



**AGENDA FOR AN EXTRAORDINARY MEETING OF THE KAY ROAD BALEFILL SITE
MANAGEMENT COMMITTEE TO BE HELD AT WAITAKERE CENTRAL,
6 HENDERSON VALLEY ROAD, HENDERSON, WAITAKERE,
ON MONDAY, 30 OCTOBER 2006,
COMMENCING AT 5.30 PM**

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1 APOLOGIES



2 URGENT BUSINESS

Section 46A(7) of the Local Government Official Information and Meetings Act 1987 provides that where an item of business is not on the agenda, it may only be dealt with at the meeting if:

- (i) the Committee by resolution so decides; and
- (ii) the Chairman has explained at the beginning of the meeting (when open to the public) that the item will be raised for discussion and decision, why the item is not on the agenda, and why it cannot be delayed until a subsequent meeting.

The Committee may make a decision on a matter determined to be urgent.

NOTE: Urgent Business need not be dealt with now and may be delayed until later in the meeting.



3 KAY ROAD BALEFILL FLARE SHUT-DOWN

PURPOSE OF THE REPORT

The purpose of this report is to inform the Kay Road Balefill Site Management Committee of the proposal to permanently shut down the gas flare on the site following a successful trial shut-down and to gain approval from the Committee.

BACKGROUND

The primary reason for installation of the gas extraction and flare system was to capture and control landfill gas so as to prevent odour and the migration of gas off the site. The initial estimate for landfill gas production was that it would be generated in sufficient quantities to flare for a further 10 - 30 years after filling of the landfill was ceased in 1996. However, monitoring shows that gas production has significantly reduced since the landfill closure to the point where it is becoming difficult to meet consent conditions for the flare outputs.

A six month trial shut-down of the flare was carried out between October 2005 and April 2006 to assess the viability of a permanent shut-down.

STRATEGIC CONTEXT

In 1995 Council adopted a prioritised plan for the investigation and resolution of aftercare issues on closed landfill and balefill sites within Waitakere City. A strategic objective for waste, under the Zero Waste platform, is that all former waste sites are clearly identified and managed in a safe and environmentally acceptable manner.

Council's strategy is underpinned by the fact that landfill aftercare is a statutory requirement under the Proposed Auckland Regional Plan: Air, Land and Water. There is an existing consent for discharge of the landfill gas.

ISSUES

The landfill gas generation at the site has been shown to be dropping at a significantly faster rate than early estimates, as evidenced by gas extraction volumes and surface emission surveys (The current landfill gas generation rate at the site is estimated to be around 5% of that which existed at the completion of filling in 1996).

The recent trial flare shut-down was initiated due to the significant reduction in the rate of gas production occurring at site, which makes the need for continued gas collection and flaring questionable. It was becoming increasingly difficult with the current gas flare arrangement to meet some of the consent conditions.

The likelihood of adverse odours, which are carried in the gas, was expected to have reduced due to the much lower rate of gas production. The trial was carried out under a short term consent from the Auckland Regional Council (ARC) which required restarting of the flare if any of the following events occurred:

- Objectionable odour detected beyond the site boundary in the opinion of an enforcement officer;
- A validated odour complaint from a member of the public;
- Detected surface emissions of over 5,000 parts per million (ppm) (0.5% by volume) of methane in more than six locations unless remedied;
- Any other adverse effects were observed;
- The Council chose to recommence flaring.

None of the above conditions were triggered during the flare shut-down trial. No odour complaints were received from members of the public.

During the flare shut-down regular inspections and monitoring of the site were carried out. A summary of the findings from the trial monitoring is provided below:

- i) **Regular site inspections and walkovers** - No significant adverse effects were identified. Where odour was discernable on-site, this was found to be generally low and limited to discrete locations.
- ii) **Surface emissions monitoring** - Three monitoring rounds were carried out, in addition to one failed round where electronic data was lost. For the three successful monitoring rounds no methane emissions were found over the majority of the site with the 5,000 ppm consent limit only exceeded on one occasion in one location.
- iii) **Gas extraction pipe work pressure monitoring** - Pressure in the gas extraction pipe work was monitored on a weekly basis as an indicator of the gas pressure within the balefill. The pressure was consistently found to be very low which indicates limited potential for gas emissions and migration.

On the basis of the above data, Council intends to apply to the Auckland Regional Council for consent to permanently shut down the flare and decommission the gas extraction system. To provide an additional level of assurance, Council will look to retain the extraction system and flare on site for a period of at least two years. The system will be maintained in a condition to allow it to be restarted at short notice should the need arise. It is likely that retention of the flare for this initial period will be incorporated into the new consent conditions from Auckland Regional Council (if granted). It should also be noted that gas generation, and hence odour potential, at the site will further continue to decrease with time as decomposition of the refuse continues to slow.

RISK

There is a very low risk associated with permanently shutting down the gas extraction system as demonstrated by the recent successful six month temporary shut-down.

RESOURCES

No Council staff will be required for the proposed permanent shut-down. The current consultant used by Council for landfill gas monitoring will be used for continued monitoring.

CONCLUSION

With the ongoing reduction in landfill gas production it will soon not be possible to continue flaring the gas. It will also become increasingly difficult to meet the statutory consent conditions. The trial shut-down of the flare recently carried out has demonstrated no adverse effects. The Council therefore intends to develop plans for permanent shut-down of the flare and eventual removal of the gas extraction system which is consistent with the Draft Reserves Management Plan for the site.

RECOMMENDATIONS

1. That the Kay Road Balefill Flare Shut-down report be received.
2. That the Kay Road Balefill Site Management Committee approve that an application be made to the Auckland Regional Council for consent to undertake the permanent shut-down of the gas flare on the site.

Report prepared by: David Nelson, Manager: Water Projects.

