

Case Study 2

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PCP contaminated soil being treated with green organics and sludge. Note the pipe network to facilitate adequate aeration.



PCP Soil, Harbourside Quay Development South Australia

- Approximately 2,000 tonnes of pentachlorophenol (PCP) contaminated soil was excavated from the Harbourside Quay development;
- Due to time pressures it was decided that the most cost effective options was off site treatment at a bioremediation facility located at the Southern Waste Depot;
- The contaminated soil was mixed with approximately 0.8 volumes of freshly shredded green organics supplemented with 0.2 volumes of abattoir lagoon sludge as additional nutrient source;
- The compost mixture was formed into a single windrow (dimensions approx. 80m length x 8m base width x 4m height in a trapezoid shape) on a network of aeration pipes and pumps embedded in a woodchip base;
- The exhaust air from the vacuum pump was channelled through a large compost/woodchip biofilter to remove volatile hydrocarbons being stripped from the pile;
- Temperatures reached 15°C above ambient indicating good microbial activity;
- After approximately 12 months the PCP levels decreased sufficiently to allow safe disposal to landfill.