# Environmental Justice and Butte Priority Soils

Yards and residences in Uptown/Central Butte are contaminated with lead, mercury and arsenic which are highly toxic substances, very harmful to human health. Children are particularly at risk from the pollutants found in Uptown/Central Butte. Superfund is supposed to be cleaning up these threats. Through its Environmental Justice mandate, EPA is supposed to give special consideration to the effects and burden of toxic exposure on low-income citizens who are concentrated in Uptown/Central Butte. The Residential Metals Program was developed to address the problem of toxics in Uptown/Central Butte.

*Three major toxics of health concern in Uptown/Central Butte are:*

## Lead

Chronic exposure to low levels of lead have been shown to cause nervous system problems, kidney problems, reproductive system problems, interference with enzyme activity, impaired physical and mental development and cancer. The American Academy of Pediatrics states that children's exposure to low lead levels have caused lower scores on problem solving tests, lowered IQ, lower perception levels, memory loss and learning and coordination disability. The American Academy of Pediatrics has boldly stated that the only desirable amount of human lead exposure is zero.

## Mercury

Acute health effects of mercury exposure include: kidney damage, nausea, blurred vision, painful breathing, and pneumonia.
Chronic health effects of mercury exposure include: gum disease, harm to the reproductive system, high blood pressure, hallucinations, personality changes, mental deterioration, and harm to the central nervous system. Because mercury can cross the blood-brain barrier, and because it can affect brain development, its effects are of special concern to pregnant or lactating women and young children.

## Arsenic

Arsenic has been designated a human cancer causing agent. Arsenic exposure at low doses can cause nerve damage, cardiovascular problems, skin problems and constitutional complaints such as nausea, diarrhea, gastrointestinal upset, etc. (Johnson and DeRosa, ASTDR, "The Toxicologic Hazard of Superfund Hazardous Waste Sites") Arsenic targets most of the body's organs and is particularly harmful to the gastrointestinal tract and to the skin. Outdoor play is a common arsenic exposure route for children. .

## Children are Particularly at Risk for the Pollutants found in Butte Priority Soils

It is important to remember that with all of the above contaminants found in the Butte Priority Soils, children are particularly at risk from exposure. "Metals are particularly toxic to the sensitive, rapidly developing systems of the fetus, infants and young children. Some metals, such as lead and mercury, easily cross the placenta and damage the fetal brain. Childhood exposure to some metals can result in learning difficulties, memory impairment, damage to the nervous system, and behavioral problems such as aggressiveness and hyperactivity. At higher doses, heavy metals can cause irreversible brain damage. Children may receive higher doses of metals from food than adults, since they consume more food for their body weight than adults." (Physicians for Social Responsibility, "Toxics and Health.")

## Environmental Justice and Uptown/Central Butte

The EPA has a mandate to promote environmental justice in all of its activities.
The EPA defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to environmental laws, regulations and policies." No minority or low-income population should bear a disproportionate toxics burden. EPA Administrator Lisa Jackson has made promoting environmental justice a top EPA priority. Low-income citizens are a particularly target for environmental justice activities. The toxic substances in Uptown/Central Butte particularly disproportionately impact Butte's low-income citizens, who are concentrated within uptown/central Butte

## Extent of Poverty in in Uptown/Central Butte

In Butte-Silver Bow, the poverty rate is at 15.8%, which is higher than both the national and state rates, and has risen almost a full percentage point since 2000. (U.S. Census Bureau) According to the U.S. Census Bureau, over 25% of Butte families with children under the age of five years have incomes below the official poverty line. 21% of Butte children live below the poverty line. (Butte Silver Bow Health Department, *Community Needs Assessment*.)

Most of Butte's poor live in uptown Butte, the area encompassed by the Superfund site—Butte Priority Soils. Within Butte/Silver Bow, there are pockets of deep poverty which tend to occur in uptown Butte. Forty percent of Butte-Silver Bow's Census Block Groups (17 out of 43) had poverty rates higher than the overall county rate in 2000 that ranged from 15% to 61%.

The poor in Butte's central district do have to endure a disproportionate toxics burden. Consider the fact that of the 1200 houses in Butte that have a high risk of lead exposure, the vast majority are in the Butte Priority Soils site. The poor in Butte have a greater risk of cancer from exposure to heavy metals than do the non-poor. The poor in Butte, who live predominately within uptown Butte, are more threatened by the release of toxic, heavy metals associated with past mining than are the non-poor. (Source: Environmental Defense Fund, *Summary Report: Silver Bow County*)

Much of the housing stock in uptown/central Butte is in a state of decay. Homes in uptown/central Butte often have contaminated attic and indoor dust, contaminated yards and lead based paint in the home.

## RMAP

The Residential Metals Program through the Butte/Silver Bow Health Department was developed to address the problem of toxic exposure in uptown/central Butte. The program will sample and analyze your home and year and clean it up if needed at no cost to the homeowner or renter. The program cleans up contaminated attic dust, indoor dust, yards and lead paint.

## ***Alternative way of putting it***

If you live in a home or apartment built before 2006, and you live in uptown/Central Butte your home or apartment is likely contaminated by toxic attic dust, soil contamination, lead based paint and contaminated indoor dust. These toxics threaten your health and the health of your children. But there is a way to clean up your home or apartment—Butte's Residential Metals Program.