

Likely sources of individual parameters

Parameter	Circumstances in which likely to be present
Acrylamide	Use of polyacrylamides as coagulant aids. Use of polyacrylamide grouts for borehole/well linings.
Aluminium	Use of aluminium compounds as coagulants. Occurs in some surface and ground waters.
Antimony	Possible from domestic plumbing fittings.
Arsenic	Present in some ground waters.
Benzene	Contamination of raw waters from petrol/diesel etc. Permeation of plastic distribution and domestic plumbing pipes.
Benzo(a)pyrene	Leaching from internal coal tar lining of some distribution pipes.
Boron	Contamination of surface waters with detergents mainly from sewage effluents.
Bromate	Present in sodium hypochlorite used to disinfect water, including electrolytically generated hypochlorite. Formed if ozone used and water contains bromide.
Cadmium	Leaching from galvanised pipes and some domestic plumbing fittings (e.g. plated taps).
Chloride	Indicator of saline intrusion so relevant in coastal areas. Also relevant if water softener in situ. May indicate sewage pollution of surface water.
Chromium	Leaching from some domestic plumbing fittings (e.g. chrome plated plastic taps).
<i>Clostridium perfringens</i> (including spores)	Contamination of raw waters from sewage effluents and animal waste.
Copper	Leaching from pipes and plumbing fittings. Low pH and low or high alkalinity increases copper leaching.
Cyanide	Possible contamination of raw waters from industry (e.g. metal finishing, wood preservatives).
1,2 dichloroethane	Volatile solvent used in manufacture of vinyl chloride and other processes. Can contaminate and persist in ground water.
Enterococci	Contamination of raw waters from sewage, sewage effluents and animal waste.
Epichlorohydrin	Use of polyamines as coagulant aids. Use of epoxy resins (e.g. to line pipes and tanks). Use to make some ion exchange resins.
Fluoride	May be present in some ground waters.
Iron	Use of iron compounds as coagulants. Occurs in some surface water and ground waters. Corrosion of iron distribution mains.
Lead	Leaching from lead pipes in distribution and domestic plumbing or from lead soldered copper pipes. Low pH and low or high alkalinity increases lead leaching. Present naturally in some ground waters

Parameter	Circumstances in which likely to be present
Manganese	Present in some greensand filtration materials. Occurs in some surface water and ground waters.
Mercury	Contamination from mercury thermometers and float valves
Nickel	Leaching from some domestic plumbing fittings (e.g. plated taps).
Nitrate	Contamination of surface and ground waters from fertilisers, animal wastes or sewage effluents.
Nitrite	Contamination of raw waters. Use of chloramination as a residual disinfectant or use of chlorine as disinfectant when ammonium ions present.
Pesticides	Contamination of raw waters from use in agriculture, forestry, roads, railways etc.
Pesticides – total	This means the sum of the concentrations of the individual pesticides detected and quantified in the monitoring procedure.
Polycyclic aromatic hydrocarbons (PAH)	Leaching from internal coal tar lining of some distribution pipes. Sum of four individual PAH.
Selenium	May occur naturally in some raw waters.
Sodium	Present in raw waters but usually below standard. Can be introduced by water softeners and treatment chemicals (e.g. sodium hypochlorite for disinfection) or through saline intrusion of ground waters in coastal areas.
Sulphate	Occurs in some raw waters, but usual below the standard.
Tetrachloroethene and Trichloroethene	Contamination of some ground waters from use of these volatile solvents in dry cleaning and metal finishing. Standard is sum of two compounds.
Tetrachloromethane	Contamination of some ground waters from use of this volatile solvent in metal finishing and other industries.
Total indicative dose (for radioactivity)	Contamination of raw waters from natural or manmade radioactive compounds.
Trihalomethanes – total	Formed by reaction of organic matter in raw water with chlorine compounds used as disinfectants. Standard is sum of four compounds.
Tritium	Cosmic production in upper atmosphere. By-product of nuclear explosions and nuclear industry.
Vinyl chloride	Used for making PVC. Leaching from unplasticised PVC pipes used in distribution or domestic plumbing.