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III DUST ABATEMENT

Un-paved roads are the largest source of particulate pollution in the United States, producing almost five times as much particulate matter as the next two largest sources combined. A single vehicle traveling on an un-paved road once per day for one year will produce one ton of dust per mile, which equates to losing one hundred tons of fine particles per year for each mile of road with an average of one hundred vehicles per day.

(Source - Wisconsin Transportation Bulletin #13, U of W at Madison, 1997.)

When these fine particles are lost as fugitive dust, it damages the gravel surface and exposes the larger aggregate. These large particles are then scattered by vehicles or washed away by rainfall. The unstable roadway surface then can become considerably rough, developing potholes, ruts and corrugations that collect storm-water, saturating the roadway base and causing even further damage. Additionally, the eroded material can damage drainage ditches, often requiring frequent and expensive repair.

The **ADMINISTRATIVE RULES OF MONTANA**, Section 17.8.308(2) states that "no person shall cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter". Ravalli County, in partnership with the **MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY** (DEQ), proposes to address the requirements of state code through the development of a **COUNTY ROAD DUST ABATEMENT PROGRAM**, which will consider the available actions suggested by DEQ; reducing and enforcing speed limits on gravel roadways, applying a dust suppressant, or forming a Rural Improvement District. Another option suggested by DEQ, one that has been employed successfully elsewhere, is to require a party that is responsible for creating an additional traffic demand upon a gravel road, thusly creating additional dust, be responsible for controlling that dust.

The Road & Bridge Department will work closely with the **RAVALLI COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH** to monitor the levels of airborne particulate (**FUGITIVE DUST**) that occurs on county roadways and to facilitate the management and mitigation of that dust.

Properly applied, dust palliatives can help to stabilize gravel surfaces and may reduce roadway damage and operating costs. Depending on the type of roadway, the proper application of dust abatement can create a durable, compacted surface that resists corrugation, loss of aggregate and other surface distress. In addition, control of roadway surface soils reduces the short term, localized air quality hazards often associated with unpaved roads. For people living along gravel or dirt roads, fugitive dust can cause inconveniences from dust settling on private property.