



## Rural Roads Driving Safety Guidelines

### INTRODUCTION

Secondary roads in remote and/or rural areas may present hazards that drivers accustomed to travel on urban and suburban roadways may not be aware of. This document describes hazards particular to unpaved and rural roads and recommends safety procedures to follow.

### CHARACTERISTICS OF RURAL OR FOREST ROADS

Extra caution is required when driving on “country roads” because they are often not designed for efficient high-speed travel like urban roadways. The following safety hazards are more likely to be found on rural roads:

- Lack of signs or accurate maps
- Blind curves
- Narrow width (not sufficient for vehicles to pass safely)
- No shoulder or guard rails
- Soft surface (uncompacted gravel or dirt)
- Rough or damaged road surface
- Obstacles on road (slow-moving vehicles, animals, debris)
- Unusually steep hills or sharp curves

Since help may often be difficult to reach or unavailable in the event of an accident, it is particularly important to exercise caution when driving in remote areas. Never exceed posted speed limits and remember that some circumstances require driving well below the posted speed.

## **PRECAUTIONS FOR RURAL OR FOREST ROADS**

Beyond exercising normal driver safety, travel on rural roads may also warrant specific additional precautions due to the hazards listed above. These hazards and the recommended ways to deal with them are listed below.

### **NAVIGATION**

**Description:** Rural roads may not be clearly signed. New or unmapped roads are common in areas where logging or mining activities occur.

**Hazard:** One can easily become lost and possibly end up on difficult or dangerous roads when traveling in rural areas.

#### **Precautions:**

- Carry a compass and/or GPS when traveling to remote areas on rural roads.
- Obtain the most current USFS or BLM maps if traveling on federal lands.
- Always double check directions or maps before venturing onto rough or little-used dirt roads.
- Fill fuel tank before leaving populated areas. Fuel stations may be unavailable for long distances. Carry extra fuel in an approved gas can if you will be a long way from populated areas.
- Check the air in the spare tire before you go. Be sure you have a jack and usable flashlight.
- Carry water, food, and emergency supplies.
- Do not count on cell phone service to work. Carry a satellite phone, satellite messenger, or personal locator beacon. Be sure someone knows where you have gone and when you are expected back, so they can notify authorities if you don't return or check in within a reasonable amount of time after your expected return time.

### **BLIND CURVES AND DIPS**

**Description:** Mountain roads are often too narrow for two vehicles to pass easily and have many sharp curves that prevent seeing approaching traffic. Rural and desert roads may follow the topography of the landscape, resulting in many dips and rises that create blind spots in the road ahead. Agricultural or prescribed forest burning may produce smoke on roads.

**Hazard:** Approaching vehicles, livestock or wild animals on the road, or slow-moving vehicles may be encountered without warning. Visibility may be suddenly reduced due to smoke.

**Precautions:**

- When approaching a blind curve or dip/rise on a narrow road, slow down and keep to the right. Watch for dust indicating on-coming traffic and sound your horn to warn approaching vehicles if lack of visibility warrants.
- Stay as far right as possible when entering a blind curve.
- Dips in the road may be due to creeks where animals congregate on or near the road. Approach carefully if in a free-range area, or in twilight or darkness.
- If you see smoke plumes crossing the road ahead, slow down when approaching because visibility can decrease rapidly and there may be workers or vehicles along the road.

**OBSTACLES**

**Description:** Off-road vehicles such as tractors or bulldozers may drive on rural roads or be left parked on forest roads. Wildlife or open-range livestock may be encountered on roads. Fallen trees or landslide debris may not be removed quickly from rural or forest roads. Roads may pass through or over areas of sagebrush, cheatgrass, or other plant materials that can ignite upon contact with hot elements of your vehicle such as the engine, brakes, etc.

**Hazard:** Slow moving vehicles or stationary obstacles may require sudden stops. Animals may move onto the road unexpectedly, or block it entirely. Collisions with large animals (deer, cows, elk, sheep) can result in major vehicle damage and serious injury. Fires caused by ignition of vegetation by the engine, brake pads, dripped fluids, or dragging tow chains can create an immediate hazard to personnel, and also can destroy vehicles and damage ecosystems.

**Precautions:**

- Reduce speed on roads with blind curves or dips in case you need to stop suddenly.
- Be aware that farm vehicles and construction equipment may be wider than passenger vehicles. Pass with extra caution unless they pull over.
- When driving in free-range areas, on forest roads near dawn or dusk, or if you see wildlife near the road, slow down and watch carefully for animals on or approaching the road. *Note: in some free-range areas, livestock owners are not legally liable for any damage caused by their animals on a roadway.*
- If a small animal (e.g. rabbit, coyote) runs out into the road in front of you, do not try to swerve around it or slam on the brakes. Animals move rapidly and unpredictably and may be confused by any changes in your approach.
- When passing large animals near the edge of the road, go slowly as they may suddenly move onto the road. If a group of animals is crossing the road, wait until they have all moved to a safe distance before proceeding. For example, do not try to creep through a

slow-moving flock of sheep or between a group of indecisive deer crossing the road because they may become startled and run right into your vehicle.

- Do not park vehicles over dried vegetation, as the undercarriage of the vehicle, the brake pads, and any dripping fluids from the vehicle can all ignite the vegetation.
- To the extent possible, avoid driving over vegetation. Vegetation can accumulate in the grille, or on the underside of the vehicle (e.g. in the suspension system, or between the skid plate and oil pan) and possibly trigger vehicle fires. Inspect these areas periodically if you must drive through vegetation to get to your intended destination.

### **PASSING OTHER VEHICLES**

**Description:** Some roads may be too narrow to pass oncoming vehicles safely.

**Hazard:** Trying to pass oncoming vehicles at speed could result in a collision or one vehicle being forced off the road.

#### **Precautions:**

- When an oncoming vehicle is encountered, pull over to give adequate passing room. Watch out for steep drop-offs or loose surface on the shoulder. If no safe shoulder is available at your location, stop and wait for the other vehicle to pull over.
- When there is no shoulder available for either vehicle to pull over safely, stop. One vehicle should back up until a safe spot is reached. By custom the vehicle closest to the safe shoulder will reverse or, on a steep hill, the vehicle traveling downhill.
- Do not expect logging trucks, cars with trailers, or other large vehicles to make room for you. Pull over early when you see them coming.

### **STEEP GRADES**

**Description:** The steepness of most roads is limited for safety; however, rural or logging roads may exceed this limit, putting unusual demands on vehicle brakes.

**Hazard:** Excessive use of brakes can result in overheating and eventual failure. Skidding may occur more easily, especially when towing.

#### **Precautions:**

- When descending a long or particularly steep grade, shift the vehicle into a low gear to reduce the need to use the brakes. This applies to both manual and automatic transmission vehicles.
- On more level stretches of a long grade, avoid using brakes to let them cool.

- If towing, or if the road may have sharp curves, maintain a lower speed than normal to allow stopping without skidding.

### **WASHBOARDS**

**Description:** These corrugations in the road surface are commonly found on hills or curves, but may occur anywhere on dirt or gravel surface roads that have not been regularly maintained.

**Hazard:** Due to the reduced traction created by the rough surface, washboards make it difficult to steer and may result in sudden loss of control or drifting sideways. Many drivers have skidded into roadside ditches or rolled their vehicles over after losing control on washboards.

#### **Precautions:**

- SLOW DOWN! Although the vehicle may appear to handle more smoothly at higher speeds when driving on washboards, this is due to reduced contact with the road surface and therefore less control.
- Brake BEFORE entering curves, downhills, or other potentially washboarded stretches of road. Once you are on the washboards, braking may reduce your ability to control the vehicle. Shifting into a lower gear than normal will help reduce the need to brake suddenly.
- Putting your vehicle in 4WD (if available) before going uphill on a washboarded road can help with navigation.
- Steer gently when on washboards. Trying to make sharp turns or corrections will be ineffective and may result in loss of control.

### **LOOSE SURFACE**

**Description:** Unpaved roads may range from hard-packed dirt or gravel that is as solid as asphalt to soft sand, fine dust, or deep uncompacted gravel.

**Hazard:** The primary hazard is loss of traction which may result in getting stuck or losing control of the vehicle. Secondary hazards are reduced visibility and/or engine damage due to heavy dust, windshield damage due to flying stones, and damage to the vehicle's undercarriage.

#### **Precautions:**

- Reduce speed and avoid sharp turns, to avoid skidding. If your vehicle starts to skid, brake gently and keep the steering wheel straight as you would on wet or icy roads. Engage four-wheel drive (4WD) if available, even if the road is level.

- Leave extra distance between your vehicle and those ahead of you to avoid dust and flying rocks. Slow down when approaching oncoming vehicles in preparation for a loss of visibility.
- Be aware of changing road surface. If you enter an area of soft sand or gravel, steer gently and avoid braking or accelerating suddenly. Remember that if you drive down a hill with loose surface you may have trouble climbing back up.
- Stay off of shoulders which may be less compacted than the road. Use extra caution when pulling off the road.
- If your vehicle has low clearance, watch for rocks or other obstacles protruding from the road surface.
- Air and oil filters can clog rapidly due to excessive road dust, causing reduced performance and eventual engine damage. Have them changed more often when traveling on unpaved roads. If you experience a rapid loss of power when driving in very dusty conditions, try cleaning the air filter by shaking surface dust off of it. Dirt and debris can also clog the radiator surface, resulting in overheating. Brush or hose off the radiator surface (after letting engine cool) as needed.
- Watch the weather closely before setting off on dirt roads. Even a few drops of rain can turn some surfaces, such as clays, from hard packed dirt to impassable slippery mud.

### **RUTS**

**Description:** Unpaved roads often develop deep ruts due to tire wear or erosion.

**Hazard:** Lower clearance vehicles may become “high-centered” when the wheels go into ruts. This can cause the vehicle to become stuck or damage the undercarriage.

#### **Precautions:**

- Try to keep one or both tires out of wheel ruts by driving on edge or in center of road.
- When crossing ruts, approach at an angle (not perpendicular) to reduce the effective steepness of the rut.
- If the vehicle undercarriage makes contact with the road, stop and check underneath for fluid leaks or damage before proceeding. If the vehicle becomes stuck, have all passengers get out and remove any heavy cargo before trying to reverse (or possibly go forward if you have 4WD) slowly.

**WASHOUTS / FLOODING**

**Description:** Unmaintained roads may become partially damaged during floods or heavy rainstorms. Damaged areas may or may not be signed. Flood waters may cross roads at low points.

**Hazard:** Attempting to cross damaged or flooded sections of road may run risk of getting stuck or sliding off road down a steep slope.

**Precautions:**

- If undamaged portion of road is not clearly wide enough for vehicle to pass, have someone get out and watch or, if alone, pull vehicle close to washout and compare wheelbase width before crossing.
- If it is necessary to cross the washed-out area, first check how solid the surface is before attempting.
- Do not attempt to cross a wash-out if a sideways slide could result in the vehicle slipping down a steep slope. Be extra cautious if there is running water present.
- Never enter running water unless you can tell how deep it is and you are sure it is not rising. Always avoid crossing moving water that is deep enough to touch the vehicle's body. If you get stuck, exit the vehicle on the upstream side only.
- Do not stop while crossing a washout or flooded area.

Contact UNLV Risk Management & Safety (702-895-4226) if you have additional questions or concerns about safe driving on remote or rural roads.