

## Appendix A – Glossary

**Accident History** – The Forest has no records of any accidents on the roads in the study. See Appendix B for Forestwide 2005 accident history.

**Alignment and Stopping Sight Distance** – Two vehicles traveled all of the roads together to determine the distance that one vehicle could see the other on sharper curves. A minimum distance for a given speed was used per FS Handbook. Each tight curve was checked by actual measurement. Most curves had full or nearly full turnout widths constructed in the travel way.

**Average Daily Traffic (ADT)** – Fundamentals of Traffic Engineering, 6<sup>th</sup> Edition, University of California and Traffic Surveillance, USFS R5, FSH 7709.41, Aug. 1969 were used to establish the best time to observe and record recreation vehicles. The ADT calculations utilized the process presented in "Guide for Traffic Volume Counting Manual", 2<sup>nd</sup> edition Feb. 1965 US Dept. of Commerce (old Bureau of Public Roads—now Federal Highways.)

**Average Travel Speed** – This was arrived at by prudent drivers using two methods. During the first and second trips along the roads, travel speeds were recorded between stops. On the final pass, to check data at a couple of spots, a GPS, with external antenna, was used to accumulate the average speed along each road. Existing roadway conditions, in summer, 2005, controlled the speed traveled.

**California Vehicle Code (CVC)**—Following are brief excerpts from the August 2005 on-line code:

### Operator License

*CVC 12500. (a) A person may not drive a motor vehicle upon a highway, unless the person then holds a valid driver's license under this code.*

*CVC 12501. The following persons are not required to obtain a driver's license:  
(c) Any person driving or operating an off-highway motor vehicle subject to identification, as defined in Section 38012, while driving or operating such motor vehicle as provided in Section 38025.*

38012 – Motorcycle or motor driven cycle, snowmobile, sand buggy, dune buggy, all-terrain vehicle or Jeep. (green or red sticker)

38025 – to cross a two-lane highway.

CVC 12512. *Except as provided in Sections 12513 12514 and 12814.6, no license to drive shall be issued to a person under the age of 18 years.*

12513 – Junior permit for 14-18 when for school purposes or public transportation more than one mile away.

12514 – Junior permit duration

12814.6 – Provisional license for minor-under direct supervision of 25 year old licensed driver or parent.

*Class M1 Licenses. To operate any 2-wheel motorcycle or motor driven cycle.*

*NOTE– The DMV will not issue a license to operate a 2-wheel motorized vehicle to anyone under 21 years of age unless that person has completed a CHP approved motorcycle rider training program certified on the Certificate of Completion of Motorcycle Training (DL 389).*

CVC38007. *The Off-Highway Motor Vehicle Recreation Division of the Department of Parks and Recreation shall adopt courses of instruction in off-highway motor vehicle safety, operation, and principles of environmental preservation by January 1, 2005. For this purpose the division shall consult with the Department of the California Highway Patrol and other public and private agencies or organizations. The division shall make this course of instruction available directly, through contractual agreement, or through volunteers authorized by the division to conduct a course of instruction.*

CVC 38501. *(a) An all-terrain vehicle safety training organization, commencing on January 1, 1989, shall issue an all-terrain vehicle safety certificate furnished by the department to any individual who successfully completes a course of instruction in all-terrain vehicle operation and safety as approved and certified by the Off-highway Vehicle Safety Education Committee.*

CVC 38502. *The department, on and after July 1, 1988, may monitor any all-terrain vehicle safety training organization or any all-terrain vehicle safety instructor without advance notice. The monitoring may include, but is not limited to, the instruction provided, business practices, and records required by Section 11108.*

CVC 38503. *No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:*

*(a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.*

- (b) *The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.*
- (c) *The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.*

*CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.*

*CVC 38505. No person, on and after January 1, 1989, shall operate, ride, or be otherwise propelled on an all-terrain vehicle on public lands unless the person wears a safety helmet meeting requirements established for motorcycles and motorized bicycles, pursuant to Section 27802.*

*CVC 38506. No operator of an all-terrain vehicle may carry a passenger when operating on public lands.*

*However, the operator of an all-terrain vehicle, that is designed for operation off of the highway by an operator with no more than one passenger, may carry a passenger when operating on public lands.*

#### Vehicle License

*CVC 38012. (a) As used in this division, "off-highway motor vehicle subject to identification"\* means a motor vehicle subject to the provisions of subdivision (a) of Section 38010.*

*(b) As used in this division, "off-highway motor vehicle" includes but is not limited to, the following:*

*(1) Any motorcycle or motor-driven cycle, except for any motorcycle which is eligible for a special transportation identification device issued pursuant to Section 38088. (Motorcycle used in racing events)*

*(2) Any snowmobile or other vehicle designed to travel over snow or ice, as defined in Section 557.*

*(3) Any motor vehicle commonly referred to as a sand buggy, dune buggy, or all-terrain vehicle.*

- (4) Any motor vehicle commonly referred to as a jeep.

\*Identification refers to registration with DMV and evidenced by a green or red sticker—date sensitive.

#### Vehicle Equipment

CVC 38335 & 38345—Headlights and taillights when operating from one-half hour after sunset to one-half hour before sunrise.

CVC 38355 – Serviceable brakes.

CVC 38365 – Muffler to meet DMV 38370.

CVC 38366 – Spark Arrester

CVC 38370 – Noise Limits

#### Reportable OHV Accident

CVC 16000.1. (a) For purposes of this division, a "reportable off-highway accident" means an accident which includes all of the following: (1) Occurs off the street or highway. (2) Involves a vehicle that is subject to registration under this code. (3) Results in damages to the property of any one person in excess of seven hundred fifty dollars (\$750) or in bodily injury or in the death of any person. (b) A "reportable off-highway accident" does not include any accident which occurs off-highway in which damage occurs only to the property of the driver or owner of the motor vehicle and no bodily injury or death of a person occurs.

**Downhill Side Slope** – Two methods were used to obtain slope data: Abney level and USFS digital terrain (GIS) data.

**Highway Safety Program** – FSH 7709.59 – Transportation Systems Operations Handbook - Chapter 40, says in part:

*The Highway Safety Act of 1966 (HSA) requires each Federal Agency to implement the HSA program standards to the extent that they are relevant to the activities of the agency.*

*Objective per 7733.02: To reduce the number and severity of accidents and decrease the potential for accidents on National Forest System (NFS) roads.*

Responsibility of the Forest Supervisor:

1. *Maintain an inventory of road signs and traffic markings.*
2. *Institute procedures to gain compliance with safety standards (sec 41)*

*41–Safety Standards—that pertain to NFS roads:*

*41.1- Standard 9–Identification and Surveillance of Accident Locations.*

*41.2- Standard 12–Highway Design, Construction and Maintenance.*

*Applicable sections are:*

*Section A–Design Standards*

*Section F–Traffic Regulation and Warning at Construction and Maintenance Sites.*

*Section G–Railroad Crossings*

*Section H–Roadway Maintenance, i.e., Maintain commensurate with annual operational maintenance level assigned to the roads.*

*Section I–Hazard Identification and Correction.*

*Section J–Highway Features for Accident Prevention and Survivability.*

*Section K–Post-Crash Program.*

*41.3- Standard 13–Traffic Engineering Services*

*41.4- Standard 14–Pedestrian Safety*

**Probability Factors\*** – Probability deals with forecasting the effect of factors present in any situation and the likelihood of a crash resulting from exposure to those factors. Factors that may effect the probability of crashes include:

Operator Considerations

State Licensing

Age

Training

Time of Day

Season of Use

Crash History

Traffic Volume and Type

Speed

Surface Type

Intersections

Other Roadway Factors

**Severity Factors\*** – Severity relates to the probable result of a crash and can range from minor property damage to critical injury or fatality. Factors that may affect the severity of crashes include:

Roadside Conditions  
Downhill Slope  
Large unyielding hazard at road's edge  
Speed  
Traffic Type

**User Knowledge** – There is no way to ascertain this without interviewing and/or testing each operator. The State Dept. of Motor Vehicles has laws on the books that generally cover this and this study assumes all operators fully comply with State law.

**\*From WO-San Dimas 8/23/05 Draft Guidelines**