

COLORADO - PUBLIC HEALTH AND TOXICS ISSUES - AT A GLANCE

- ❖ **AIR POLLUTION:** increased low-level ozone (smog), toxic levels of hydrogen sulfide, airborne hydrocarbons like volatile organic compounds and polycyclic aromatic hydrocarbons
- ❖ **DRILLING PROCESS:** use of muds to keep drill bit cool and lift rock cuttings out of the well bore; may be water-based, oil-based or synthetic; releases of muds and additives occur from spills, leaks from drilling reserve and waste pits and can contaminate surface or groundwaters
- ❖ **DUST POLLUTION:** trucks moving continuously on dirt and gravel roads adding significant dust pollution to the air blocking out sunlight needed for our burgeoning solar generation
- ❖ **ECONOMY:** the Valley's agricultural products and expanding tourism industry cannot coexist with oil and gas exploration's activities and air, water and noise pollution
- ❖ **EMERGENCY SERVICES:** local volunteer fire and ambulance services not currently equipped, trained or staffed to handle oil or gas emergencies
- ❖ **HYDRAULIC FRACTURING 'Fracking':** pumps hundreds of thousands of gallons of fluids—hazardous chemicals such as Microencapsulated potassium persulfate (MicroKP)—into oil or gas formations, entering freshwater aquifers and underground sources of drinking water
- ❖ **HYDROGEN SULFIDE:** spills or overflows release toxic compounds into air, water or soil; chemicals may burn; four most common adverse health effects of chemicals found to be neurotoxicity; skin/sense organ toxicity; respiratory problems; gastrointestinal/liver damage
- ❖ **INCREASED REVENUE OFFSET:** increase in revenue for the county more than offset by damage to roadways by the increase in heavy truck traffic
- ❖ **LAND IMPACTS:** introduction of noxious weeds, disturbance of sensitive plants and of sensitive natural and cultural resource features; contamination of soil; soil and vegetation destruction from moving equipment and construction activities
- ❖ **NOISE:** more than merely annoying, noise from oil and gas affects health and can drive people from their homes
- ❖ **SPECIES IMPACTS:** disturbance of migratory birds and their habitat; disturbance of wildlife and their migration patterns
- ❖ **SPILLS:** a large percentage of spills including crude oil, condensate, produced water, diesel fuel, glycol, amine, lubricating oil, hydraulic fracturing fluids, drilling muds, other chemicals, and natural gas leaks find their way into groundwater or surface water
- ❖ **WASTE PITS AND TANKS:** not all pits are lined; both lined pits and steel tanks may leak and overflow; some treatment chemicals and additives lethal at 0.1 parts per million; benzene and other light hydrocarbons enter the air
- ❖ **WATER:** serious potential for pollution from drill sites to both the shallow unconfined and the deeper confined aquifer system—the lifeblood of our Valley; oil and gas industry exempt from the *Safe Drinking Water Act*.

Sources: Oil & Gas Accountability Project, Public Health and Toxics Program—www.earthworksaction.org,
<http://oil-gas.state.co.us>, <http://www.microteklabs.com/fractflu.html>,
http://www.sciencelab.com/xMSDS-Potassium_persulfate-9927234, among others

From Rio Grande Oil and Gas Accountability Project