

# road maintenance

*find and fix problems immediately*



**Road failure is a major cause of increased sediment** in the Mattole watershed. Properly building and maintaining roads is a top priority. The key to keeping your road in good shape for the longest time possible is to regularly inspect it and treat minor problems before they become major ones. Regular road maintenance not only guarantees your access and the access of emergency personnel, but also maintains the health of the watershed.

## helpful tips

### HOW TO CONTROL EROSION

**Minimize hauling and grading** when the road is wet. Heavy load on wet roads are more liable to cause ruts and necessitate additional road maintenance. Drive in four-wheel drive to minimize impacts (such as "washboard" effect) on road. Grade only when needed.

**Retire unused roads, upgrade** roads to the proper slope, and install rolling dips. Old roads are less likely to feature proper drainage construction than recently constructed roads. If old roads are unused, they are more likely to fail since problems may not be detected until too late. Upgrading roads to the proper horizontal slope allows water to drain off the surface before it gains enough velocity to damage the road. Rolling dips serve a similar purpose.

**Avoid routine grading of ditches** that may undermine hillsides next to the road. Excessive grading of ditches can expose the toe of the slope to erosion, filling in the ditches that you are trying to maintain. Dispose of any dirt and rock that gets scraped off the road at a safe distance from creeks and streams.

### WHEN TO LOOK FOR PROBLEMS

**After the first storm of the rainy season** The first storm of the season is notorious for causing road failures and problems. It moves the largest amount of material from the road surface, often resulting in clogged culverts and improperly draining ditches.

**After all major storm events** Similar to the

first storm of the season, subsequent large storms sweep off road surfacing, as well as transport a lot of debris downstream. This often causes clogged culverts. Clogged culverts can result in unintended water diversion, gullying, and washouts.

**At the end of the season** It is recommended that you walk your roads at the end of the rainy season to inventory and fix problems before the next year's rains arrive. The end of the rainy season is a great time to fix roads to prepare for summer. Roads become harder and more difficult to fix as they become drier throughout the summer, so it is recommended that you do this as soon as possible after the rainy season ends.

### WHAT TO LOOK FOR

**Road surface** Inspect road surface for tension cracks. Look for small vertical faces that have formed along the edge of the road (called scarps), as these are less stable than angled toe slopes. Pay particular attention to the steep and flat areas of the road. Steep areas are most prone to water damage; level areas allow water to pool, causing mudholes.

**Culverts** Remove floating debris from trash gate during storms. Move debris to areas where it cannot get back into watercourse. Bent culvert ends should be tried to facilitate unrestrained

water passage. Excavate sediment deposits inside your culvert.

**Bridges** Riprap and other bridge abutment protection should be repaired as soon as damage is noticed in order to prevent loss of bridge foundation and approaches. Floating trees and other debris that become lodged at bridge should be cut free and floated downstream or removed.

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