

High Metal Concentrations in the Landskrona Air

High contributions from local environmentally conscious industries pollute the Landskrona air with elevated amounts of heavy metals. For Southern winds, local source emissions distribute elevated lead, copper and zinc concentrations in airborne particles across Landskrona and could affect both human health and the climate. For example causes chronic exposure to lead, learning disabilities in children.

A bad air quality in terms of heavy metal concentrations has been a reoccurring problem in Landskrona. Measurement campaigns conducted over decades do all show a heavy metal influence. During the measurement period, a few samples show concentration levels of lead only barely below the allowed limit values. More in depth measurements are required to control imposed improvements and to support necessary changes in emission limits. What if no more measurements were conducted and the industries in Landskrona were given free play. Every year 432 000 deaths in Europe alone are caused by fine airborne particles. Studying the air quality and finding solutions is of key importance to making Landskrona a cleaner city, both for its citizens and nature.

Daily sampling of the airborne particles on filters was performed to in further analyzing yield both the metal concentrations and source contributors.

One major local source contributing to the elevated lead concentrations is Boliden Bergsöe AB, a company that recycles lead batteries. Another polluter that contributes with heavy metals like copper and zinc to the Landskrona air is traced to shipyard. Also contributions from marine traffic and other cities in the Öresund region through long-range transport of airborne particles affect the concentrations measured in Landskrona.

With the measured concentrations and located polluters in Landskrona, more direct and effective solutions can be implied. Identifying important processes giving rise to high emissions for the specific sources and by working together as a city, a Landskrona with clean air should be on its way.