Oregon Department of Transportation

Highway Safety Improvement Program (HSIP)

Annual Report on the Progress of the Highway Safety Improvement and High Risk Rural Roads Programs for SFY 2013

OREGON DEPARTMENT of TRANSPORTATION
Traffic-Roadway Section
August 2013

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICIES

LIST OF ACRONYMS

FHWA	Federal Highway Administration
HRRRP	High Risk Rural Roads Program
HSIP	Highway Safety Improvement Program
ODOT	Oregon Department of Transportation
PDO	Property-damage-only crash
SFY	State Fiscal Year
TRS	Traffic-Roadway Section
HSEC	Highway Safety Engineering Committee
TSD	Transportation Safety Division
STIP	Statewide Transportation Improvement Program
HEP	Hazard Elimination Program
SHSP	Strategic Highway Safety Plan
SAFE	Safe, Accountable, Flexible, Efficient
TEA-LU	Transportation Equity Act: A Legacy for Users
MAP-21	Moving Ahead for Progress in the 21st Century

INTRODUCTION

This report, required by Sections 152 and 148 of Title 23 of the United States Code, summarizes the progress made in implementing the Highway Safety Improvement Program (HSIP) in Oregon from July 1, 2012 to June 30, 2013, the state fiscal year (SFY 2012). Included are projects under the Highway Safety Improvement Program (HSIP) and the High Risk Rural Roads Program (HRRRP). Attached in Appendix A is the standard reporting form that contains evaluation data for HSIP completed projects and Appendix B provides additional High Risk Rural Roads Program data. Also included is Appendix C which provides a 5-Year moving average of fatalities and serious injuries for drivers and pedestrians age 65 and older.

HIGHWAY SAFETY IMPROVEMENT PROGRAM

The Highway Safety Improvement Program (HSIP) is a federally funded program that mandates each state to conduct and systematically maintain an engineering survey of all public roads. The Traffic-Roadway Section (TRS) uses engineering tools such as the Safety Priority Index System (SPIS) to identify segments of state highways that have a higher crash history and may require safety improvements. SPIS is a method developed by ODOT for identifying potential safety problems on state highways. Citizen complaint submittals and routine inspections by Oregon Department of Transportation (ODOT) District and Region personnel indicate other possible safety concerns.

The purpose of the program is "to achieve a significant reduction in traffic fatalities and serious injuries on public roads". Section 148 of Chapter 23 of the United States Code (USC) outlines how state and local governments will spend federal dollars toward improving safety on public roads or any public transportation facility. Prior to Federal SAFETEA-LU legislation the HSIP program was commonly referred to as the Hazard Elimination Program (HEP), Section 152 of Chapter 23 of the USC. SAFETEA-LU redefined the HSIP and the requirements. On July 6, 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law. MAP-21 creates a streamlined, performance-based, and multimodal program to address the many challenges facing Oregon's transportation system. MAP-21 builds on and refines many of the highway, transit, bike, and pedestrian programs and policies established in 1991.

The Traffic-Roadway Section has a HSIP project guideline (ODOT Safety Program Guide) to assist the Region Traffic offices. The program guide has its own criteria and requirements to tailor the Highway Safety program to match Oregon's needs. In general, for a project to meet both the federal and state requirements, it must:

- Be an eligible highway safety project (as defined below);
- Have committed matching funds of 10% of the project cost (for federal funding);

- Be able to meet all applicable guidelines and standards for construction;
- Meet one of the following eligibility criteria:
    1. Positive Benefit/Cost (B/C) Ratio of 1.0 or greater;
    2. Top 10% Safety Priority Index System (SPIS);
    3. Justified by Risk Narrative (used on bicycle/pedestrian improvement projects).

TRS also has responsibility for annual reports of the programs progress and ODOT's Project Safety Management System (PSMS). The PSMS includes tools for identification and analysis of the safety problems like our recently completed ODOT Highway Safety Investigation manual which is used to assist our Region Traffic Investigators http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/highway_safety.shtml.

Other responsibilities of the program include the Transportation Safety Division, responsible for the development of the Oregon's Strategic Highway Safety Plan (SHSP). The Region Traffic Offices have the responsibility of following the guidelines when selecting appropriate safety projects and identifying potential remedies to safety problem areas. ODOT's Highway Finance Office, is responsible for management of HSIP funds along with the Region STIP Coordinators.

The HSIP process begins when a State or local agency identifies a safety problem. Possible safety project locations are identified from a variety of sources including crash records, ODOT's Safety Priority Index System, local citizens, enforcement/emergency response personnel, and road maintenance crews. Next, the agency submits an application to ODOT's Region Traffic who reviews the safety project submittal and determines eligibility based on the "ODOT Highway Safety Program Guide". Before the Regions proposed safety projects can be added to the STIP, they must get approval from the State Traffic Engineers office that the selected safety projects follow ODOT's Highway Safety Program Guidelines. Final project selection and prioritization is at the discretion of the Region.

This section summarizes the number of projects under construction, the type of projects applications reviewed and the effectiveness of projects with sufficient crash data for comparison. For the purposes of this report, HSIP projects are classified into these general categories:

Intersection Improvements—channelization and turning lanes, new or upgraded traffic signals, red light running cameras, and illumination.

Signing and Delineation—traffic signs and pavement marking and/or delineation where these project activities are the predominant safety improvement.

Roadway/Structure Improvements—lane widening, lane additions, rumble strip installation, median strip installation, shoulder widening/improvement, roadway realignment, skid treatment, and safety-related bridge and other structural improvements.

Roadside Improvements—flattening slopes, the elimination of roadside obstacles (e.g. drainage structures), the installation of breakaway signs and utility poles, and the construction, for safety purposes, of sidewalks and bikeways.

Safety Appurtenances—upgrades to bridge approach guardrail and railings, guardrail and median barrier improvements, impact attenuators, and safety fencing.

Traffic Calming Projects—specific traffic calming projects including, but not limited to, curb extensions, lateral/horizontal shifts in the roadway, raised devices (e.g. speed humps), and diverters.

Safety Projects Obligated in SFY 2013

In SFY 2013, there were forty-six (46) safety projects totaling $18.4 million which were obligated for construction using HSIP funds. The HSIP fund consists of all safety projects with an ODOT program code of LS30, LS20, L050, C240, Q280, MS30, etc. This also includes projects funded by Section 164 penalty money (TSP0, money transferred from the highway funds to Transportation Safety Division, then redirected for safety projects that comply with HSIP guidelines). The type of projects obligated or under construction are classified in Table 1 by general category of improvement.

Table 1 HSIP Projects Obligated for Construction in SFY 2013

Category	Number of Projects	Project Cost Estimates
Intersection Improvements	11	$2,004,000
Signing and Delineation	4	$428,000
Roadway/Structure Improvements	5	$4,162,000
Roadway Improvements	15	$10,346,000
Safety Appurtenances	7	$580,000
Traffic Calming Projects	4	$909,000
Total Projects	**46**	**$18,429,000**

Note: These figures reflect changes to the existing safety projects in the STIP for SFY 2013

Applications Received/Reviewed

In SFY 2013 (July 1, 2012 to June 30, 2013) the Region Traffic Offices are required to get final approval from the State Traffic Engineers office that their selected safety projects follow ODOT's Highway Safety Program Guidelines before they are added to the STIP.

All highway safety projects, regardless of funding (state or federal) will now follow the same guidance for project eligibility as outlined in the ODOT Highway Safety Program Guide http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/highway_safety_program.shtml.

The proposed program year of the HSIP safety projects approved varies depending on the STIP cycle. The final selection of projects for construction is the responsibility of the Region Traffic Engineer and the Region Traffic Manager.

Projects Evaluated

A total of six (6) HSIP projects were completed between July 1, 2009 to June 30, 2010 and had 3 years of before and after crash data available for evaluation where possible. Details for each project can be found in Appendix A. A similar number of before and after crash months were compared for each project. This simple evaluation only considered total crashes and did not examine target crashes (the crashes the project was designed to mitigate).

The evaluation indicates that there was an 11% decrease in injury crashes from the before to the after evaluation period. During the evaluation period, statewide fatal crashes decreased by 16.0% and injury crashes increased by 32%. Although the evaluation indicates a 50% increase in fatal crashes this may not be significant give the low number of fatal crashes.

Using the overall reduction in crashes statewide as a surrogate for the variability of crashes, the projects at these locations appear to have had a measurable effect on safety. It should be noted that there was a change in minimum property-damage-only crash (PDO) reporting requirements in 1998 and again in 2003 so that comparison of PDO and total crash reductions is not valid.

In Appendix A, an additional twelve (12) safety projects were also evaluated which were funded using other safety funds under different criteria. These safety project evaluations are shown for information only to assist in improving ODOT's data driven decision making process when developing future safety projects. In the future, all highway safety projects, regardless of funding (state or federal) will now follow the same guidance for project eligibility as outlined in the ODOT Highway Safety Program Guide.

Table 2 (Shaded in gray) Summary of 6 HSIP Project Evaluations

Crash Type	Before	After	Reduction or Increase in Crashes	Percent Change	Percent Change Statewide (08-2011)
Fatal	2	3	+1	+50%	-16%
Injury	62	55	-7	-11%	+32%
PDO	107	84	-23	-22%	+6%
Total	**171**	**142**	**-29**	**-17%**	**+15%**

Table 3 Summary of 12 Other Safety Project Evaluations

Crash Type	Before	After	Reduction or Increase in Crashes	Percent Change	Percent Change Statewide (08-2011)
Fatal	70	38	-32	- 46%	-16%
Injury	2,205	1,935	-270	-12%	+32%
PDO	2,533	2,297	-236	-9%	+6%
Total	**4,808**	**4,270**	**-538**	**-11%**	**+15%**

HIGH RISK RURAL ROADS PROGRAM (HRRRP)

A. Overview

The High Risk Rural Road Program (HRRR) in SAFETEA-LU (called HR3 in Oregon) is a sub-program of the Highway Safety Improvement Program (HSIP), a federally-funded program managed by the Oregon Department of Transportation (ODOT). Approximately one million dollars of federal funding is available each federal fiscal year in Oregon for High Risk Rural Roads.

B. Mission of HR3

The mission of the HR3 is to carry out safety improvement projects on rural roads, with identified safety issues, to achieve a significant reduction in traffic fatalities and serious injuries.

C. Core Principles

1. **The High Risk Rural Roads safety provision is dedicated exclusively to rural roads.**
   The HSIP includes a set-aside for construction and operational improvements to address safety problems and opportunities on High Risk Rural Roads. This set-aside of $90 million (nationally) each fiscal year for high risk rural roads is limited to roadways functionally classified as a rural major or minor collector or as a rural local road.

2. **High Risk Rural Roads are identified as follows:**
   - **a.** Roadways functionally classified as a rural major or minor collector or as a rural local road.
   - **b.** Roadways that have a crash rate for fatalities and incapacitating injuries exceeding the statewide average for those functional classes of roadways.
   - **c.** Roadways whereby future traffic volumes are projected to increase causing a projected increase in the crash rate for fatalities and incapacitating injuries exceeding the statewide average.

3. **Acceptability of HR3 funding for project development.**
   As long as the project will ultimately involve a construction or operational improvement which is identified as part of a State's HSIP process, funds from the set-aside for high risk rural roads for preliminary engineering (including right of way, environmental approvals and final design) would be eligible for federal reimbursement.

II. OREGON PROCESS TO UTILIZE HR3 FUNDS

A. General

1. HR3 was originally funded as is a 4 year $1.1 million annual federally funded program designed to carry out safety improvement projects on rural roads, with identified safety issues, to achieve a significant reduction in traffic fatalities and serious injuries. As SAFETEA-LU was extended for 3 years the available funding in HR3 increased by approximately 3.3 million dollars. Part of these funds were used to fully fund under funded projects.

2. Under MAP-21 the HR3 program is discontinued, but there are still remaining funds from this program. At this time it is planned that the remaining funds in HR3 will be used to fund eligible projects within the local road safety program. ODOT is transitioning to a Jurisdictionally Blind program of safety for all public roads in 2017. From 2013-2016 will be a transition period where ODOT is using

HSIP and HR3 program funds to fund safety on local roads (off of state highways).

3. HR3 funding is federally funded; therefore projects need to conform to AASHTO standards. The AASHTO Low Volume Road Guide is the AASHTO standard for very low volume rural, e.g. roads with ADTs less than or equal to 400. Exceptions to AASHTO standards will be processed using the current FHWA/ODOT/Local Agency design exception process.

Since HR3 projects are intended to meet a specific safety need the scope of work is limited to features that are directly impacted as a result of addressing this specific need. Each feature constructed in a HR3 project must be built to the applicable standard for new construction. Elements of HR3 projects that are not directly being impacted need not be brought up to current standards. For example, a signing upgrade along a rural corridor will generally not necessitate shoulder widening.

B. Eligibility Criteria

Oregon's eligibility criteria mirrors the federal guidelines as stated in Section I-C-2 above. These criteria are:

1. Roadways functionally classified as a rural major or minor collector or as a rural local road are eligible.

2. The roadway must have a crash rate for fatalities and incapacitating injuries (serious injury A) that exceeds the statewide average for those functional classes of roadways.

3. Roadways are also eligible if future traffic volumes are projected to increase causing a projected increase in the crash rate for fatalities and incapacitating injuries that exceeds the statewide average.

ELIGIBILITY NOTES:

a. Roadways with similar characteristics **in the vicinity of an area of identified fatal or serious injury crash history** may be included in the project limits. Applicants are encouraged to develop projects that will address similar crash types or characteristics on eligible roadway sections.
b. The intent of Oregon's implementation is to focus on County Roads, however, qualified State Highways or roads identified as public under 23

CFR 460.2, with a history of fatal or serious injury A crashes may apply for HR3 funding.

c. Projects in counties subject to loss of revenue due to reduction or elimination of Federal School Safety Net Funds may be given special consideration.
d. When all projects are submitted the HR3 Steering Committee will assess the possibility of combining projects, of a similar nature, on a Regional or Statewide basis.
e. Eligible roadways with ADT's less than or equal to 400 will be given special consideration.
f. Roads with high crash rates, in addition to fatal crashes and serious injury A crashes, and having an assessment by the local engineer that there is potential for serious injury A crashes or fatal crashes to increase will be given special consideration.

C. Local Match Requirements

The Local Match requirement for HR3 projects is 7.78% of the total project cost.

D. Project Non- Participating Costs and Overruns

1. Project Sponsors are responsible for 100 percent of the cost of any item which is not eligible for federal participation.

2. Project overruns, unless authorized by the HR3 Steering Committee, are the responsibility of the Project Sponsor. Project Sponsors may submit a request for consideration of additional authorization for reimbursement of project overruns by submitting a detailed overrun justification to the HR3 Steering Committee. The HR3 Steering Committee will review the submittal and determine if there is sufficient available funding to cover the overrun. If adequate funding is not available, or if the reason and purpose of the overrun does not sufficiently meet HR3 Program goals, the Project Sponsor retains responsibility for the overrun.

:

E. Intergovernmental Agreement (IGA) and Prospectus

HR3 projects are federally funded; therefore the current FHWA/ODOT/Local Agency project development and delivery process must be used to expend these funds. Funds obligated for local road safety during the transition period will likely be overseen and developed by ODOT.

F. Statewide Fatal and Serious Injury "A" Crash Rate Information

In 2004 the total number of fatal and serious injury "A" (F&A) crashes on Oregon's rural public roads classified major collectors and below was 430. Using an inventory of 47,860 miles for these classifications of roads and an annual estimate 14.2 million vehicle miles per day, the statewide average for these class of roads is 8.3 F&A crashes/ HMVM (crashes per hundred million vehicle-miles).

Data for fatal and serious crashs for 2000-2004 can be found by 1) right clicking on: Crash Data 2) Clicking on Open Hyperlink and 3) Clicking on "No" on the popup box that indicates the document has been modified and asking you if you want to save.

Below are some examples of sections of roadway that meet or exceed the statewide average based on the following formula:

Crash Rate = (# of Crashes * 100 million)/ (ADT * Length in Miles * Number of Years * 365 days/year)

# F&A Crashes in 3 yrs	Average Daily Traffic (ADT)	Length of Section (miles)	F&A Crash Rate (crash/Hmvm)
3	6600	5	8.3
2	4000	5	9.1
1	2000	5	9.1
1	1500	7	8.7
1	1000	10	9.1
1	500	20	9.1
1	250	40	9.1

Note: As ADT or Length increases Crash Rate decreases.

As ADT or length decreases Crash Rate increases.

Each application must contain information that confirms the project location crash history and rate and should use three or more years of crash data.

Fatalities are used for participants who die as a result of injuries sustained in the crash. Injury "A" (Serious or Incapacitating injury) is used for participants who suffer severe injuries. An incapacitating injury is a non-fatal injury which "prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred".

G. Application and project selection process.

1. The ODOT Local Government Section sent requests to prospective applicants for HR3 projects to in July 2006. They were required to submit a HR3 Notice of Intent (see Appendix A) to determine if the project met the program eligibility requirements before submitting a full application. Required documentation for the Notice of Intent was:
    a. A completed Notice of Intent Form
    b. An attached letter or narrative (1 page max.) explaining the need for the project, type and extent of proposed work, funds requested and matching funds available, and the role of any co-applicants or partners.
    c. An attached vicinity map and site map or other appropriate graphics (1 or 2 pages).

2. ODOT reviewed the Notice of Intent submittals and determined which projects met the program eligibility requirements. ODOT notified all applicants if there project met the eligibility requirements. Full applications (see Appendix B) for projects meeting the program minimum requirements were then requested from the Project Sponsors.
   Required documentation for the included:
    a. Project justification
    b. Proposed solution
    c. Detailed Cost Estimate that includes 15% PE, 15% CE, 40% Contingencies and 20% for Mobilization & Traffic Control. For example, including these items at these percentages for a project with $100,000 of construction costs will make the final total project cost and funding request $190,000.

3. The HR3 Steering Committee (comprised of ODOT staff and local agency representatives) reviewed the applications, develop a prioritized list, and suggest possible project groupings of eligible projects. The final selected project list was prioritized based on available funding with 5 projects receiving full funding. Four more projects were included in a reserve project list in case more funding becomes available. The selected projects were approved by OTC to be placed in the STIP at their May 2007 meeting. The projects were amended into the STIP on March 5th, 2008 after in depth project scoping was performed.

4. ODOT has completed detailed scoping of the selected and reserve projects. The selected projects are currently in the project development phase with construction planned for summer of 2009.

5. For the Transition period from 2013-2016, ODOT regions will be in charge of working with local stakeholders to determine projects and determining which are eligible for HR3 funding.

H. Assessment of HR3 Project Effectiveness

ODOT is responsible to report to FHWA regarding the effectiveness of crash solutions that are implemented using HR3 funding. To prepare this report it is important that HR3 project sponsors provide information as listed in the bullets below to ODOT related to the crash solution(s) implemented and their effectiveness.

- Location/identifier for project—Basic information on the roadway where the project occurred
- Type of improvement(s) implemented
- Cost of improvement
- "Before" and "After" crash results—At least 3 years of "before" and 3 years of "after" data should be used.

Evaluation Results—Show whether the project achieved its purpose using benefit-cost or other approved methodology.

Appendix A: Standard Reporting Form

September 10, 2013 TRA 10-21-02-08

Nick Fortey
Federal Highway Administration, Oregon Division
The Equitable Center, Suite 420
530 Center Street NE
Salem, Oregon 97301

Annual Highway Safety Improvement Program and High Risk Rural Roads Program Reports for SFY 2013

Enclosed is the State of Oregon's annual report on the Highway Safety Improvement Program (HSIP) and the High Risk Rural Roads Program (HRRRP), which documents the effectiveness and implementation of the HSIP and HRRRP Programs. In the HRRRP report is documentation regarding the process for the High Risk Rural Roads Program. These reports are required under Sections 148(g) and 152(g) of Title 23 of the United States Code. The Railway-Highway Crossing report will be submitted separately by ODOT's Rail Division.

If you have any further questions, please call me at (503) 986-3572.

Tim Burks
Highway Safety Engineering Coordinator

Enclosures and letter sent electronic
cc: ODOT Region Traffic Managers
Doug Bish, Traffic Control Engineer
Troy Costales, Transportation Safety Division Manager
Bob Pappe, State Traffic Engineer
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Glen Kirkpatrick, Crossing Safety Specialist

TWB

Appendix B: High Risk Rural Roads Program Data

THE 2013 ANNUAL REPORT ON HIGHWAY SAFETY IMPROVEMENT PROGRAMS (HSIP)

STANDARD REPORTING FORM OF EVALUATION DATA FOR COMPLETED SAFETY IMPROVEMENTS (July 1, 2009 to June 30, 2010)

					Cost of																					
ODOT	ODOT		Safety	Safety	Evaluated	Quantity		Number of Crashes													Eval.	Volume		Rural	Number	Divided
Region	Key #	Line	Improvement	Classification	Improvements	of	Units	Before							After						Status	Before	After	or	of	or
			Program	Code	1,000	Improvements		Mos.	Fat.	Inj. A	Inj. B	Inj. C	*PDO	TOTAL	Mos.	Fat.	Inj. A	Inj. B	Inj. C	*PDO	TOTAL		AADT	AADT	Urban	Lanes	Undivided
	Key No		[1]	[2]	[3]		[5]	[6]	[7]			[8]	[9]	[10]	[11]	[12]			[13]	[14]	[15]	[16]	[17]	[18]	[20]	[21]	[22]
1	12840	1	HSIP	1A	5,978	4.41	M	36	0	0	1	1	6	8	33	1	1	0	1	3	6	F	12,400	18,400	Urban	4	Undivided
1	13708	2	HSIP	1F	3,908	2.00	X	36	1	2	7	21	58	89	32	0	2	4	15	37	58	F	46,200	3,700	Urban	4	Undivided
1	13728	3	164	1A	615	1.40	M	36	0	0	2	5	5	12	33	0	0	1	4	8	13	F	17,500	28,200	Urban	2	Undivided
2	12581	4	164	3D	3,242	3.80	M	36	1	3	5	4	4	17	36	0	0	1	0	0	1	F	3,500	3,900	Urban	2	Undivided
2	12670	5	164	1F	1,934	1.00	X	36	2	17	66	104	203	392	32	1	11	42	125	172	351	F	26,000	25,800	Urban	4	Undivided
2	13663	6	HSIP	1A	1,204	1.00	X	36	0	0	2	6	8	16	24	0	0	2	5	12	19	F	21,800	20,500	Urban	2	Undivided
2	14291	7	Other	2C	16,933	1.00	S	36	0	0	4	8	13	25	24	1	1	1	5	9	16	F	19,300	17,800	Urban	2	Undivided
2	14931	8	164	1D	271	70.00	C	36	23	30	267	416	954	1690	33	16	27	250	483	994	1770	F	67,300	92,300	Rural	4	Divided
2	16352	9	Other	3K	1,091	136.00	M	36	17	55	184	277	527	1060	25	6	34	121	226	367	754	F	27,800	25,500	Rural	4	Undivided
2	16503	10	Other	3L	1,754	10.00	M	36	0	2	13	19	39	73	31	0	0	7	13	50	70	F	24,400	24,500	Urban	2	Undivided
3	13769	11	HSIP	4A	3,038	2.00	M	36	0	0	8	10	30	48	31	1	0	4	9	23	37	F	11,900	11,900	Urban	2	Undivided
3	13802	12	HSIP	3A	2,287	6.00	M	36	1	1	1	1	4	8	35	1	2	6	3	7	19	F	4,700	4,500	Rural	2	Undivided
3	16362	13	Other	1D	1,982	150.00	M	36	25	60	295	321	732	1433	33	12	40	190	322	657	1221	F	44,900	45,600	Rural	4	Divided
4	13847	14	164	1A	1,565	1.00	X	36	0	1	2	1	4	8	33	0	1	1	1	3	6	F	8,300	8,200	Rural	2	Undivided
4	14551	15	164	3D	5,692	9.00	M	36	2	3	11	11	26	53	32	1	2	6	4	22	35	F	18,500	14,200	Urban	2	Undivided
4	14612	16	164	1A	1,245	1.00	X	36	0	1	10	8	25	44	33	1	1	6	5	14	27	F	4,100	5,200	Urban	3	Undivided
5	13617	17	HSIP	1A	1,551	1.00	X	36	0	0	1	0	1	2	34	0	1	0	0	2	3	F	3,400	3,400	Urban	2	Undivided
5	16368	18	Other	4C	274	0.30	M	36	0	0	0	0	1	1	33	0	0	3	1	1	5	F	9,200	9,900	Rural	2	Undivided

Note: The 6 projects highlighted in gray shade are HSIP projects

The remaining 12 safety projects evaluated were funded using other safety funds (ex.164 penalty funds) are shown for information only to assist in improving ODOT's data driven decision making process when developing future safety projects.

* A change in the minimum reporting value for PDO crashes from $500 to $1,000 occurred in 1998 and in 2003, the minimum reporting value for PDO crashes changed again from $1,000 to $1,500.

HIGH RISK RURAL ROADS PROJECT LIST
FOR SFY 2013

Key Number	APPLICANT COUNTY	PROJECT NAME Selected Projects - Amended into the STIP March 5, 2008	Let Date	Award Date	Completion Date	ODOT REGION	FEDERAL HR3 FUNDS	TOTAL PROJECT COST
13162	Columbia County Road Dept.	Canaan Road Guardrail Project	6/23/2011	8/5/2011	11/11/2011	1	$ 230,550	$ 325,000
15778	Clackamas County DTD	Zimmermen Road Improvement Project	Spring 2014			1	$ 2,126,592	$ 2,306,000
15779	Marion County Public Works	Meridian Rd from Hobart Rd to College Rd Intersection Improvements	Winter 2014			2	$ 1,444,165	$ 1,566,000
15780	Jackson County Roads	Blackwell Road MP 2.0-3.0 Road Realignment	12/8/2011	12/19/2011	4/2/2013	3	$ 1,144,450	$ 1,491,000
15781	Wasco County Public Works	Browns Cr Inter. Project	4/21/2011	5/19/2011	10/7/2011	4	$ 691,650	$ 750,000
18110	Wasco County Public Works	Chenowith Crk Rd &Cherry Heights Rd Guardrail Project	Fall 2013			4	$ 267,438	$ 290,000
	Selected Project Totals						**$ 5,904,845**	**$ 6,728,000**

Appendix C: 5-Year Moving Average of Fatalities and Serious Injuries for Drivers and Pedestrians Age 65 and Older

Oregon Department of Transportation - Transportation Development Division
Transportation Data Section - Crash Analysis & Reporting Unit

5-Year Moving Average of Fatalities and Serious Injuries for Drivers and Pedestrians Age 65 and Older

Table 1: Older Driver & Pedestrian Fatalities and Serious Injuries by Year

Year	Fatalities* (F)	Serious Injuries** (A)	Total Older Driver & Ped F&A
2005	72	169	241
2006	57	161	218
2007	72	148	220
2008	44	102	146
2009	48	113	161
2010	46	140	186
2011	50	162	212

** source: Fatality Analysis Reporting System (FARS)*

*** source: ODOT Statewide Crash Data System (CDS)*

Table 2: Population per 1,000

Year	People Age 65 and Over per 1,000 Population***
2005	126
2006	129
2007	130
2008	133
2009	135
2010	139
2011	143

**** source: FHWA MAP-21 Section 142, Attachment 2*

Table 3: Five-Year Averages

Range of Years	5-Year Average Rate^	Rounded 5-Year Average Rate^
2005-2009	1.52	1.5
2007-2011	1.36	1.4

^ *formula per FHWA MAP-21 Section 142, Attachment 1*

Appendix C: