

## TECHNICAL DOCUMENT - RISK ASSESSMENT

### OVERVIEW

**WD Environmental** conducts all of their Risk Assessments in line with current UK guidance issued by DEFRA and the Environment Agency. In particular, the CLR-11 report provides a methodology and framework to be adopted during the assessment and management of contaminated land.

### PRELIMINARY RISK ASSESSMENT

**WD Environmental** will initially perform a **Preliminary Risk Assessment** (Stage 1 Risk Assessment in CLR-11 format) that will generally involve a review of published information combined with a site walk over. This will assist with the formulation of the *Site Conceptual Model* to determine the relevant pollutant linkages between the *source-pathway-receptor*.

### GENERIC RISK ASSESSMENT

Following the **Preliminary Risk Assessment** and the completion of the **Intrusive Survey**, **WD Environmental** will compare the on site concentrations with published UK Generic Assessment Criteria (GAC) within the Stage 2 CLR-11 Risk Assessment.

### DETAILED QUANTATIVE RISK ASSESSMENT

**WD Environmental** specialises in conducting Detailed Quantitative Risk Assessments (DQRA), referred to as a Stage 3 Risk Assessment within the CLR-11 format. Even when Pollutant Linkages are identified, judgements based on the context of the risk need to be made to determine whether the level of risk justifies proposed remedial actions. Factors such as the site use, site setting, intended site usage and the building design need to be included so that the model targets that are derived are specific to the site being assessed.

WD Environmental has developed its own in-house CLEA model that is based on the latest guidance issued by the Agency in the form of the 2008 Science Reports. It can rapidly generate soil, soil vapour, groundwater and groundwater vapour targets for over 50 substances including TPH CWG fractions, BTEX, PAH, VOCs, SVOCs, pesticides and heavy metals. For controlled waters, WD adopts the Environmental Agency Remedial Target Methodology guidance.

**Remedial Criteria** will be recommended that will not only provide adequate protection of both human health and controlled waters but will take into account other factors. These Remedial Criteria will be in place throughout any subsequent remedial works on the site.