

Communities for Clean Water

A Northern New Mexico Network

PCB Contamination at LANL and Surrounding Areas:

In early February 2006, the New Mexico Environment Department issued its first ever “do not eat” fish advisory for the Rio Grande, Cochiti and Abiquiu reservoirs because of PCB contamination. The New Mexico Water Quality Control Commission standards are 0.00064 parts per billion (ppb) for human health and 0.014 ppb for wildlife habitat. The Environmental Protection Agency (EPA) has set a limit for PCBs in drinking water of 0.5 ppb. The federal Food and Drug Administration has set a standard of 200 to 3000 ppb for fish and shellfish, poultry and red meat, eggs, milk and other dairy products and infant foods. PCB contamination has been detected above these standards in waters and fish upstream and downstream of LANL. PCBs have been detected in LANL waters at levels more than 25,000 times over the New Mexico water quality standard that is protective of human health and 1,000 times over the New Mexico water quality standard that is protective of wildlife habitat.

What are PCBs?

Polychlorinated Biphenyls (PCBs) are a group of industrial chemicals used in electrical equipment, such as transformers, capacitors, and as lubricants and coolants. The manufacturing of PCBs was banned in 1977 because they were proven to bioaccumulate in the environment and cause adverse health effects. Up to 209 individual chlorinated compounds can be combined to make different PCBs. PCBs can be oily liquids, solids or vapors in air. PCBs have no taste or smell.

Why Is This Important to You?

PCBs travel in air and can travel long distances. Once settled, they bind strongly to soil. In water, PCBs travel on organic particles and bottom sediments. Small aquatic organisms and fish take up PCBs. Other animals then eat the small organisms, thus bioaccumulating the PCBs. Tissue samples indicate PCB levels thousands of times higher than in water.

Exposure:

Humans are exposed to PCBs by eating contaminated food, including meat, dairy products and fish caught from contaminated locations. Other exposure routes include drinking contaminated well water and breathing air near hazardous waste sites.

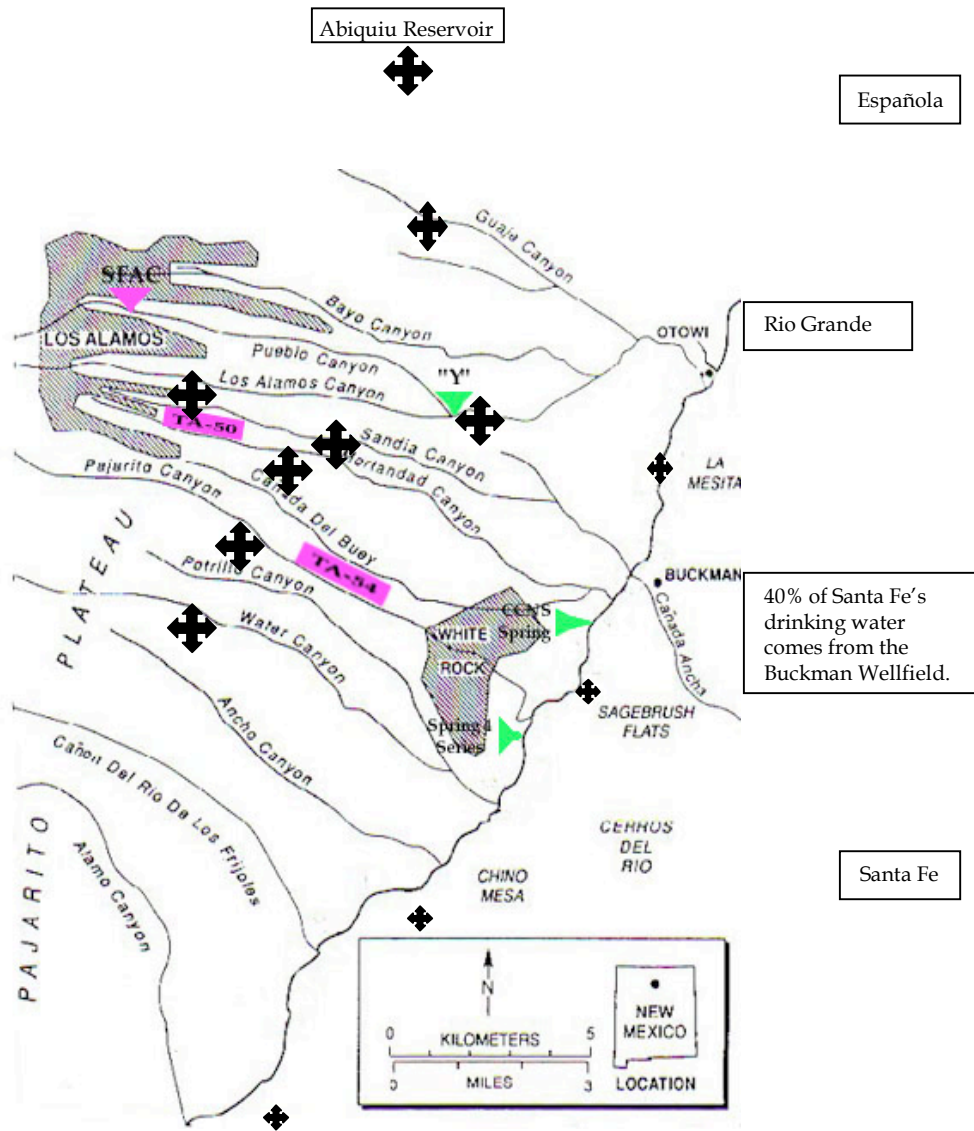
Health Effects:

PCBs are known to cause cancer, damage the thyroid, liver and stomach, impair reproduction, change the immune system and alter behavior in animals. In humans, health effects include acne-like skin conditions and liver damage. Pregnant women who eat PCB-contaminated fish may have babies with damaged immune systems and abnormal responses to infant behavior tests. These responses include a decrease in short-term memory and problems with motor skills. The main exposure pathway for infants is through breast-feeding. In children, exposure may cause neurobehavioral and immunological changes. PCBs are also a possible human carcinogen.

Sources:

Agency for Toxic Substances and Disease Registry: <http://www.atsdr.cdc.gov/tfacts17.html>

PCB Contamination at LANL and Surrounding Areas:



Cochiti Reservoir



PCBs: are industrial chemicals used in transformers and capacitors, and as lubricants and coolants. The manufacturing of PCBs was banned in 1977 because they were proven to bioaccumulate in the environment and cause adverse health effects. PCBs have been detected in LANL waters at levels more than 25,000 times over the water quality standard that is protective of human health and 1,000 times over the water quality standard that is protective of wildlife habitat. Health effects include damage to liver. Pregnant women who consume PCBs can have children with birth defects. Humans are exposed to PCBs through foods such as fish, meat and dairy products, and through air and water. In February 2006, the first "do not eat" fish advisory for the Rio Grande was issued by the New Mexico Environment Department.