

Media Information

2. Bacteria Enlisted To Help In Land Clean-Up

At New Islington sustainability is literally starting from the ground up.

Regenerating and reclaiming large areas of land brings with it a whole range of decontamination issues – especially when the land played a massive part of the early beginnings of the industrial revolution.

The canals that once flowed across the site were gradually in-filled from the 1920's through to the 1970's – motorised canal boats discharged their fumes and sometimes fuel into the canal water and a small number of the canal side industries created chemical and metal by products as part of their processes – a legacy for the future.

The limited contamination encountered at New Islington consists of heavy metals like lead, zinc and cadmium and organic compounds mainly fuel, petrol and oil.

The topography of the new Islington site offers an opportunity to re-use the contaminated land once its been cleaned and made safe.

In keeping with its sustainable philosophy, contractors are not simply removing the contaminated land, and the problem to off-site landfill, the land will be cleaned and reused to build up levels on the undulating site.

Now for the science bit. The fuel (organic compound) contaminated land has been extracted and isolated from the site and piled onto a framework of perforated pipes. These pipes will infuse the sullied land with a simple blend of microbes that will slowly but surely eat away at the organic compounds.

This method is known to the industry as bio-mediation and requires the land to be kept in a moisture-controlled environment. To achieve this a simple but effective solution is used.

The contaminated land is enclosed in a tarpaulin to regulate the moisture levels and keep the land moist and offer its microscopic cleaners the very best working conditions.

Once the microscopic mops have done their work – a process that takes around 16 weeks – the land will be reused on the site to build the site up to a workable level.

Further study has confirmed that the heavy metals do not present a contamination problem, however both the bioremediated material and the soils containing the low levels of heavy metals will be mixed with lime or cement. This process dries out the soils and improves the quality of the material when placing across the site and raising the ground levels.

In places the completed site is up to six meters higher than the existing ground. It is estimated that around 100,000 tonnes of land will be used to create the new ground levels.

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