

## Nottingham Express Transit deal with contaminated land

### Case Record



Location	Nottingham
Client	Greater Nottingham Rapid Transport
Designer	Maunsell, Parsons, Brinkerhof
Construction	Carillion Construction
Track Laying	Carillion (Centrac)
Tram provision	Adtranz
Operations & Maintenance	Transdev/NCT

The following article is based on the challenges faced by the Notts Tram team in dealing with a 6 hectare contaminated land site, that is set to house the tram maintenance depot on completion of the project.

Previous assessments of historical maps and the completion of a geo-hydrological survey confirmed that the site had been used as a dumping facility and had caused large areas of contamination. Three main types of waste material were initially identified, demolition and excavation waste, soap manufacturing waste and gas works waste.

Access to the site was then only granted to specially inducted staff and operatives wearing the appropriate PPE. A contaminated area was also identified on the bank of the river, so special measures were taken to avoid contaminant reaching the watercourse.

Clearance of the vegetation cover was then undertaken, with surface deposits of Blue Billy being easily identified. Lighter coloured fencing was then used to isolate the contaminated areas and differentiate them as contaminated. A decontamination unit (consisting of 'contaminated area', 'shower area' and 'clean area') was also provided to safeguard the welfare of all staff and operatives working on the site. Finally a wheel wash with high-pressure self contained washing apparatus was established at the site boundary to ensure all vehicles leaving the site passed through.

The contaminated ground was replaced with clean soil and sowed immediately with rye grass to limit impact of run-off, with precautionary measures still in place on-site until the grass has fully grown.

So far 2400 tonnes of contaminated material have been removed and sent to a special landfill site in Rotherham by haulier. Trucks with the contaminated loads were followed on several occasions to ensure procedures were being implemented.

The most common contaminant found is a cyanide compound, 'Blue Billy.' This was easy to recognise because of its bluish-green colour and was by far the most hazardous pollutant found on the site containing elevated concentrations of arsenic, cadmium, lead, mercury, sulphur and phenols.

Dealing with the Blue Billy was obviously a major concern to the NET staff in terms of both the Safety and Environmental issues. The project therefore worked closely with the Environment Agency for advice on how to deal with the contamination and all actions carried out in accordance with the requirements and the consent of the EA.

The general public and residents in the surrounding area were fully informed of our operations through letter drops, whilst the site was fenced off with a 2 metre high fence with appropriate warning signs posted along the full length of the boundary.

### Environmental Initiatives

#### Contaminated land remediation