

# TRANSPORTATION SAFETY ACTION PLAN UPDATE

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## Preliminary Report

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*prepared for*

**ODOT**

*prepared by*

**Cambridge Systematics, Inc.**





*preliminary report*

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*prepared by*

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*Date*

**November 3, 2015**

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## Table of Contents

<b>Executive Summary</b> .....	Error! Bookmark not defined.
<b>1.0 Introduction</b> .....	Error! Bookmark not defined.
<b>2.0 Existing Conditions</b> .....	Error! Bookmark not defined.
<b>3.0 Business Case for Safety</b> .....	Error! Bookmark not defined.
<b>4.0 Vision, Goals, Policies and Strategies</b> .....	<b>1-1</b>
4.1 Vision .....	1-1
4.2 Goals.....	1-1
Goal 1: Safety Culture.....	1-1
Background .....	1-1
Goal .....	1-2
Policies.....	1-2
Strategies .....	1-2
Goal 2: Infrastructure .....	1-3
Background .....	1-3
Goal .....	1-4
Policies.....	1-4
Strategies .....	1-5
Goal 3: Healthy, Livable Communities.....	1-7
Background .....	1-7
Goal .....	1-7
Policies.....	1-7
Strategies .....	1-8
Goal 4 Technology .....	1-10
Background .....	1-10
Goal .....	1-11
Policies.....	1-11
Strategies .....	1-12
Goal 5: Collaborate and Communicate .....	1-13
Background .....	1-13
Goal .....	1-14
Policies.....	1-14

Strategies .....	1-14
Goal 6: Strategic Investments .....	1-16
Background .....	1-16
Goal .....	1-17
Policies.....	1-17
Strategies .....	1-17
<b>5.0 Emphasis Areas .....</b>	<b>2-1</b>
<b>6.0 Key Initiatives .....</b>	<b>3-1</b>
<b>7.0 Performance Measures .....</b>	<b>4-1</b>
<b>8.0 Appendices .....</b>	<b>5-1</b>





## 1.0 VISION, GOALS, POLICIES AND STRATEGIES

### 1.1 Vision

Introductory Text – context, story – under development

**Oregon envisions no deaths or life-changing injuries on Oregon’s transportation system by 2035.**

### 1.2 Goals

#### Goal 1: Safety Culture

##### *Background*

Developing and sustaining a strong safety culture is key to ending unnecessary deaths and serious injuries related to transportation. Transportation safety is a function of good decisionmaking. Whether it is the set of design decisions made in development of a new intersection or highway, or an individual system user decision such as when to decelerate or when to cross a street, everyone designing, constructing, maintaining and using the transportation system makes many important safety decisions.

Cultural change is not a simple thing – it is easy to assume that infrastructure, drivers and other system users are generally safe and that crashes are caused by the odd mistake. Promoting the idea that all participants in developing and using the transportation system have a basic responsibility to keep themselves and others safe will take a concerted effort. Education and awareness, planning and design, and personal motivation can all contribute to the functionality of a safer system.

Transportation safety requires a combined effort from many different entities, including but not limited to all levels of government, the emergency response community, health services providers, law enforcement, road and other facility designers and builders, rail and transit providers, non-profit health and safety organizations, industries providing safety tools and materials, and individual drivers, passengers, bicyclists and pedestrians.

Opportunities to address safety culture are different based on the types of decisions being made and on who is making those decisions. Oregon is interested in achieving shifts on all fronts toward elevating awareness of safety issues and identifying safety solutions.

At the agency level, including ODOT, metropolitan planning organizations, local jurisdictions, and other transportation and safety organizations, cultural shifts will be seen as safety is increasingly prioritized as a core value. A strong safety culture means that agency leadership and

employees at all levels are encouraged and rewarded for identifying safety issues and solutions, to increase personal safety and the safety of others while carrying out their agency's missions and their individual job responsibilities.

Inspiring a strong safety cultural among the public can be implemented in a number of ways. Good public information and education on the rules of the road and changes in regulations, broadly available and up to date driver training; clear communication of the benefits of transportation law enforcement, and community engagement in transportation safety plans and programs, can all contribute to higher awareness of safety roles and responsibilities.

### *Goal*

Transform public attitudes to recognize all transportation system users have responsibility for other people's safety in addition to their own safety while using the transportation system. Transform organizational transportation safety culture among employees and agency partners (e.g., MPOs, Local Agencies, Oregon Health Authority, stakeholders and employers) to integrate safety considerations into all responsibilities.

### *Policies*

- Policy 1.1 - Promote safety culture within agencies, stakeholder organizations, and employers.
- Policy 1.2 - Effectively communicate with system users about safety culture.
- Policy 1.3 - Explore regulatory changes including legislative concepts and administrative rule changes as needed to provide incentives or remove impediments to developing a multimodal transportation safety culture.

### *Strategies*

#### **Policy 1.1 - Promote safety culture within agencies, stakeholder organizations and employers.**

- Strategy 1.1.1 - Provide transportation leaders and staff with training, information, and education on proven methods to integrate safety into all aspects of the planning, programming, project development, construction, maintenance and operations processes.
- Strategy 1.1.2 - Explore and implement tools for ongoing enhancement of safety culture training, information and tools within ODOT and across agencies and stakeholders.
- Strategy 1.1.3 – Conduct program planning, implementation and evaluation to address behavioral and health related transportation safety..

- Strategy 1.1.4 - Coordinate and collaborate with employers to develop work related transportation safety programs.

**Policy 1.2 - Effectively communicate with system users about safety culture.**

- Strategy 1.2.1 – Promote safe travel behavior through educational initiatives in collaboration with state, county and local transportation agencies , private sector interests, media organizations, and transportation and safety interest groups. Focus on how system user behavior can contribute to a safer transportation system for all users.
- Strategy 1.2.2 – Tailor safety culture marketing and media tools to specific user groups with specific needs (e.g., youth, older travelers, walkers, bikers, minority groups and different income groups).
- Strategy 1.2.3 – Integrate evaluation of educational activities to identify impacts to agency, public and stakeholder perceptions of safety culture.

**Policy 1.3 – Explore regulatory changes including legislative concepts and administrative rule changes as needed to provide incentives or remove impediments to developing a multimodal transportation safety culture.**

- Strategy 1.3.1 – Collaborate with state, regional, and local transportation and safety agencies, and other stakeholders, to identify walking, biking, or driving behaviors which could be addressed through legislation. Identify and pursue legislation to modify these behaviors.

## Goal 2: Infrastructure

### *Background*

Transportation infrastructure should be designed, built, operated and maintained to provide the safest feasible environment for all transportation users. When proven safety design, geometry, signage, and other measures are applied, small user mistakes should not typically result in serious crashes. Reducing conflicts through measures such as access management and channelization is a key element of making transportation facilities safer.

Oregon’s transportation infrastructure includes state and local public facilities (streets, freeways, paths, bicycle facilities, signs, lights, traffic signals, interchanges, barrier rail, guard rail, etc) and other transportation assets including the technology resources that support transportation operations, planning and decision making.

The tools of the trade for safety planning, beyond institutional knowledge and engineering judgment, are relatively new. For example, the first edition of a national Highway Safety Manual

was just published in 2010. The HSM was developed to help measurably reduce the frequency and severity of crashes on highways by helping practitioners select countermeasures and prioritize projects, compare alternatives, and quantify and predict the safety performance of roadway elements considered in planning, design, construction, maintenance, and operation. In addition, modeling tools have been developed to improve predictions of safety effects of various transportation planning and project development measures. Initiating and testing best practices for applying the HSM, modeling tools and other emerging methods will add to ODOT's capacity to address safety issues in infrastructure.

Facility design influences how people interact with and use the transportation system. People driving, riding, walking and bicycling navigate the transportation system using visual cues, signage, regulations and their personal expectations about how other people will use the transportation system. Infrastructure for all travelers needs to be planned, designed, constructed, operated and maintained to clearly convey travel speed and behavior consistent with the surrounding land uses and anticipated users, and to carefully manage interactions across modes.

In the event crashes do occur, the planning, design, maintenance and operations of infrastructure can influence the severity of the crash. The transportation system can be designed to manage severity of crashes by creating an environment to minimize potential conflicts within and across modes, planning and designing facilities consistent with the desired context and use of the facilities, and implementing countermeasures with known or high potential to minimize crash severity.

### *Goal*

Plan, design, construct, operate, and maintain transportation systems to reduce fatalities and serious injuries for users of all modes.

### *Policies*

- Policy 2.1 – Continually improve safety data collection, management and distribution to support data-driven decision making for infrastructure development and operations activities, across all divisions at ODOT, and with partner agencies and stakeholders.
- Policy 2.2 – Continually improve analysis techniques to support informed safety-related decision making in transportation planning, programming, design, construction, operations and maintenance for all modes.
- Policy 2.3 – Plan, design, construct, operate and maintain the transportation system to reduce fatalities and severe injuries for all modes while balancing other system needs.

- Policy 2.4 – Explore regulatory changes including legislative concepts, administrative rule changes and updates to design standards, as needed to enable and/or remove impediments to new approaches to safety engineering.

### *Strategies*

#### **Policy 2.1 – Continually improve safety data collection, management and distribution to support data-driven decision making for infrastructure development and operations activities, across all divisions at ODOT, and with partner agencies and stakeholders.**

- Strategy 2.1.1 – Develop a strategic plan for safety data enhancement and sharing that integrates the findings and needs of a strategic safety data plan with other strategic data planning efforts at ODOT and that supports safety analysis across all divisions at ODOT and with partner agencies and stakeholders.
- Strategy 2.1.2 – Research and pursue new methods for crash, roadway and exposure (e.g. vehicle, pedestrian and bicycle volume) data collection, sharing, and storage.
- Strategy 2.1.3 – Support safety research at national, state and local level to identify opportunities to enhance data analysis techniques and test countermeasures to reduce crash frequency or severity.
- Strategy 2.1.4 – Evaluate safety techniques and actions for potential testing, pilot projects, and implementation.
- Strategy 2.1.5 – Research and consider new methods to improve safety data availability and access to other agencies and safety provider as well as the public as appropriate.

#### **Policy 2.2 – Continually improve analysis techniques to support informed safety-related decision making in transportation planning, programming, design, operations and maintenance for all modes.**

- Strategy 2.2.1 – Update manuals, guides, processes and procedures, etc. to include quantitative safety analysis in planning, project development and design, programs and maintenance activities to include using predictive methods and tools.
- Strategy 2.2.2 – Ensure ODOT project prioritization processes adequately consider safety benefits.
- Strategy 2.2.2 – Develop planning, program, and project-level performance measures and/or indicators to monitor safety outcomes on all public roads for all modes.

**Policy 2.3: Plan, design, construct, operate and maintain the transportation system to reduce fatalities and severe injuries for all modes while balancing other system needs.**

- Strategy 2.3.1 – Implement Practical Design<sup>1</sup> and/or other proven and exploratory approaches to reduce roadway departure and intersection crash frequency and severity.
- Strategy 2.3.2 – Ensure design standards fully consider both design and desired operating speed in order to achieve planned transportation system safety outcomes.
- Strategy 2.3.3 – Continue to implement best practices to minimize crash frequency and severity in construction work zones.
- Strategy 2.3.4 – Continue to implement best practices related to traffic incident management services to reduce secondary crashes and improve system operations and reliability.
- Strategy 2.3.5 – To the extent practicable, evaluate operations and maintenance decisions for potential safety effects prior to implementation
- Strategy 2.3.6 – Promote access management practices to improve system safety while maintaining Oregon’s economic objectives.
- Strategy 2.3.7 – Research and enhance enforcement and emergency service communications systems as feasible to improve response time and services for all travelers in Oregon.
- Strategy 2.3.8 – Promote roundabouts to improve safety.
- Strategy 2.3.9 – Continue to plan, design and implement best practices for rail safety program and systems management

**Policy 2.4 – Explore legislative concepts as needed to enable and/or remove impediments to new approaches to safety engineering.**

- Strategy 2.4.1 - Work with state, local and regional agencies to evaluate best practices in setting community speed limits.
- Strategy 2.4.2 - Work with state, local and regional agencies to evaluate and determine best practices for safety in school zones.

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<sup>1</sup> Practical Design is “a systematic approach to deliver the broadest benefit to the transportation system, within existing resources, by establishing appropriate project scopes to deliver specific results.”  
[http://www.oregon.gov/odot/hwy/techserv/pages/practical\\_design.aspx](http://www.oregon.gov/odot/hwy/techserv/pages/practical_design.aspx)

## Goal 3: Healthy, Livable Communities

### *Background*

Transportation options affect the health and livability of communities in a variety of ways. Safer, more efficient connections between modes increase user options and remove barriers to exercise and social and economic activities. Well designed neighborhood transportation networks can instill a sense of community at the same time they make transportation options safer.

Crashes causing deaths or life-changing injuries are a major public health issue. Effective traffic law enforcement is an important tool for reducing risky behavior and reinforcing safety culture. And the availability of well-trained, nearby emergency responders improves health outcomes when serious crashes do occur.

Cities and counties plan their street systems and other elements of the transportation system in relation to planned land uses. An increased interest in livability and transportation options leads many communities to think more about how community infrastructure can be safe, equitable and convenient. Many communities are developing walkable neighborhoods and other adaptations that contribute to mobility, accessibility and health. This plan provides some background and direction for bringing transportation safety into these local planning and programming activities. Transportation System Plans (TSP) and other local plans affecting transportation facilities are required to be consistent with the Oregon Transportation Plan, and by extension with this plan.

In addition to infrastructure and design, timely response by law enforcement and emergency responders can lead to decreases in transportation-related fatalities and serious injuries. With appropriate resources, more emergency responders can be trained and made available to respond to crashes in a timely manner and law enforcement can target dangerous behaviors such as speed and impaired driving and implement proven approaches and programs for protecting public safety.

### *Goal*

Improve the safety and livability of communities, including health outcomes. Support planning, design and implementation of safe systems, and enforcement and emergency response services.

### *Policies*

- Policy 3.1 – Advance coordination and collaboration between law enforcement; state, regional, and local transportation agencies; and health care providers to make communities safer places.

- Policy 3.2 – Support traffic enforcement funding to provide sufficient resources for officers to respond to incidents, increase levels of ongoing traffic enforcement, conduct focused enforcement, and participate in activities such as emphasis patrols.
- Policy 3.3 – Support emergency medical service (EMS) funding to provide sufficient resources to train first responders and to respond to transportation related crashes and other medical emergencies fully equipped and in a timely manner.
- Policy 3.4 – Invest in transportation system enhancements that improve peoples' sense of security in their community.
- Policy 3.5 – Provide all regions and localities in Oregon with equitable access to safety funding, resources, programs, and education
- Policy 3.6 – Plan for and design more livable and healthy communities with a focus on safe connections and movement for all modes and all ages while balancing other system needs.

### *Strategies*

**Policy 3.1 – Advance coordination and collaboration between law enforcement and state, regional, and local transportation agencies and mental and physical health care providers to make communities safer places.**

- Strategy 3.1.1 - Support a data-driven and high visibility enforcement program with approaches such as increased traffic, bicycle and pedestrian law enforcement capabilities (priority and funding) and use of data analysis to efficiently deploy enforcement resources to locations or corridors.
- Strategy 3.1.2 - Expedite traffic investigations to reduce traffic delays and to improve quality and timeliness of crash data.
- Strategy 3.1.3 - Expand culturally sensitive media, outreach, and communication for national and statewide education/enforcement campaigns.
- Strategy 3.1.4 - Encourage law enforcement beyond standard traffic enforcement responsibilities in support of improved community safety in activities such as delivering education classes in schools on safer behaviors.
- Strategy 3.1.5 - Conduct education and outreach to law enforcement to increase understanding and enforcement of traffic, commercial vehicle, pedestrian and bicycle laws.

**Policy 3.2 - Support traffic enforcement funding to provide sufficient resources for officers to respond to incidents, increase levels of ongoing traffic enforcement, conduct focused enforcement, and participate in activities such as emphasis patrols.**

- Strategy 3.2.1 - Identify community needs for funding and training to enhance enforcement.

**Policy 3.3 – Support emergency medical service (EMS) funding to provide sufficient resources to train first responders and to respond to transportation related crashes and other medical emergencies fully equipped and in a timely manner.**

- Strategy 3.3.1 - Identify community needs for funding and training to enhance EMS systems and improve response times and services. Recognize and address the differing needs of paid and volunteer providers.

**Policy 3.4 – Invest in transportation system enhancements that improve peoples’ sense of security while traveling in their community.**

- Strategy 3.4.1 – Enhance perceptions of security by identifying and implementing appropriate facility design, lighting, and other changes to the built environment to improve personal security.
- Strategy 3.4.2 – Identify opportunities to improve transportation system security and safeguard critical infrastructure against natural and manmade disasters
- Strategy 3.4.3 – Facilitate communication and coordination between transportation agencies, EMS, and law enforcement on evacuation planning and emergency preparedness.

**Policy 3.5 – Provide all regions and localities in Oregon with equitable access to safety funding, resources, programs, and education based on local needs and issues.**

- Strategy 3.5.1 – Explore methods to implement safety programs and funding equitably between urban and rural communities.
- Strategy 3.5.2 – Provide transportation safety educational opportunities for people of all ages and income levels.
- Strategy 3.5.3 – Support adequate funding for EMS particularly in rural and remote areas.
- Strategy 3.5.4 – Encourage implementation of Safe Communities statewide.

**Policy 3.6 – Support community efforts to plan for and design safer, more livable communities with a focus on safe movement for all modes.**

- Strategy 3.6.1 – Coordinate and collaborate with elected officials and local jurisdictions to understand the safety concerns in communities and establish solutions through transportation planning and design.
- Strategy 3.6.2 – Educate transportation planning and design professionals on how to incorporate safer facilities and accommodations into community projects, using the concepts of context sensitive design.

## Goal 4: Technology

### *Background*

As recently as just a few years ago, safety improvements were focused on updates to transportation design and changes to human behavior. Today, those issues remain critical to address, but incremental changes, both large and small, to infrastructure and automobile technology, are shifting the conversation about safety. For example, vehicle fleets are now coming with standard safety features, such as automatic lights, backup cameras, blind spot monitoring, lane departure warnings, and other custom features. The next major initiative on the horizon is driverless technology, removing the inherent risks associated with human behavior, such as distraction or impairment. Transportation infrastructure is also becoming “smarter,” - traffic lights can be synched to better address roadway incidents, signs can alert a driver of a crash ahead, and signals can let transit users know when a train is approaching. Transportation and safety stakeholders are charged with figuring out how these different types of technology can contribute to fatality and serious injury reductions, and at what cost.

Technological advances have been implemented in Oregon and others are being tested in-state, and nationally, to help reduce crash frequency and severity. Some of the newer technologies, such as automated vehicles, are years off due to continuing research and testing needs.

Successful, low-cost practices in Oregon to date include the implementation of intelligent transportation solutions (ITS). ODOT and other transportation agencies, such as MPOs have utilized CCTV cameras to quickly and efficiently detect, verify, and plan responses for highway incidents, including crashes. Speed Warning Systems are used to provide information to motorists who are traveling at unsafe speeds and Over-Length Warning Systems use detectors to determine whether approaching vehicles (typically commercial trucks) are too long to safely maneuver a challenging roadway geometry. With established ITS infrastructure throughout Oregon, it is possible for more regional and local transportation and safety agencies and stakeholders to expand the use of lower-cost technologies throughout the state. ODOT is currently exploring how and where to deploy ITS solutions more widely in both urban and rural environments.

A number of other technologies, with proven benefits, are also being utilized or explored by ODOT, regions, and localities to reduce transportation-related fatalities and serious injuries. Some of those initiatives include: variable speed signs, traffic operations centers, pedestrian countdown signals, mobile applications that prevent unsafe behaviors such as texting and driving, and others. The intent is to share information and implementation ideas to increase the successful deployment of proven technologies throughout urban and rural parts of the State, addressing safety needs.

An emerging technology garnering national attention and testing is autonomous and connected vehicles. Oregon has been engaged in this conversation from the outset, which if deployed would enable on-road communications between vehicles, between vehicles and pedestrians/bicyclists, and between vehicles and infrastructure. This has tremendous safety implications as the technology would allow for automatic control of signal timing, speed management, and the operation of transit and commercial vehicles, among other safety features. ODOT continues to stay at the forefront of this national dialogue and inform transportation and safety stakeholders of new developments.

### *Goal*

Plan and prepare for technologies that can affect transportation safety for all users, including pilot testing innovative technologies as appropriate.

### *Policies*

- Policy 4.1 – Actively monitor technological advances and plan, design, maintain and operate the system in a way that takes full advantage of opportunities to use technology to reduce crash frequency and severity.
- Policy 4.2 – Apply technological improvements in data management systems to enhance collaboration across agencies and provide tools for data collection and analysis to partner agencies and stakeholders.
- Policy 4.3 – Explore legislative concepts as needed to enable new approaches to safety planning, engineering, data management and analysis procedures.
- Policy 4.4 – Leverage technology, tools and best practices across divisions and agencies to strive for equitable deployment of useful technologies across the state and the transportation system.

## *Strategies*

**Policy 4.1 – Actively monitor technological advances and plan, design, maintain and operate the system in a way that takes full advantage of opportunities to use technology to reduce crash frequency and severity.**

- Strategy 4.1.1 – Explore and integrate, as feasible (considering potential economic, environmental, business, privacy etc impacts), technology to reduce crash frequency and severity, prioritizing implementation of technologies that address safety emphasis areas.
- Strategy 4.1.2 – Support research efforts that explore safety technology applications and testing.
- Strategy 4.1.3 – Prepare an implementation strategy for connected and autonomous vehicles in order to leverage the potential safety benefits associated with these technologies.
- Strategy 4.1.4 – Bring public and private sector stakeholders together to explore opportunities for applying technology solutions towards safety objectives, as well as to identify existing and potential future barriers to implementing new technologies. Consider potential economic, business, environmental, and privacy impacts of deploying technologies.

**Policy 4.2 – Apply technological improvements in data management systems to enhance collaboration across agencies and provide tools for data collection and analysis to partner agencies and stakeholders.**

- Strategy 4.2.1 – Provide leadership and staff support to statewide efforts to improve data availability, quality, and consistency across agencies.
- Strategy 4.2.2 – Support data strategic planning efforts to ensure safety data needs are considered and integrated.
- Strategy 4.2.3 – Develop tools to facilitate MPO, County and local agency data sharing and analysis.

**Policy 4.3 – Leverage technology tools and best practices across divisions and agencies to strive for equitable deployment of useful technologies across the state and the transportation system.**

- Strategy 4.3.1 – Develop statewide resources to share best practices, tools and training for statewide and systemwide deployment.
- Strategy 4.3.2 - Implement technology advances equitably between urban and rural areas with appropriate and context-sensitive measures.

- Strategy 4.3.3 - Explore methods to ensure that the safety benefits of technology are extended equitably to underserved system users and the transportation disadvantaged.

**Policy 4.4 – Explore legislative concepts as needed to enable new approaches to technology focused on safety planning, engineering, data management and analysis procedures.**

- Strategy 4.4.1 – Support innovations in enforcement technology, such as innovations in field testing for alcohol and drug impairment testing and automated enforcement, and support legislation to enable its implementation.
- Strategy 4.4.2 – Review regulations that may impact the adoption of innovative technology and support appropriate new laws and/or amend administrative rules or standards that may constrain implementation of advanced technology.

## Goal 5: Collaborate and Communicate

### *Background*

Safety and transportation go hand in hand, however different roles and responsibilities between transportation and safety practitioners, funding silos, competing priorities, and other issues are common challenges that could lead to a lack of coordination on the issues. To avoid this, three primary objectives were established during the development of this plan, including 1) facilitate communication between transportation planners and safety specialists 2) leverage this communication to share information and collaborate on problem identification, analysis, funding, resources, and tools to advance transportation safety in Oregon and 3) ensure this planning effort was coordinated with other transportation and safety planning efforts throughout the state.

Transportation legislation requires every state to consult with transportation and safety stakeholders early in the SHSP update process, consider their input prior to decision making, and routinely inform them about actions taken regarding SHSP development. For this TSAP update, the level of communication and collaboration went above and beyond the requirements. It included 22 interviews with ODOT Division and Regional offices; 10 discussion groups with over 90 participants from various communities and transportation safety advocates; interviews with 3 stakeholders representing ODOT Leadership, an MPO, and a local jurisdiction; and a series of public outreach meetings. In addition, monthly input was utilized to develop the contents of the TSAP through regular meetings of a Policy Advisory Committee and a Project Coordination Team. This combination of activities, especially the regular committee meetings helped transportation and safety stakeholders to:

- Gain access to and better understand available safety data;

- Form relationships and connect with other transportation safety stakeholders; and
- Understand the safety emphasis areas and proven strategies, which could be subsequently integrated with other stakeholder planning and programming activities..

The increased awareness and buy-in will create opportunities for integrating TSAP goals, policies and strategies in all stages of the ODOT project development process. Further, it will create opportunities for regional and local agencies, and stakeholders to integrate transportation safety policies, projects and programs into their day to day activities as well.

The TSAP update and subsequent implementation efforts have created a supportive, collaborative environment for safety providers and transportation system planners, owners, and stakeholders to work together to reduce crash frequency and severity throughout Oregon.

### *Goal*

Create and support a collaborative environment for safety providers and transportation system planners and owners, and public and private stakeholders, including advocacy groups and health providers to work together to reduce crash frequency and severity.

### *Policies*

- Policy 5.1 – Create greater awareness among the public about the importance of transportation safety and their role in achieving the TSAP Vision (of zero deaths or serious injuries on Oregon’s transportation system) and the safety policies of the Oregon Transportation Plan and associated modal and topic plans.
- Policy 5.2 – Increase awareness of the TSAP and other safety policies and programs among transportation agencies, law enforcement agencies, and other stakeholders (e.g. health, education, community development and environmental organizations) .
- Policy 5.3 – Ensure ongoing communication and coordination among transportation and safety stakeholders (e.g. health, education, community development and environmental organizations) during plan development, subsequent updates and implementation of the TSAP.

### *Strategies*

**Policy 5.1 – Create greater awareness among the public about the importance of transportation safety, the individual’s role in achieving the TSAP Vision (of zero deaths or serious injuries on Oregon’s transportation system) and the safety policies of the Oregon Transportation Plan and associated modal and topic plans.**

- Strategy 5.1.1 - Work with the media to cultivate a safety culture message and work with and inform the public to promote a culture of safety. Ensure campaigns are sensitive to Oregon demographics.
- Strategy 5.1.2 – Develop consistent, culturally sensitive safety messaging that can be utilized across a variety of organizations, events, distribution media, and target audiences.
- Strategy 5.1.3 - Work with educators in the state’s public school system (including community colleges and other locations where transportation disadvantaged groups such as recent immigrants, newly-licensed adult drivers, ESL populations, etc. are likely to be found) to improve awareness and understanding of transportation laws and other information that supports a transportation safety culture. Ensure campaigns are sensitive to Oregon demographics.

**Policy 5.2 – Increase awareness of the TSAP and other safety policies and programs among transportation agencies, law enforcement agencies, and other stakeholders (e.g. health, education, environmental organizations).**

- Strategy 5.2.1 - Develop a consistent internal (among partners and agencies) communication protocol for transportation safety topics.
- Strategy 5.2.2 – Evaluate agency awareness and implementation of safety activities through periodic statewide surveys.

**Policy 5.3 – Ensure ongoing communication and coordination among transportation and safety stakeholders (e.g. health, education, community development and environmental organizations) during plan development, subsequent updates and implementation of the TSAP.**

- Strategy 5.3.1 - Engage ODOT Regions and Divisions, MPOs, ACTs, Tribes, Cities, Counties, the health and medical community, transportation services, enforcement and emergency medical service and traffic incident management providers in safety planning and implementation
- Strategy 5.3.2 - Integrate communications protocols with emergency service providers and make commitments for training on those protocols
- Strategy 5.3.3 - Identify joint legislative safety priorities amongst agencies and provide educational information to State legislators.
- Strategy 5.3.4 - Review crash report forms to ensure appropriate data is collected and extraneous data is eliminated. Provide training and education on resulting form.

- Strategy 5.3.5 - Promote sharing and leveraging of resources across programs, communities and agencies.
- Strategy 5.3.6 – Participate in federal rulemaking and guidance development programs to maximize opportunities to achieve the TSAP Vision.

## Goal 6: Strategic Investments

### *Background*

Oregon is committed to zero transportation-related fatalities and serious injuries, but similar to other states, there are funding limitations. To make progress and improve traffic safety, stakeholders and partners are tasked with coordinating priorities, leveraging joint resources where possible, and utilizing tools such as cost-benefit analysis and the results of data analysis to make important decisions regarding which safety improvements will best address the most critical issues.

Two of the most common ways to fund safety projects are through the Highway Safety Improvement Program (HSIP) and Section 402 State and Community Highway Safety Grant Program. These dollars can be used to address safety improvement projects to reduce the number and severity of crashes at hazardous locations and to address the strategies and actions identified for the emphasis areas. All investment decisions relating to transportation safety should be consistent with the recommendations of the OTSAP.

Another opportunity to address transportation safety improvements is to incorporate safety considerations into the decision-making for all transportation projects, regardless of funding source or project type. ODOT and every MPO must complete a Transportation Improvement Program on a regular basis, which identifies near-term projects for funding. Agencies utilize a qualitative and/or quantitative prioritization process to consider and select projects that best meet the goals, outlined in their planning documents. When safety needs are considered as part of these transportation projects, the opportunity exists to transform the transportation system over time into a progressively safer system, reducing the loss of life and impact of serious injuries.

State, regional and local planners and engineers will be tasked with balancing competing priorities and selecting projects, programs and policies for funding. The policies, strategies and actions in the TSAP can support the selection process to help decision makers remain focused on implementing projects which maximize the safety return on investment. The projects, programs, or policies, should be known to be effective, or known to be innovative and new with an evaluation component included. It will also be necessary to recognize activities will change with funding levels. Remaining focused on activities to reduce fatalities and life changing injuries can facilitate the decision process.

## Goal

Target safety funding for effective education, enforcement, engineering, and emergency services priorities.

## Policies

- Policy 6.1 – Allocate infrastructure safety funds strategically across all modes and users to maximize total safety benefits.
- Policy 6.2 – Allocate funding of behavioral and health safety efforts strategically across programs to maximize total safety benefits.
- Policy 6.3 – Identify and pursue opportunities to increase funding for strategic safety-related infrastructure, behavior and emergency medical service enhancements.

## Strategies

### **Policy 6.1 - Allocate infrastructure safety funds strategically across all modes and users to maximize total safety benefits.**

- Strategy 6.1.1 – Continue to develop a quantitative, predictive, data-driven decision framework to integrate safety measures into project prioritization and programming.
- Strategy 6.1.2 – Encourage the use of benefit cost analysis (or similar) in prioritizing safety projects.

### **Policy 6.2 - Allocate funding of behavioral and health safety efforts strategically across programs to maximize total safety benefits.**

- Strategy 6.2.1 – Collaborate with mental and physical health care providers to leverage funding for behavioral related safety programs.
- Strategy 6.2.2 – Continue to develop a data-driven decision framework to integrate quantitative safety performance into project prioritization and programming.
- Strategy 6.2.3 – Identify funding needs to optimize emergency medical services and enforcement to minimize injuries post-crash.
- Strategy 6.2.4 – Evaluate effectiveness of behavioral safety programs to maximize benefits of safety investments.

**Policy 6.3 - Identify and pursue opportunities to increase funding for strategic safety-related infrastructure, behavior and emergency medical service enhancements.**

- Strategy 6.3.1 – Identify new sources of potential funding that can be dedicated and targeted to strategic investments that return greatest safety benefits.
- Strategy 6.3.2 – While complying with federal safety funding requirements and limitations, continue to promote opportunities to leverage funding sources in order to maximise safety benefits and outcomes.
- Strategy 6.3.3 – Use Practical Design techniques as appropriate to ensure safety funds for planning, design, maintenance and operations of infrastructure to achieve the broadest system benefits possible.

## 2.0 EMPHASIS AREAS



## 3.0 KEY INITIATIVES



## 4.0 PERFORMANCE MEASURES



## 5.0 APPENDICES