Look at this summary:

Source: http://www.epa.gov/region5/superfund/ecology/html/toxprofiles.htm#cd

Cadmium

Cadmium is highly toxic to wildlife; it is cancer-causing and teratogenic and potentially mutation-causing, with severe sublethal and lethal effects at low environmental concentrations (Eisler 1985a). It is associated with increased mortality, and it effects respiratory functions, enzyme levels, muscle contractions, growth reduction, and reproduction. It bioaccumulates at all trophic levels, accumulating in the livers and kidneys of fish (Sindayigaya, et al. 1994; Sadiq 1992). Crustaceans appear to be more sensitive to cadmium than fish and mollusks (Sadiq 1992). Cadmium can be toxic to plants at lower soil concentrations than other heavy metals and is more readily taken up than other metals (EPA 1981). On the other hand, some insects can accumulate high levels of cadmium without adverse effects (Jamil and Hussain 1992).

Chromium

There is no significant biomagnification of chromium in aquatic food webs (ATSDR, 1993). However, there are a wide range of adverse effects in aquatic organisms. In benthic invertebrates there has been observed reduced fecundity and survival, growth inhibition, and abnormal movement patterns (USEPA 1980b). Fish experienced reduced growth, chromosomal aberrations, reduced disease resistance, and morphological changes.

The toxic effects of chromium are primarily found at the lower trophic levels. The main potential ecological impacts result from direct exposure of algae, benthic invertebrates, and embryos and fingerlings of freshwater fish and amphibians to chromium. Chromium may bioaccumulate in algae, other aquatic vegetation, and invertebrates, but it does not biomagnify. Chromium inhibits growth in duckweed and algae, reduces fecundity and survival of benthic invertebrates, and reduces growth of freshwater fingerlings. It is cancer-causing, mutation-causing, and teratogenic. Chromium exists in two oxidation states in the environment: trivalent (+3) and hexavalent (+6), the latter of which is more toxic. Chromium+6 is readily converted to chromium+3 in animals, which appears to protect higher organisms from the effects of low level exposures (Eisler 1986).

Copper

Copper is a micronutrient and toxin. It strongly adsorbs to organic matter, carbonates and clay, which reduces its bioavailability. Copper is highly toxic in aquatic environments and has effects in fish, invertebrates, and amphibians, with all three groups equally sensitive to chronic toxicity (USEPA 1993; Horne and Dunson 1995). Copper is highly toxic to amphibians (including mortality and sodium loss), with adverse effects in tadpoles and embryos (Horne and Dunson 1995; Owen 1981). Copper will bioconcentrate in many different organs in fish and mollusks (Owen 1981). There is low potential for bioconcentration in fish, but high potential in mollusks. Copper sulfate and other copper compounds are effective algaecides (free copper ions are the lethal agent). Single-cell and filamentous algae and cyanobacteria are particularly susceptible to the acute effects, which include reductions in photosynthesis and growth, loss of photosynthetic pigments, disruption of potassium regulation, and mortality. Sensitive algae may be affected by free copper at low (parts per billion) ppb concentrations in freshwater.

There is a moderate potential for bioaccumulation in plants and no biomagnification.Toxic effects in birds include reduced growth rates, lowered egg production, and developmental abnormalities. While mammals are not as sensitive to copper toxicity as aquatic organisms, toxicity in mammals includes a wide range of animals and effects such as liver cirrhosis, necrosis in kidneys and the brain, gastrointestinal distress, lesions, low blood pressure, and fetal mortality. (ATSDR 1990c; Kabata-Pendias and Pendias 1992; Ware 1983; Vymazal 1995).

Information on the Toxic Effects of Various Chemicals and Groups of Chemicals

Toxicity Profiles:

Presented below is a brief discussion of the general fate and transport processes associated with selected groups of COPECs.

Aluminum Arsenic Barium
Cadmium Chromium Copper
Cyanide Lead Manganese
Mercury Nickel Selenium
Silver Thallium Zinc

Pesticides PAHs PCBs
Dioxins

INORGANICS

Heavy metals and other inorganic compounds are naturally-occurring in the environment, and in some cases are essential nutrients (i.e., calcium, magnesium, potassium, and sodium). Inorganics tend to adsorb strongly to clays, muds, humic, and organic materials. However, inorganics are very mobile in the environment. Depending upon the pH, hardness, salinity, oxidation state of the element, soil saturation, and other factors, inorganics are readily soluble.

Aluminum

Toxicity information about aluminum is generally lacking. It has been determined that fish tend to be more sensitive to aluminum toxicity than aquatic invertebrates (Sparling et al. 1997). Aluminum can cause pulmonary and developmental problems. Aluminum toxicity has been linked to soil pH--the amount of soluble aluminum, rather than the total aluminum concentration in the soil. Soils at a site with a pH greater than 5.5 can generally be considered non-toxic in terms of aluminum.

Arsenic

In plants, arsenic has been shown to cause wilting, chlorosis, browning, dehydration, mortality, and inhibition of light activation (Eisler 1988a). Arsenic is a carcinogen (cancer-causing), teratogen, and possible mutagen (causing mutations in genes/DNA) in mammals (ATSDR 1993). Chronic exposure can result in fatigue, gastrointestinal distress, anemia, neuropathy, and skin lesions that can develop into skin cancer in mammals. It can cause death in soil microbiota and earthworms. Cancer-causing and genetic mutation-causing effects occur in aquatic organisms, with those effects including behavioral impairments, growth reduction, appetite loss, and metabolic failure. Aquatic bottom feeders are more susceptible to arsenic. In birds tolerance to arsenic varies among species, but effects include destruction of gut blood vessels, blood-cell damage, muscular incoordination, debility, slowness, jerkiness, falling, hyperactivity, fluffed feathers, drooped eyelids, immobility, seizures, and systemic, growth, behavioral, and reproductive problems (Stanley et al. 1994; Whitworth et al. 1991; Camardese et al. 1990).

Barium

Elevated levels of barium can induce a wide range of effects in mammals including gastrointestinal distress, muscular paralysis, and cardiovascular effects. Barium is does not bioaccumulate, and concentrations in higher species rarely exceed 10 mg/kg (Moore 1991).

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Lead

Lead is cancer-causing, and adversely effects reproduction, liver and thyroid function, and disease resistance (Eisler 1988b). The main potential ecological impacts of wetland contaminants result from direct exposure of algae, benthic invertebrates, and embryos and fingerlings of freshwater fish and amphibians to lead. It can be bioconcentrated from water, but does not bioaccumulate and tends to decrease with increasing trophic levels in freshwater habitats (Wong et al. 1978; Eisler 1988b). Lead adversely affects algae, invertebrates, and fish. There are also limited adverse effects in amphibians, including loss of sodium, reduced learning capability, and developmental problems (Horne and Dunson 1995; Freda 1991). Fish exposed to high levels of lead exhibit a wide-range of effects including muscular and neurological degeneration and destruction, growth inhibition, mortality, reproductive problems, and paralysis (Eisler 1988b; EPA 1976). Lead adversely affects invertebrate reproduction; algal growth is affected. Lead partitions primarily to sediments, but becomes more bioavailable under low pH, hardness and organic matter content (among other factors). Lead bioaccumulates in algae, macrophytes and benthic organisms, but the inorganic forms of lead do not biomagnify.

At elevated levels in plants, lead can cause reduced growth, photosynthesis, mitosis, and water absorption (Eisler 1988b). Birds and mammals suffer effects from lead poisoning such as damage to the nervous system, kidneys, liver, sterility, growth inhibition, developmental retardation, and detrimental effects in blood (Eisler 1988b; Amdur et al. 1991).
Lead poisoning in higher organisms has been associated with lead shot and organolead compounds, but not with food chain exposure to inorganic lead (other than lead shot, sinkers or paint) (Eisler 1988b). There are complex interactions with other contaminants and diet. Lead poisoning in higher organisms primarily affects hematologic and neurologic processes.