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❖ PREFACE

The *Oregon Transportation Safety Action Plan* is developed as the safety element for the *Oregon Transportation Plan (OTP)* and will be considered part of the *Statewide Transportation Plan* required by the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. It is one of several modal or multi-modal plans called for in the OTP that defines, in greater detail, system improvements, legislative needs, and financial needs. These plans will provide guidance for investment decisions that will be reflected in the *Statewide Transportation Improvement Program (STIP)*, the *Highway Safety Plan*, and the operating budgets of implementing agencies. Figure I shows the relationship between the plans.

In developing the *Oregon Transportation Plan (OTP)*, the Oregon Transportation Commission (OTC) took an important step in establishing the goals, policies, and actions that would lead to the development of an efficient, effective, and safe multimodal transportation system for Oregon. The OTP recognizes the importance of safety, provides general direction, and calls for the development of specific safety initiatives. The *Oregon Transportation Safety Action Plan (OTSAP)* identifies a safety agenda to guide the Department of Transportation and the State of Oregon for the next 20 years.

The mission of the Oregon Department of Transportation (ODOT) is “to provide leadership and vision in the development and management of a statewide transportation network” and “ensure the safety of transportation system users.” Included in ODOT’s values, which are intended to guide the behavior in every section of the organization is “Safety—We take special care to protect the safety and health of both our employees and the public.”

While every unit of ODOT recognizes safety considerations in its delivery of services, the most significant transportation safety program responsibilities are carried out by the Transportation Safety Section, Driver and Motor Vehicle Services, Traffic Engineering, and the five Regions.

The focal point for transportation safety programs in ODOT is the Transportation Safety Section (TSS) (until 1991, the Oregon Traffic Safety Commission). This section, with guidance from the Oregon Transportation Safety Committee carries out most of the responsibilities established in ORS 802.310. The Oregon Transportation Safety Committee (OTSC) is a five-member governor-appointed committee that acts as an advisory committee to the Oregon Transportation Commission (OTC).

TSS organizes, plans and conducts a statewide transportation safety program by coordinating activities and programs with other state agencies, local agencies, non-profit groups, and the private sector. It serves as a clearinghouse for transportation safety materials and information, and cooperates and encourages research and special studies to support legislative initiatives and new programs.

Much of the funding for the transportation safety programs administered by TSS is provided through the National Highway Traffic Safety Administration and Federal Highway Administration Section 402 and similar federal traffic safety grant programs. These funds, which are programmed through the *Highway Safety Plan*, generally are about \$2 to \$3 million dollars a year. Grants support statewide services such as public information, education, training, and program administration and evaluation and provide a financial incentive to state and local agencies and non-profit groups interested in starting new transportation safety programs.

Additional federally financed safety programs are operated by ODOT and provide safety enhancements to highway maintenance and preservation projects. ODOT programs are available to local agencies to encourage safety improvements to address high accident intersection and road segment problems.

The *OTSAP* challenges us to continue the current effective programs, extend successful local initiatives statewide, and initiate new programs. It recognizes that safety is a community issue and confirms that the Oregon Department of Transportation (ODOT) should continue to guide and support local agencies and volunteer groups interested in increasing the safety of the roadway, changing driver behavior, and improving vehicle safety.

The *OTSAP* reinforces the safety goals, policies, and actions of the *OTP* by identifying 70 actions to be implemented over the next 20 years and identifying specific implementation strategies for eleven key actions that should be in place by the year 2000. Implementation of the *OTSAP* will result in a continued significant decline in the rate of deaths, injuries, and economic loss resulting from transportation-related crashes.

The recommendations in the *OTSAP* reflect the information and ideas that approximately 150 transportation safety professionals presented to the Transportation Safety Action Plan Advisory Committee. This committee of twelve persons representing various transportation safety interests guided the development of the *OTSAP*. Public input was encouraged throughout the planning process. Each of the twelve meetings of the committee was open to the public and an opportunity was provided for public comment. A series of planning forums on the *OTSAP* and the modal plans being developed were held throughout Oregon in August 1994. A public meeting and hearing was held on the *OTSAP* in January 1995.

Four main sections follow an **Executive Summary**.

The Transportation Safety Picture: an overview of the current transportation safety environment.

The Vision: the vision for what changes will occur by the year 2000 and the year 2012 that will result in a safer transportation system for Oregon.

The Actions: the major actions included in the *Oregon Transportation Safety Action Plan*. Detailed information on the current status of transportation safety problems, countermeasures now in place, and the expected outcome of implementing each of the eleven key actions is provided. A separate technical appendix available at the Planning Section, ODOT, provides supporting information for the remaining 59 actions.

The Implementation Strategy: legislation and investment requirements needed to implement the eleven key actions by the year 2000. The implementation strategy also includes recommendations for organizational changes needed to implement all actions in the plan. It recommends that a Safety Coalition be formed to help guide plan implementation. The Highway Safety Management System, which is required by ISTEA, will provide an integrated traffic safety records system, methods to measure and evaluate the need for safety improvements such as those called for in the *OTSAP*, and performance measures to monitor results.

Appendices include a list of implementation responsibilities for all actions, a description of the public involvement process including a list of the persons contributing to *OTSAP* development, references to key transportation safety statutes, acronyms and definitions, and findings of compliance with statewide planning goals and the *Oregon Transportation Plan*.

❖ EXECUTIVE SUMMARY

The *Oregon Transportation Safety Action Plan* envisions a future where Oregon's transportation-related death and injury rate continues to decline. During the last 20 years, Oregon's traffic death rate has fallen dramatically. The year 1972 marked Oregon's highest traffic death toll when 737 persons died in motor vehicle crashes in Oregon, amounting to 4.8 people killed per 100 million vehicle miles traveled. By 1983, the traffic death rate was nearly halved to 2.7 deaths per 100 million vehicle miles traveled. In 1993, 524 reported traffic fatalities occurred and Oregon's highway death rate continued to fall to 1.8 people killed per 100 million vehicle miles traveled, or about the same as the national average. Meanwhile, deaths related to other transportation modes have fallen only slightly.

Oregon's significant reduction in transportation-related deaths and injuries largely resulted from a public outcry that too many people were dying needlessly, and from citizen demands for tougher laws and more effective programs. Consequently, stricter laws, coupled with aggressive education and public information efforts, have increased safety awareness and encouraged changes in driving behavior. Oregonians have shown a growing confidence in the safety of their transportation system.

While Oregon's progress has been significant, traffic crashes are still the leading cause of death for persons under age 35. In 1993,

- Alcohol and/or other drugs were involved in 43 percent of the fatal motor vehicle crashes in Oregon.
- Safety restraints were not used by the fatal victim in 41 percent of the fatal motor vehicle crashes in Oregon.
- Speed contributed to 30 percent of the fatal motor vehicle crashes in Oregon.
- Drivers less than 21 accounted for 12% of the drivers involved in fatal crashes, yet comprised only 8% of the driving population.

Moderate reductions in Oregon's highway death toll can be continued through current programs, but a more concentrated effort with a relatively small investment will prevent many crashes and save a significant number of lives and dollars. This first *Oregon Transportation Safety Action Plan* will help focus our efforts on the factors contributing to the most transportation-related fatalities and injuries and will encourage safety programs and practices that address other significant safety problems. These problems include the rising death toll for pedestrians and roadside workers, secondary accidents occurring on our urban freeways, inadequate emergency response services, and conflicts between motor vehicles and other travel modes.

In developing the *Oregon Transportation Plan (OTP)* in 1992, the state Transportation Commission established broad, long-range goals, policies, and actions that will help develop an efficient, effective, and safe integrated transportation system for Oregon during the next 20-40 years. The *Oregon Transportation Safety Action Plan (OTSAP)* is one of several more specific plans that further defines the *OTP*'s near-term goals and actions.

The *OTSAP* was adopted by the Oregon Transportation Committee (OTC) on (insert date) at the recommendation of the Oregon Transportation Safety Committee and the Transportation Safety Action Plan Advisory Committee.

Like the *OTP*, the *OTSAP* recognizes that Oregon's population is growing and changing, and that its transportation needs are changing, too. As we begin the 21st century, improvements in highway design and aggressive application of new technologies will not only lead to more efficient use of our roadways, but also increase driving safety. Because more people than ever use public transportation and the pedestrian and bicycle modes, we must provide a transportation system that is not only "balanced, efficient, accessible, environmentally sound, and connective," but also safe and secure.

The *OTSAP* encourages us to develop partnerships among state and local governments, community groups, businesses, and the media to achieve a safer transportation system. With a shared commitment, the actions in the plan can be effectively implemented.

The *Oregon Transportation Safety Action Plan* is a living document that gives direction to our efforts and guides investment decisions. As the actions it recommends are implemented, we will learn more about which programs are most effective and we will make increasingly better decisions. Amendments to the *OTSAP* should be accomplished through formal OTC action based on the recommendation of the Oregon Transportation Safety Committee.

The 70 actions in the *OTSAP* were chosen by the Transportation Safety Action Plan Advisory Committee after thoroughly considering crash data and information provided by more than 150 transportation safety experts who studied the most serious transportation safety problems and presented their views on the most promising solutions. These actions are organized by the framework provided in the *OTP*.

Eight actions that respond to the factors that contribute to the most transportation-related deaths and injuries—impaired driving, not using safety restraints, speed, and inexperience—were identified as key actions which should be implemented by the year 2000.

Three remaining key actions address critical areas of concern:

- Action 37 calls for a traffic safety records system that will provide better information to support decision making.
- Action 53 creates a statewide incident management program that will reduce the number of secondary incidents and mitigate the impact of traffic crashes on the transportation system.
- Action 66 encourages increased pedestrian travel and safety.

The eleven key actions and the transportation safety problems they address are presented in Figure II, *Oregon Transportation Safety Action Plan —Key Actions*.

The 59 remaining actions respond to the high priority problems and address a variety of transportation safety problems covering all modes and all aspects of safety. Many also contribute to furthering additional *OTP* goals and will help reduce congestion, encourage use of alternative modes, and improve livability.

Many of the 70 actions included in the *OTSAP* can be implemented with existing resources by existing staff. They do not require legislative or administrative changes, but instead call for re-focusing of priorities. Other actions require a modest initial investment in planning and evaluation to better define specific resource needs and potential funding sources. The *OTSAP* priorities and investment requirements can be clarified after planning is completed for law enforcement and criminal justice system resource needs, traffic records, and incident management. Many of these planning efforts should be finished before the 1997 legislative session.

A Safety Coalition will be formed to help guide implementation of the *OTSAP*. The implementation status of each action will be monitored and the overall results evaluated annually to see if the rate of transportation-related crashes, deaths, and injuries declines, and if more emphasis should be given to specific safety problems. Performance measures, including the Oregon Benchmarks related to transportation safety, and other measures of overall transportation system performance will be tracked.

During the last two decades, Oregon has made significant progress in transportation safety.

The motor vehicle crash fatality rate fell dramatically. In 1972, the year Oregon experienced its highest recorded traffic-related deaths, 737 persons were killed in motor vehicle crashes on Oregon's roads, or 4.8 per 100 million vehicle miles traveled. By 1983, the motor vehicle fatality rate was 2.7 deaths per 100 million vehicle miles traveled. In 1993, 524 fatalities occurred and the rate fell to 1.8. This rate is about the same as the national average, but we can do better.

❖ THE TRANSPORTATION SAFETY PICTURE

During this same time, deaths occurring on other transportation modes fell slightly as well.

Another way of measuring our success is by recognizing the economic impact of traffic deaths and injuries. According to a study by the National Safety Council, each death costs \$880,000 in medical expenses and lost productivity.¹ Had the 1972 death rate continued to 1993, an additional 856 deaths and more than \$750 million in economic cost would have occurred.

Figure III shows the change in Oregon's motor vehicle crash rate measured as fatalities per 100 million vehicle miles traveled (VMT) through the last 20 years, as well as the change in the rate for the United States as a whole.

¹ The National Safety Council presents estimates on the cost of motor vehicle accidents in its publication, *Accident Facts*, 1993 Edition. Economic costs for 1992 were estimated to be \$880,000 for each death, \$29,500 for each nonfatal disabling injury, and \$6,500 for each property damage accident (including minor injuries). The National Highway Traffic Safety Administration estimates costs of crashes as well. A September 1993 study, *Saving Lives and Dollars*, estimates the cost of a fatality to be \$702,300 and the average cost of an injury to be \$12,800.

The significant reduction in transportation related deaths and injuries is largely due to public outcry that too many people were dying unnecessarily and that Oregon needed tougher laws and more effective programs. Some of the laws and programs implemented were:

- Administrative license suspension for drivers suspected of driving under the influence of intoxicants.
- Lowering of the blood alcohol content for all drivers to .08.
- Establishment of zero blood alcohol content for drivers under 21.
- Establishment of a mandatory server education program.
- Establishment of a provisional driver license program for drivers under 19.
- A safety belt or safety system requirement for all vehicle occupants.
- A motorcycle helmet law for all riders, and training requirements for drivers under 18.

- Establishment of boating under the influence of intoxicants as a Class A misdemeanor.
- Establishment of a comprehensive continuing transportation safety public information program on motor vehicle safety, railroad crossing safety, and boating safety.
- Encouragement of local transportation safety programs in 40 Oregon communities.
- Establishment of comprehensive corridor safety programs to target high accident locations.
- Development of a statewide “9-1-1” system.
- Motor carrier safety improvements.
- Vehicle safety improvements.
- Improved roadway design.

These laws and programs are the foundation for Oregon’s first *Transportation Safety Action Plan*.

A review of available data on the number of transportation-related crashes, the vehicles and road users involved, and their causes and location allowed the *OTSAP* to focus on the worst problems and lead to the identification of the most effective solutions.

Detailed information about fatal crashes compiled in the Fatal Accident Reporting System (FARS) was utilized in most cases. More data about injury crashes—the drivers and vehicles involved, the roadway environment, the criminal justice system—would have been helpful. It was apparent throughout the planning process that more complete information about problems, programs, and overall system performance would help to guide safety-related investment decisions.

The following series of figures and tables highlight the most significant information about transportation related crashes occurring in Oregon.

Figure IV presents data on the proportion of transportation-related deaths occurring on each mode (motor vehicle, air, water, and railway) between 1988 and 1992. Motor vehicle deaths (including bicycle, pedestrian, and collision with a railroad train) comprise 91 percent of all transportation-related deaths.

Table I summarizes motor vehicle crash data and characteristics about the population and transportation system for the 1989-1993 period. During this period, significant increases occurred in population, licensed drivers, registered vehicles and vehicle miles traveled,

and significant decreases occurred in the number of crashes and the number of persons killed. Comparing 1989 to 1993, a 25 percent decline in the rate of fatalities per 100 million vehicle miles traveled is demonstrated.

Table II shows the involvement of various types of vehicles in motor vehicle crashes. Passenger cars, including vans and pick-ups, consistently account for more than 90 percent of the vehicles involved.

Table III shows fatalities by type of road user. While drivers and passengers account for more than three quarters of the fatalities, pedestrians account for nearly 11 percent of the fatalities during the five-year period. Preliminary data for 1994 indicates pedestrian deaths increased by 18 percent in 1994. The proportion of pedestrian fatalities is increasing; whereas the proportion of motorcyclist fatalities is declining.

Figure V provides information on the factors that contributed to motor vehicle fatal crashes in 1993. This information is helpful in selecting actions or programs to be undertaken. Those actions that address the worst problems will have the greatest potential to reduce crashes.

Three factors contribute to a significant proportion of Oregon's fatal motor vehicle crashes:

- In 1993, alcohol and/or other drugs were involved in 43 percent of the fatal motor vehicle crashes in Oregon.
- In 1993, safety restraints were not used by the victim in 41 percent of the fatal motor vehicle crashes in Oregon.
- In 1993, speed contributed to 30 percent of the fatal motor vehicle crashes in Oregon.

Also helpful in selecting appropriate programs is demographic information on drivers involved and the location of crashes.

Table IV presents data useful to determine the over- and under-representation in motor vehicle crashes of drivers in certain age groups. Presented is age of driver in fatal and injury crashes, and information on the number of licensed drivers in each age group. The data indicates that young drivers are very much over-represented in traffic crashes; specific actions in this plan target young people. In 1993, drivers under age 21 accounted for 12 percent of all drivers involved in fatal crashes, yet comprised less than 8 percent of the driving population.

Table V provides information regarding the number of fatal, injury, and total crashes in 1993 that occurred on urban and rural roads, and the type of road. Also included is total fatalities for each road type. The data indicate that proportionately, more serious crashes occur in rural areas than in urban areas. In 1993, one death per

28 crashes occurred in rural areas; and one death per 213 crashes in urban areas.

In selecting locations for programs, it is also important to look at transportation crash data for cities and counties. It is useful to evaluate fatal and injury crash rates for each city and county, and compare them to one another and to the state rates. Once a jurisdiction is identified as having a high rate of crashes, additional analysis of specific problems and existing services will help to focus efforts.

❖ THE VISION

In September 1992, the Oregon Transportation Commission completed work on the *Oregon Transportation Plan (OTP)*, a 40-year strategic plan that establishes new directions for Oregon's transportation system. The OTP includes four goals, the first of which is:

To enhance the quality of life and comparative economic advantage by the provision of a transportation system with the following characteristics:

- Balance
- Efficiency
- Accessibility
- Environmental Responsibility
- Connectivity among Places
- Connectivity among Modes and Carriers
- Safety
- Financial Stability.

For each element of this goal, a policy has been established. The policy for safety (Policy 1G) follows:

Twelve actions are identified in the OTP for achieving this goal, the first of which is the development of a *Transportation Safety Action Plan (OTSAP)* to establish safety priorities for the Oregon Department of Transportation and the State of Oregon for the next 20 years.

The other actions relate to specific attributes of the transportation safety system and form the basic structure for presenting the 70 actions comprising the *OTSAP*.

These actions were selected by the Transportation Safety Action Plan Advisory Committee for their potential impact on addressing Oregon's transportation safety problems. Actions address the compelling need to increase the efficiency of the transportation system as well. They recognize the importance of building partnerships with other units of state government, with local governmental units, and with private sector interests.

The challenge is to accept these actions as our priorities and focus on their accomplishment. Success will be measured by further reductions in the rate of crashes and the emotional trauma from death and injury, as well as the economic loss.

Performance measures given in Table VI will be used to measure results. This table lists Oregon Benchmarks related to transportation safety and additional measures of overall transportation system performance. It includes measures related to individual components

of the transportation safety system: enforcement, adjudication, sanctioning, emergency response, and engineering, as well as transportation-system-user perception of safety.

The following performance measures include Oregon Benchmarks (OBM) related to transportation safety. These are augmented with additional measures of overall system performance and measures related to individual components of the transportation system: enforcement, adjudication, sanctioning, emergency response, and engineering, as well as driver perception of safety.

While our progress has been significant, motor vehicle deaths continue to be the leading cause of death for persons under age 35 and account for millions of dollars in health care and other costs each year. While we can continue to expect moderate progress by continuing the programs in place, a more concerted effort and relatively small investments can lead to the avoidance of many crashes and a significant saving of lives and dollars.

With the implementation of the *OTSAP*, we envision a future in which the rate of transportation-related deaths and injuries continues to decline. Fatalities will decline from 22.0 per 100,000 population in 1990 to 16.4 in 2000 and 13.3 in 2010.² This is approximately 150 transportation-related fatalities per year.

Community transportation safety programs will be strong throughout Oregon. With greater resources and with technical assistance from the Oregon Department of Transportation, such programs will address safety issues that affect all modes and will work effectively with other community organizations to address the most significant problems.

Oregon will continue to be noted for its tough Driving Under the Influence of Intoxicants (DUII) and other transportation safety laws. All drivers will make responsible decisions about the use of alcohol and other drugs while driving.

More aggressive enforcement efforts will be reinforced with consistent mass media public information programs.

Effective transportation safety education programs will take place in the schools statewide. Young persons under the age of 21 will not use alcohol or other drugs and will exhibit safer driving behaviors.

There will be less irresponsible driving and possibly special licensing programs for young, older, and problem drivers.

Virtually everyone will wear a safety belt, and most young children will be secured correctly in a child safety seat.

Post-crash emergency care will be more effective. We will see significant improvement in care available in rural areas.

Less travel will occur by single occupancy vehicles and there will be more use of other modes. Special safety programs to make transit, bicycle, and pedestrian modes safer and more secure will be available throughout Oregon. Most bicycle riders will wear helmets and use other safety equipment.

Intelligent Transportation Systems will be widely used and contribute greatly to the improved safety of the transportation system. These will include the use of sensors to warn drivers of traffic and obstacles and infra-red cameras to improve visibility in inclement weather.

Additional safety-related research will be completed. Technologies and programs proven to be effective will be aggressively implemented.

Safety will receive more consideration in planning, designing, constructing, and maintaining the transportation system.

High accident locations will be systematically reviewed and countermeasures identified to address engineering, education, enforcement, and emergency care problems.

2 The target of 16.4 deaths per 100,000 population in 2000 and 13.3 deaths per 100,000 population in 2010 is an extrapolation of Oregon Benchmark #83. The document, Oregon Benchmarks; Standards for Measuring 125 Progress and Government Performance, published by the Oregon Progress Board in December 1994 indicates deaths due to unintentional injuries per 100,000 annually should be 30.6 in 2000 and 21.9 in 2010. Historically, transportation-related deaths have accounted for about half of total unintentional injuries.

As it becomes more widely recognized that intelligent laws, aggressive enforcement, effective education programs, and engineering improvements work, Oregonians will gain increasing confidence in the safety of the transportation system.

Our progress will be evaluated annually by reviewing achievements and results. The Highway Safety Management System, the most significant safety program required by ISTEA will be fully implemented. Transportation safety data will be readily available to all users through an electronic bulletin board. Analysis tools and methods to track investments and measure their benefits will be available and widely used.

Oregon's transportation system will be safer.

❖ THE ACTIONS

The 70 actions that follow can be considered Oregon's transportation safety agenda for the next twenty years. These actions are organized by the actions that were included in the *Oregon Transportation Plan*. Bold face type highlights the key actions—these will be given highest priority for implementation by the year 2000. Implementation packages for these start on page 55. In implementing these actions, consideration should be given to those geographical areas with the greatest needs, based, in part, on an analysis of transportation crash data.

Those actions that will or may require legislative action are indicated with the following mark: 8.

OTP ACTION - Enforcement

ACTION 1

Develop a Traffic Law Enforcement Strategic Plan. The plan should be developed with assistance from a high level, broadly based Task Force that includes representatives of all types of enforcement agencies and agencies impacted by enforcement activities. Specifically, the plan should develop strategies to address the following:

- **Driving under the influence of alcohol and/or other drugs.**
- **Safety belt and child safety seat laws.**
- **Driving too fast under existing conditions.**
- **Driving in excess of posted limit.**
- **Speeding and other violations in work zones.**
- **Traffic law violations relating to motorcycles, bicycles, and pedestrians.**
- **Commercial vehicle requirements.**
- **Drinking and driving by youth.**
- **Marine safety and boating under the influence of alcohol and other drugs.**
- **Incident management.**
- **Security and safety for transit, light rail, and high speed rail modes.**

Staffing needs; training; use of specialized equipment such as in-car video cameras, mobile data terminals, computerized ticketing, laser speed guns, and improved investigation tools; handling of cases by court and corrections, information needs; and financing should be included in the strategic plan.

ACTION 2

Seek a dedicated funding source for traffic law enforcement services and support needs that will be sufficient to increase Oregon's traffic enforcement efforts to effective levels.

ACTION 3

Encourage more traffic law enforcement training for police as part of the requirements for the Basic Certificate and improve traffic law training offerings. To encourage participation, offer training on a regional basis on a variety of topics including Standard Field Sobriety Testing (SFST), Drug Recognition Expert (DRE), and Traffic Program Management.

ACTION 4

Establish a process to train enforcement personnel, deputy district attorneys, judges, Driver and Motor Vehicle Services personnel, treatment providers, corrections personnel and others. An annual training program could include changes in laws and procedures, help increase the stature of traffic enforcement, and gain support for implementing changes.

ACTION 5

Pass legislation that will allow an evaluation of the use of photo radar for issuing traffic citations and, if this tool is effective in improving transportation safety, encourage statewide implementation.

ACTION 6

Evaluate the use of intoxilyzers installed in police vehicles and, if research indicates this tool is effective in improving transportation safety, pursue appropriate legislation.

ACTION 7

Enact legislation that will prohibit the use of radar detectors in all vehicles traveling in Oregon.

ACTION 8

Continue and expand efforts to reduce traffic related deaths and injuries in roadway work zones. Continue the work zone enforcement program and enhance public information programs such as *Give 'Em a Brake*. Review ODOT policies and procedures relating to crew activity in work zones. Review road construction contract specifications dealing

with placement and condition of traffic control devices. Consider legislative action to double fines for traffic infractions in work zones.

OTP – Public Awareness, Education, and Training

ACTION 9

Continue a sustained research-based transportation safety public information/ education program based on behavior modification. Develop a *Transportation Safety Communications Plan* to maintain focus on the most significant transportation safety problems and to identify audience, message, and expected results for all campaigns. This annually updated plan should be developed with input from all transportation safety interests and include the safety concerns of transit, rail, pedestrian, bicycle, air, and water modes.

ACTION 10

Make motorcycle rider education mandatory to age 21 and fund the increased cost by raising the motorcycle indorsement fee from \$7.00 to \$10.00. By 2012, extend requirement to all persons seeking their first motorcycle indorsement.

ACTION 11

Evaluate current safety belt education programs, identify most effective, develop guidelines for their use as an alternative to sanctioning, and aggressively promote their use statewide.

ACTION 12

Provide incentives in the implementation guidelines for the Oregon Health Plan to encourage employers to participate in injury prevention programs.

ACTION 13

Identify opportunities to improve injury prevention program delivery by coordinating with Children and Family Commissions in each county.

ACTION 14

Improve school bus safety by expanding the safety hotline operated by the Public Utility Commission to encourage the public to report safety problems involving school bus equipment and drivers. Encourage the Department of Education to inspect more frequently the vehicles of districts reported to have safety problems.

ACTION 15

Incorporate the concepts of Intelligent Transportation Systems (ITS) into the transportation safety public information program so the public gains familiarity with and accepts changes.

ACTION 16

Establish the Transportation Safety Section, Oregon Department of Transportation, as the Transportation Safety Resource Center for Oregon, and actively encourage greater use of public information materials and research reports by local agencies.

ACTION 17

Continue the Annual Air Fair for the purpose of providing training and information to aviation professionals and the general public. Expand safety-related training.

OTP ACTION – Facility Design, Construction, and Maintenance

ACTION 18

Advocate aggressively to change federal standards and guidelines that limit the ability of the Oregon Department of Transportation to allocate resources to the highest priority safety needs.

ACTION 19

Consider the roadway, human, and vehicle elements of safety in modal, corridor and local system plan development and implementation. These plans should include the following:

- Involvement in the planning process of engineering, enforcement, and emergency service personnel as well as local transportation safety groups.
- Safety objectives.
- Resolution of goal conflicts between safety and other issues.
- Application of access management standards to corridor and system planning.

ACTION 20

In planning and project development, consider access management techniques which show significant improvements in safety for the roadway user. Access management techniques which may be used individually or in various combinations include the following:

- Appropriate access and public street spacing and design.
- Proper spacing and coordination of traffic signals.
- Installation of non-traversable medians.
- Proper spacing and design of median openings.

- Provision of lanes for turning traffic.
- Interparcel circulation.
- Use of city and county road infrastructure as an alternative to increased access.
- Protection of the functional area of an intersection.
- Proper spacing of interchanges.

ACTION 21

Consider safety—including the special needs of motorcyclists, bicyclists, and pedestrians—in all road maintenance functions.

ACTION 22

With consideration to the scenic quality of the roadway, use vegetation management techniques to accomplish the following:

- Reduce ice on roadway.
- Increase visibility in deer crossing areas.
- Eliminate “tunnel like” corridors and provide variation along roadway edges to keep drivers alert.
- Remove clear zone hazards.
- Remove hazard trees.
- Improve visibility of signs and roadway markings.
- Improve sight distance at intersections.

ACTION 23

Continue to conduct research on driver behavior and roadway engineering issues. Evaluate the safety impact of new laws, new programs, and new materials. Specific research needs, in addition to those identified in other actions, include the following:

- Snow and ice control.
- High visibility signs and legends.
- Use of alternative modes.
- Night time work zone illumination
- Skid-resistant and low spray pavements.
- Accident investigation techniques.
- Specialized enforcement equipment.

ACTION 24

The Oregon Department of Transportation, Public Utility Commission, Metropolitan Planning Organizations (MPOs), and other appropriate agencies should develop a statewide Intelligent Transportation System (ITS) plan. The plan should include safety standards for the design, implementation, and operation of all ITS measures. Guidelines

for the review of all proposed ITS measures for safety conflicts and resolutions should be included in the plan.

ACTION 25

Complete an analysis of Corridor Safety Improvement Programs and, if results indicate, fully integrate into Oregon Department of Transportation project selection process.

ACTION 26

Consider the needs of non-English speaking Oregonians and visitors in establishing guidelines for highway signs.

ACTION 27

Continue to consider land use when siting airports to reduce the potential for a crash involving aircraft hitting persons on the ground. Consider the following:

- Review land use goals and objectives regarding airport compatibility and refine policies and implementation strategies to meet those objectives in the update of the Airport Compatibility Guidelines.
- Examine the Department of Transportation's role in local land use issues regarding state, municipal, and privately owned public use airports and determine appropriate level of involvement.
- Ensure that corridor and local system plans identify existing and proposed public use airport facilities and services and provisions for compatibility with surrounding land use activities.

ACTION 28

Enhance enroute weather reporting facilities to better serve air travelers.

- Determine where automated weather observing systems are necessary to improve weather reporting capability and enhance aviation safety.
- Evaluate applicability of weather reporting facilities designed for aviation to serve the need for up-to-date weather information for motorists.

ACTION 29

Complete a review of emergency medical service (EMS) related statutes with the goal of developing an effective and integrated EMS system for the state of Oregon. Develop a comprehensive statewide EMS plan and designate the EMS Section of the Health Division to do the following:

- Establish standards for local EMS service delivery, transportation services, and care facilities.
- Establish certification requirements for EMS service providers.
- Provide training.
- Develop a statewide communication system.

- Establish a statewide Trauma System.
 - Provide public information and education about EMS services.
- Provide adequate funding and periodically evaluate system performance.

ACTION 30

Maintain quality of 9-1-1 services and look for opportunities for improvements as new technologies become available.

OTP ACTIONS – Interagency Cooperation

ACTION 31

Support the expansion of local transportation safety programs by providing technical assistance, mentor programs, legislative coordination, training, and other resources to local transportation safety programs and committees statewide.

ACTION 32

Provide a transportation safety specialist position in each Oregon Department of Transportation region, providing a safety perspective to all operations as well as direct communication between the Oregon Department of Transportation and local transportation safety agencies and programs.

ACTION 33

Test the TransAdvocate model which combines various transportation-related commissions and committees. Change policies to allow jurisdictions to adopt model.

ACTION 34

Improve Oregon Department of Transportation internal and external communications on issues related to local safety needs. Continue to improve local input to Oregon Department of Transportation planning and decision making. Help to “translate” federal and state requirements to improve local agency understanding and efficiency.

ACTION 35

Continue to consider local needs and resource limitations when establishing safety standards for operations and maintenance by communicating consistently with local agencies.

ACTION 36

Work with local government units, utility companies, and contractors to encourage improvements in the reliability of work zone signing.

OTIP ACTION – Transportation Records

ACTION 37

Complete a Strategic Plan for Traffic Records Improvements and, based on this plan, establish a traffic records system that will adequately serve the needs of state and local agencies. The plan should address the following:

- **Methods to improve reporting of traffic crashes by police and citizens.**
- **Better integration of the various accident records systems that are currently maintained by separate state and local agencies or the development of one accident data system.**
- **Wider, more timely distribution of accident and related data, including quarterly distribution of available data.**
- **An evaluation of the quality of the current accident and related reporting system and its effectiveness as a source for data used to make decisions regarding resource allocations.**
- **Evaluation of new technology to improve quality and timeliness of reporting accident and other data.**
- **Improved coordination among state and regional criminal justice system information systems and other traffic records systems.**
- **Requirements of the Highway Safety Management System (SMS) and the need to integrate the SMS with the other management systems.**

ACTION 38

The Oregon Department of Transportation should assume the responsibility to develop, implement, and monitor a Highway Safety Management System (SMS) that serves the needs of all state and local agencies and interest groups involved in transportation safety programs. The following elements should be included:

- The SMS should be designed to provide direct input into the project identification and selection process.
- The SMS should be designed to guide investment decisions about all types of transportation safety programs. A consistent benefit/cost approach should be utilized to determine which improvements are cost effective and to prioritize safety needs system wide. Oregon's SMS should serve the needs of state and local agencies and Metropolitan Planning Organizations (MPOs).
- The SMS should be based on an adequate traffic records system and incorporate such data analysis tools as the Safety Priority Index System (SPIS). This system uses crash data to identify high accident intersections and road segments.
- The SMS should be designed to establish efficient processes for ongoing cooperative efforts among the various political and technical entities.
- The SMS should be designed to help monitor implementation of the *Oregon Transportation Safety Action Plan* and to assist with evaluating the effectiveness of individual actions and overall system performance.

OTP ACTION – Impaired and High Risk Operators

ACTION 39

Recognize the prevalence of driving under the influence of controlled substances and revise driving under the influence of intoxicants (DUII) statutes to address the following:

- **Include driving under the influence of alcohol, controlled substances, toxic vapor releasing substances, or combinations of substances in one offense.**
- **Allow the taking of blood and/or urine samples under the implied consent law if the police officer can articulate reasonable grounds to believe controlled substances are involved.**
- **Allow testimony of Drug Recognition Experts certified by the State Police or Board on Public Safety Standards and Training to be admitted into evidence.**

To support implementation of these revisions, develop and offer a comprehensive statewide DRE training program.

ACTION 40

Pass legislation to establish .04 percent BAC as the standard for measuring alcohol impairment for all Oregon drivers 21 years old and older. Continue the zero tolerance law for persons under 21.

ACTION 41

Pass legislation that will require an agreement to a trial on stipulated facts as a condition of entry into the diversion program.

ACTION 42

Pass legislation to require all courts to notify Driver and Motor Vehicles Services, Oregon Department of Transportation, of all court actions relating to DUII offenders including initiation of diversion agreements, their completion, their early termination and any subsequent court action to ensure that the driver record information is complete and can be effectively utilized to support the treatment and rehabilitation of DUII offenders.

ACTION 43

Conduct an evaluation of the DUII Education and Treatment Program. The evaluation should be completed by an independent researcher with participation from an advisory group consisting of representatives from the Office of Alcohol and Drug Abuse Programs (OADAP), Transportation Safety Section, Driver and Motor Vehicle Services (DMV),

courts, police and DUII Summit Task Force on Treatment. Results of the evaluation study should be used to recommend modifications to the system to better meet the needs and demands of clients, the courts and DMV. The evaluation, among other things, should contemplate recommendations on the following:

- Whether the DUII Education and Treatment Program should be streamlined to eliminate duplication of evaluation services.
- Whether the role of the independent evaluator should include case management responsibilities.
- Whether to provide for state funded supervised probation of DUII offenders to monitor compliance with diversion and court ordered sanctions.

ACTION 44

Adapt and implement the Drug Court concept, in which DUII offenders enter treatment shortly after arraignment and cases are dismissed following successful treatment completion. Monitor the delivery of services provided to DUII clients for quality and accountability. The Office of Alcohol and Drug Abuse Programs, Driver and Motor Vehicle Services, and the Transportation Safety Section, and other appropriate agencies and interests should consult on a regular basis about the results of the Drug Court concept.

ACTION 45

Encourage implementation of innovative programs targeted at high risk drivers, evaluate effectiveness, and, if results merit, aggressively promote statewide implementation.

ACTION 46

Mandate a server education program for persons working in grocery stores and contracted liquor stores. The information should include state alcohol beverage laws, especially sale to minors and sale to intoxicated persons, penalties for violation of the laws, and recognition of false ID and signs of intoxication.

ACTION 47

Pass legislation to allow hospital records of blood tests used for treatment of the offender to be admitted into evidence to show BAC or the presence of controlled substances.

ACTION 48

Pass legislation to require mandatory BAC testing of all drivers involved in traffic crashes where a fatality or transport to a medical facility is involved.

ACTION 49

Revise the DUII statutes to require the Intoxilyzer result to report grams of alcohol in the breath instead of blood alcohol content.

ACTION 50

Continue to promote alternative transportation programs for impaired drivers in a manner that assures responsible service and promotes moderation in alcohol consumption by drivers as well as non-driving patrons.

ACTION 51

Pass legislation and encourage cities and counties to pass local ordinances that provide for vehicle seizure, impoundment and forfeiture, as may be appropriate, for repeat DUII offenders and those who drive after suspension.

OTP ACTION – Transportation System User Safety and Security

ACTION 52

Evaluate the possibility of establishing a transportation safety research center in Oregon as a nationally recognized transportation safety research center and aggressively seeking research funds from federal and private foundation sources.

ACTION 53

Establish and fund a statewide incident management program designed to minimize traffic congestion and secondary crashes by clearing incidents as quickly as possible and returning the roadway to normal operating conditions. *A Statewide Incident Management Strategy* that identifies roles of the various cooperating agencies and includes the three elements of technology, public awareness, and enforcement should be developed. The program should initially be established in the Portland metropolitan area and use the I-5 South Corridor Incident Management Team as a model. A technology assistance program to support the development of Incident Management Teams in other parts of the state should be included.

ACTION 54

Endorse the multi-discipline Incident Command System (ICS) statewide and provide training to personnel of police, fire, emergency medical services and public works agencies.

ACTION 55

Ensure access to child safety seats to all young children. Currently Medicaid can be used to pay medical costs for injuries due to nonuse or misuse but purchase of a child safety seat is not reimbursable. Oregon should request that Medicaid rules be modified to allow purchase of child safety seats. Information on correct use should be provided to parents.

ACTION 56

Continue to make available the services of the Child Safety Seat Resource Center since surveys indicate that as many as 80 percent of child safety seats are used incorrectly and will not provide proper protection to young children involved in motor vehicle crashes.

ACTION 57

Develop and implement a comprehensive Youth Transportation Safety Strategy for youth to age 21. Formalize coordination of youth programs through formation of a Youth Transportation Safety Task Force. This group should be charged with the development of a comprehensive Youth Transportation Safety Strategy that should include school responsibilities, youth empowerment activities, community responsibilities, work-based activities, enforcement, licensing, adjudication, supervision, legislation, and environmental considerations. Initially the Task Force should address the following:

- **Develop a transportation safety curriculum for grades K-12 and pilot it in at least two school districts; then offer teacher training and make it available statewide. Consider the following:**
 - **The curriculum content goals being revised in response to the Oregon Educational Act for the 21st Century.**
 - **The emphasis on a multi-modal transportation system where people walk, use transit, bike, and operate a variety of motor vehicles.**
 - **Existing curriculum such as *Portland Kids on the Move* and curricula that might be available in other states that could be adopted for use throughout Oregon.**
 - **Risk-focused prevention strategies.**
- **Make a variety of school-based injury prevention programs available statewide. These include assembly type programs such as *Think First* and *Trauma Nurses Talk Tough* and youth empowerment programs such as *Oregon Student Safety On the Move (OSSOM)*.**
- **Consider the need for legislation that puts in place clear, consistent driver licensing laws for youth to age 21 to incorporate the elements contained in the current provisional licensing, .00 tolerance, and juvenile denial laws.**
- **Evaluate the possibility of putting in place a graduated license program for young drivers.**
- **Evaluate the possibility of requiring driver education prior to license issuance for all drivers 18 and under. The evaluation should consider**

expected transportation safety benefit, implementation options, and curricula available. One option is to establish a driver education program similar to the TEAM OREGON Motorcycle Training Program.

- **Review the status of current juvenile offender programs and develop recommendations regarding new approaches.**

ACTION 58

Since the number of persons over 65 living in Oregon will increase by about 25 percent by the year 2012, additional programs targeted at older drivers and transportation system users should be designed and implemented. These should include the following:

- Programs that help older persons maintain or improve their driving skills.
- Programs that provide insurance incentives to persons who participate in driver education.
- Programs that adjust highway design and operations to better accommodate older persons. Consider if changes in standards relating to signs and traffic control devices are needed.
- Programs that provide transportation options.

OTP ACTION – Truck Safety

ACTION 59

Pass legislation to give the Public Utility Commission the authority to enforce federal regulations that apply to shippers of hazardous materials. Conduct a public information program to inform agencies about changes in hazardous materials registration and permit requirements.

ACTION 60

Pass legislation to give the Public Utility Commission the authority to ensure that commercial vehicle inspections are done in a uniform manner by all cities and counties.

OTP ACTION – Rail Safety

ACTION 61

Maintain the current rail track inspection program and continue to utilize crash history data to identify key locations needing additional inspections.

ACTION 62

Continue to conduct round-the-clock, thorough assessments of key maintenance facilities, working cooperatively with the Federal Railroad Administration, when the routine rail equipment inspection program indicates a need.

ACTION 63

Consider the following in developing the high speed rail project:

- Passenger on-board safety and security needs as well as passenger security at intermodal stations.
- Various options to reduce conflicts with other modes, especially grade separations and closures of crossings.
- Right-of-way security fencing where necessary.

ACTION 64

Reduce the potential of crossing crashes by working aggressively to eliminate redundant highway-rail intersections. Upgrade warning devices or construct grade separations at the most heavily traveled intersections.

ACTION 65

Evaluate the effectiveness of using a remote video system to record highway-rail crossing violations and developing a system of mailing citations and, if indicated, implement as appropriate.

OTP ACTION – Navigational Conflicts

OTSAP Action 1, relating to enforcement and *OTSAP* Action 9, relating to public information address this *OTP* action.

OTP ACTIONS – Transit, Pedestrian, and Bicycle Safety

ACTION 66

Increase emphasis on programs that will encourage pedestrian travel and improve pedestrian safety. The following actions should be undertaken:

- **Assist communities to establish pedestrian safety efforts by providing technical assistance and materials.**
- **Expand public education and information efforts relating to pedestrian safety. Develop materials that target drivers, youth, alcohol and other drug impaired pedestrians, and elderly pedestrians.**
- **Encourage more aggressive enforcement of pedestrian traffic laws.**
- **Require walkways and safe pedestrian crossings on all appropriate road projects. The lack of walkways and safe crossing opportunities contribute to pedestrian crashes.**
- **Increase funding for pedestrian system deficiencies. Many municipal, county and state roads were constructed without walkways. While some of these roads are rural and have minimal pedestrian use, many other roads serve urban populations and should have walkways. Funds should**

be allocated to construct walkways on roads that serve schools, transit, business and commercial uses, and medium to high density housing.

- **Support research on pedestrian safety and design to increase understanding of how to encourage pedestrian travel and promote pedestrian safety in the areas of education, engineering, and enforcement. Establish a network to disseminate pedestrian safety information to local governments.**

ACTION 67

In public education and enforcement efforts, recognize bicycles as an alternative mode of travel that is required to follow the same rules of the road as motorized vehicles.

ACTION 68

Increase emphasis on programs that will encourage bicycle travel and improve bicycle safety. The following actions should be undertaken:

- Support the *Oregon Bicycle and Pedestrian Plan* goal of providing safe, more attractive and convenient bikeways and walkways on urban transportation corridors and designing intersections to accommodate all users safely.
- Support the *Oregon Bicycle and Pedestrian Plan* goals of providing bikeways that encourage users to ride with traffic.
- Increase funding for maintenance of bikeways.
- Develop a comprehensive bicycle safety campaign for all users. Include information to encourage bicycle helmet use by all riders.

ACTION 69

Enhance the efforts of all transit service providers to improve passenger safety and security on their vehicles, at stops, and at park and ride lots. Outreach and intervention efforts that may be part of community policing programs can improve transit users' perception of safety.

ACTION 70

Evaluate the need for a safety oversight program for transit and paratransit operators and their vehicles, and identify alternative approaches for providing such a program.

[Note: See also *Oregon Bicycle and Pedestrian Plan* and *Oregon Public Transportation Plan*.]

❖ KEY ACTIONS

For each of the eleven key actions, implementation guidance is given.

OTSAP ACTION 1 – Traffic Law Enforcement Strategic Plan

How does this action relate to the OTP?

OTP Action 1G.2: Improve the enforcement of transportation safety laws and regulations intended to reduce injury and property damage. Emphasize enforcement of laws and regulations involving excessive speed, alcohol and other drug use, use of safety belts, and use of helmets for motorcycle drivers and passengers.

OTP Action 1G.12: Reduce navigational conflicts on waterways between commercial and recreational users, including windsurfers, in cooperation with the U.S. Coast Guard.

What are we doing now?

There are approximately 400 state and 4,000 local police and sheriff deputies in Oregon. Because of other enforcement demands, most departments do not have dedicated traffic patrols. Traffic patrol has become a low priority. Adequate traffic enforcement presence demands additional personnel.

The need for increased enforcement resources is generally recognized, but the specifics regarding staffing, training, and equipment have not been identified. The assessment of resource needs should consider additional needs for training due to passage of new laws as well as improved technology.

Information is not currently available on the impact increased traffic enforcement would have on the rest of the criminal justice system.

What needs to happen to accomplish this action?

- The Transportation Safety Section, Oregon Department of Transportation, should request and fund a Police Traffic Services Assessment and fund a contract for the development of a strategic plan.
- An advisory committee or task force should be formed to guide the planning effort.
- The Transportation Safety Section or Planning Section, ODOT, should organize the assessment and manage the consultant contract. The target completion date for the plan should be mid-1996.

- The *Traffic Law Enforcement Strategic Plan* should be considered an element of the *OTSAP* and be adopted by the Oregon Transportation Commission as a revision to the *OTSAP*. It should be incorporated in future updates of the *OTSAP*.

What are the benefits of doing more?

Surveys by Intercept Research Corporation indicate that the public thinks the risk of arrest is low (58 percent believe their chances of being caught for DUII are 10 percent or less) and that enforcement is an effective tool to increase the safety of Oregon's transportation system.

Research indicates a direct relationship between increased enforcement and reduced incidence of traffic crashes and therefore a reduction in injuries and deaths.³

How will we measure progress?

The *Traffic Law Enforcement Strategic Plan* will identify enforcement resource requirements and the strategies for their effective use. The plan will include an implementation schedule and performance measures to evaluate progress toward the goal of increasing traffic enforcement as a way to reduce transportation-related deaths and injuries.

How much will it cost?

Development of the *Traffic Law Enforcement Strategic Plan* is estimated to cost \$50,000 in consultant services. It is estimated that .25 FTE ODOT staff time will be required.

³ A study published in the Transportation Research Record (1983) on a Boise, Idaho selective traffic enforcement project compared the change in accidents in Boise during the period in which traffic enforcement was increased to the record of an eastern county that had no increase in effort. For an investment of \$788,000 over a 22 month period, that there was a net savings of \$1.6 million. There was a 17 percent reduction in fatal and injury crashes.

What legislative, administrative, organizational changes are needed?

The strategic plan should be completed by December 1995. It is likely that the plan will call for substantial legislative action in a number of areas. The timing of the plan means that the desired legislation will be introduced in the 1997 legislative session. No legislative or administrative rule changes are required to develop the plan.

Devotion of .25 FTE ODOT personnel to this project may require some organizational changes.

OTSAP ACTION 2 – Dedicated Funding Source for Law Enforcement

How does this action relate to the OTP?

OTP Action 1G.2: Improve the enforcement of transportation safety laws and regulations intended to reduce injury and property damage. Emphasize enforcement of laws and regulations involving excessive speed, alcohol and other drug use, use of safety belts, and use of helmets for motorcycle drivers and passengers.

What are we doing now?

Oregon's current level of traffic law enforcement is inadequate.

Oregon State Police (OSP) have experienced a significant reduction in staffing. To better determine what the human resource requirements are, OSP recently completed a study utilizing the Police Allocation Model (PAM) that indicated that an increase of 259 troopers over the current level was needed. This estimate assumes that OSP responsibility is primarily for the state and interstate highways. County roads were excluded from the allocation calculations. Varying levels of coverage were assigned to highways with consideration given to traffic volumes, accident history, calls for service, and the deterrent effect of a visible police presence. The requirements of Service Oriented Policing and the specific needs of the Portland Metropolitan area were considered. OSP is funded through the General Fund.

There are approximately 4,000 local police and sheriff deputies. Most departments do not have dedicated traffic patrols. Due to increasing gang problems and other calls for service, traffic patrol has become a low priority in many agencies. Funding is provided through local resources.

District, municipal and justice courts handle traffic infractions and misdemeanors. District courts are funded with General Funds. The operation of local courts is sometimes supported with the fine revenue resulting from traffic cases.

Fine and fee revenue is disbursed according to a formula that considers the jurisdiction making the arrest and the jurisdiction hearing the case. Monies received at the state level are deposited into the Criminal Fine and Assessment Account (CFAA) and disbursed according to a formula into 15 separate accounts. Approximately half is deposited into the General Fund.

What needs to happen to accomplish this action?

- A dedicated funding source needs to be secured through legislative action. Monies generated could be disbursed directly to enforcement and other agencies or by the Transportation Safety Section as grants to state and local agencies.

- The *Traffic Law Enforcement Strategic Plan* will include specific investment requirements for meeting staffing, training, equipment, and other support requirements for an effective traffic law enforcement effort.

What are the benefits of doing more?

Research indicates there is a direct relationship between increased enforcement and reduced incidence of traffic crashes.

How will we measure progress?

We will monitor the results of more enforcement services as evidenced by the increase in arrests and decrease in the rate of traffic crashes.

How much will it cost?

Cost of one State Police officer including a vehicle is \$75,000 per year.

The average cost for one city police officer or county deputy and vehicle is estimated to be \$50-\$60,000 per year.

Past analysis has indicated that for each traffic ticket or DUII case, the resource requirements for the rest of the criminal justice system are at least equal to those of the police agency that made the original arrest. For DUII cases, the costs may be higher.

The *Traffic Law Enforcement Strategic Plan* will identify the resource needs and expected benefits. Preliminary estimates based on the PAM study suggest the annual cost for this action could be as high as \$25 million.

What legislative, administrative rule, or organizational changes are needed?

The *Strategic Plan for Traffic Law Enforcement* will include specific investment requirements for meeting staffing, training, equipment, and other support needs essential to providing effective traffic law enforcement. Those investment requirements will require legislative actions in the 1997 session.

OTSAP ACTION 9 – Public Information and Education

How does this action relate to the OTP?

OTP Action 1G.3: Develop and deliver a comprehensive safety awareness, education, and training program for all system users.

OTP Action 4O.2: Through the Safety Action Plan and other means, expand public awareness of travel safety to reduce transportation-related accidents. Provide information

on the primary causes of accidents including drug and alcohol abuse, driver error and vehicle maintenance neglect, and their results in deaths, injuries and economic loss.

OTP Action 1G.12: Reduce navigational conflicts on waterways between commercial and recreational users, including windsurfers, in cooperation with the U.S. Coast Guard.

What are we doing now?

The Transportation Safety Section has coordinated a comprehensive multi-media transportation safety communications program since 1984. Originally started to publicize and gain support for new DUII laws, the program has been expanded to include messages relating to safety belt use, motorcycle safety, work zone safety, safe driving, bicycle safety, and pedestrian safety. Public attitude surveys and focus group research help identify audience and message and evaluate the results. The program costs approximately \$200,000 per year, which includes development of materials, research, and printing costs. It is estimated that approximately \$750,000 in free public service time is donated. Responsibility for the program is shared by several staff persons. Resources limit the scope of the program and are not sufficient to sustain the program year round.

A yearly meeting is held with state and local agencies and groups to gain input. Mothers Against Drunk Driving (MADD), insurance agencies, and some TV stations produce their own materials on DUII and other traffic safety topics.

The Oregon Marine Board produces a comprehensive boating safety education program that addresses the issues of boating while intoxicated, use of personal floatation devices, and safe boat operation. The Board cooperates with other agencies including the U.S. Coast Guard, Oregon Fish and Wildlife, the Port of Portland, and various county sheriffs' offices to conduct safety education programs that address waterway conflicts.

The Oregon Railroad Association, in cooperation with its member railroads and the Public Utility Commission, conducts safety education programs aimed at the motoring and walking public and designed to reduce the number of railroad-crossing crashes.

Other agencies may conduct safety education programs targeted at certain segments of the population and focused on specific issues.

What needs to happen to accomplish this action?

- A staff person should be designated as the Transportation Safety Public Information Program Coordinator. This person should be responsible for development and implementation of the Transportation Safety Communications Plan and would work with media and other organizations. The relationship of the transportation safety public information program and other public information programs to be implemented by ODOT to encourage use of alternative modes should be considered. This consolidated position assumes functions divided among five staff members at

present. This function could be assumed by Public Affairs or the Transportation Safety Section.

- The Transportation Safety Communications Plan should be a three-year plan, updated annually, that includes all modes and identifies program needs, costs, implementation schedule, and responsible agencies and expected outcome. All agencies and groups that manage communications programs should be asked to participate as a technical planning committee.
- Public attitude surveys, crash data, and other information sources should be used to identify needs and target messages. Additional research on driver behavior modification and message delivery should be undertaken.
- Additional effort should be given to expanding the pedestrian safety public information program and to addressing safety concerns that might discourage walking or the transit or bicycle modes.

What are the benefits of doing more?

National research supports the value of public information activities as a complement to other programs such as strict laws and aggressive enforcement. An investment in public information will increase the impact of other investments. Research conducted by Intercept Research, Incorporated, indicates the current program is effective. Ninety-three percent of the public agrees that drinking and driving is not acceptable behavior; 82 percent is aware of DUII laws; 96 percent is aware of the safety belt law.

How will we measure progress?

Telephone surveys of the public should be continued to measure the impact of the communications program as well as other programs identified in the *OTSAP* for expansion or initiation. Surveys can measure awareness of new laws and safety programs as well as measure exposure to messages.

How much will it cost?

It is estimated that \$100,000 in additional resources will be required each year in order to implement the program as described above. This will allow for a more sustained effort in high priority areas identified in the *Transportation Safety Communications Plan*, the tailoring of programs to geographic as well as demographic and lifestyle characteristics, and the development of safety programs focused on moving Oregonians safely to other modes.

What legislative, administrative, organizational changes are needed?

No legislation or administrative rule changes have been identified. Assignment of a public information specialist to this project may require organizational changes.

OTSAP ACTION 31 – Local Transportation Safety Programs

How does this action relate to the OTP?

OTP Action 1G.6: Increase interagency cooperation among federal, state and local governments and private enterprises in order to implement more effective community-based safety programs.

OTP Action 2B.1: Cooperate with local governments and metropolitan planning organizations to develop integrated transportation plans for urban areas that meet the needs of urban mobility, and intercity, interstate, and international travel within and near each urban area.

OTP Action 3A.4: Work with local, state and federal governments to permit efficient transportation operations consistent with environmental or safety goals.

OTP Action 4K.1: Cities and counties shall adopt regional and local transportation plans as part of their comprehensive plans.

OTP Action 4N.1: When preparing and adopting a transportation plan, transportation plan element, modal plan, facility plan or transportation improvement program, conduct and publicize a program for citizen, business, local government and state agency involvement that clearly defines the procedures by which these groups will be involved.

What are we doing now?

Community transportation safety programs in Oregon include well funded comprehensive programs, small county and city transportation safety commissions, small or “mini” grant programs for specific activities, and a network that seeks to combine resources, share information and promote safety statewide.

The Transportation Safety Section (TSS), ODOT manages a statewide traffic safety program that provides Section 402 funds to communities for comprehensive programs. Currently approximately \$400,000 is devoted to community transportation safety programs each year. Additional funds are awarded to local units of government for other types of safety programs.

For many years TSS and its predecessor, the Oregon Traffic Safety Commission, have encouraged communities to form local traffic safety commissions or committees. There are now approximately 50 active local transportation safety committees in Oregon. Most committees rely on volunteer help with staff support “donated” by local agencies. Mini-grants of up to \$3,000 are awarded for specific projects such as bicycle safety and speed law compliance.

A community traffic safety program coordinator is under contract to the Transportation Safety Section to coordinate local committees and provide technical assistance. The committees have formed an incorporated association to address issues of traffic safety that go beyond their individual borders. The Alliance for Community Traffic Safety (ACTS) currently has 19 members. ACTS has applied for 501 (c)(3) status.

TSS serves as a clearinghouse for all transportation safety materials and information used throughout the state. It provides public information and research reports to local agencies and committees.

A TransAdvocate program that brings various local transportation interests together into one committee is being tested in two counties.

What needs to happen to accomplish this action?

Current efforts that are effective should continue. This action calls for an expansion of current efforts. The following are possible steps:

- Provide a transportation safety position in each ODOT region, providing a safety perspective to all operations and direct communication between ODOT and local transportation safety agencies and programs. Responsibilities could include providing technical assistance to community transportation safety programs and administration of federal safety programs. The transportation safety specialist could also serve as a regional manager for the Highway Safety Management System (SMS). It may be possible to combine these responsibilities with ODOT employee safety functions or with other Transportation Development Branch functions.
- Assist local communities in developing transportation safety action plans. Action plans based on a thorough assessment of the community's transportation safety problems and opportunities will help encourage the community to focus on the highest priorities and help identify the need for technical services and resources. Communities should be encouraged to take advantage of start-up funds available through the Section 402 grant program and to consider options for achieving long term self-sufficiency.
- Expand the clearinghouse function of the Transportation Safety Section and formally establish TSS as the Transportation Safety Resource Center for Oregon. Actively encourage greater use of public information materials and research reports by local agencies.
- Encourage non-profit transportation-safety organizations to raise funds for and initiate projects that will complement the transportation safety programs of state and local agencies.

What are the benefits of doing more?

National Highway Traffic Safety Administration research supports creation of community traffic safety programs citing that many traffic safety problems are best handled at the local level.

There are significant benefits to encouraging local transportation committees and programs. Communities are able to show a high return for investment of a few thousand dollars since they are able to mobilize volunteers and solicit private funding support.

The implementation of many actions included in the *OTSAP* will be enhanced by encouraging the participation of local transportation safety agencies and organizations. Specific actions whose success depends on community level participation include:

Actions 1 and 2	Increase traffic law enforcement
Action 13	Coordinate with Children and Family Commissions
Action 19	Consider safety in local plan development
Action 25	Evaluate Corridor Safety Improvement Programs
Action 33	Test the TransAdvocate model
Action 34	Improve ODOT internal and external communications
Action 35	Consider local needs and resources when establishing safety standards
Action 37	Complete a <i>Strategic Plan for Traffic Records Improvements</i>
Action 38	Develop a Highway Safety Management System(SMS)
Action 51	Encourage cities and counties to pass ordinances to establish programs that address repeat traffic offenders
Action 58	Develop programs for older drivers and transportation system users
Action 66	Expand pedestrian safety programs

How will we measure progress?

The number of communities involved in transportation safety programs will be inventoried. Communities with successful programs will see reductions in the number of crashes, deaths, and injuries.

How much will it cost?

The current level of Section 402 funding, which is approximately \$400,000 per year, devoted to community transportation activities, should continue or increase. To provide transportation services regionally it will be necessary to reassign 5.0 FTE.

The cost of establishing community-based programs throughout the state. is estimated to be \$1.2 million per year. This would allow a full time coordinator in counties of more

than 50,000 population and half or quarter time coordinators in other counties. Rural counties sharing similar needs may be able to form a joint effort.⁴

Start-up funds can be provided through the Section 402 grant program. To receive these funds, communities are asked to commit to continuation of the transportation safety program with their own resources. Long-term self-sufficiency should be addressed by communities developing transportation safety action plans. Establishing programs for which a fee can be charged, charging a bicycle registration fee, or establishing an assessment on traffic citations are among the options to be considered.

What legislative, administrative, organizational changes are needed?

Initially existing staff and resources should be realigned to allow assignment of a safety specialist to one region on a trial basis. The role of this person and program expectations should be well defined and evaluated.

Successful implementation of this action will require communities to identify a dedicated funding source or a redirection of existing funds.

⁴ This calculation is an estimate. It is based on average annual cost of \$50,000 to operate a community comprehensive transportation safety program with one full-time staff person. It is estimated that counties with more than 50,000 population (16 counties) would require a full-time position, counties more than 10,000 (12 counties) would require a half-time position, and those less than 10,000 (8 counties), a quarter-time position. Several counties may choose to develop joint programs

OTSAP ACTION 37 – Strategic Plan for Traffic Records

How does this action relate to the OTP?

OTP Action 1G. 7: Develop and implement a comprehensive and coordinated transportation records and accident reporting program to manage and evaluate transportation safety.

What are we doing now?

An adequate, accessible traffic records system is essential for effective transportation safety program planning and management. Without an effective system, priority needs cannot be accurately identified, appropriate countermeasures cannot be selected, and evaluation of impact cannot be determined. An effective traffic records system is key to developing a Highway Safety Management System (SMS) for Oregon. The SMS, one of six federally mandated management systems, includes specific requirements for the collection, maintenance, and dissemination of data necessary for identifying problems and determining needs.

The responsibility for managing statewide traffic records systems is shared by several agencies. City, county, and other agencies maintain their own records for crashes, citations, and roadway inventory. Private emergency service providers maintain records as do various other organizations.

The Oregon Department of Transportation maintains an accident file which includes location, causation, driver characteristics, and accident severity information on all crashes reported by police and citizens. The Fatal Accident Reporting System (FARS) includes very detailed information on fatal crashes and, as a national reporting system, allows comparison with other states and national averages. The department also maintains a roadway file and, through its Driver and Motor Vehicle Services (DMV), driver and vehicle files. DMV is currently upgrading its data systems.

Files of commercial vehicle and railroad grade crossing crashes are maintained by the Public Utility Commission (PUC). PUC maintains additional files on commercial vehicles.

The Oregon Judicial Department maintains the Oregon Judicial Information Network (OJIN) that includes all events, filings, proceedings, charges, sentences, and financial information for cases considered by all circuit and district courts.

There is no central data base for citation information.

The Oregon State Police is heading an effort that will lead to integration of criminal justice system information systems.

The Transportation Safety Section has received a National Highway Traffic Safety Administration grant to begin working on a traffic citation tracking system.

The Emergency Medical Services Section, Oregon Health Division, maintains EMS records and a Trauma Registry.

The Oregon Association of Counties is developing a county Integrated Road Information System (IRIS).

An assessment of Oregon's traffic record system was conducted in June 1994 to evaluate its adequacy compared to national guidelines. As part of the assessment, interviews with 40 system managers and data users were conducted. Among the 42 recommendations were the following:

- Implement a method for bringing about increased reporting by police agencies.
- Discontinue use of the motorist report form as a source document for the accident file and rely solely on the police accident report.
- Plan and implement a global positioning system to accurately locate accidents.
- Establish a centralized citation/conviction system that includes a record of all traffic citations and their disposition.

- Establish a state traffic records committee and designate a traffic records oversight function to a single state agency.
- Develop improved normalizing and exposure data to more accurately compute rates.

A special grant of \$49,000 has been received from the National Highway Traffic Safety Administration to support the preparation of a traffic records strategic plan. A Safety Information Advisory Committee has been formed to assist with plan development and implementation. A survey of data users was completed to determine needs and to provide a baseline to measure system improvement.

What needs to happen to accomplish this action?

- ODOT Planning Section should assume lead responsibility for completing the *Strategic Plan for Traffic Records Improvements*.
- The plan should identify clearly what needs to be done to improve the traffic safety records systems to serve all users, what can be accomplished for various levels of financial commitment, when it should be accomplished, and who will be responsible.
- Funding for implementing the required improvements should be aggressively sought.

What are the benefits of doing more?

There will be better, more accessible data upon which to base investment and program management decisions. As a result, transportation safety programs will be more effective.

How will we measure progress?

The *Strategic Plan* will establish milestones for key activities to be accomplished. Annual surveys of data system users will measure progress in meeting needs.

How much will it cost?

Funds are available through a \$49,000 National Highway Traffic Safety Administration grant for completion of the strategic plan. The strategic plan will identify funding needed to implement improvements.

What legislative, administrative, and organizational changes are needed?

Development of the *Strategic Plan for Traffic Records Improvements* will require the dedication of .25 FTE staff of the Planning Section, ODOT for six months. Once the plan is completed, legislative needs and organizational requirements may be identified.

OTSAP ACTION 39 – Driving Under the Influence of Controlled Substances

How does this action relate to the OTP?

OTP Action 1G.8: Develop effective efforts to reduce the number of alcohol and other drug impaired and high risk drivers.

OTP Action 1G.2: Improve the enforcement of transportation safety laws and regulations intended to reduce injury and property damage. Emphasize enforcement of laws and regulations involving excessive speed, alcohol and other drug use, use of safety belts, and use of helmets for motorcycle drivers and passengers.

What are we doing now?

Oregon's implied consent law requires a person arrested for driving under the influence of intoxicants to take a breath test to measure the level of alcohol but does not provide for the taking of blood and/or urine samples to test for presence of other drugs, unless the offender consents. There is a penalty for refusing to take a breath test but no penalty for refusing to take a blood or urine test. Oregon law does not include toxic vapor-releasing substances.

Several research efforts have been undertaken to determine the extent of drug impaired driving in Oregon. Based on research done by Emanuel Hospital and by the Oregon Crime Analysis Center in cooperation with Oregon State Police (OSP) and law enforcement agencies in Lane, Linn, and Marion counties, it is estimated that one-third to one-half of all drivers arrested for DUI may test positive for controlled substances.⁵

⁵ Oregon Crime Analysis Center, Drug Use and Driving, June 1991.

Oregon presently has four certified Drug Recognition Experts (DREs) including two OSP officers and two Yamhill County Sheriff deputies. Oregon State Police will be the lead agency for DRE training. National Highway Traffic Safety Administration funds are expected to be available to start training in early 1995.

What needs to happen to accomplish this action?

- Oregon State Police is introducing the required legislation.
- Oregon State Police will serve as the lead agency for DRE training, with funding provided by the National Highway Traffic Safety Administration.

- The Transportation Safety Section’s communication program should include messages relating to alcohol as a drug, drugged driving, and changes in the implied consent law.
- The Transportation Safety Section should provide information to judges, district attorneys, and other criminal justice system personnel about changes in the law and about the DRE program.

What are the benefits of doing more?

Inclusion of controlled substances under the implied consent law will allow more consistency in enforcement of impaired driving. A law, complemented by a police officer training program and public information efforts, will discourage driving under the influence of drugs.

How will we measure progress?

A decrease in the rate of traffic crashes, particularly those involving drugs, should occur.

How much will it cost?

OSP has estimated the cost of laboratory tests to be \$57,000 annually.

Funding for the DRE training program is being provided by the National Highway Traffic Safety Administration. Some federal Section 402 or 410 grant funds may be required for supplemental costs such as travel and per diem costs of officers attending training.

Cost of providing public information and informing criminal justice system personnel of the change in statute are estimated to be \$50,000.

Driver and Motor Vehicle Services Section, ODOT, has estimated that an additional 1.0 FTE will be required if the legislation proposed in this action is passed.

What legislative, administrative rule, or organizational changes are needed?

Legislation to include driving under the influence of controlled substances under the implied consent law has been introduced by Oregon State Police in the 1995 Legislature.

OTSAP ACTION 40 - .04 Percent BAC as Standard for Measuring Impairment

How does this action relate to the OTP?

OTP Action 1G.8: Develop effective efforts to reduce the number of alcohol and other drug impaired and high risk operators.

What are we doing now?

Under current Oregon law (ORS 813.010) a person commits the offense of driving while under the influence of intoxicants (DUII) if the person drives a vehicle while the person:

- has .08 percent or more by weight of alcohol in the blood
- is under the influence of intoxicating liquor or a controlled substance; or
- is under the influence of intoxicating liquor and a controlled substance.

The Implied Consent Law allows that, when a person is arrested for DUII, if a test shows .08 percent BAC or more for persons 21 and older, .00 percent BAC or more for persons under 21; and .04 percent BAC or more for commercial vehicle operators or if the person refuses to take a breath test, the driver license will be suspended.

In 1993, 185 (41%) of 456 fatal crashes in Oregon were alcohol involved. There are over 1,000 serious injuries and deaths each year in Oregon due to drinking and driving.

There were 361 drivers over age 20 involved in fatal crashes that were tested. Approximately 30% of these tested above .08; 6% .05-.08; and 3% .01-.04. The remainder were found to be at .00 percent BAC.

There were 23,106 arrests for DUII in 1993. Of these 1,221 or 5% were under .08 percent BAC. An additional 4% were found to be under the influence of drugs other than alcohol.

A male of average weight reaches .03 percent BAC after drinking 3 beers in 2 hours.

There is an increase in the risk of crash involvement at BACs greater than .02 percent. Based on driver fatalities in single vehicle crashes it is estimated that each .02 increment in the BAC of a driver nearly doubles his/her risk of being in a fatal crash. The likelihood that a driver with a BAC in the .05-.08 BAC range will be involved in a crash is nine times greater than for a driver with a .00 BAC.

A review of research indicates that impairment first appears at .02% among some people and that some driving related skills become significantly impaired at levels as low as .03%.⁶ Reaction time, tracking, concentrated attention, divided attention performance, information processing capabilities, visual function, perception, psychomotor performance, and driver performance measures were considered.

There is evidence from experiences in other countries that reducing the per se BAC level can reduce the number of fatalities. New South Wales, Australia lowered the BAC from .08 to .05 in 1980 and demonstrated a 13% reduction in fatalities.⁷

Oregon's .00 BAC law for youth under 21 has been effective. Fatalities of youth under 21 years of age have decreased from 195 in 1988 to 111 in 1993. The provisional driver

license program was initiated in 1989 which, among other requirements, established that persons under 18 who are arrested for DUII and are found to have consumed any alcohol, are subject to the implied consent law. In 1991 the .00 BAC limit for the implied consent suspension was extended to include persons under age 21.

There is significant public support for strong DUII laws. Sixty percent of the persons polled in May 1993 said Oregon's DUII laws were not tough enough.

What needs to happen to accomplish this action?

- Legislation must be introduced.
- The Transportation Safety Section should begin to incorporate messages in its communication program that clarify that impairment occurs at low BAC levels.
- Upon passage of the proposed law, the communications program should fully explain the changes in the DUII laws to the public.

6 A paper, "At What Levels of Alcohol Concentration Do Drivers Actually Become Impaired?", published in January, 1994, by the House Research Department reported on a National Highway Traffic Safety Administration review of 177 laboratory tests. It concludes "the majority of laboratory studies of alcohol and driving related skills conclude that most, but not all, driving related skills become significantly impaired at alcohol concentration levels below 0.08. Some critical skills—including reaction time, tracking ability, skilled psychomotor tasks, and ocularmotor control—become impaired at AC levels at or below 0.05."

A study by Paul L. Zador, "Alcohol-Related Relative Risk of Fatal Driver Injuries in Relation to Driver Age and Sex", published in the Journal of Studies on Alcohol, Volume 52, Number 4, 1991, identified a significant increase in risk of accident involvement at BACs greater than .02. Based on driver fatalities in single-vehicle crashes, it was estimated that each .02 percentage increase in the BAC of a driver with a non-zero BAC nearly doubles the risk of being in a fatal crash. At BACs in the 0.05-0.09 percent range, the likelihood of a crash was at least nine times greater than at zero BAC for all age groups.

7 There has been no specific experience with a lowering of the BAC from .08 to .04. for all drivers 21 and over in the United States. Driving Under the Influence: A Report to Congress on Alcohol Limits, National Highway Traffic Safety Administration, October 1992, reports on the safety effects of lower legal BAC limits:

"In December 1980, New South Wales, Australia lowered the legal BAC limit from 0.08 to 0.05. Homel used time series analysis of daily fatal crashes to assess the impact of the reduction in the BAC limit. The analysis also examined the effect of 13 other traffic safety initiatives, including introduction of Random Breath Testing (RBT) two

years after implementation of the 0.05 law, and increased penalties for drunk-driving. The lower BAC limit did not receive extensive publicity and police enforcement levels were no higher than usual. According to Homel's analysis, of the 14 government initiatives, only the 0.05 law and the RBT had a statistically significant effect on the number of fatal crashes. He reports that the lower BAC limit reduced all fatal crashes by 13 percent Saturdays. "

" On January 1, 1990, the legal BAC per se limit in California was reduced from 0.10 to 0.08. This was followed six months later by implementation of an Administrative License Revocation(ALR) law, whereby an arresting officer is allowed to suspend immediately the driving privilege of someone who refuses to take, or fails, a breath test... The two laws and their publicity appear to have reduced alcohol-related traffic fatalities by 12 percent in 1990. The study could not quantify the separate effect of each law."

- The Transportation Safety Section should provide information to judges, district attorneys, and other criminal justice system personnel about changes in the law.
- Driver and Motor Vehicle Services will need to revise forms and may need to hire an additional hearings officer to handle an expected increase in implied consent hearings.

What are the benefits of doing more?

The change will send a clear, consistent message to the public that they should not drink and drive. There is evidence that impairment occurs at .02 BAC and that some driving related skills are significantly impaired at .03 BAC. Oregon law allows arrest and prosecution, but cases where a driver blew less than a .08 BAC are usually not prosecuted.

Assuming a constant level of enforcement, there will be little change in the total number of DUII arrests. An officer makes a stop based on probable cause determined on the basis of driving behavior. Since only a fraction of DUII driving is detected, the number of arrests is more a measure of level of enforcement than the per se BAC level. The total amount of DUII driving will decrease due to the general deterrence that will be created by a strong law. There is evidence that lowering the BAC and publicizing the effort can reduce BACs at all levels.

The impact on the rest of the criminal justice system will be moderate. DMV has estimated that passage will require one additional hearings officer. There will be some impact on the court that has not yet been determined. Many of the persons arrested for DUII with a BAC in the .04-.08 range could be expected to be first offenders and would be eligible for diversion which is set up as an offender financed program.

The opportunity for early intervention with a problem drinker is enhanced. Persons in the early stages of alcoholism are easier to treat, are less likely to recidivate, and are more likely to pay for their own treatment and to pay fines and fees.

Much of the traffic safety benefit from this legislation will result from prevention, rather than apprehension. Actual impact will depend on many factors including level of enforcement and penetration of public information efforts as well as passage of complementary laws such as including driving under the influence of illicit drugs under the implied consent law. A reasonable goal is that lowering the BAC to .04% could lead to a five percent reduction in fatal motor vehicle crashes and a 10% reduction in those involving alcohol. This would be 200 serious injuries and 20 deaths that would be prevented. A decrease in all motor vehicle crashes and injuries could be expected as well.⁷

How will we measure progress?

There should be a reduction in all motor vehicle crashes and the percent in which alcohol is involved should decline.

We can measure public response through public attitude surveys.

We can track impact of this law on the criminal justice system by identifying changes in arrests, hearings, diversion enrollments and completions, and convictions.

How much will it cost?

There will be a need for public information regarding the change in BAC. There will be a need to train police officers regarding the change. The estimated cost is \$50,000 which can be funded through the Section 402 or similar federal traffic safety grant program.

Driver and Motor Vehicle Services Section, ODOT, has estimated that an additional 1.0 FTE will be required to handle the expected increase in hearings.

What legislative, administrative rule, or organizational changes are needed?

Legislation to enact a reduction in the allowable BAC to .04 percent is needed.

OTSAP ACTION 53 – Incident Management

How does this action relate to the OTP?

OTP Action 1G.9: Build, operate, and regulate the transportation system so that users feel safe and secure as they travel.

OTP Action 1G.5: Improve the delivery of emergency medical services to transportation-related accidents.

OTP Action 1D.6: Assure the safe, efficient transport of hazardous materials within Oregon. Develop hazardous materials accident and spill management skills to deal with potential accidents.

OTP Action 4G.3: Use demand management and other transportation systems operation techniques that reduce peak period single occupant automobile travel, that spread traffic volumes away from the peak period, and that improve traffic flow. Such techniques include...incident management.

What are we doing now?

Oregon does not have a statewide incident management program in place. An incident management program is being established in ODOT Region I and will focus on the Portland Metropolitan area. It is expected that the program will expand to other metropolitan areas. Rural areas may be able to use some of the techniques of incident management, though the needs of these areas are not great.

Since 1991, an I-5 South Corridor Incident Management team has been operating. As a result, interagency coordination and networking has been established. The I-5 South model will be used to create corridor management teams for I-5 North, I-84, I-205, OR 217, US 26, and I-405/US 30.

It is projected that a central Traffic Management Operations Center will be operating in Region I in 1995 to serve as a centralized monitoring point for technologies such as ramp meters, loop detectors, and variable message boards and will eventually provide communication and coordination for Incident Response resources as well.

Traffic enforcement on the Portland metropolitan freeway system is limited. Oregon State Police has requested an additional 39 FTE to provide patrol, incident response, and investigation services on the freeway system.

What needs to happen to accomplish this action?

- Traffic Engineering Section, Oregon Department of Transportation, should assume the lead responsibility for development of a statewide incident management program. Other agencies, including the Oregon Fire Marshal, Oregon State Police, and local police, fire, and emergency service agencies, should be involved as well.
- The Oregon Department of Transportation should form a task force of all involved parties to continue to monitor current pilot efforts in the Portland metropolitan area, including the Traffic Management Operations Center and to assist with the development of an *Incident Management Strategy*. The planning effort should determine the necessary components of the program, include cost benefit analyses of

different investment options, a timeline for implementation, and identify legislative requirements.

- Development of the incident management program should be coordinated with development of the Congestion Management System. This federally mandated management system is being developed by the Traffic Engineering Section.
- To support the incident management efforts, persons who are called upon to respond to and clear incidents should be provided multi-discipline Incident Command System training.
- Oregon State Police enforcement resources should be augmented.

What are the benefits of doing more?

Secondary crashes occur when traffic slows down or backs up from incidents. In Oregon, pedestrians account for 27 percent of the fatalities occurring on urban freeways. This includes disabled motorists, pedestrians, responders, and construction workers. In Oregon, 6 percent of all motor vehicle fatalities occurring on urban freeways involve vehicles stopped on the shoulder of the road.

The objective of an incident management program is to minimize traffic congestion and secondary crashes by clearing incidents as quickly as possible and returning the roadway to normal operating conditions. The time saved by an incident management program depends on how well the three stages of an incident—detection and verification, response and clearance, and recovery—are managed. Motorist information is a necessary component for an effective incident management system as well.

Timely removal of abandoned vehicles will address a significant crash problem on urban freeways. Current statutes allow removal if the vehicle is declared a hazard by a police or public works agency. There has historically been a reluctance on the part of these agencies to have these obstacles removed because of liability considerations. Legislation is needed to strengthen the position of these reporting agencies.

Once an incident management program is in place, a reduction in secondary motor vehicle crashes and a reduction in congestion should result. A savings in maintenance costs and a decrease in unreimbursed public property damage should result as well.

How will we measure progress?

Specific performance measures should be established through the planning process for developing a strategy for the statewide incident management program.

How much will it cost?

The cost of developing the *Statewide Incident Management Strategy* is estimated to be approximately \$75,000-\$100,000. All or part of this cost could be avoided if a staff person is assigned to plan and implement a statewide incident management program. Federal Highway Administration funds can be used for planning and developing incident management systems, but not for their operation and maintenance.

The Oregon strategy will focus upon strengthening coordination and communication, rather than employing expensive technology, substantial purchases of new equipment and added personnel. It will build upon existing resources such as telecommunications conduits that have already been placed along some highways. The plan will include cost-benefit analyses of various levels of investment. Although it is premature to determine these costs, preliminary estimates are that \$1 million will be required each year, including personnel requirements. Savings in maintenance and increases in collections for property damage should offset some of the operation costs.

Oregon State Police has identified the need for 39 FTE in the Portland area. These staff would be assigned general patrol duties that would include incident management.

What legislative, administrative rule, or organizational changes are needed?

No legislation is necessary at this time. However the *Statewide Incident Management Strategy* to be developed is likely to call for legislation in three areas:

- Legislation to remove the requirement of a waiting period for the towing of abandoned cars from the roadway, thus allowing their immediate removal.
- Legislation to fund the operation and maintenance of the incident management program.
- Legislation to require removal of spilled loads and a payment by the responsible party for the time the lanes or roadway is closed. This would provide incentives to clear roadways more quickly, thereby improving safety.

A staff person should be assigned to plan and implement a statewide incident management program. This work could probably be accomplished within a two year period.

OTSAP ACTION 55 – Child Safety Seats

How does this action relate to the OTP?

OTP Action 1G.9: Build, operate, and regulate the transportation system so that users feel safe and secure as they travel.

OTP Action 1G.2: Improve the enforcement of transportation safety laws and regulations intended to reduce injury and property damage. Emphasize enforcement of laws and regulations involving excessive speed, alcohol and other drug use, use of safety belts, and use of helmets for motorcycle drivers and passengers.

What are we doing now?

Each year approximately ten children under five years old die in traffic crashes in Oregon and 750 are injured. Of the 11 killed in 1993, five were not in a child safety seat. In October 1993, it became a requirement that all children under age four or less than 40 pounds ride in an approved child safety seat. Not all children have seats nor can their families afford seats that cost approximately \$70.

In August 1994, an Observed Use Survey was conducted by Intercept Research Corporation to, among other things, determine compliance with the child safety seat law. It was found that 35 percent of children that should be in child safety seats were not. This means that approximately 70,000 children are riding in motor vehicles without proper protection.

A nonprofit foundation, the Safe Child Foundation, distributes child safety seats through a cooperative program with Fred Meyer and county health departments. The Safe Child Foundation raises private funds and each \$24.42 raised generates a gift certificate from Fred Meyer. For \$20 and the gift certificate, a parent can purchase a \$70 child safety seat at Fred Meyer. The Safe Child Foundation provides gift certificates for approximately 1,000 seats per year.

Medicaid considers child safety seats “durable medical devices” and does not provide reimbursement. Medicaid does provide trauma care for children injured in motor vehicle crashes.

It is estimated that 85,000 children under age five are from families eligible for Medicaid. A National Highway Traffic Safety Administration study indicates that 59 percent of Medicaid eligible children travel unrestrained.⁸ This means that about 50,000 Medicaid-eligible children ride unrestrained in Oregon.

What needs to happen to accomplish this action?

Two approaches are suggested. In the short run, the Transportation Safety Section and the Health Division should continue to encourage programs such as the Safe Child Foundation. These programs can be effective in generating contributions that can help needy families with child safety seat purchase. Because it is difficult to sustain volunteer efforts and because some areas of the state are not served, the option of encouraging changes in Medicaid injury prevention policies should be pursued. In the longer term, the following approach is likely to have a more lasting impact:

- The Transportation Safety Section should work with the Oregon Department of Human Resources to amend administrative rules and pass legislation to allow Medicaid reimbursement for the purchase of child safety seats.
- The Children’s Injury Prevention Program, Oregon Department of Human Resources, Health Division, should cooperate with the Transportation Safety Section to implement a public information effort to inform parents of the availability of safety seats through Medicaid. Messages on correct use of child safety seats should be included as well.
- Requiring a check to make sure the seat is correctly installed and used prior to receiving the Medicaid reimbursement should be considered.

What are the benefits of doing more?

When used correctly, child safety seats are 71 percent effective in reducing fatalities, 67 percent effective in reducing the need for hospitalization, and 50 percent effective in preventing minor injuries. ⁸

If seats provided are used correctly, for every dollar spent on child safety seats there is a savings of \$2 in medical costs and \$36 in societal costs.

How will we measure progress?

An *OTSAP* performance measure is the percentage of children 0-4 that are correctly using a child safety seat, as measured by an annual observed use survey.

How much will it cost?

Assuming all Medicaid-eligible families take advantage of the safety seat purchase reimbursement option and that a bulk purchase per seat price of \$35.00 is arranged, the estimated annual cost of this action is \$750,000

What legislative, administrative rule, organizational changes are needed?

Legislative action is required for an administrative rule change to amend Medicaid rules. The Oregon Legislature would have to allocate funds for the state match to Medicaid funds, or adopt a cost-neutral approach, whereby coverage for some other benefit would be dropped so that coverage for child safety seats could be added without additional funding.

⁸ See “Child Seats and Other Child Safety Devices: What Benefits Accrue and Who Should Pay?” by Ted R. Miller, National Public Services Research Institute; Joan Catherine Demes, National SAFE KIDS Campaign; and Randall Bovbjerg, The Urban Institute, 1993. This report on research funded by the National Highway Traffic Safety

Administration is the source of all benefit and cost/benefit information provided for Action 55.

OTSAP ACTION 57 – Youth Transportation Safety Strategy

How does this action relate to the OTP?

Action 1G.3: Develop and deliver a comprehensive safety awareness, education, and training program for all system users.

Action 1G.8: Develop effective efforts to reduce the number of alcohol and other drug impaired and high-risk operators.

Action 1G.9: Build, operate and regulate the transportation system so that users feel safe and secure as they travel.

What are we doing now?

New legislation and educational programs have contributed to a significant reduction in the number of young people killed and injured in traffic crashes in the last few years. Yet traffic crashes are still the leading cause of death among persons under 21. Young drivers are involved in nearly twice the number of fatal and injury crashes as would be expected, based on the percentage of young drivers in the driving population.

In Oregon, teenagers 13-17 lose their driver license or the right to apply for a license if they are convicted of an alcohol or drug related offense. This law, known as the juvenile denial law, has been in effect since 1983. Use is inconsistent among courts; no evaluation has been performed.

Drivers under 18 are issued a provisional license, and drivers under 21 have a zero tolerance limit. Public information and enforcement efforts have made young people and their parents aware of these laws and traffic safety issues. School-based injury prevention programs such as *Think First*, *Trauma Nurses Talk Tough*, and youth empowerment programs such as *Oregon Student Safety On the Move (OSSOM)* are available. Driver education is not mandated, but it is encouraged through tuition reimbursement from the Driver Training Fund. In 1991-92, 81 percent of the 223 high schools that could offer driver education did, training 11,664 students. Additionally many communities have initiated special projects to offer alcohol-free parties and entertainment options, to improve enforcement of liquor license and traffic laws, and to encourage awareness of the special needs of teenagers.

Other laws and community efforts focus on the transportation safety needs of younger children. Students receive alcohol and drug education, Drug Abuse Resistance Education (DARE) programs, and various transportation safety programs. Topics most often include pedestrian, bicycle, and school bus safety. Portland Kids on the Move is a new transportation safety curriculum for K-5 that includes all modes. Children 4 and under

are subject to a child safety seat law and youths under 16 are required to wear a bicycle helmet.

Preliminary work on the Youth Transportation Safety Strategy has been completed.

What needs to happen to accomplish this action?

- The Transportation Safety Section, Oregon Department of Transportation, should form a Youth Transportation Safety Task Force whose first task should be the development of a Youth Transportation Safety Strategy.
- Through an enhanced effort by staff or using contracted services, the research needed to support the development of a Youth Transportation Safety Strategy should be completed. This should include an evaluation of the juvenile denial law and other existing laws and programs targeted at young drivers.
- A source of funding for the programs identified in the Youth Transportation Safety Strategy should be secured.

What are the benefits of doing more?

Youth between the ages of 16 and 20 comprise approximately 8 percent of the population, yet accounted for 12 percent of the motor vehicle fatalities in the last two years. A more consistent, comprehensive approach can be expected to encourage young people to take advantage of all modes of transportation, to not use alcohol and other drugs, and while driving, to exhibit safer driving behaviors.

How will we measure progress?

The following performance measures will be tracked:

- Deaths due to motor vehicle crashes, per 100,000 population under 20.
- Percentage of teens free of involvement with alcohol in the previous month.
- Percentage of teens free of involvement with illicit drugs in the previous month.

How much will it cost?

The *Youth Transportation Safety Strategy* will address the long-range investment requirements of a comprehensive program. The *FY 1995 Highway Safety Plan* identifies \$15,000 in federal 402 funds to initiate the planning effort. It is estimated that approximately \$50,000 may be needed to evaluate alternative strategies.

In the 1995-97 biennium, the development of an integrated transportation safety curriculum for grades kindergarten through 12 will begin. Initial efforts will focus on identifying curriculum already tested and operational in individual school districts and safety programs that can form the basis of a safety education curriculum to be used statewide. The Department of Education should assume lead responsibility and should

consider seeking a grant from the Transportation Safety Section administered 402 grant program to fund curriculum development and pilot testing. Estimated cost is \$100,000-\$150,000.

The *OTSAP* calls for ensuring the availability of three successful injury prevention programs targeted at youth. Currently the *OSSOM* budget is \$140,000 per year with funding from a 25 cent assessment on all driver licenses issued. The *Think First* budget is \$49,500 per year, and the *Trauma Nurses Talk Tough* budget is \$67,500. Both of these programs are currently funded with federal 402 funds matched with local funds. Permanent funding is required to sustain these programs at their current levels. It is estimated that about half the schools in the state receive a presentation each year. If every public school is to have at least one presentation per year from one of these programs, a doubling of the total budget will be required. All three programs could be funded if the license assessment were increased to \$1.00. This increase would generate approximately \$560,000 per year.

What legislative, administrative rule, or organization changes are needed?

With the exception of securing a funding source, the action does not call for immediate legislative changes. The need for changes in licensing requirements will be dependent on the results of the proposed evaluations.

OTSAP ACTION 66 – Pedestrian Safety

How does this action relate to the OTP?

OTP policy 2D: It is the policy of the State of Oregon to promote, safe, comfortable travel for pedestrians and bicyclists along travel corridors and within existing communities and new developments.

Action 2D.1: Make walkways, pedestrian shelters and bikeways an integral part of the circulation pattern within and between communities to enhance safe interactions between motor vehicles and pedestrians and bicyclists, using techniques such as:

- Renovating arterials and major collectors with bike lanes and walkways and designing intersections to encourage bicycling and walking for commuting and local travel.
- Developing all transit centers near residential areas to be safely and expeditiously accessible to pedestrians and bicyclists.

What are we doing now?

In Oregon, there were 61 pedestrians killed in collisions with motor vehicles in 1993, which was 12 percent of the total traffic fatalities. Data for the first six months of 1994 shows pedestrian fatalities accounting for 15 percent of the total. In 1993, 688 pedestrians were injured in traffic crashes.

A high percentage (40-50 percent) of adult pedestrian fatalities involve alcohol. Of the persons killed in 1993, the majority of them were adults 20-64; 28 percent were over 65. The over 65 population will grow by 25 percent by the year 2012.

In 1971, a program to provide bicycle and pedestrian facilities on new and reconstructed roadways was adopted by the Oregon Legislature. Until recently, there has been significantly more emphasis on bicycle facilities and safety than on specific programs designed to increase pedestrian facilities and safety. Both state and federal policies are encouraging more emphasis on pedestrian facilities and safety programs. ISTEA authorizes funding for pedestrian and bicycle facilities.

Currently, the 1992 *Bicycle Plan* is being updated and expanded and will be published as the *Oregon Bicycle and Pedestrian Plan*. The safety-related strategies included in this plan are:

- Retrofit existing roadways with wide paved shoulders or bike lanes to accommodate bicyclists and sidewalks, and safe crossings to accommodate pedestrians.
- Adopt design standards that create safe and convenient facilities to encourage bicycling and walking.
- Provide uniform signing and marking of all bikeways and walkways.
- Adopt maintenance practices to preserve bikeways and walkways in a smooth, clean and safe condition.
- Monitor and analyze bicyclist and pedestrian crash data to formulate ways to improve bicyclist and pedestrian safety.
- Develop bicycling and walking safety education programs to improve skills, observance of traffic laws, and promote overall safety for bicyclists and pedestrians of all ages.
- Develop safety education programs aimed at motor vehicle drivers, to improve awareness of the needs and rights of bicyclists and pedestrians.

As part of the planning process, an inventory of urban area bicycle and pedestrian facilities under ODOT jurisdiction was completed. There are 626 miles of state highways within city limits. About a quarter have sidewalks on both sides of the road. In about 30 percent of the cases, intersection design improvements are needed to offer accessibility to all users.

Until recently, only a few cities have had programs designed to encourage pedestrian travel. Portland has a pedestrian program designed to reduce auto dependency. Portland's program includes efforts to improve facilities and education. A goal of Portland's comprehensive plan is to increase pedestrian travel to 10 percent of all transportation use. Portland has committed a minimum of 1 percent of its gas tax revenues to improving pedestrian facilities.

What needs to happen to accomplish this action?

- The Transportation Safety Section should expand the services it offers to communities to include assistance with establishing pedestrian safety programs. The National Highway Traffic Safety Administration manual, *Planning Community Pedestrian Safety Programs*, offers guidance.
- Community-based pedestrian safety efforts should include an assessment of pedestrian problems, identification of resources for engineering, education, and enforcement efforts, development of an action plan, and a means for measurement of results.
- The *Transportation Safety Communications Plan* should identify specific programs to reach the various target populations—youth, impaired pedestrians, the elderly, and motorists—with pedestrian safety messages.
- Technical Services, ODOT should continue to establish design standards for pedestrian facilities, updating them as the results of research on the needs of various population groups is available. See the *Bicycle and Pedestrian Plan* for more detailed information.

What are the benefits of doing more?

The use of walking as a travel mode will increase. Pedestrian travel is highest in locations where facilities are provided.

A decrease in number of pedestrians killed and injured will result.

How will we measure progress?

There should be an increase in miles of pedestrian facilities, greater pedestrian travel and a reduction in the number of pedestrian fatalities and injuries.

How much will it cost?

It should be possible to provide support to communities wanting to start pedestrian safety programs and to broaden public information messages to include more pedestrian issues. It is recommended that the estimated \$25,000 annual budget for pedestrian safety public information should be increased to at least \$50,000 per year and that a similar amount be put towards local pedestrian program assistance.

It will not be possible to estimate the cost of providing adequate pedestrian facilities until some local jurisdictions have completed pedestrian facility plans. Only a portion of the cost could be attributed to safety. Safety alone cannot justify the development of pedestrian facilities, which are primarily provided to make roadways accessible to pedestrians.

What legislative, administrative rule, or organizational changes are required?

The Transportation Safety Section should put greater emphasis on pedestrian programs by assigning at least a .25 FTE position to work on pedestrian safety issues.

❖ THE IMPLEMENTATION STRATEGY

Implementing the actions proposed in the *Oregon Transportation Safety Action Plan* will, in many cases, require legislative or administrative rule changes, changes in investment priorities, and/or organizational changes. On the other hand, many of the actions can be implemented with existing resources and by existing staff. They don't require legislative changes or administrative changes; they just call for doing things a little differently. These actions encourage persons that are working in transportation programs to try new things, to look at safety more broadly, to establish partnerships with many, diverse agencies and groups in order to achieve greater results.

This section summarizes what needs to happen to implement the eleven key actions. More detailed information is included in the description of these actions, pages 55 to 84. Table VII on page 89 summarizes the implementation needs for the eleven key *OTSAP* actions.

The section on organizational considerations includes recommendations about the way ODOT delivers transportation safety-related services.

LEGISLATION

Many of the key actions in the *OTSAP* will require legislative action. Legislation will be needed to provide funding for individual programs and permanent support for enforcement and other criminal justice system personnel. In some instances, enabling legislation will be needed to permit actions to proceed. Other legislation will continue and enhance existing programs.

The schedule for completing *OTSAP* means ODOT will not submit legislation to implement specific actions in the *OTSAP* until the 1997 legislative session.

Other state agencies may submit bills that are compatible with *OTSAP* actions. For example, the Oregon State Police will submit a bill to permit urine and blood testing of suspected DUII offenders to determine the presence of controlled substances. In addition, legislators and interested citizens independently may submit legislation that furthers *OTSAP* actions. Those actions not accomplished in the 1995 session should be submitted to the 1997 Oregon Legislature.

Possible legislation for 1997 falls into two categories: legislation already identified as necessary to further *OTSAP* actions; and legislation that may arise from special studies called for in key *OTSAP* actions.

Legislation already identified includes the following:

1. A dedicated source of funding to support traffic enforcement is essential if traffic enforcement is to be effective. The Oregon State Police and most counties and cities do not have enough officers to provide more than sporadic traffic enforcement. An amendment to the Criminal Fine and Assessment Account is a possible approach, although it is unlikely that the funds that could be generated by that account will be sufficient to fully meet this objective. Other potential sources include an assessment on fines or fees assessed traffic offenders, an increase in driver license or vehicle license fees, and a dedication of a portion of alcohol tax revenue.
2. Legislation to strengthen DUII laws.
3. Medicaid coverage could be extended to include child safety seats for children of low-income parents. The Oregon Legislature would first have to ensure funding for the Oregon match for Medicaid, either by approving new funding or by eliminating coverage of other services to result in a cost-neutral adjustment. It may be possible to gain support for this change by illustrating that the cost of prevention is significantly less than the cost of treatment.
4. Certain safety programs targeted at children and youth have been demonstrated to be successful and should be made available statewide. These programs are *OSSOM*, *Think First*, and *Trauma Nurses Talk Tough*. Sufficient funding could be provided by increasing the surcharge on Oregon driver licenses from 25 cents to \$1. Legislation would be required.

Possible sources for new legislation include:

1. The *Traffic Law Enforcement Strategic Plan* will be completed in 1995 or early 1996. It will review the need for enforcement in such areas as DUII, safety belt laws, speeding, commercial vehicle infractions, and for the transit, marine, bicycle, and pedestrian modes. It will propose strategies, including legislative actions.
2. A *Strategic Plan for Traffic Records Improvements* will be completed in 1995 and will propose improving traffic records systems through better integration of various record systems now separately maintained, wider and more timely distribution of crash data, and the use of new information technology. Some legislative actions may be forthcoming from this planning effort.
3. An incident management program is being piloted in the Portland metropolitan area. A task force will oversee the pilot and the development of a *Statewide Incident Management Strategy*. The strategy will identify investment requirements and the need for legislation to implement specific programmatic actions, such as allowing the immediate removal of cars abandoned along freeways and requiring clearing of spills and debris.

4. The *Youth Transportation Safety Strategy* will be completed in 1995 and will likely call for legislation in several areas. Planning for a transportation safety curriculum for children in grades kindergarten through twelve should begin in 1995. Some aspects of that program may require legislation.

INVESTMENT REQUIREMENTS

The mission of the Oregon Department of Transportation is “to provide leadership and vision in the development and management of a statewide transportation network and ensure the safety of transportation system users.” Included in ODOT’s statement of ten values, which are intended to guide behavior in every part of the organization, is “Safety—We take special care to protect the safety and health of both our employees and the public.” Promoting and ensuring transportation safety ultimately will require resources commensurate with the stated importance of safety to ODOT’s mission and values.

Securing adequate resources in the current fiscal environment of diminished funding and downsizing will present a major challenge to the success of the *OTSAP*. The Oregon Legislature is unlikely to provide sufficient funds for new program development or current program enhancement. In the near term, generating commitment, enthusiasm, momentum, and resources for high priority *OTSAP* actions will require reprioritizing federal funds ODOT receives, reallocation of staff, and creating efficiencies in the delivery of currently available transportation safety programs.

Listed below are proposed initial investment requirements associated with implementing the eleven high priority *OTSAP* actions. The requirements for some actions are already known; in some cases, funding has been secured. Other investment requirements will be identified by task forces, special studies, and pilot tests currently underway or called for in the *OTSAP*. The investment requirements are in three categories: actions where existing resources are already identified; actions that will require a re-prioritizing of existing positions or funds within ODOT; and actions which will require new funds. Initial investment requirements are summarized in Table VII.

Actions where existing resources are already identified

1. Federal 402 funds can be used for start-up grants to communities for local transportation safety programs. Generally, the Transportation Safety Section distributes more than half the \$2 to \$3 million in federal Section 402 or similar funds that is available each year to local agencies or to agencies providing projects with a local benefit. Of this, approximately \$400,000 is awarded for community transportation safety programs. To receive these funds, communities must commit to continuing the programs with their own resources. These funds can also be used to initiate many of the other actions in the *OTSAP*.
2. Oregon Department of Transportation, Planning Section, has allocated a .25 FTE to support the development of a *Strategic Plan for Traffic Records*. This plan is integral

to the development of the federally mandated Safety Management System. A grant of \$49,000 has been received from the National Highway Traffic Safety Administration to support the preparation of the plan.

3. Approximately \$15,000 in federal 402 funds to initiate the *Youth Transportation Safety Strategy* has been identified in the *FY 1995 Highway Safety Plan*.
4. The National Highway Traffic Safety Administration is funding a Drug Recognition Expert (DRE) training program that will support the implementation of *OTSAP* Action 39.
5. Approximately \$200,000 is being spent yearly for public information and education programs. About \$25,000 of this is spent for pedestrian safety public information efforts.

Actions which will require a reprioritizing of existing positions or funds within ODOT

Actions that require realigning staff work assignments within ODOT, or reprogramming federal transportation safety funds or other funds in fiscal year 1995 or later, fall into four categories.

Program needs that could be met through reallocation of staff work assignments:

1. An estimated .25 FTE from the Transportation Development Branch should be allocated to the development of a *Traffic Law Enforcement Strategic Plan*.
2. Staff time from the Transportation Safety Section should be assigned to provide staff support to the Youth Transportation Safety Task Force charged with the development of the *Youth Transportation Safety Strategy*. There is an existing .50 FTE Youth Coordinator whose function may need to change in order to implement this action.
3. The Transportation Safety Section should allocate at least .25 FTE in staff resources to expand the services it offers to communities to include assistance with establishing pedestrian safety programs. TSS already offers the services of specialists in Impaired Driving, Occupant Protection, Bicycle Safety, Motorcycle Safety, Work Zone Safety, Community Development and Vehicle Equipment Standards.
4. Existing staff should be reallocated so that a transportation safety specialist can be assigned to each of the five Oregon Department of Transportation regions. The estimated 5.0 FTE that will be required can come from existing Transportation Safety Section staff or be reassigned from other areas.
5. A full-time public information specialist should be designated to develop and implement a *Transportation Safety Communications Plan*. The responsibility for the

public information program is currently assigned to various staff persons in the Transportation Safety Section and assistance is provided by ODOT Public Affairs.

6. A staff person should be assigned to coordinate the planning and implementation of the *Statewide Incident Management Strategy*.

Program needs that can be met through Section 402 or similar federal traffic safety grant funds:

1. A Police Traffic Services Assessment and additional consultant time for the development of the *Traffic Law Enforcement Strategic Plan* will require approximately \$50,000.
2. The cost of providing public information and training regarding changes in the DUII laws (Actions 39 and 40) is estimated to be a total of \$100,000.
3. The Department of Education should consider seeking a grant to fund curriculum development and pilot testing of an integrated transportation safety curriculum. Approximately \$100,000 to \$150,000 will be required.
4. It is estimated that approximately \$50,000 will be required to complete evaluations relating to specific components of the *Youth Transportation Safety Strategy*.
5. An Incident Command System training program should be initiated as part of the incident management program.
6. An additional \$25,000 should be devoted to providing public information and education about pedestrian safety.

Program needs that can be met through other Oregon Department of Transportation funds:

1. Funds should be allocated for the planning of a statewide incident management program. Funding should be identified for operating and maintaining the program once established.
2. The Oregon Department of Transportation could use non-safety dollars to promote cooperative aspects of combining safety and related engineering, maintenance, and other Oregon Department of Transportation services.
3. Implementation of the Safety Management System, especially the recommendations expected to be made in the *Strategic Plan for Traffic Records Improvements*, will likely require a considerable investment. Other agencies may need to make investments as well.

Actions which will require new funding

1. Increasing traffic law enforcement and other criminal justice system personnel resources to effective levels will require a dedicated funding source. For example, increased enforcement resources could be funded through an increase in fines, a reallocation of the Criminal Fine and Assessment Account, a special assessment, or an increase in the alcohol tax or liquor license fees. Other sources that will provide consistent funding for traffic law enforcement should be identified and pursued. The specific needs will be identified through the *Strategic Plan for Traffic Law Enforcement*. A mechanism for distributing the funds will be identified as well. One option is to distribute funds through the TSS grant program. This could require 3.0 FTE that could be funded through new revenue.
2. Enhancing the transportation safety public information/education program to address all transportation safety issues will require an estimated \$100,000 in additional resources each year.
3. Establishing community-based safety programs statewide is estimated to cost \$1.2 million annually with most of these costs to be provided by the communities. This would allow for a full-time coordinator in counties with more than 50,000 population, and part-time coordinators in counties with smaller populations. Communities should be encouraged to implement programs that can be self-sufficient in the long term.
4. If legislation is passed that revises the DUII statutes to allow the taking of blood and/or urine samples under the implied consent law, approximately \$57,000 per year will be required for laboratory tests. General funds would be used. Driver and Motor Vehicle Services, ODOT, has estimated that this change and the reduction of the allowed BAC to .04 percent will each require an additional 1.0 FTE.
5. Implementation of a statewide incident management program could require \$1 million per year.
6. The estimated cost of providing programs such as *OSSOM*, *Trauma Nurses Talk Tough*, and *Think First* statewide is \$560,000 per year. Funds could be provided by increasing the current 25 cent driver license assessment to \$1.00.
7. It is not possible to estimate the cost of providing adequate pedestrian facilities until some local jurisdictions have completed pedestrian facility plans. Only a portion of the cost could be attributed to safety.

ORGANIZATIONAL CONSIDERATIONS

Implementation of the eleven key and 59 additional actions will require a significant commitment by the Department of Transportation as well as other agencies involved in transportation safety programs.

Currently the Transportation Safety Section (TSS), Transportation Development Branch (TDB), is the focal point for the transportation safety activities of the Department of Transportation. The Manager of the Transportation Safety Section is the Governor's Representative for Highway Safety. General guidance for conducting this program is provided in ORS 802.310.

The Transportation Safety Section, staffed with 15.25 FTE in FY 1994-95, fulfills most of these responsibilities. The Transportation Safety Committee (OTSC), which is a five-member governor-appointed policy-recommending committee, oversees the administration of the federally funded traffic safety grant program and provides general advice to the OTC regarding safety implications of transportation policies.

Nearly every unit of ODOT recognizes safety considerations in its delivery of services. Significant transportation safety program responsibilities are assigned to Driver and Motor Vehicle Services, Traffic Engineering, the Regions, Planning, Transportation Data, and Research.

While it is important for the Transportation Safety Section to be recognized as the focal point for transportation safety in ODOT, it is equally important that each operating unit of ODOT assume responsibility for implementing the *OTSAP* actions relevant to its operation. With a shared commitment, the actions in the plan can be implemented with only moderate increase in staff commitment and minimal staff reorganization.

The following specific recommendations relate to organizational structure and program management:

1. The Oregon Department of Transportation should ensure that organizational changes made within the Department enhance the effectiveness of the transportation safety programs. ODOT should make every effort to increase the recognition of the Transportation Safety Section as the focal point for transportation safety activities in the state.
2. The Oregon Transportation Safety Committee (OTSC) serves an important function of advising the Oregon Transportation Commission (OTC) about transportation safety programs. The OTSC should continue to provide guidance to the federally funded highway safety program and it should be encouraged to be more active in providing advice to the OTC about all safety-related policies. Among other things, the OTSC should advise the OTC on the adoption and updating of the *OTSAP* and policy issues related to the development and implementation of the Highway Safety Management System.
3. To be successful in this expanded role, the OTSC should be supported by a broad-based technical committee or Safety Coalition whose membership would include representatives of key state agencies, local agencies, Metropolitan Planning Organizations (MPOs) and special interest groups. Such a technical committee could assume the role of tracking *OTSAP* implementation and provide information and

recommendations to the OTSC about all aspects of the transportation safety program. The Safety Coalition could be staffed by staff of the ODOT Planning and/or Transportation Safety sections.

4. The federally mandated Safety Management System requires that “formalized interactive communication, coordination, and cooperation shall be established among the organizations responsible for major safety elements including enforcement, emergency medical services, emergency response, motor carrier safety, motor vehicle administration, State highway safety agencies, and state and local railroad regulatory agencies.” (500.405)
5. Any existing and proposed technical advisory committees should be considered sub-committees of the OTSC or Safety Coalition. (See Figure VI) While various technical advisory committees or task forces may need to be established for specific purposes, it is important that their efforts relate to priorities established in the *OTP* and the *OTSAP* and that their recommendations be reviewed by established policy-setting bodies. Policy recommending committees such as the Governor’s Advisory Committee on DUI and the Governor’s Motorcycle Safety Advisory Committee should remain independent.
6. There is currently a proliferation of committees and more committees are called for in the *OTSAP*. It may be possible to combine functions and reduce the number of committees. This will increase efficiency and reduce staff time commitments.
7. To more effectively fulfill the role of encouraging local initiatives to address transportation safety problems, ODOT should provide a transportation safety specialist in each ODOT region, providing a safety perspective to all operations and direct communication between ODOT and local transportation safety agencies and programs. At a minimum, a pilot program that would reassign a TDB staff person to one region should be implemented. An effort should be made to provide continuing training and to establish effective communication among persons working at the regional level and the rest of the organization.
8. The Transportation Safety Section should be established as the Transportation Safety Resource Center for Oregon and aggressively promote greater use of public information materials and research reports by local agencies.
9. A staff person should be designated as the Transportation Safety Public Information Program Coordinator. This person should be responsible for development and implementation of the *Transportation Safety Communications Plan*. This change will allow consolidation of functions split among five staff persons. The relationship of the transportation safety public information program and other public information programs to be implemented by ODOT to encourage use of alternative modes should be considered.

10. Several strategic planning efforts are called for in the *OTSAP*. Plans include the *Strategic Plan for Traffic Records Improvements*, the *Traffic Law Enforcement Strategic Plan* and a *Youth Transportation Safety Strategy*. The plans should be reviewed by the Oregon Transportation Safety Committee and approved by the Oregon Transportation Commission. Each should be considered an element of the *OTSAP*, much the same way the *OTSAP* and modal plans are each considered an element of the *Oregon Transportation Plan*. Most plans should be joint efforts of ODOT Planning and Transportation Safety sections with appropriate units and agencies involved.
11. Projects funded through the federal section 402 and similar programs should be included in the *Statewide Transportation Improvement Program (STIP)*. Inclusion of all transportation investments in one document will encourage the public, local agencies, ODOT, and other state agencies to consider all aspects of the transportation system. Projects included in the *STIP* that are being planned in response to a specific action or actions of the *OTSAP* should be identified as such.
12. A Transportation Finance Committee was established in 1986 for the purpose of developing consensus among a broad-based coalition of agencies regarding the need for and approach to financing transportation system improvements. The focus of this committee was broadened to include transit interests as well. It is recommended that this committee be reformed and its focus expanded to the entire transportation system including enforcement, education, and emergency services.

PLAN IMPLEMENTATION AND MONITORING

The responsibility for implementing each of the eleven key actions is identified in the *OTSAP* and summarized in Table VII. The responsibility for implementing the remaining 59 actions is identified in Appendix I. Additional details on these actions can be found in an unpublished technical appendix available at ODOT Planning Section.

The *OTSAP* should be viewed as the framework upon which program decisions are based. All investment decisions relating to transportation safety should be consistent with the recommendations of the *OTSAP*. Implementation of the federally mandated Safety Management System will include monitoring *OTSAP* implementation. The tools the SMS will provide will help to evaluate the impact. An annual report will summarize activities and report on performance measures.

Amendments to the *OTSAP* should be accomplished through formal OTC action based on the recommendation of the Oregon Transportation Safety Committee.

❖ APPENDICES

Appendix I OTSAP Implementation Responsibilities, by Action

Number	Description	ODOT Units	Other Agencies
1	Develop Traffic Law Enforcement Strategic Plan	Planning, TSS	criminal justice system agencies
2	Seek a dedicated funding source for traffic law enforcement	TSS, Planning	Legislature, various agencies
3	Encourage more traffic law enforcement training for police	TSS	BPSST, OSP, local police
4	Hold annual training program for all transportation safety professionals	TSS	BPSST, OSP, OJD, ODAA
5	Evaluate use of photo radar	Research	Legislature, police agencies
6	Evaluate use of in-vehicle intoxilyzers	Research	police agencies
7	Enact legislation to prohibit radar detectors	TSS	Legislature, police agencies
8	Continue work zone safety programs	TSS, Traffic Engineering, Safety and Employee Services	OSP, AGC, media
9	Continue transportation safety public information/education	TSS, Public Affairs	various agencies, media
10	Make motorcycle rider education mandatory to age 21	TSS	Legislature
11	Evaluate and promote use of alternative safety belt education programs	TSS	Trauma Nurses Talk Tough, various agencies

12	Provide incentives in Oregon Health Plan to encourage injury prevention	TSS	DHR
13	Coordinate with county children and family commissions	TSS	state and local children and family commissions, local committees
14	Expand safety hotline operated by PUC; increase school bus inspections	TSS	PUC, DOE
15	Incorporate ITS concepts into public information program	TSS, Research, Public Affairs	various agencies, media

Number	Description	ODOT Units	Other Agencies
16	Establish Transportation Safety Resource Center	TSS, Public Affairs	
17	Continue annual Air Fair	Aeronautics, Public Affairs	
18	Change federal standards so resources can be dedicated according to need	various units	
19	Consider all safety aspects throughout all short and long range planning	Planning, Regions, various units	LCDC, local agencies and committees, MPOs
20	Consider access management techniques	Planning, Regions, various units	local agencies
21	Expand consideration of safety in all road maintenance functions	Districts, Regions	local agencies
22	Clear vegetation contributing to fixed object and ice-related crashes	Districts, Regions	local agencies
23	Continue research on new materials/ techniques; implement aggressively	Research, various units	various agencies

24	Develop statewide ITS Plan Regions	Policy, Research,	PUC, MPOs, various units and agencies
25	Complete analysis of Corridor Safety Improvement Programs	TSS, Research, Regions	local agencies and committees
26	Update guidelines for signage to provide for needs of non-English speakers	Traffic Engineering, Regions	
27	Consider land use when siting airports	Aeronautics, Regions	local agencies
28	Enhance weather reporting facilities	Aeronautics, Research	
29	Develop effective, integrated EMS system with adequate funding		EMS Section, Health Division
30	Maintain quality 9-1-1 services, consider new technologies		Emergency Mgt., OSP

Number	Description	ODOT Units	Other Agencies
31	Support expansion of local transportation safety programs	TSS, Regions, various units	local agencies and committees, ACTS
32	Provide Transportation Safety Specialist in each region	TSS, Regions	local agencies and committees
33	Test the TransAdvocate model	TSS, Public Transit	local agencies and committees, ACTS
34	Improve ODOT internal/external communications related to local safety needs	all units	local agencies and committees, ACTS
35	Continue to consider local needs and resources in establishing programs	all units	local agencies,
36	Improve reliability of work zone signing	Roadway, Regions	local agencies, AGC, utility companies

37	Complete a <i>Strategic Plan for Traffic Records Improvements</i>	Planning, TSS, Transp.Data, ISB, Traffic Engineering	OSP, MPOs, various state and local agencies
38	Develop, implement, and monitor a Safety Management System	Planning, Traffic Engineering, TSS, ISB, Regions, various others	various federal, state, local agencies, MPOs
39	Revise statutes to reflect prevalence of drugged driving	TSS, DMV	Legislature, OSP, various agencies
40	Pass legislation to establish .04 BAC as standard of intoxication	TSS, DMV	Legislature, various agencies
41	Pass legislation to require trial based on stipulated facts for diversion	TSS, DMV	Legislature, OJD, other criminal justice system agencies
42	Require court to notify DMV of all court actions related to DUII offenders	TSS, DMV	Legislature, OJD, other criminal justice system agencies
43	Conduct an evaluation of the DUII Education and Treatment program	TSS, DMV	OADAP, various agencies

Number	Description	ODOT Units	Other Agencies
44	Adapt and implement Drug Court concept	TSS, DMV	OJD, OADAP, DMV, TSS, various agencies
45	Encourage programs targeted at high risk drivers	TSS, DMV	various agencies
46	Mandate server education for grocery and liquor store workers		OLCC, Legislature

47	Pass legislation to allow hospital blood tests to be admitted into evidence	TSS	Legislature
48	Pass legislation to require BAC testing of drivers involved in crashes	TSS	Legislature, police agencies
49	Pass legislation so Intoxilyzer measures grams of alcohol in the breath	TSS	OSP, Legislature
50	Continue to promote alternative transportation programs for impaired drivers	TSS, Public Transit	local agencies and committees
51	Encourage cities and counties to pass ordinances	TSS	local agencies and committees
52	Evaluate need for transportation safety research center	TSS, Research, Policy	various agencies
53	Establish and fund an incident management program	Traffic Engineering, Regions, TSS	OSP, local agencies
54	Endorse the Incident Command System (ICS) and provide training		State Fire Marshal
55	Ensure access to child safety seats to all young children	TSS	DHR
56	Continue services now available through Child Safety Seat Resource Center	TSS	various agencies
57	Develop and implement a <i>Youth Transportation Safety Strategy</i>	TSS, DMV	ODE, OSSOM, OADAP, various agencies

58	Implement programs for older drivers and transportation system users	TSS, DMV	local agencies and groups,private sector
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Number	Description	ODOT Units	Other Agencies
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59	Pass legislation so PUC can enforce federal hazardous materials rules		PUC
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60	Pass legislation so PUC can ensure commercial vehicle inspections are uniform		PUC
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61	Maintain the current rail track inspection program		PUC
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62	Continue to conduct thorough inspections of rail equipment maintenance facilities		PUC
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63	Consider safety and security and modal conflicts in high speed rail project	Special Projects	OSP, PUC
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64	Aggressively work to eliminate redundant highway-rail intersections		PUC
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65	Evaluate use of a video system to record highway-rail crossing violations	Research, TSS	PUC
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66	Implement programs that encourage pedestrian travel and improve safety	Bike/Ped Program, TSS	local agencies and committees
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67	In education and enforcement,recognize bicycles must follow rules of road	TSS	police agencies
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68	Implement programs that will encourage bicycle travel and improve safety	Bike/Ped Program, TSS	local agencies and committees
69	Improve transit passenger safety and security	Public Transit	Transit providers
70	Evaluate need for transit safety oversight program	Public Transit	Transit providers

See Appendix IV for acronyms.

Appendix II

The OTSAP Public Involvement Process

Recognizing the role the public and various other agencies will play in the implementation of the actions included in the *Oregon Transportation Safety Action Plan (OTSAP)*, an effort was made to encourage the participation of as many people as possible in development of the plan.

The following public involvement activities were a part of the development of the *OTSAP*:

1. An advisory committee, the Transportation Safety Action Plan Advisory Committee, was formed to assist ODOT staff with plan development. This committee of twelve persons represented the diverse group of stakeholders involved in transportation safety. The committee was co-chaired by Cynthia Ford, member of the Oregon Transportation Commission, and Walter Pendergrass, Chairman of the Oregon Transportation Safety Committee. Other members included representatives of the three units of ODOT most involved with transportation safety, the Public Utility Commission, the Oregon State Police, two local government representatives, and three citizens. Three of the members are members of the Oregon Transportation Safety Committee, one is a member of the Governor's Advisory Committee on DUI, and one is a state legislator. All committee members have been involved with transportation safety for many years and have made significant contributions to passage of laws and implementation of innovative programs. The committee met 12 times between October 1993 and January 1995.
2. Approximately 100 persons were invited to make oral presentations to the Transportation Safety Action Plan Advisory Committee at their meetings held between November 1993 and June 1994. These persons were asked to serve on panels on various subjects. Transportation Safety Specialists from the the Transportation Safety Section, ODOT, served as Panel Coordinators and selected persons who were experts on each topic. An effort was made to include representatives from various units of ODOT, other state agencies, local government, and special interest groups. The list of *OTSAP* panelists appears on page 105.
3. Approximately 80 persons were invited to make oral presentations to a team of national experts conducting an Impaired Driving Assessment of Oregon's DUII system in February, 1994. Recommendations made by the Assessment Team were then presented to the Transportation Safety Action Plan Advisory Committee for consideration. Many of these recommendations appear as actions in the *OTSAP*. A list of Impaired Driving Assessment panelists appears on page 109.
4. A monthly newsletter, The *TSAP Memorandum*, was sent to approximately 220 persons. All panelists, ODOT regions and managers, other state agencies, and interested persons received copies. The *TSAP Memorandum* provided an opportunity to share information on the actions proposed at each meeting and announce the

upcoming meeting. The October issue included an announcement of the public hearing and an order form to request a copy of the draft plan. A final newsletter announced plan approval.

5. Other newsletters including *TranScript*, *Traffic Safety Notes*, and *The Transportation Planning Bulletin* have included information about the OTSAP development process.
6. In August 1994, a series of six Planning Forums were held in La Grande, Bend, Medford, Springfield, and Salem. The public was invited to learn more about ODOT's modal and multi-modal planning efforts and to offer input to each long-range plan being developed. These forums offered an opportunity to share information about the *OTSAP* development process and key actions and to listen to new ideas. Written comments were considered. The names of interested persons were added to The *TSAP Memorandum* mailing list.
7. A draft OTSAP was distributed for public comment for a 45-day review period beginning in December 1994.
8. A public meeting/hearing was conducted in January, 1995.

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TRIMET

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Mark Hopkins
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Lt. Bill Johnson
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John Jolly
Department of Education

Ron Jones
Public Utility Commission

Gary Judd
Bend Area Traffic Safety Commission

Skip Kirkwood
Emergency Medical Services Section, Health

Mark Koberstein
Gladstone Traffic Safety Commission

Larry Koeneke
Public Utility Commission

Joan Krahmer
Child and Adolescent Health Program, Health

Sgt. Richard Kuehmichel
Oregon State Police

Jeff Kushner
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Appendix III

Significant Transportation Safety Laws, 1971 - 1993

1971

Blood alcohol level at which a driver is presumed to be under the influence of intoxicants lowered to .10 BAC. Illegal per se set at .15 BAC.

Judge required to order registration suspended or vehicle impounded in case of driving while suspended.

1973

Minimum jail sentence for driving while suspended established. First: two days; second: 10 days; third: 30 days. To receive an occupational license, a convicted drunk driver must submit to a mental health exam and complete an alcohol education program.

Habitual offender act. Regular driver license suspended for 10 years for anyone convicted of three major traffic offenses or 20 moving violations in five years.

Open container law. Illegal to have an opened bottle of alcoholic beverage in the passenger compartment.

Driver improvement program established.

1975

Driver license examination expanded to include knowledge and understanding of safe driving practices.

1977

Motorcycle helmet law repealed, except for riders under 18.

1979

State constitution amended to limit use of motor vehicle fuel and other taxes. Eliminate use for policing.

1981

Motorcycle instruction program established. Reimbursement for driver education increased from \$50 to \$100.

Diversion program for drivers arrested for first DUII in a 10-year period established.

Minimum damage increased from \$200 to \$400 for reporting a property damage crash.

1983

Child safety seat or seat belt required for all children less than five years old.

BAC limit for DUII reduced from .10 to .08.

Responsibility for motorcycle rider education transferred to Oregon Traffic Safety Commission. Juvenile denial law. Persons age 13-17 convicted of any crime, violation, or infraction involving possession, use, or abuse of alcohol or controlled substances have their driving privileges suspended or right to apply denied.

1984

Administrative license suspension for failure of breath test or refusal to take breath test. Alcohol treatment or education and additional penalties upon conviction. (Senate Bill 710)

1985

Classified driver license system established.

Occupant protection law strengthened. Children under one year must be in a child safety seat and children between 1 and 16 must be secured by a seat or belt.

Alcohol server education program established.

1987

Bicycle rider education program established.

Issuance of hardship licenses restricted.

Ignition interlock system established as a pilot study.

Motorcycle helmet law re-established.

1989

Ignition interlock program extended. Oregon Traffic Safety Commission directed to evaluate diversion program.

Alcohol and drug policies and curriculum mandated for educational institutions.

Provisional driver license for persons under 18 established. Persons under 18 found to have consumed any alcohol subject to an implied consent suspension.

Pilot program started requiring police to mark the license plates of persons driving while suspended or revoked.

1990

Commercial driver license program implemented. .04 BAC established as the standard of intoxication for commercial vehicle operators.

A safety belt law for all occupants.

1991

.00 BAC limit for implied consent suspension extended to include all persons under age 21.

Driver license suspended for minors using false identification to purchase alcohol.

Boating under the influence of intoxicants established as a Class A misdemeanor.

1993

Child restraint system for all children less than 40 pounds or less than four years required.

Minimum damage from \$400 to \$500 for reporting a property damage crash increased.

Tuition reimbursement for driver education increased to \$150 and changed some restrictions.

Appendix IV

Acronyms and Definitions

ACTS	Alliance for Community Traffic Safety
AGC	Associated General Contractors
ATV	All terrain vehicles
BAC	Blood Alcohol Content
BPSST	Board on Public Safety Standards and Training
CFAA	Criminal Fine and Assessment Account
DHR	Oregon Department of Human Resources
DMV	Driver and Motor Vehicle Services, Oregon Department of Transportation
DOE	Oregon Department of Education
DRE	Drug Recognition Expert
DUII	Driving Under the Influence of Intoxicants, sometimes DUI is used
EMS	Emergency Medical Services
F & I	Fatal and injury crashes
FARS	Fatal Accident Reporting System, U.S. Department of Transportation
FHWA	Federal Highway Administration
HSP	Highway Safety Plan, the grant application submitted for federal section 402 and similar funds. Funds are provided by the National Highway Traffic Safety Administration and the Federal Highway Administration.
ICS	Incident Command System
IRIS	Integrated Road Information System
ISTEA	The federal Intermodal Surface Transportation Efficiency Act of 1991 that funds the national highway system and gives state and local governments more flexibility in determining transportation solutions. It requires states and MPOs to cooperate in long-range planning. It requires states to develop six management systems, one of which is the Highway Safety Management System (SMS).
LCDC	Land Conservation and Development Commission
MADD	Mothers Against Drunk Driving
MPO	Metropolitan Planning Organization. MPOs are designated by the governor to coordinate transportation planning in an urbanized area of the state. MPOs exist in the Portland, Salem, Eugene-Springfield, and Medford areas.
NHTSA	National Highway Traffic Safety Administration
OADAP	Office of Alcohol and Drug Abuse Programs
OBM	Oregon Benchmark
ODAA	Oregon District Attorneys Association
ODOT	Oregon Department of Transportation
OJD	Oregon Judicial Department
OJIN	Oregon Judicial Information Network
OLCC	Oregon Liquor Control Commission
OSP	Oregon State Police

OSSOM	Oregon Student Safety On the Move, a youth empowerment program administered through Oregon State University
OTC	Oregon Transportation Commission
OTP	<i>Oregon Transportation Plan</i>
OTSAP	<i>Oregon Transportation Safety Action Plan</i>
OTSC	Oregon Transportation Safety Committee
PAM	Police Allocation Model
PUC	Oregon Public Utility Commission
SFST	Standard Field Sobriety Testing
SMS	Safety Management System or Highway Safety Management System
STIP	Statewide Transportation Improvement Program
TSS	Transportation Safety Section, Oregon Department of Transportation
VMT	Vehicle miles traveled

Appendix V

Findings of Compliance with Statewide Planning Goals and the *Oregon Transportation Plan*

SAC Program Requirements

ODOT's certified State Agency Coordination (SAC) Program and Oregon Administrative Rules Chapter 31, Division 15 describe the procedures that ODOT will follow when developing and adopting plans to assure that they comply with statewide planning goals and are compatible with acknowledged comprehensive plans. The SAC Program recognizes that planning occurs in stages and that compliance and compatibility obligations depend on the stage of planning being undertaken. The SAC Program describes the step-wise process that follows.

ODOT's program for assuring compliance and compatibility recognizes the successive stages of transportation planning and establishes a process that coordinates compliance and compatibility determinations with the geographic scale of the plan and the level of detail of information that is available. At each planning stage, some compliance and compatibility issues come into focus with sufficient clarity to enable them to be addressed.

The department's coordination efforts at the transportation policy plan and modal systems plan stages will be directed at involving metropolitan planning organizations, local governments, and others in the development of statewide transportation policies and plans. Since these plans have general statewide applicability and since ODOT has the mandate under ORS 184.618 to develop such plans, compatibility with the comprehensive plan provisions of specific cities and counties will not be generally established. However, compatibility determinations shall be made for new facilities identified in modal systems plans that affect identifiable geographic areas. Compliance with any statewide planning goals that specifically apply will be established at these planning stages.

The focus of the department's efforts to establish compatibility with acknowledged comprehensive plans will be at the facility planning and project planning stages of the planning program. At these stages, the effects of the department's plans are more regional and local in nature, although some statewide effects are also present.

The *Oregon Transportation Safety Action Plan (OTSAP)* is a transportation policy plan as defined in the SAC Program. The *OTSAP* is the safety element of the Oregon Transportation Plan (OTP) and further identifies specific strategies for implementing safety related goals, policies, and actions included in the *OTP*. The *OTSAP* is part of the multimodal element. The department is following the coordination requirements for a policy plan. The department has done the following to comply with these requirements:

- A public meeting was held on the *draft Oregon Transportation Safety Action Plan*. See Appendix II, The *OTSAP* Public Involvement Process, for additional detail on public involvement.
- Compliance with applicable planning goals has been evaluated.
- The Oregon Transportation Commission will adopt findings of compliance with all applicable statewide planning goals when it adopts the final *OTSAP*.
- The Department will provide copies of the final *OTSAP* and findings to the Department of Land Conservation and Development (DLCD), the metropolitan planning organizations, and others who request a copy.

Transportation Planning Rule

The Land Conservation and Development Commission adopted the Transportation Planning Rule (OAR 660-12) to implement Statewide Planning Goal 12 (Transportation) and “to explain how local governments and state agencies responsible for transportation planning demonstrate compliance with other statewide planning goals.”

The Transportation Planning Rule (TPR) describes transportation planning as follows (Section 010):

(1) As described in this division, transportation planning shall be divided into two phases: transportation system planning and transportation project development. Transportation system planning establishes land use controls and a network of facilities and services to meet overall transportation needs. Transportation project development implements the TSP by determining the precise location, alignment, and preliminary design of improvements included in the TSP.

Section 15 of the Transportation Planning Rule recognizes that ODOT’s transportation system plan (TSP) is composed of a number of elements as described in the department’s State Agency Coordination (SAC) Program.

(1) (a) The state TSP shall include the state transportation policy plan, modal systems and transportation facility plans as set forth in OAR 731, Division 15.

The *OTP* is ODOT’s policy plan. The *OTSAP* is the safety element of the *OTP*. The policy plan is described in the SAC Program as follows:

This is the policy plan for the state transportation system, encompassing all modes of transportation. It addresses matters such as overall direction in the allocation of resources, coordination of the different modes of transportation, the relationship of transportation to land use, economic development, the environment and energy usage, public involvement in transportation planning, coordination with local governments and other agencies, transportation financing, and management of the department.

It can be seen from this description that the *OTSAP*, like the *OTP*, is meant to be broad in scope and general in nature. The *OTSAP* does not identify specific projects or specific locations for projects.

Section 15 of the TPR describes ODOT planning responsibilities under the statewide planning goal.

1) ODOT shall prepare, adopt and amend a state TSP in accordance with OAR 660-12-030, -035, -050, -.065, and -.070. The following are findings relating to each of these sections:

OAR 660-12-030—Determination of Transportation Needs

This plan identifies 70 actions that will lead to a safer transportation system. These actions address the specific needs of the following transportation system users: youth, older persons, bicyclists, pedestrians, and public transportation system users. Needs are identified at the statewide level, not for specific jurisdictions. The *OTSAP* states that implementation should consider those geographic areas with the greatest needs, based, in part, on an analysis of transportation crash data.

OAR 660-12-035—Evaluation and Selection of Transportation System Alternatives

OAR 660-12-050—Transportation Project Development

OAR 660-12-065—Transportation Improvements on Rural Lands

OAR 660-12-070—Exceptions to Transportation Improvements on Rural Lands

These sections do not apply to the *OTSAP*.

Statewide Planning Goals

The following is a list of goals that relate to the *OTSAP*. *OTSAP* actions are identified.

Goal 1 Citizen Involvement

This goal is “to develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.” Citizen involvement has been considered throughout the planning process. Citizens participated on the advisory committee, provided input to the advisory committee, participated in planning forums, and received copies of and commented on the draft plan. Appendix II, The *OTSAP* Public Involvement Process, describes specific opportunities that were provided for citizen involvement. All persons who provided comments on the draft plan received a written response.

Goal 2 Land Use Planning

This goal is “to establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.”

See *OTSAP* Actions: 19-27 which identify specific activities to address *OTP* Action 1G.4: Improve the safety in design, construction and maintenance of new and existing systems and facilities for users and benefactors including the use of techniques to reduce conflicts between modes using the same facility or corridor. Target resources to dangerous routes and locations in cooperation with local and other state agencies. *OTSAP* Action 19 calls for the consideration of the roadway, human, and vehicle elements of safety in modal, corridor and local system plan development and implementation. It states:

“Consider the roadway, human, and vehicle elements of safety in modal, corridor and local system plan development and implementation. These plans should include the following:

- Involvement in the planning process of engineering, enforcement, and emergency service personnel as well as local transportation safety groups.
- Safety objectives.
- Resolution of goal conflicts between safety and other issues.
- Application of access management standards to corridor and system planning.

Goal 5 Open Spaces, Scenic and Historic Areas, Natural Resources

This goal is “to conserve open spaces and protect natural and scenic resources.”

OTSAP Action 22 relates to managing vegetation to ensure that safety is not compromised, while considering the scenic quality of the roadway. It states: “With consideration to the scenic quality of the roadway, use vegetation management techniques to accomplish the following:

- Reduce ice on roadway.
- Increase visibility in deer crossing areas.
- Eliminate “tunnel like” corridors and provide variation along roadway edges to keep drivers alert.
- Remove clear zone hazards.
- Remove hazard trees.
- Improve visibility of signs and roadway markings.
- Improve sight distance at intersections.

Goal 12 Transportation

This goal is “to provide and encourage a safe, convenient, and economic transportation system.” The focus of the *OTSAP* is to identify those actions that will lead to a safe transportation system without compromising conve-

nience, economics, and other values. *OTSAP* Action 19 specifically addresses the desirability of considering safety in all transportation planning efforts.

The *OTSAP* has an insignificant relationship to the other goals.

The Oregon Transportation Plan

The *Oregon Transportation Safety Action Plan (OTSAP)* is developed to respond specifically to OTP policy 1G: “It is the policy of the State of Oregon to improve continually the safety of all facets of statewide transportation for system users including operators, passengers, pedestrians, recipients of goods and services, and property owners.”

OTP Action 1G.1 states: Develop a Transportation Safety Action Plan addressing air, land, and water transportation to reduce fatal, injury, and property damage accidents among users.

Each of the actions in the *OTSAP* is directly linked to one of the safety-related actions included in the *OTP*. These are actions 1.G.2-12.

Additional *OTP* policies considered in the *OTSAP* include:

Policy 1A: It is the policy of the State of Oregon to provide a balanced transportation system. A balanced transportation system is one that provides transportation options at appropriate minimum service standards, reduces reliance on the single occupant automobile where other modes or choices can be made available, particularly in urban areas, and takes advantage of the inherent efficiencies of each mode.

Policy 1C: It is the policy of the State of Oregon to promote a transportation system that is reliable and accessible to all potential users, including the transportation disadvantaged, measured by availability of modal choices, ease of use, relative cost, proximity to service and frequency of service.

Policy 2A: It is the policy of the State of Oregon to develop transportation plans and policies that implement Oregon’s statewide Planning Goals, as adopted by the Land Conservation and Development Commission.

Policy 2B: It is the policy of the State of Oregon to define minimum levels of service and assure balanced, multimodal accessibility to existing and new development within urban areas to achieve the state goal of compact, highly livable urban areas.

Policy 2D: It is the policy of the State of Oregon to promote safe, comfortable travel for pedestrians and bicyclists along travel corridors and within existing communities and new developments.

Policy 3A: It is the policy of the State of Oregon to promote a balanced freight transportation system which takes advantage of the inherent efficiencies of each mode. Action 3A.4 states: Work with local, state, and federal governments to permit efficient transportation operations consistent with environmental or safety goals.

Policy 4H: It is the policy of the State of Oregon to promote the development of innovation management practices, technologies and regulatory techniques and safety measures that will further implementation of the Oregon Transportation Plan and lead to new approaches to meeting mobility needs.

Policy 4K: It is the policy of the State of Oregon that

- Local governments shall define a transportation system of local significance adequate to meet identified needs for the movement of people and goods to local destinations within their jurisdictions; and
- Local government transportation plans shall be consistent with regional transportation plans and adopted elements of the state transportation system plan.

Policy 4N: It is the policy of the State of Oregon to develop programs that ensure opportunities for citizens, businesses, local governments, and state agencies to be involved in all phases of transportation planning processes.

Policy 4O: It is the policy of the State of Oregon to provide a program of public information and education for the implementation of the Oregon Transportation Plan. Action 4O.2 states: Through the Safety Action Plan and other means, expand public awareness of travel safety to reduce transportation related accidents. Provide information on the primary causes of accidents include drug and alcohol abuse, driver error and vehicle maintenance neglect, and their results in deaths, injuries and economic loss.