Stormwater Pollutant Factsheet

Metals (Lead, Copper, Zinc, Iron, Aluminum)

Many different types of metals can make their way into stormwater. Metals can accumulate in waterways and are harmful and even toxic to aquatic life, depending on the specific type and concentration. Some metals are also harmful to humans.

Potential Sources of Metals

- Building materials such as galvanized metal roofing and gutters *(zinc, aluminum)*
- Corrosion of metal surfaces such as fences or steel, aluminum, and other galvanized metal structures *(zinc)*
- Hydraulic fluid spills *(zinc)*
- Wear on body and brakes of equipment and vehicles *(iron, lead, copper)*
- Material handling equipment operating at slow speeds where wear on tires is more likely due to frequent turning *(zinc)*
- Asphalt sealcoating *(zinc, copper)*
- Storing bulk materials such as ores or minerals, or scrap metal *(all)*
- Storage and disposal of paint, tires, or metal materials *(all)*
- Pesticide or fungicide application *(zinc, copper)*
- Biocides used for roof cleanings or boat coatings *(zinc, copper)*
- Galvanic corrosion protection for equipment such as boats and tanks *(zinc, aluminum)*
- Use or demolition of pressure-treated wood *(copper, arsenic)*
- Surface erosion *(iron)*

Best Management Practices

- Select building and facility materials for roofing or fencing that will not corrode.
- Where possible, use surface infiltration to manage stormwater runoff from areas where galvanized material must be used.
- Develop and implement spill response and cleanup procedures.
- Prioritize preventative maintenance. Change hydraulic fluid hoses regularly.

- Limit use of pesticide and fungicide, which can contain copper. If using pesticide or fungicide, follow manufacturer's application instructions. Keep them away from impervious surfaces where they can be washed into the storm system.
- Dispose of treated wood properly. Do not grind or sand treated wood in areas where it may come into contact with the stormwater system.
- Cover storage areas for tires, paint, metal, or bulk materials.
- Use standard erosion prevention techniques for any soil disturbance.

Additional Resources

Suggested Practices to Reduce Zinc Concentrations in Industrial Stormwater Discharges, Washington Department of Ecology

Reducing Zinc in Industrial Stormwater, Oregon Department of Environmental Quality

Zinc in Stormwater: Galvanizing Business Solutions, Northwest Pollution Prevention Resource Center

Reducing Copper in Industrial Stormwater, Oregon Department of Environmental Quality

Industrial Stormwater Best Management Practices, Oregon Department of Environmental Quality