

## **Development of Allotments**

We have reviewed our planning records and they show that your scheme should incorporate allotments. For the Council to consider adoption of the allotments the following requirements must be undertaken and met.

This is because when identifying land for food growing, it should be borne in mind that most land has been exposed to centuries of human activity, along with the proximity to industrial processes and traffic exhaust pollutants from busy roads, these activities will all impact on soil quality.

This may result in the presence of a variety of contaminants in the soil such as heavy metals, polyaromatic hydrocarbons, asbestos and persistent organic pollutants. Food growers are subject to a much higher level of exposure to potential contamination in the soil than other site users, predominantly through contact with soil, ingestion and inhalation of soil/dust and ingestion of produce. In deciding whether the soil is suitable (or can be made suitable) for food-growing it is to undertake an environmental risk assessment to ensure the proposed land is safe for food growing.

This specification has been produced to ensure that development sites for allotments are suitable for use and do not present a risk to human health, the environment and/or property. It is intended to ensure that there is transparency about the safety of the land to be used as a food growing site.

### **Initial Steps**

The initial step is to assess whether the soil may be contaminated by past activities on the land. This is done by inspecting the site and researching the history of the site.

- A site visit involves walking through the area and inspecting the site thoroughly.
- involves searching local authority archives, historical maps (obtained from Libraries, Ordnance Survey, etc.), and asking neighbours for information about the past and current use of the site and surrounding properties.

This can help decide if the soil is good enough to be used for food production.

### **Test the soil**

Soil testing should be carried out of the proposed allotment site by an accredited laboratory at a depth of at least 1m.

Material should be adequately characterised by chemical analysis of a suitable number of samples. Sampling should include chemical analysis for standard metals/ metalloids (and include as a minimum As, Cd, Cr, Cr, VI, Cu, Hg, Ni, Pb, Se & Zn), PAH (16 USEPA speciation), TPH (CWG banded), Asbestos and any additional analysis [dependant on the history](#) of the donor site

### **Interpret the Soil Tests**

The results should be interpreted by a fully competent professional environmental consultant to interpret and decide on the relevant Level of Concern

The soil report should include: -

- A review of desk-based information to produce a preliminary Conceptual site model.
- The details of the soil sampling plan showing the sampling methodology, number of samples collected and chemical testing requirements.
- A ground investigation comprising the excavation of a statistically relevant number of trial pits to obtain information on the soil characteristics.
- The collection of soil samples for laboratory analysis.
- Using the findings of the investigation to refine the Conceptual site model.
- Assessment of the chemical suitability of imported soils for use on site; and,
- [Provide recommendations to meet regulatory compliance for the retention of soils on site or removal and disposal.](#)

The local authority will require the following report to confirm that the site is suitable for use as an allotment site:

### **Report Format**

The report will comprise of the following sections:

#### **Section 1 – Site Setting and Current Land Use.**

- Site Location and Description
- Site Walkover Survey
- Current Site Usage
- Access and Boundaries
- Topography
- Ground Cover and Vegetation
- On-Site Structures and Fuel Tanks
- Electricity Substations
- Asbestos Containing Materials
- Signs of Contamination

#### **Section 2 – Environmental Setting.**

- Introduction
- Pollution Control
- Waste
- Hazardous Substances and Health and safety
- Environmentally Sensitive Areas
- Current Industrial Land Use

#### **Section 3 – Historical Land Use.**

- Introduction
- Site History
- Surrounding History
- Unexploded Ordnance

#### **Section 4 – Geology, Groundwater and Hydrology.**

- Geological conditions
- Mining and Extraction History
- Hydrogeology
- Active Ground water abstraction
- Ground water source protection Zone
- Surface waters and monitoring
- Flooding
- Surface water abstraction
- Discharges to controlled waters
- Pollution Incidents and Inventories

#### **Section 5 – Preliminary Conceptual Site Model and Qualitative Risk Assessment.**

- Potential Sources of Contamination
- Potential Sources and Pathways
- Preliminary Conceptual Site Model and Qualitative Risk Assessment
- Human Health Risk Assessment
- Controlled Waters Risk Assessment
- Recommendations and Next Steps

#### **Section 6 – Ground Investigation**

- hand excavated pits to a maximum depth of 1.0m. Minimum 6 or 1 per 50m<sup>3</sup> (whichever is greater)
- Collection of soil samples for environmental testing.
- Screening of soil samples using a Photo Ionisation Detector (PID).
- Environmental laboratory testing of recovered soil samples.

#### **Section 7 – Ground Investigation Findings**

- Soil description
- Visual and Olfactory Evidence of Contamination
- Soil Sample Analysis
- Laboratory Quality Assurance and Quality Control

#### **Section 8 – Human Health Generic Quantitative Risk Assessment.**

- Introduction

Provide an assessment of risks to humans presented by contaminants within soils, a human health a Generic Quantitative Risk assessment (GQRA) shall be undertaken.

The GACs used to screen the soil data should include (in order of reference):

- a) Department for the Environment and Rural Affairs (CL:AIRE, 2014). Category 4 Screening Levels (C4SLs).
- b) Land Quality Management and the Chartered Institute for Environmental Health, Suitable for Use Levels (S4UL) (LQM, 2014).
- c) Society of Brownfield Risk Assessment, Development of Acute Generic Assessment Criteria for Assessing Risks to Human Health from Contaminants in Soil, version 2.0, July 2020 (SoBRA, 2020).

C4SLs are values that have been derived for use in England and Wales to define sites posing low or no risk to human health. The Environmental Protection Act 1990 Contaminated Land Statutory Guidance (DEFRA, 2012) includes a categorisation for land contamination assessment, ranging from Category 4 (low risk) to Category 1 (significant / high risk).

- Soil Screening Results
- Discussion of Potential Risks to Human Health from Site Soils

#### **Section 9 – Controlled Waters Generic Quantitative Risk Assessment.**

- Hydrogeological Conceptual Site Model
- Methodology
- EQS Soil-Leachate Assessment
- Discussion of Potential Risks
- Controlled Waters Generic Quantitative Risk assessment Summary

#### **Section 10 – Conceptual Site Model and Qualitative Risk Assessment.**

- Potential Contamination Sources
- Potential Receptors and Pathways
- Preliminary Conceptual Site Model and Qualitative Risk Assessment

#### **Section 11 – Recommendations and Next Steps.**

- Do Nothing Scenario
- Import Clean Material with cover system
- Removal of contaminated soil
- Importation of verified sampled new soil

#### **Section 12- Design and Remediation**

- Design a Remediation Specification
- Objectives of specification
- Plan for existing site and soils
- Design of cover system and Erosion Control Layer
- Environmental management Plan
- Soil Verification from donor site and sampling Requirements. The soils are to be tested when imported to site to verify that they are chemically suitable for use. The testing is to be conducted on samples at a frequency of one test per 50 m3 of topsoil to be imported. Laboratory testing is to be completed at a UKAS accredited laboratory
- Soil Laying and site supervision and recording
- Required Licenses, Permits and Consents
- Compliance with Statutory Regulation and Legislation
- Design Life
- Certification of works Verification Information and Plan Requirements

Required photographs comprise:

- laid cover and erosion control mat.
- general progress of the Works.
- laid subsoil.
- laid topsoil.

Sufficient photographs shall be taken to show the condition of the whole of the site prior to commencement of the Works. A comparable set of photographs showing the condition of the site following completion of the remediation shall also be taken. All photographs shall be clearly legible in all parts.

- Soil Thickness Verification

Following installation of the soil cover system, the developer shall be responsible for excavating a series of hand dug pits to prove thickness of topsoil and subsoil laid to allow independent verification that the topsoil and subsoil have been installed in sufficient thicknesses. The location of hand dug pits shall be undertaken on a 50 m grid spacing across the site.

- Compliance with standards and guidance shall include, but not be limited to, the following:
  - BS3882: Specification for Topsoil 2015.
  - CIRIA 650 Environmental Good Practice on Site, Third Edition, 2010.
  - Environment Agency Land Contamination Risk Management (LCRM) 2021 guidance.
  - Manual of Contract Documents for Highway Works Volume 1: Specification for Highway Works,
  - Highways Agency (Hereafter referred to as SHW Specification);
  - Environmental Protection Act including the Contaminated Land Regulations 2000 enacted under Part 2A and Section 34 Duty of Care requirements; 1995: Environment Act.
  - Relevant Health and Safety Executive Guidance Notes in particular HS(G)66; and,
  - Yorkshire and Lincolnshire Pollution Advisory Group (YALPAG), Verification Requirements for Cover Systems: Technical guidance for developers, landowners and consultant, version 4.1, dated June 2021.
- You shall not import soil that could be considered to be a waste. Evidence shall be retained to confirm a soils 'non-waste' status, and such evidence shall comprise and not be limited to a product data sheet complete with compliance that the soil is within the product specification sufficient that it cannot be termed a waste. Reference shall be made to the Environment Agency 2022 Check if your Material is a Waste guidance. If there is any doubt consultation should be made with the Environment Agency to obtain an opinion