

## **Workpackage F: Integrated Remediation and Greening**

### **Objectives**

The aims of this project are to assess and review present practice with regards to remediation and greening and provide proposals as to how these two processes might be improved and integrated. Furthermore, the greening solutions arrived at should be sustainable in the longer term, so criteria will be developed to assess practical sustainability. This should lead to a less costly overall remediation strategy for the developer together with a superior standard of restored functional greenspace for eventual users and stakeholders.

### **Conceptual Model**

There is a need within the overall development of brownfield sites to provide green open spaces and other soft end uses. Although this is often recognised by the people tasked with remediation of brownfield sites, it is often seen as the last process in a long line of activities undertaken to remediate a given site rather than considered at the beginning as part of the overall remediation strategy. This can lead to costly mistakes being made and a greening strategy that fails to live up to the hopes and expectations of the stakeholders and eventual users of the space designated for a soft end use. Furthermore, actions undertaken earlier in the remediation process can impact on the success of the greening process making it unsustainable in the long term or in the worst cases unachievable. Remedial standards should be determined on fitness-for-purpose principles. Integrated ways of working and technical methods have to be found whereby the engineers tasked with land remediation are able to communicate with the people tasked with the greening process from the planning stage onwards.

### **Method**

- **Review of technical data and stakeholder attitudes:**  
(November 2003 – February 2004)

The review will be split into three sections:

1. Current remediation practices
2. Current restoration / greening practices
3. Evaluation of stakeholder attitudes to the above practices and whether the two processes have been successfully integrated to produce what they consider to be a sustainable soft end use.

Parts one and two of the review will mainly consist of a focused literature review and discussions with practitioners currently working with brownfield sites. Part 3 is broader and will include surveys of a larger group of stakeholders, such as people tasked with maintaining a site after the developers have left or local residents who use the amenity created.

- **Experimental work / surveys**  
(February 2004 – December 2005)
  1. Selected sites will be intrusively surveyed with appropriate observations and sampling of plant, water and soil to determine whether a) the remediation pollution control measures are successful and whether they are affecting vegetation chosen for the greening scheme; or b) whether the vegetation is impacting the pollution control measures to an extent which may either render the remediation ineffective or create another pollutant linkage.
  2. Data gathered from the technical review and possibly the site surveys will be used to instigate a container based experimental investigation into possible methods for improving the growth of trees / vegetation in soil-forming substrates suitable for use on brownfield and contaminated sites.
  
- **Interpretation**  
(February 2004 – May 2006)
  1. Data and survey information will be collated and interpreted throughout the project with a view to producing robust and sustainable proposals for improving and assessing the greening process together with examples of best practice between all those involved in the remediation and reclamation process.