.

Public Information and Education

Course announcements are distributed to VTTTC mailing list.

Training

This is a training program.

Asphalt Pavement Maintenance Workshop

Program Description

Program is designed to train maintenance supervisors on current practices in pavement maintenance.

Goals

1. To train maintenance supervisors on current practices in pavement maintenance.
2. To train maintenance supervisors on pavement evaluation.

Responsibility

VTTTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTTTC, VDOT, local governments, and private contractors.

Data Sharing

Data are shared among the participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set by VTTTC and the instructor.

Evaluation

Course is evaluated subjectively by the participants.

Public Information and Education

Course announcements are distributed to VTTTC mailing list.

Training

This is a training program.

Seminar on Mitigating Highway Tort Liability

Program Description

Program is designed to protect citizens from potential dangers that may be imposed by the highway and the highway environment by training personnel to identify and reduce such hazards.

Goals

1. To train personnel on the vulnerability to tort liability litigation.
2. To train personnel on how to identify potential liability situations.

Responsibility

VTTTC has primary responsibility.

Coordination, Cooperation, and Communication

Program requires cooperation of VTTTC, VDOT, local governments, and private contractors.

Data Sharing

Data are shared among the participants.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set by VTTTC and the instructor.

Evaluation

Course is evaluated subjectively by the participants.

Public Information and Education

Course announcements are distributed to VTTTC mailing list.

Training

This is a training program.

VDOT Maintenance Training Academy

Program Description

The training academy provides basic skills in operating heavy equipment and training for instructors.

Goals

1. To instruct recently hired equipment operators on the safe operation of heavy equipment.

2. To train instructors for the academy.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation within VDOT.

Data Sharing

Data are shared within VDOT.

Assessment of Highway Safety Needs and Setting of Priorities

Priority is to instruct recently hired equipment operators on the safe operation of heavy equipment.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

This is a training program.

Highway Design Standards and Criteria Program

Program Description

Program is designed to ensure that VDOT highway design standards and criteria are based on the national guidelines provided in AASHTO's *A Policy on Geometric Design of Highways and Streets*.

Goals

1. To design highways in accordance with minimum national standards.
2. To review new research information and technical guidelines for potential improvements.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and FHWA.

Data Sharing

Data are shared between VDOT and FHWA.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each project individually.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

Training is offered through VTTTC.

Crossover and Entrance Standards Program

Program Description

Program is designed to develop and update guidelines that provide for the safe design of highway crossovers and entrances.

Goals

1. To review policies and practices relating to the design and construction of entrances and crossovers to ensure they reflect the latest research information.

2. To ensure that all proposed entrances on VDOT projects be designed in accordance with the 1989 *Minimum Standards of Entrances to State Highways* and VDOT's Location and Design *Instructional and Informational Memorandum* [LD-94 (D) 208].

3. To ensure that proposed crossovers on divided highways on VDOT projects be designed in accordance with the 1989 *Minimum Standards of Entrances to State Highways* and the *Road Design Manual*.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and localities.

Data Sharing

Data are shared between VDOT and the localities.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are determined for each project individually.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

None.

Plan Design Review Program

Program Description

At various stages of the plan development process, reviews are conducted using representatives from VDOT districts and divisions, localities, and other agencies.

Goals

1. To provide for reviews of plans at numerous stages of the plan development process.
2. To ensure that all design elements, including safety, are considered and subjected to rigorous review.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, FHWA, localities, and other agencies.

Data Sharing

Data relevant to reviewing the plans are shared.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are considered on each project individually in accordance with established guidelines and legislation.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

None.

Highway Work Zone Safety Program

Program Description

Program is designed to provide for the protection of motorists, pedestrians, and workers in work zones.

Goals

1. To provide safe traffic control during construction, maintenance, and utility operations by using signs, barriers, appropriate speed limits, channelizing devices, signals, lighting, impact attenuators, and flagging.

2. To use input from various VDOT divisions and field personnel to develop a "sequence of construction/traffic control" plan.

3. To work with VSP to provide for enhanced patrolling of work zones.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, VSP, FHWA, and private contractors.

Data Sharing

VDOT uses data that are supplied through shared data generated from crash reports.

Assessment of Highway Safety Needs and Setting of Priorities

A VDOT task force was established to review work zone and employee safety. Plans are established under guidelines in VDOT's Location and Design *Instructional and Informational Memorandum* [LD-44 (D) 93.10], VDOT's Location and Design *Road Design Manual*, the *Virginia Work Area Protection Manual*, and the *Interagency Work Zone Safety Patrol Enforcement Agreement*.

Evaluation

The safety of a work zone is monitored through the duration of construction by construction, traffic, and other VDOT employees. The effectiveness of this program is measured by the number of work zone–related accidents and subjective evaluation.

Public Information and Education

Work zones that may affect traffic operations are reported to the media.

Training

VTTTC offers training for traffic control operators.

Driver Education for Youth Program

Program Description

Program is designed to provide students with the knowledge, skills, and ability to drive safely on the highways through classroom and behind-the-wheel training.

Goals

1. To provide for classroom and behind-the-wheel training of young drivers.
2. To develop curriculum guides for the classroom and laboratory instructional phases of driver education.
3. To develop curriculum guides for classroom instruction on alcohol and other drugs.
4. To provide an inservice driver tract at the Annual Transportation Safety Conference sponsored by DMV.

Responsibility

DOE has primary responsibility for the statewide driver education program.

Coordination, Cooperation, and Communication

Requires cooperation of DOE, local schools, providers of driver education, VASAP, DMV, and VSP.

Data Sharing

DOE collects youth crash and alcohol involvement data by locality and distributes it to interested individuals.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

No formal evaluation.

Public Information and Education

DOE develops and distributes quarterly driver education newsletters for driver educators to keep informed on new legislation, teaching tips, and sources of teaching materials.

Training

DOE provides for an inservice driver tract at the Annual Transportation Safety Conference sponsored by DMV and four, 1-day neurodysfunction eye test training sessions for educators to develop skills to assess student driver fitness.

Motor Carrier Safety Program

Program Description

Program is designed to reduce the hazard of large commercial vehicle crashes through roadside inspections of vehicles and examinations of vehicle and driver license status and the ability of the driver and vehicle to continue safely.

Goals

1. To conduct roadside inspections of commercial vehicles at weigh stations.

2. To conduct post-crash investigations of commercial vehicle crashes and hazardous materials incidents and spills to determine causative factors and if violations of laws or regulations were involved.

Responsibility

VSP has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VSP, VDOT, DMV, and local police agencies.

Data Sharing

Data are shared among the agencies involved.

Assessment of Highway Safety Needs and Setting of Priorities

Data are analyzed to determine where resources can best be spent to target motor carrier problems.

Evaluation

Post-crash investigations and investigations of hazardous materials incidents and spills are conducted to determine causative factors and whether violations of laws or regulations were committed.

Public Information and Education

None.

Training

The program conducts the North American Driver/Vehicle Inspection Course, the Hazardous Materials Roadside Compliance and Cargo Tank Course, and annual inservice training.

Transportation Improvement Program

Program Description

Program is designed to identify a priority list of planned federally funded projects and projects endorsed by Virginia's MPOs. It also provides a means for local elected officials and the public to review and comment on priorities assigned to projects.

Goals

1. To identify a priority list of planned federally funded projects and projects endorsed by Virginia's MPOs.

2. To provide a means for local elected officials and the public to review and comment on priorities assigned to projects.

3. To satisfy FHWA and FTA requirements for continuing transportation planning.

Responsibility

VDOT and MPOs have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, MPOs, FHWA, FTA, local governments, and citizens.

Data Sharing

Data are shared between VDOT and MPOs.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set, and safety is one of the factors considered.

Evaluation

There is no evaluation mechanism to determine whether the improvements enhance traffic safety; however, there is ongoing monitoring to determine whether an improvement adversely affects traffic safety.

Public Information and Education

There are public hearings on the priority lists of projects and project segments.

Training

None.

State Planning and Research Pavements and Structures Program

Program Description

Program is designed to conduct research on the design, evaluation, maintenance, rehabilitation, and application of pavement and structures management systems.

Goals

1. To support the development and implementation of pavement and bridge management systems and implementation of geographical information systems to enhance the maintenance of Virginia's transportation system.

2. To evaluate the potential uses of new materials and advanced technologies in the design, construction, and maintenance of the transportation system.

3. To extend the service life of Virginia's pavements and structures.

4. To evaluate the performance of pavements and bridges and their components through field testing in order to improve design, load rating, and rehabilitation procedures.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Materials and Environmental Program

Program Description

Program is designed to conduct research on the materials and material processes used in constructing and maintaining pavements and structures.

Goals

1. To evaluate and assess materials and material processes used in the construction and maintenance of asphalt pavements and surface-treated roads.

2. To evaluate and improve hydraulic cement concretes and concreting processes used in the construction, rehabilitation, and maintenance of bridges and pavements.

3. To evaluate and improve cathodic protection systems and electrochemical chloride removal techniques for use in preventing the corrosion of steel in concrete.

4. To evaluate and apply nondestructive test procedures for assessment of the integrity and inspection of pavements and structures.

5. To determine the microstructure and composition of aggregates and concretes and classify them as to their serviceability with respect to highway construction and maintenance.

6. To identify, assess, and evaluate polymer materials for rehabilitating, repairing, and protecting reinforced concrete structures and enhancing the quality of portland cement concretes.

7. To assist VDOT with the development of technology to protect and enhance the physical environment with respect to roadside vegetation, wetlands, scour, and highway run-off.

8. To identify and protect the structures of historical significance along the highways.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Socioeconomic and Transportation Systems Program

Program Description

Program is designed to conduct research on issues related to the allocation of resources and traffic operations and design of roadways.

Goals

1. To conduct research and develop methodologies to address financial and economic issues that affect VDOT.

2. To conduct research aimed at identifying social, behavioral, and demographic characteristics of transportation facility users and recommend system enhancements that are responsive to user needs.

3. To investigate traffic and speed control devices and design elements of transportation facilities to improve their effectiveness, safety, and efficiency.

4. To examine, review, and recommend advanced technologies and innovative traffic management techniques that will reduce congestion, enhance operational safety and efficiency, and improve traffic monitoring.

5. To enhance multimodal transportation planning by evaluating, demonstrating, and recommending ways to improve the accuracy and efficiency of VDOT's long- and short-range planning techniques.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Transportation Safety Program

Program Description

Program is designed to conduct research to determine ways to enhance transportation safety through legal, behavioral, or traffic operations changes.

Goals

1. To evaluate highway safety programs and projects.
2. To conduct research and evaluation on programs and projects designed to improve vehicle operator performance.
3. To provide assistance in legal and legislative areas of transportation safety.
4. To assess and evaluate current problems in traffic operations and safety and advise the involved agencies on selecting priorities.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, DMV, VASAP, VSP, DOE, TSTC, FHWA, and NHTSA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC and TSTC.

VSP Enforcement Program

Program Description

Program is designed to provide for the enforcement of laws designed to promote traffic safety.

Goals

1. To detect and apprehend drivers who commit violations that are often associated with traffic crashes.

2. To conduct the annual motor vehicle inspection program.

3. To provide for motor carrier safety by inspecting commercial motor vehicles.

Responsibility

VSP has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VSP, local police agencies, and business.

Data Sharing

Data are shared among the involved parties.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

Specialized training is provided for inspectors.

State Traffic Operations and Safety Improvement Program

Program Description

Program is designed to allow VDOT district administrators to develop and implement expedient, low-cost projects to improve traffic operations and safety.

Goals

1. To identify locations where traffic operations and safety can be enhanced through low-cost measures.

2. To develop and implement countermeasures at identified locations.

3. To reduce federal and state documentation requirements for low-cost traffic operations and safety improvements.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT and FHWA.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established for each fiscal year.

Evaluation

The effectiveness of countermeasures are evaluated based on whether they alleviated a problem condition.

Public Information and Education

None.

Training

None.

Statewide Incident Management System

Program Description

Program is designed to provide quick response to nonrecurring events that reduce roadway capacity.

Goals

1. To reduce the detection time of nonrecurring incidents.
2. To improve emergency response time.
3. To provide for the cooperation of agencies to ensure effective scene management.
4. To provide timely and accurate information to affected motorists and other citizens.
5. To provide for timely scene clearance.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, OEMS, VSP, local police agencies, local fire departments, local rescue squads, and the media.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

The establishment of priorities is a critical focus of this system.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

None.

Centralized Accident Processing System

Program Description

Program is designed to provide timely and accurate crash data.

Goals

1. To provide for the development of annual statistical crash reports.
2. To provide information to support field and research studies.
3. To serve as a centralized source of data.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VDOT, VSP, FHWA, and local police agencies.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities were established with the design of the system and are updated each fiscal year.

Evaluation

Ongoing.

Public Information and Education

None.

Training

None.

Highway and Traffic Records Information System

Program Description

Program is designed to provide timely and accurate crash, inventory, and traffic support data.

Goals

1. To provide for the development of annual statistical data relative to highway culture and characteristics.

2. To provide information to support traffic engineering, field, and research studies.

3. To serve as a centralized source of data.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, DMV, VSP, FHWA, and local police agencies.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities were established with the design of the system and are updated each fiscal year.

Evaluation

Ongoing.

Public Information and Education

None.

Training

None.

Bridge Design Program

Program Description

Program is designed to provide for the design of safe bridges.

Goals

1. To provide for the design of safe bridges.
2. To provide for pedestrian safety in the design of bridges.
3. To provide for adequate clear zone distances in the design of bridges.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, FHWA, and local governments.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established for each project.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

None.

Corridor Safety Improvement Program

Program Description

Program is designed to coordinate and integrate state and local resources in identifying and targeting corrective programs for traffic safety problems on a rural and an urban corridor.

Goals

1. To identify traffic safety problems on a rural and an urban corridor.

2. To coordinate and integrate state and local resources to address identified traffic safety problems.

Responsibility

VDOT and DMV have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, DMV, VSP, OEMS, VASAP, ABC Board, DOE, NHTSA, FHWA, local transportation safety commissions, MPOs, local police agencies, local fire departments, local ASAPs, local rescue squads, local schools, and citizens.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established by local task forces based on crash and other safety-related data.

Evaluation

Quantifiable results will be evaluated.

Public Information and Education

Public information and education are integrated into the program.

Training

None.

VDOT Risk Management Group

Program Description

Group is designed to reduce VDOT's liability for tort claims. The group oversees the agency's efforts and is composed of personnel from the residencies, the districts, the Central Office, and the Office of the Attorney General.

Goals

1. To identify the activities that pose the greatest risks of tort liability.
2. To measure the severity and frequency of tort liability associated with each activity.
3. To develop methods to control or eliminate the risk of liability associated with each activity.
4. To improve the agency's ability to defend tort claims.

5. To better prepare for claims that must be paid.

Responsibility

VDOT and the Office of the Attorney General have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of individual VDOT employees, VDOT management, Office of the Attorney General, state and local police agencies, and the general public.

Data Sharing

VDOT is developing a risk management data base to assess potential tort liability areas and determine trends. The data base will contain information that will be useful to all divisions: Design, Construction, Operations, Maintenance, and Administration.

Assessment of Highway Safety Needs and Setting Priorities

Priorities will be continually reviewed and established.

Evaluation

No formal evaluation.

Public Information and Education

Two handbooks on *What You Should Know About Risk Management in the VDOT* have been distributed to agency employees. All new employees receive a handbook and a brief oral introduction to the roles and responsibilities of each employee.

Training

Training consists of the handbook, briefings, and periodic updates.

AREA 4:

IDENTIFICATION OF SAFETY NEEDS OF SPECIAL USER GROUPS

State Bicycle Program

Program Description

Program is designed to provide for the safety and mobility needs of bicyclists and pedestrians.

Goals

1. To develop and maintain a statewide bicycle and pedestrian plan.
2. To conduct project reviews relative to bicycle and pedestrian needs.
3. To develop and maintain a state bicycle map.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, MPOs, local governments, and citizens.

Data Sharing

Data are shared among the involved parties.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each project individually.

Evaluation

No formal evaluation.

Public Information and Education

Brochures are available for the general public, and a bicycle planning guide is available for localities.

Training

None.

Highway Safety Plan Motorcycle Safety Program

Program Description

Program is designed to ensure that motorcycle drivers are properly licensed and trained.

Goals

1. To ensure that motorcycle drivers are properly licensed.
2. To ensure that motorcycle drivers are properly trained.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, community colleges, state and local enforcement agencies, and NHTSA.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set each fiscal year.

Evaluation

Course is evaluated by students, surveys, and an annual report.

Public Information and Education

There is an annual public information and education program in May.

Training

The rider training program is provided under the sponsorship of DMV.

Designing for Special User Groups Program

Program Description

Program relates to the design of facilities to provide for safe accommodations and movement to pedestrians, mobility and visually impaired individuals, and bicyclists who use the highway system.

Goals

1. To provide curb ramps for individuals with mobility impairments.
2. To provide safety rest area parking for persons with mobility impairments.
3. To provide sidewalks for pedestrian movement.

4. To design drainage facilities to facilitate pedestrian movement.

5. To provide bicycle facilities for bicyclists.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, Office of the Attorney General, FHWA, local governments, and citizens.

Data Sharing

VDOT uses data that are supplied through shared data generated from crash reports.

Assessment of Highway Safety Needs and Setting of Priorities

The need for special accommodations is decided upon for each project individually.

Evaluation

No formal evaluation.

Public Information and Education

The public may have input through the public hearing process.

Training

There is no formal training for this program, but there are numerous guidelines and laws that are followed.

Driver Education for Youth Program

Program Description

Program is designed to provide students with the knowledge, skills, and ability to drive safely on the highways through classroom and behind-the-wheel training.

Goals

1. To provide for classroom and behind-the-wheel training of young drivers.

2. To develop curriculum guides for the classroom and laboratory instructional phases of driver education.

3. To develop curriculum guides for classroom instruction on alcohol and other drugs.

4. To provide an inservice driver tract at the Annual Transportation Safety Conference sponsored by DMV.

Responsibility

DOE has primary responsibility for the statewide driver education program.

Coordination, Cooperation, and Communication

Requires cooperation of DOE, local schools and providers of driver education, VASAP, DMV, and VSP.

Data Sharing

DOE collects youth crash and alcohol involvement data by locality and distributes those data to interested individuals.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

No formal evaluation.

Public Information and Education

DOE develops and distributes quarterly driver education newsletters for driver educators to keep informed on new legislation, teaching tips, and sources of teaching materials.

Training

DOE provides for an inservice driver tract at the Annual Transportation Safety Conference sponsored by DMV. DOE also provides four, 1-day neurodysfunction eye test training sessions for educators to develop skills to assess student driver fitness.

Pupil Transportation Service Program

Program Description

Program is designed to provide transportation of pupils to and from public schools and school-related events.

Goals

1. To promote safe, effective, and efficient transportation of pupils to and from public schools and school-related events.

2. To develop, revise, and implement state school bus standards and specifications designed to ensure the appropriateness of vehicles used to transport pupils.

3. To develop, implement, monitor, and assist with a uniform preventive maintenance program and appropriate school bus inspection procedures.

4. To revise and implement the school bus driver training curriculum guide on a periodic basis, certify new school bus driver trainers, and monitor the training of school bus drivers.

5. To conduct fleet assessments of school vehicles.

6. To develop and disseminate pupil rider information.

7. To develop recertification criteria for school bus driver trainers.

Responsibility

DOE has primary responsibility for the statewide program.

Coordination, Cooperation, and Communication

Requires cooperation of DOE and local school systems.

Data Sharing

Crash and incident data are provided to DOE by local school systems.

Assessment of Highway Safety Needs and Setting of Priorities

DOE periodically reviews accident and maintenance records.

Evaluation

DOE periodically reviews accident and maintenance records and conducts on-site visits to localities to conduct fleet assessments.

Public Information and Education

DOE provides for distribution of pupil rider information.

Training

DOE certifies school bus driver trainers, trains new school bus drivers, and conducts an annual pupil transportation service conference.

Transportation Improvement Program

Program Description

Program is designed to identify a priority list of planned federally funded projects and projects endorsed by Virginia's MPOs and provide a means for local elected officials and the public to review and comment on priorities assigned to projects.

Goals

1. To identify a priority list of planned federally funded projects and projects endorsed by Virginia's MPOs.

2. To provide a means for local elected officials and the public to review and comment on priorities assigned to projects.

3. To satisfy FHWA and FTA requirements for continuing transportation planning.

Responsibility

VDOT and MPOs have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, MPOs, FHWA, FTA, local governments, and citizens.

Data Sharing

Data are shared between VDOT and MPOs.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set, and safety is one of the factors considered.

Evaluation

There is no evaluation mechanism to determine whether the improvements enhance traffic safety; however, there is ongoing monitoring to determine whether an improvement adversely affects traffic safety.

Public Information and Education

There are public hearings on the priority lists of projects and project segments.

Training

None.

State Planning and Research Socioeconomic and Transportation Systems Program

Program Description

Program is designed to conduct research on issues related to allocation of resources and traffic operations and design of roadways.

Goals

1. To conduct research and develop methodologies to address financial and economic issues that affect VDOT.

2. To conduct research aimed at identifying social, behavioral, and demographic characteristics of transportation facility users and recommend system enhancements that are responsive to user needs.

3. To investigate traffic and speed control devices and design elements of transportation facilities to improve their effectiveness, safety, and efficiency.

4. To examine, review, and recommend advanced technologies and innovative traffic management techniques that will reduce congestion, enhance operational safety and efficiency, and improve traffic monitoring.

5. To enhance multimodal transportation planning by evaluating, demonstrating, and recommending ways to improve the accuracy and efficiency of VDOT's long- and short-range planning techniques.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Transportation Safety Program

Program Description

Program is designed to conduct research to determine ways to enhance transportation safety through legal, behavioral, or traffic operations changes.

Goals

1. To evaluate highway safety programs and projects.
2. To conduct research and evaluation on programs and projects designed to improve vehicle operator performance.
3. To provide assistance in legal and legislative areas of transportation safety.
4. To assess and evaluate current problems in traffic operations and safety and advise the involved agencies on establishing priorities.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, DMV, VASAP, VSP, DOE, TSTC, FHWA, and NHTSA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC and TSTC.

Pedestrian/Bicycle Safety Team

Program Description

In this program, a multidisciplinary team reviews local crash data and conducts on-site visits to identify factors that may contribute to pedestrian and bicycle traffic crashes.

Goals

1. To identify factors that may contribute to pedestrian and bicycle traffic crashes.
2. To review a locality's engineering, educational, and enforcement programs aimed at reducing pedestrian and bicycle traffic crashes.
3. To make recommendations for reducing the number and severity of pedestrian and bicycle traffic crashes.

Responsibility

TSTC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of TSTC, VCU, DMV, NHTSA, VSP, VDOT, local police agencies, and local governments.

Data Sharing

Data are shared between the team and the locality.

Assessment of Highway Safety Needs and Setting of Priorities

The result of each study is to prioritize the problems and proposed solutions.

Evaluation

A study is conducted for each site visit outlining problems identified and recommending safety improvements.

Public Information and Education

None.

Training

None.

VSP Enforcement Program

Program Description

Program is designed to provide for the enforcement of laws designed to promote traffic safety.

Goals

1. To detect and apprehend drivers who commit violations that are often associated with traffic crashes.

2. To conduct the annual motor vehicle inspection program.

3. To provide for motor carrier safety by inspecting commercial motor vehicles.

Responsibility

VSP has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VSP, local police agencies, and business.

Data Sharing

Data are shared among the involved parties.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

No formal evaluation.

Public Information and Education

None.

Training

Specialized training is provided for inspectors.

Northern Virginia HOV/Rideshare Communications Program

Program Description

Program is designed to build a coalition of public and private interests to increase ridesharing and use of HOV facilities in order to relieve congestion.

Goals

1. To conduct planning and research activities to identify market needs, develop appropriate responses, and assess implementation and communication efforts.

2. To establish an ongoing dialogue with local, regional, and state officials and the media.

3. To provide ridesharing information to employers.

Responsibility

VDOT has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, the media, local governments, business, and citizens.

Data Sharing

Data are shared among the interested parties.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established for each fiscal year.

Evaluation

Evaluation is based on the use of the rideshare and HOV facilities.

Public Information and Education

Ongoing.

Training

None.

Corridor Safety Improvement Program

Program Description

Program is designed to coordinate and integrate state and local resources in identifying and targeting corrective programs for traffic safety problems on a rural and an urban corridor.

Goals

1. To identify traffic safety problems on a rural and an urban corridor.

2. To coordinate and integrate state and local resources to address identified traffic safety problems.

Responsibility

VDOT and DMV have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VDOT, DMV, VSP, OEMS, VASAP, ABC Board, DOE, NHTSA, FHWA, local transportation safety commissions, MPOs, local police agencies, local fire departments, local ASAPs, local rescue squads, local schools, and citizens.

Data Sharing

Data are shared among the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are established by local task forces based on crash and other safety-related data.

Evaluation

Quantifiable results will be evaluated.

Public Information and Education

Public information and education are integrated into the program.

Training

None.

AREA 5:

ROUTINE MAINTENANCE AND UPGRADING OF SAFETY HARDWARE, HIGHWAY ELEMENTS, AND OPERATIONAL FEATURES

Highway Safety Plan Police Traffic Services

Program Description

Program is designed to provide direct support to state and local police agencies in enforcing traffic laws.

Goals

1. To provide direct support to state and local police agencies in enforcing traffic laws.
2. To provide for the training of law enforcement and other highway safety personnel.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VSP, NHTSA, TSTC, and local police agencies.

Data Sharing

Data are shared by the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set for each fiscal year.

Evaluation

DMV evaluates activities conducted and federal funds expended.

Public Information and Education

DMV contacts state and local police agencies.

Training

Specialized training of law enforcement and other highway safety personnel is supported and conducted by TSTC.

Highway Safety Plan Traffic Records Program

Program Description

Program is designed to maintain and modify Virginia's traffic records systems. These systems are used in problem identification and evaluation efforts.

Goals

1. To maintain and modify Virginia's traffic record systems.
2. To provide for the acquisition of MTRS for localities.
3. To provide for the training of traffic records users.

Responsibility

DMV has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of DMV, VDOT, VSP, OEMS, TSTC, VCU, NHTSA, and localities.

Data Sharing

Data are shared by the involved agencies.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities are set each fiscal year.

Evaluation

DMV evaluates activities conducted and federal funds expended.

Public Information and Education

DMV and TSTC provide information on MTRS to localities.

Training

Training on the use of MTRS is provided by TSTC.

State Planning and Research Pavements and Structures Program

Program Description

Program is designed to conduct research on the design, evaluation, maintenance, rehabilitation, and application of pavement and structures management systems.

Goals

1. To support the development and implementation of pavement and bridge management systems and implementation of geographical information systems to enhance the maintenance of Virginia's transportation system.

2. To evaluate the potential uses of new materials and advanced technologies in the design, construction, and maintenance of the transportation system.

3. To extend the service life of Virginia's pavements and structures.

4. To evaluate the performance of pavements and bridges and their components through field testing in order to improve design, load rating, and rehabilitation procedures.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of an advisory committee.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Socioeconomic and Transportation Systems Program

Program Description

Program is designed to conduct research on issues related to allocation of resources and traffic operations and design of roadways.

Goals

1. To conduct research and develop methodologies to address financial and economic issues that affect VDOT.

2. To conduct research aimed at identifying social, behavioral, and demographic characteristics of transportation facility users and recommend system enhancements that are responsive to user needs.

3. To investigate traffic and speed control devices and design elements of transportation facilities to improve their effectiveness, safety, and efficiency.

4. To examine, review, and recommend advanced technologies and innovative traffic management techniques that will reduce congestion, enhance operational safety and efficiency, and improve traffic monitoring.

5. To enhance multimodal transportation planning by evaluating, demonstrating, and recommending ways to improve the accuracy and efficiency of VDOT's long- and short-range planning techniques.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, and FHWA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC.

State Planning and Research Transportation Safety Program

Program Description

Program is designed to conduct research to determine ways to enhance transportation safety through legal, behavioral, or traffic operations changes.

Goals

1. To evaluate highway safety programs and projects.

2. To conduct research and evaluation on programs and projects designed to improve vehicle operator performance.

3. To provide assistance in legal and legislative areas of transportation safety.

4. To assess and evaluate current problems in traffic operations and safety and advise the involved agencies on determining priorities.

Responsibility

VTRC has primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of VTRC, VDOT, UVA, DMV, VASAP, VSP, DOE, TSTC, FHWA, and NHTSA.

Data Sharing

Shared data bases are used in the conduct of research, and cooperation is used in the acquisition of special data.

Assessment of Highway Safety Needs and Setting of Priorities

Research priorities are established annually with the assistance of advisory committees.

Evaluation

Conclusions and recommendations are based on analysis of the data.

Public Information and Education

Research reports are published and made available to highway agencies and professionals and the general public.

Training

Training is conducted through VTTTC and TSTC.

VDOT Risk Management Group

Program Description

Group is designed to reduce VDOT's liability for tort claims. The group oversees the agency's efforts and is composed of personnel from the residencies, the districts, the Central Office, and the Office of the Attorney General.

Goals

1. To identify the activities that pose the greatest risks of tort liability.
2. To measure the severity and frequency of tort liability associated with each activity.
3. To develop methods to control or eliminate the risk of liability associated with each activity.
4. To improve the agency's ability to defend tort claims.
5. To better prepare for claims that must be paid.

Responsibility

VDOT and the Office of the Attorney General have primary responsibility.

Coordination, Cooperation, and Communication

Requires cooperation of individual VDOT employees, VDOT management, Office of the Attorney General, state and local police agencies, and the general public.

Data Sharing

VDOT is developing a risk management data base to assess potential tort liability areas and determine trends. The data base will contain information that will be useful to all divisions: Design, Construction, Operations, Maintenance, and Administration.

Assessment of Highway Safety Needs and Setting of Priorities

Priorities will be continually reviewed and established.

Evaluation

No formal evaluation.

Public Information and Education

Two handbooks on *What You Should Know About Risk Management in the VDOT* have been distributed to agency employees. All new employees receive a handbook and a brief oral introduction to the roles and responsibilities of each employee.

Training

Training consists of the handbook, briefings, and periodic updates.