

6. REPORT TO ENVIRONMENT CANTERBURY/CHRISTCHURCH CITY COUNCIL JOINT COMMITTEE ON: OWAKA ROAD HARDFILL SITE

MONITORING SINCE PREVIOUS JOINT COMMITTEE MEETING ON 6 DECEMBER 2000

18 December 2000 – Site visit with Environment Canterbury's Hazardous Substances & Waste Management Officer Darren Patterson, who agreed that all the material visible within the tip face was fully compliant under the conditions of the consent. "Pink Batts" were noted on site. While it appears likely that "Pink Batts" are inert, EnviroWaste have been asked to carry out a Toxicity Characteristic Leaching Process test to demonstrate the suitability of this material. Subsequent to this request EnviroWaste have made a decision to no longer accept "Pink Batts" as fill material. Material from Haytons Road was being deposited as a final cover.

18 January 2001 – Follow up visit to observe the use of topsoil to cover the Haytons Road site material. The topsoil cover was successful in suppressing any potential odours. The site was in a very tidy state. All other visible material being deposited in the landfill was fully compliant. The bore monitoring had not been possible as the borehole was blocked and/or collapsed at 7.2m below ground level. Clearing and re-testing is scheduled. An update on this item will be given at the forthcoming CCC/Environment Canterbury Joint Committee Meeting.

ISSUES RAISED AT PREVIOUS JOINT COMMITTEE MEETING

Compliance

Provision of Keys & Site Supervision:

The keys for the site are held by EnviroWaste staff for unloading at times when the regular site supervisor is not on site. The workers at the worm farm are also given a key to allow them access to the site and keep it securely locked when EnviroWaste staff are not present. The sign relating to the use of keys has been removed and replaced with one stating that "This site shall be securely locked when not supervised" as detailed in condition 6 of the resource consent.

Unsupervised Dumping:

Since the consent was granted on 12 September 1996 there have been 13 Compliance Monitoring site visits carried out by Environment Canterbury staff. On two of these occasions there had been no company representative on site while dumping was occurring. The company was informed of the seriousness of this following the March 1999 visit, and there have been no subsequent recorded instances. On one occasion since, there was unloading of material when the site supervisor was elsewhere on the site carrying out essential site maintenance. This was technically non-compliant, but the maintenance was needed to make the water logged site safe for vehicles to use. Most of the loads brought on site are in EnviroWaste skip trucks therefore EnviroWaste staff supervise the unloading, complying with condition 4 of the consent. It has been agreed with the company to initiate a new procedure where all non-EnviroWaste drivers must report to the on-site supervisor prior to unloading. A sign detailing this new procedure is to be erected.

Consent Holder's Performance at Other Hardfill Sites

The Owaka Road operation is the only hardfill site operated by EnviroWaste in New Zealand.

Environmental Effects

Groundwater Quality:

Condition 9 of the resource consent requires testing to be carried out by the consent holder, once every 12 months. At the previous CCC/Environment Canterbury Joint Committee Meeting the question was raised "Why had water quality tests not been done in conjunction with last years visit?" Environment Canterbury does not carry out the sampling. Fulton Hogan Environmental Department is contracted by the consent holder to take the samples and analysis is carried out by Hill Laboratories, who have the appropriate IANZ accreditation. When the bore came to be sampled for this years tests, it had collapsed or had been back-filled to 7.2m below ground level.

The company has carried out sampling twice a year since May 1997. The results show relatively high concentrations of manganese, iron, total ammoniacal nitrogen, total hardness, conductivity, bicarbonate and alkalinity. However, these observations may be as a result of the current or historical activities at the site or up-gradient activities, e.g. Islington Freezing Works, other old landfill sites, industrial site stormwater discharges, domestic septic tanks, timber treatment sites, illegal discharges, etc. Annual groundwater quality monitoring is not intended as a mechanism to determine whether any activity is having an impact on groundwater quality. Such monitoring is usually prescribed as a check that allows the identification of any significant impacts. The results from the monitoring bore on site show that median results for parameters analysed for were below the aesthetic-based guidelines, as detailed in the New Zealand Drinking Water Standards (2000), with the exception of pH, Manganese, Iron and Total Ammoniacal Nitrogen. The pH, Manganese and Iron concentrations were all within the range of those that can occur naturally, but could also be indicative of groundwater contamination from a range of up-gradient sources.

It is important to note that while there are significant limitations in drawing conclusions based on limited data, it appears that the groundwater quality is similar to other shallow unconfined groundwater in urban Christchurch. Because of the range of current and historical activities that occur in, and up gradient from, the area it is not possible to definitively link any one activity with observed concentrations of contaminants. Given this situation it is proposed to continue with the proactive monitoring of the fill material currently being buried on site. In addition the groundwater test results will be closely monitored.

Aesthetic Effects:

The site can look untidy. There have never been any observations or reports to Environment Canterbury of litter blowing beyond the property boundary – commonly the main aesthetic effect associated with landfills. The resource consent has no conditions relating to the aesthetic impact of the site. The issue of the tyres in the lake area has now been resolved and EnviroWaste have advised that the stockpile of tyres is to be removed to a suitably licensed facility within two months.

Odour Effects:

The deposition of material from the Haytons Road site did result in complaints from neighbours regarding odour. Following these complaints, Environment Canterbury worked with the company to ensure that all loads were immediately covered with topsoil to mitigate the odour problem. This action minimised the odour and no further complaints were lodged. A report from Lincoln University showed that this material was suitable as a covering material.

SUMMARY & CONCLUSIONS

A number of operational changes have been initiated on site, including an upgraded procedure for unloading of waste, new signs relating to the site security and vulnerability of the groundwater. The requirement for groundwater analysis has not been met this year due to technical difficulties with the monitoring borehole. The company is in the process of addressing this problem, and samples will be taken in due course. A copy of the results will be forwarded to Christchurch City Council staff. The results from the site to date indicate that the quality of the groundwater is similar to other shallow unconfined aquifer groundwater in urban Christchurch. Any interpretation of the groundwater quality results should be made in the light of current and historic activities on site and up-gradient. The scale of any possible effects from the Owaka Road hardfill site on groundwater quality should be assessed in comparison with other current and historic activities in the area. Activities such as stormwater discharges – particularly from poorly serviced industrial areas, non-operational landfills, domestic septic tanks, closed industrial sites, timber treatment sites, illegal discharges, etc. will also impact on the shallow groundwater quality in this area. This is a significant issue in a number of locations around the western fringe of Christchurch.

Environment Canterbury will continue to closely monitor the activities at the Owaka Road hardfill operation. Particular attention will be paid to the types of material being buried on site and the monitoring of the groundwater quality results from the site. Copies of all the results and monitoring reports will continue to be sent to Christchurch City Council staff. Environment Canterbury will continue to work with the consent holder to build on the improvements made so far.

Report Prepared by James Tricker, Compliance Monitoring Officer.