4. CLOSED LANDFILLS UPDATE

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Corporate Plan Output: Landfill Aftercare	

The purpose of this report is to bring the City Services and Parks and Recreation Committees up to date on the work done on closed landfill sites in the city.

BACKGROUND

In 1993 work was commenced on monitoring groundwater at a number of old landfill sites throughout the city. At that time over one hundred sites had been identified where filling may have taken place. Filling operations ranged from shallow depressions with uncompacted soils, hardfill areas, sawdust dumping areas through to old Council municipal refuse pits. The list included privately owned sites and council sites. Amongst the privately owned sites listed are a few sites that still operate today as hardfill/cleanfill sites under resource consents granted by the Canterbury Regional Council.

Only 47 of the 114 listed sites are Council-owned and most sites have been used for parks and reserves for decades.

In 1996 a desktop study was carried out on all old fill sites which were ranked as to the likelihood of potential problems occurring. The selection process included input from various council units and resulted in six sites being identified for further investigation. This led to applications for resource consents for discharge of groundwater being lodged with the Canterbury Regional Council for six sites *(Bexley Landfill - the old Christchurch City Council landfill, Carrs Road Landfill - old Paparua County Council landfill, Sawyers Arms Road Landfill - old Waimairi District Council landfill, West Truscotts Road Landfill – old Heathcote County Council landfill, Hansens Park - site of old Christchurch City Council landfill adjacent to Heathcote River, Ferry Road (Near Settlers Crescent) - very old site adjacent to Heathcote River.*

In addition to the above sites it was also decided to investigate Smarts Pit in Kyle Park as options to use part of the site for stormwater soakage were being investigated by Water Services Unit.

For each of these sites a programme of groundwater and surface water monitoring was put in place and in the case of Bexley a study of potential landfill gas problems carried out and a trench installed to deal with any landfill gas migration towards the residential area.

The following is a summary of progress on the above-mentioned seven landfills:

Table 1
Sites identified for action - 1996

Site	Resource Consent Status	Existing Aftercare	Other Comments
Bexley Landfill	Application lodged in 1997 - currently awaiting finalisation by Canterbury Regional Council.	Ongoing gas monitoring and ongoing groundwater monitoring	Site already developed as a reserve.
Carrs Road Landfill	Application lodged in 1997 - currently awaiting finalisation by Canterbury Regional Council.	Ongoing monitoring of groundwater	Site developed as go-kart track.
Sawyers Arms Landfill	Application lodged in 1997 - currently awaiting finalisation by Canterbury Regional Council.	Ongoing monitoring of groundwater	Site being developed as recreation reserve in conjunction with adjoining shingle pit (Lake Roto Kahatu)
West Truscotts Road Landfill	Application lodged in 1997 - currently awaiting finalisation by Canterbury Regional Council.	Ongoing monitoring of groundwater	Assessment to be done on further landscaping.
Hansens Park	Application lodged in 1997 - currently awaiting finalisation by Canterbury Regional Council.	Ongoing monitoring of groundwater	Site already fully developed as local sports fields. Existing school on part of site.
Ferry Road	Application lodged in 1997 - currently awaiting finalisation by Canterbury Regional Council.	No further action required.	Very old and stable site. Commercial developments in site.
Kyle Park (Smarts Pit)	Depends on results of current groundwater monitoring programme.	Groundwater monitoring programme to include another two rounds - to be completed 2001.	Site proposed to be used for stormwater soakage away from refuse

FURTHER INVESTIGATIONS

In 1998 Woodward-Clyde were commissioned to do a review and an evaluation, based on all existing documentation available, of all the 114 sites. The report grouped the sites into high, medium and low priority sites for further investigation. The report recommended that further evaluation be done of the high and medium priority sites.

In 1999 Tonkin and Taylor were commissioned to do a further evaluation of the high priority (18) and medium priority (42) sites. This study excluded the sites for which resource consent applications had been lodged with the Canterbury Regional Council. The study was based on a review of all documentation, aerial photographs, well records, property boundaries and property ownership, and walkover inspections of all the sites.

The February 2000 Tonkin and Taylor evaluation grouped the 60 sites into six categories as set out in Table 2 below.

Table 2
Summary table of Tonkin + Taylor's evaluation - 2000

Status of investigation	Work required	Number of council owned sites	Number of privately owned sites
Fully investigated	No works required	5	6
Fully investigated	Minor remedial works required	1	2
Fully investigated	Remedial works required	0	0
Further investigation required	Potentially sensitive locations	6	11
Further investigation required	Less sensitive locations	4	12
Local knowledge required to clarify category	Unknown	4	9
Total number of sites requiring further work		**15**	**34**
Total number of sites not requiring further work		**5**	**6**

Of the 60 sites 40 are in private ownership. Owners will be informed of the information held by the council.

The remaining 20 sites are owned by the Council. A programme will be developed in the coming months to prioritise further work required where necessary. The likely costs for this will be covered by the Waste Management Unit's landfill aftercare budget and no additional funding will be required.

USE OF CLOSED LANDFILL SITES AS PARKS OR RESERVES

Parks Unit has confirmed that before sites could be transferred from Waste Management Unit to Parks Unit the sites must be declared to be safe for public use and that all final cover should be in place including top soil suitable for its intended purpose.

The Parks Unit has also indicated that Cash in Lieu contributions can only be used for new land purchased for Reserves or development work on such land. Cash in Lieu cannot be used for maintenance or renewal works. It is to be noted that the Cash in Lieu fund is not currently bringing in the expected revenue due to green field developments where the Council takes the land and not the money and also due to a down turn in building consents. Therefore the majority of Cash in Lieu funds of necessity goes towards essential capital purchases and developments.

The Parks Unit also believes that aftercare settlement (eg. sinkage in sports grounds), landfill gas and leachate should be a cost on the landfill aftercare budget of the Waste Management Unit.

Fewer than ten of the 48 closed landfill sites owned by the Council, (20 of which were included in the Tonkin and Taylor evaluation mentioned above) may be suitable as future parks or reserves due to size or shape of the sites, current buildings on the site and the like. Further inter-unit consultations are required and the outcome will be reported in a few months' time.

SUMMARY

Work carried out by Woodward-Clyde has revealed that 60 out of 114 old landfill sites were ranked as high or medium priority for further investigations. The Tonkin and Taylor evaluation categorised these sites in terms of what actions are required (Table 2). Of the 60 sites, 40 are in private ownership and 20 are owned by the Council. Private owners will be informed of the study findings. The Waste Management unit will develop an action plan for the 20 sites owned by the Council and report further to the Council in August/September 2000.

This report was before the City Services Committee at its meeting on 4 April 2000.

Chairman's Recommendation: That the information be received.