## Lead-Based Ammunition and Lead Tackle Backgrounder

Lead is an extremely toxic substance that is dangerous to people and wildlife even at low levels. Exposure can cause a range of health effects, from acute poisoning and death to long-term problems such as reduced reproduction, inhibition of growth, and damage to neurological development. Animals are poisoned when they scavenge on carcasses shot and contaminated with lead bullet fragments or pick up and eat spent lead shot pellets or lost fishing weights, mistaking them for food or grit. Animals can die a painful death from lead poisoning or suffer for years from its debilitating effects.

Lead ammunition also poses human-health risks since lead bullets explode and break into minute particles in shot game and can spread throughout meat that humans eat. Studies using radiographs show that numerous imperceptible, dust-sized particles of lead can contaminate meat up to a foot and a half away from the bullet track, causing a greater health risk to people consuming lead-shot game than previously thought. A recent study found that up to 87 percent of cooked game killed by lead ammunition can contain unsafe levels of lead. Some state health agencies have had to recall venison donated to feed the hungry because of lead contamination from bullet fragments. Nearly 10 million hunters, their families and low-income beneficiaries of venison donations may be at risk, as well as the estimated 1 million or more people who manufacture lead fishing weights in their homes, leading to inhalation of lead dust and fumes.

There are now numerous commercially available, nontoxic alternatives to lead rifle bullets, shotgun pellets and fishing weights. Nontoxic steel, copper and alloy bullets and non-lead fishing tackle are readily available in all 50 states. More than a dozen manufacturers of bullets now market many varieties of non-lead, nontoxic bullets and shot.

The California Department of Fish and Game has certified nontoxic ammunition from 24 manufacturers for hunting big-game and non-game species in the range of the California condor. The Arizona Game and Fish Department publishes a list of non-lead rifle ammunition available for big-game hunters, including 120 bullets in various calibers produced by 13 ammunition manufacturers, as well as seven manufacturers who provide custom-loaded nonlead rifle ammunition. The federal Fish and Wildlife Service has approved 12 nontoxic shot types for hunting waterfowl. At least 10 alternatives to lead fishing weights are now available made from non-poisonous materials such as tin, bismuth, steel, ceramics and recycled glass.