

Public Health and Environmental Quality

Why is this a Public Health issue?

A safe environment, free of contamination is essential to population health. Contamination of air, land, and water can have serious health consequences, especially to those who are already vulnerable, such as young children. Environmental nuisances such as excessive noise and light can cause damage to people's wellbeing.

Air Quality

It is estimated that poor air quality reduces average life expectancy in the UK by an average of 7 – 8 months, and equivalent health costs are estimated to be up to £20 billion a year (2008). Exposure to dust particles and gases in the air from vehicles and various forms of energy production are associated with respiratory, cardiovascular and other ill-health effects, as well as mortality. Some gases in particular, Nitrogen dioxide (NO₂) and nitric oxide can cause inflammation of the airways, and may affect lung function after long-term exposure.

Contaminated Land

Land can become contaminated in many different ways, but is usually as a result of a past use of the land, such as mining, industry, agriculture and dumping of waste. There may also be liquid substances or gases from past landfill sites which have the potential to cause harm. Some contaminants can also pollute groundwater, lakes, streams, etc., be corrosive and can pose a risk of explosion or fire. Contaminated land can cause harm in different ways, through direct contact with the soil, breathing contaminated dusts, vapours or gases, eating food crops grown in contaminated soil etc. The potential impact on health includes skin and respiratory irritations, impairment of body functions and cancer.

Dog fouling is a serious nuisance which causes a great deal of negative emotions and complaint. Dog faeces are a danger to health of young children, carrying some infectious agents such *Toxocara canis*.

Bathing Waters

Periods of heavy rainfall often result in poor bacteriological water quality because the public foul sewer and treatment systems can become overloaded, releasing sewage through storm water overflows into the sea. The public sewer system can also release effluent into the watercourses and out to sea. Problems can also arise through properties not connected to the public sewer system discharging effluent and animal faeces being washed into the ground, watercourses and ultimately into the sea.

Environmental Nuisances

Nuisance from smoke dust, noise, vibration, artificial light, fumes etc. can be prejudicial to health and affect the social wellbeing of people.

Light: artificial light has done much to enhance the night time environment but, if not properly controlled can be obtrusive and keep people awake at night. Uninterrupted sleep is a prerequisite for good physical and mental health.

Noise: excessive noise can also cause sleep disturbance such as difficulty in falling asleep; awakenings and alterations of sleep stages or depth. Noise during sleep can also induce increased blood pressure, increased heart rate, vasoconstriction, changes in respiration and cardiac arrhythmia. Apart from annoyance, people may feel a variety of negative emotions such as anger, depression, anxiety, distraction, agitation or exhaustion.

Vibration: this is experienced by many fewer people than noise. However where significant vibration occurs, it (or its secondary effects such as ground borne/structure borne noise, rattling fixtures and fittings) can cause of health effects (e.g. sleep disturbance).

What can the County Council do about it?

The Public Protection Service (environment health) has powers and responsibilities to help protect the health of the population by monitoring and managing the risks posed by environmental hazards.

Air Quality

The council is responsible for local air quality management which is delivered through the Public Protection Service which carries out monitoring, managing and ensures national standards are met.

The council can declare Air Quality Management Areas (AQMA), influence development control and traffic management, and permit and regulate industries that emit air pollutants. The council has recently revoked the AQMA for Blyth town centre following improvements in air quality.

Contaminated land

The council is under a duty to inspect land within its area to ensure that it is suitable for use and remediate it to that standard if necessary. The council has a Contaminated Land Strategy and cost recovery policy which ensures a programmed delivery of the remediation of high risk sites. Public Protection recommends planning conditions to ensure that development land is suitably remediated.

Water

Bathing Water: Public Protection and the Environment Agency monitor Blyth Beach and other inland recreational waters year round, and provide public safety information to users.

Private Water Supplies: The Public Protection services monitors and manages private water supplies and distribution systems (eg large buildings & caravan sites).

It can also intervene to ensure that consumers have sanitary and sufficient supplies of water.

Nuisance

Public Protection intervenes in all nuisance complaints, with detailed investigation if necessary leading to informal resolution, mediation, or enforcement action.

Radiation Monitoring

Monitoring and a background database of radiation levels have been locally maintained since the Chernobyl incident of 1986.

How will it make a difference?

Ensuring air quality reduces the incidence of lung and heart disease. Addressing contaminated land and monitoring and enforcing good quality water reduces potential risks of illness, and cleans up pollutants from past industrial activity. Monitoring water pollutants and radiation ensures that risks are known and action can be taken where necessary. Intervention to reduce or remove nuisances improves the quality of residents' lives and reduce the associated adverse physiological effects.