BEFORE THE ENVIRONMENT COURT

Decision No. [2011] NZEnvC 130

IN THE MATTER of an appeal under Section 120 of the Resource Management Act 1991 (**the Act**) and in the matter of a direct referral of resource consent under Section 87G of the Act

AND

IN THE MATTER of Three Kings Quarry

BETWEEN ENVIROWASTE SERVICES LIMITED

(ENV-2009-AKL-000500)
(ENV-2009-AKL-000501)

WINSTONE AGGREGATES

(ENV-2009-AKL-000497)
(ENV-2010-AKL-000009)
(ENV-2010-AKL-000176)

Appellants

AND AUCKLAND COUNCIL (FORMERLY AUCKLAND CITY COUNCIL and AUCKLAND REGIONAL COUNCIL)

Respondent

Hearing: In Auckland, 7 – 11, 14 – 17 March 2011

Court: Environment Judge J A Smith
Environment Commissioner W R Howie
Acting Environment Commissioner B Gollop

Appearances: Mr D A Kirkpatrick and Mr K R M Littlejohn for Envirowaste Services Limited (**Envirowaste**)

THE SEAL OF THE ENVIRONMENT COURT NEW ZEALAND

Mr B J Matheson and Ms F N Lupis for Winstone Aggregates (a division of Fletcher Concrete & Infrastructure Limited) (**Winstones**)

Mr J A Burns and Ms M McCullough for Auckland Council (**the Council**)

Ms J L van den Bergen for Watercare Services Limited (**Watercare**) – s 274 party to direct referral

Dr R A Bellamy for the South Epsom Planning Group Incorporated (**SEPG**)

Ms W N Hoadley for Three Kings United Group Incorporated (**TKUG**)

Mrs P A Prescott and Ms E M Walker for St Lukes Environment Protection Society Incorporated (**STEPS**)

Friends of Oakley Creek (no appearance – withdrawn)

DECISION OF THE ENVIRONMENT COURT

A. **The decision of the Council is confirmed, subject to amended conditions.**

B. **The resource consent with relevant conditions is to be finalised as directed within this decision for final approval by the Court.**

C. **In addition, the direct referral is granted for a discretionary resource consent on the same terms and conditions as those provided for under the appeal.**

D. **The two decisions can be combined, providing the substitution of the word "cleanfill" and other words for controlled fill, subject to the same terms and conditions as outlined in this decision.**

E. **The applicant is to circulate the draft consent and conditions to allow the parties to submit final wording for both the grant of consent and the conditions to apply in the general form annexed hereto (B & C), modified**

as directed, within 30 working days. Parties are to reply within 10 working days.

F. **If the parties cannot resolve the final wording, the applicant is to file its proposed wording within a further 10 working days, and other parties provide their proposed wording within a further 5 wording days. The Court will then make the final decision on wording of conditions.**

G. **Any application for costs is to be filed within 30 working days. Any response, within 10 working days, and final reply within 5 working days thereafter.**

REASONS FOR DECISION

Introduction

[1] To most people, cleanfill describes a type of material used in land remediation, including bricks, ceramics, soil, rocks, gravel, sand, clay, and tiles. More problematically, it often includes concrete, although there are issues then about any wood or steel included, fibre cement, glass, asphalt and roading sub-base. Some definitions of cleanfill have also included such products as asbestos.

[2] In more recent years, concerns about contamination of soils has led to the inclusion of limits on known heavy metals. Issues continue to arise in respect of items such as hydrocarbons, organochlorines, pesticides, DDT, and the like. Envirowaste's appeal to this Court is founded on the presumption that where there is an excess in any background parameter for heavy metals, particularly arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc, then the material is no longer cleanfill. This argument has had added to it more sophisticated nuances suggesting that any more than background levels of a whole series of other substances, including hydrocarbons, pesticides, organochlorines, also mean that the material is no longer cleanfill.

[3] Many of these substances have no background levels which are published or agreed. Thus the inference that the material is not cleanfill seems largely based upon an assumption that any hazardous substance that is detectable means that the substance is no longer cleanfill. With modern analytical measures, it was accepted by all experts before this Court that examination of most materials at a molecular or

atomic level would show trace elements of most substances. Currently however, the detection limits on regular testing would not allow such a level of analysis.

[4] The applicant (Winstone) currently operates the Three Kings Quarry in Auckland, providing scoria and roading aggregate. The site will be fully worked out by 2020. With large infrastructure projects planned for the Auckland region there is demand for geographically convenient sites for the disposal of fill material. The application proposes the continuation of mining along with concurrent depositing of fill material. The proposal was granted consent by both councils, subject to conditions to control contaminants within the fill and protect the groundwater.

[5] Community and environmental groups oppose the application because of the perceived threat of contamination of the aquifer underlying the quarry site. It is agreed by all parties that the water quality currently meets NZ Drinking Water Standards. Opposition groups are concerned that potential contaminants within the fill materials will leach into the aquifer, thereby compromising its possible use as a supplement to the Auckland water supply. Further concerns include the lack of definition of the final end-use of the quarry site after filling has been completed. It is noted that a trade competitor, Envirowaste opposes the application on the grounds that the fill material being sourced does not, in its view, meet the rules of the Council Plan on what constitutes "clean fill".

[6] Accordingly, the question raised by Envirowaste is "what constitutes cleanfill?"

[7] This Court has struggled throughout the hearing to understand the emphasis on this issue, given their direct referral of an application for discretionary consent for fill. As a consent on the basis of fill only, without any reliance on any cleanfill provisions of the relevant Regional Plan, the continuing motivation of Envirowaste (being a trade competitor of Winstone), became an issue during the course of the hearing. We shall deal with the background to this application, the proposal, and the parties before coming back to these issues.

Rehabilitation of Three Kings' Quarry

[8] Three Kings Quarry has been operating since the 1920s and was part of a series of local quarries involved in the excavation of both scoria and aggregate

(basaltic rock). The limits of quarrying on the eastern side of the Mt Eden Road can be seen in a bluff rising to the Landscape/St Andrew's Road area with housing below. There is also signs of rehabilitation to the south of the Three Kings' Quarry site with a playing field constructed.

[9] More recently, to the immediate north of the Winstones Quarry, Hunter's Quarry area has been rehabilitated by fill and is now occupied by high-density residential homes and businesses (light industrial).

[10] Big King Reserve is a remnant scoriatic and basaltic cone rising to the west of the Three Kings site and there is a bluff on the boundary to the Hunters Quarry site below.

[11] The Three Kings site itself has been well-worked over a period of time and is now between 25m – 30m below the road level at its lowest point. There are still several major protrusions of basaltic rock into the quarry (which are yet to be worked out), and the scoriatic floor of the quarry still seems to be yielding material.

[12] Nevertheless, the mining in latter years has only been possible due to the de-watering of the site. Dewatering removes some 2,200m^3 water per day by pumping from the quarry site to a Watercare owned facility. Currently, the facility does not treat the water, which is of very high quality, and it is simply pumped to waste flowing by stormwater to Onehunga and exiting into the Manukau Harbour.

The underlying aquifer

[13] The Three Kings quarry site itself is the centre of an aquifer described by some experts as a bucket which fills with water not only from the site but the surrounding area of some 640ha (around 9,000 homes). When the aquifer is full, it overflows through a tuff lip to the northeast (in the area of Dukes Road) flowing into the **Western Springs Aquifer**. Without the dewatering pumping, the Three Kings Quarry site and surrounding area would constitute the southeastern limit of the Western Springs aquifer. Currently the pumping disconnects it from that aquifer and we shall refer to it in this state as the **Three Kings Aquifer**.

[14] There is another aquifer immediately to the east of Three Kings Quarry and Mt Eden Road known as the **Onehunga Aquifer**. This includes an area around One Tree

Hill and flows to the south exiting at Manukau Harbour near Onehunga. Several witnesses suggested that there was some connection to the Three Kings Quarry Aquifer. However, we prefer the evidence that suggests that any such connection is likely to be marginal and that almost all of any natural flow would be through the Western Springs Aquifer.

[15] Although the Three Kings volcanic cones are surrounded by a tuff ring, there nevertheless seems to be a high degree of permeability through the volcanic ash soils, particularly with the scoria grades associated with Three Kings Quarry and the volcanoes themselves.

[16] This Mt Eden area has been well established as residential over at least the past 100 years, with some 9,000 homes on it. We understand that the great majority of homes are utilising direct ground stormwater disposal. We also understand that the local road stormwater system is partially reticulated and partially disposal to ground. We therefore acknowledge that there will be significant amount of point discharge from roof and road water to ground. This water will include metals, including particularly zinc which has a solubility according to experts of 0.5.

[17] If transmissibility of metals in water was an issue here, we would have expected to have seen elevated levels of zinc in the groundwater. Yet it is clear to us from the evidence that has been produced that the water quality at Three Kings Aquifer is extremely high and that the filtering and adsorption by the sub-soils achieves a very high level of attenuation of all materials including metals. An overview of groundwaters prepared in a 2006 report noted:[1]

> **4.2.2. Water quality and source security**
>
> It is the basalt volcanics which exhibit some of the highest groundwater quality of the region. However, the shallow depth of the groundwater and the utilisation to receive stormwater makes them particularly susceptible to contamination. In addition, the high transmissivities of the aquifers mean that total residence times are generally low (generally less than two years) and travel times from potential pollution sources to groundwater abstractions can be much shorter than the total residence time. However, despite these potential issues, the water quality in the basalt aquifers (except in a small number of isolated areas) meets the New Zealand Drinking Water Standards (NZDWS) ....

[1] Pattle Delamore Partners Limited, *Auckland Three Waters Strategic Plan – Groundwater Resources Overview*, at page 22

[18] In the AEE the applicant produces a table of trace elements in Three Kings groundwater (g/m^3):[2]

Table 3: Summary statistics for trace elements in Three Kings groundwater (g/m^3)

Trace Element	Minimum	Mean	Maximum	MAVs
Arsenic	0.005	0.0011	0.0016	0.01
Boron	0.02	0.04	0.054	1.4
Cadmium	<0.00005	,0.00005	0.00005	0.003
Chronmium	0.00046	0.00054	0.00066	0.05
Copper	0.0008	0.002	0.007	1.0
Mercury	<0.00005	0.00006	0.0003	0.002
Lead	<0.00005	0.0006	0.0045	0.02

MAV = maximum allowable value

[19] The current quarry site is well managed and there was no indication from any the witnesses of known hydrocarbon or other spills, nor was there any suggestion that the water quality in the Three Kings Aquifer has changed from the range of figures given to us in Table 3.

[20] We did note during our site visit that there was an area on an intermediate level of the quarry (the southern end) which contained obvious signs of organic decomposition with leachate ponds and areas where leachate had drained through the sub-soils. It transpired that this was a storage area belonging to the Auckland Council and had been utilised for many years for storage by the Parks and Recreation team. It included a large amount of bark from which tannin staining of a leachate pond was seen. It also included large areas where material had been left to decompose and other areas of unattended materials, including rotting wood etc.

[21] Given that this was close to the dewatering pump house and situated on the scoria, we have real concerns about the utilisation by the Council of this site for such activities. Of all the various sources for contaminants that we have viewed or heard about during this hearing, the most significant appears to be this site. The Council have undertaken to review the matter urgently with a view to ensuring that there is no

[2] *Three Kings Quarry AEE*, Table 3, page 33

groundwater contamination. Again, the lack of existing impact on ground water would demonstrate the filtering and adsorption qualities of the sub-grade.

[22] The abstraction point some 39m below the current bottom floor of the scoria pit is at -5 RL. Winstones hold a consent to continue abstraction from dewatering until 2030 and advise that they intend to continue utilising it and incorporate a condition within the proposed resource consent to that effect.

Activities in the area

[23] Mt Eden Road is a busy arterial road joining with Mt Albert Road just to the south of Three Kings Quarry site. On that corner there is a shopping development and some other Council facilities. The edge of the shopping development has a fence which overlooks the edge of the quarry, and the Hunters Quarry redevelopment can be seen to the north of the quarry. There are also several Council parks adjacent to the shopping development, and the eastern side of Mt Eden Road has both a primary school and a special needs school, Carlson School.

[24] To the west of the quarry is the Big King Reserve which also has a walkway through to a small sports ground which appears to be the floor of an earlier worked area. Big King Reserve itself contains the majority of the volcanic cone, although there are bluffs both over the Three Kings Quarry and Hunters Quarry area where scoria mining continued right up to the boundary.

[25] To the north of the Three Kings Quarry site and along the western side of Mt Eden Road are a number of businesses including furniture, retail businesses and the like. Further north there is then a small shopping centre with a BP Station on the corner of Landscape and Mt Eden Roads. The more recent housing is higher density, being apartment or townhouse style, particularly in the Hunters Quarry site.

[26] The only activity permitted in the Business 7 zoning for the Three Kings Quarry is quarrying. It is intended that if this consent is granted, there would be a period when both the quarrying activity and filling activity would occur. As noted, the existing consent for dewatering would continue until 2030, at least.

Western Springs Aquifer

[27] We have already noted that the Three Kings Quarry is surrounded by a tuff ring, being the original volcanic cone. There is a low lip in the area of Dukes Road and Mt Eden Road, probably in the order of 300m to 400m wide.

[28] We accept the expert evidence that any overflow from the Three Kings Aquifer would flow through this area and then into the Western Springs Aquifer. We have concluded that the estimate of around 2,200m^3 of water per day, (the same as that currently pumped from the site), would be contributed to Western Springs in overflow, if pumping ceased and groundwater returned to normal levels. This figure would vary with season (evapotranspiration) and rainfall.

[29] We understand that further to the northwest there may be underground waterways through the basalt and gullys near the Meola Reef area in particular. We acknowledge that there is a surface flow commencing around Mt Albert known as Meola Creek. We also acknowledge that there may have been some contribution from the Three Kings Aquifer to the base flow of this creek, although the explicit connection is not clear. We were told that Meola Creek has a low base flow in summer, and that it also takes stormwater and sewer overflows, including that from a Watercare combined system. Watercare has a long-term plan to remove sewer and stormwater overflows from creeks, but it has no immediate plans in this area.

[30] The water from Meola Creek meets up with other waters which have been underground and surfaces at Western Springs Lake, this water exits as surface flow, being Motions Creek and Meola Creek, and as underground water seeps at Meola Reef. This essentially follows the basalt flow from Three Kings cone, down through the Western Springs Aquifer to Meola Reef itself.

The Proposal

[31] Having set the general scene, we now outline briefly the applicant's intentions. This is to fill the site progressively with fill materials as it is quarried out. Winstones intends to rely upon the surcharge of fill to generally compact the lower fill over the site, although some distribution of materials will be affected by employees and some limited compaction achieved by machinery on site. The last five metres of fill will be engineered and compacted to sustain a range of building activity (residential, business, light-industry) but not multi-storey tower building.

[32] It is intended that a range of materials identified as cleanfill materials in the MfE quidelines (annexed hereto and marked **A**), will be utilised for the site and that finished contours will generally slope from the north to the south to marry with existing contours of Mt Eden Road and Hunters Quarry.

[33] It is intended that there will be up to 375 trucks a day, which would include quarry trucks while the quarry continues working. Existing noise and dust controls will remain in place. This includes a comprehensive sprinkling system and use of a watering truck on site.

[34] It is anticipated that at least 50% of the materials on site would be from pre-approved contractors, and particularly from large projects. The other 50% of material will be supplied by casual contractors. Only contract trucks could supply (no private suppliers) and it is anticipated that most of these would be contractors that generally use Winstones, but may utilise more than one site.

[35] In support of this proposal, Winstones proposes a comprehensive suite of environmental controls for:

[a] the type of materials;

[b] maximum levels of contaminant that may be received;

[c] the rolling averages of contaminants in the materials; and

[d] various triggers to identify contamination responses in respect of groundwater.

This will of course involve significant issues of monitoring and control for entry of fill materials onto the site and for groundwater.

[36] It is also acknowledged that the final use of the site would be subject to planning changes yet to be undertaken. It is anticipated that different maximum contaminant levels would apply to the top 2m of soil which could come into contact with humans. The overall objective is that the fill as a whole does not exceed the background levels provided for in Regional Council document TP153.

[37] The conditions require a number of procedural steps which involve the development of comprehensive management plans for standards being specified within the consent itself. Annexed hereto and marked **B** & **C** is a copy of the conditions of consent produced in closing by Mr Matheson. It addresses a number of issues raised during the course of the hearing and we acknowledge is a significant change from the conditions of consent granted by the Council, or even those suggested in the first brief of evidence from Mr Sargeant.

The Parties

Envirowaste

[38] Envirowaste is an acknowledged trade competitor to Winstones, and operates two particular fill sites in the Auckland region, being Greenmount and Hampton Downs.

[39] Greenmount is a landfill which has now reached the capping layer stage. For the final capping layer Envirowaste applied for a resource consent controlling the contents of that fill. Initially they obtained consent for cleanfill which specified contaminant levels largely in accordance with TP153. Mr L Dolan, an environmental consultant, gave evidence for Envirowaste. He advised that:[3]

> ... ESL Greenmount Landfill, [operated] from November 2006 until September 2008, when the site was operating as a cleanfill (trace element concentration maximums TP153 and nil organics).

[40] He then provided a table comparing various figures showing the level of various contaminants measured at Greenmount capping layer to September 2008 (we have only included TP 153 and Greenmount from the table):

Table 7.1 Proposed Rolling Mean and Cleanfill Mean

Parameter	TP 153 Auckland Region Background Maxima (mg/kg)	Greenmount Landfill Cleanfill Mean (784 Samples) (mg/kg)
Arsenic	12	5
Cadmium	0.65	0.1

[3] Dolan, EIC, at [7.22]

Chromium	125	35
Copper	90	25
Lead	65	37
Mercury	0.45	0.08
Nickel	320	36
Zinc	1160	75
Petroleum Hydrocarbons C_7-C_9	-	1*
Petroleum Hydrocarbons C_{10}-C_{14}	-	6*
Petroleum Hydrocarbons C_{15}-C_{36}	-	128*

* Non detected in a result was entered as zero when calculating the mean.

[41] What this clearly demonstrates is that the cleanfill, being received at a site in the Auckland region, with similar intent to the current application, did not receive materials with a mean outcome anywhere near the figures suggested in TP153. Mr Dolan did not give the figures for Greenmount after 2008 when it amended its consent to allow higher maximum levels. We can only conclude that Mr Dolan, in making the applications for higher concentrations, did not consider that there was a risk to human health, given that this is dealing with a top layer of land to be rehabilitated for open space, recreation and sport.

[42] The Greenmount consent was amended in 2008 to provide for 1,000,000m^3 of material with higher levels of contaminants. The Winstones application can be compared with that sought in the Greenmount variation (set out as Exhibit G which is annexed as **D** in this decision). This sets out various figures, and it can be seen that those of Winstones are listed as Items 10, 11, 12 and 13. Of relevance for current purposes are the maximum figures for > 2m of depth fill and <2m of depth of topsoil, these can be compared with Greenmount. In respect of the topsoil, it can be seen that the maximum figures now proposed by Winstones are higher than those adopted for Greenmount in relation to boron, chromium, copper, nickel, lead. In relation to deeper fill, arsenic and nickel are both proposed to be higher, but some others (e.g. cadmium) are intended to be less.

[43] We received no evidence as to what impact, if any, the higher maximum levels had on materials received at Greenmount. Mr Dolan must have had material from September 2008 to date, but chose not to give it to the Court. Nor did he say that a wider range of material had been accepted or whether any levels exceed the maximum levels set out in the amended consent. We conclude that unless the materials are contaminated, they are likely to be in the general range of Auckland sites and any minor increase is likely to be localised i.e. zinc from downpipe discharge soils.

[44] The majority of experts accepted that if the soils were contaminated, they would have a particular contaminant at levels far in excess of those provided for as maximum levels in Winstone's proposed consent. Even if they were at or close to the maximum for a particular contaminant, it is most unlikely that they would have maximums for the full range of contaminants. The reason for this is that elevations of particular contaminants (i.e. DDT from pesticide, hydrocarbons from garages or machinery operations), are likely to be related to a single activity.

[45] The Council is required to identify all contaminated sites within the Auckland region and these are identified and known as HAIL sites. Any removal of fill from a HAIL site requires particular consideration, investigation and certification.

[46] Envirowaste filed an appeal to this Court on the basis that the fill is not cleanfill (as defined), and that the consent should not be granted. In opening, Mr Kirkpatrick made it clear that they sought only the imposition of reasonable conditions to ensure that the site received cleanfill products and not contaminated products. We took it that Envirowaste had abandoned the relief seeking refusal of consent. Nevertheless, some witnesses for Envirowaste were intent upon significantly more onerous controls than those that applied at Greenmount, and arguably for controls so onerous as to prevent the activity at all. In this regard the failure to identify a source for soils that were contaminated to the levels suggested was never explained to this Court. Given the 200m^3 maximum from any one site before pre-approval even 10 unidentified contaminated sites could yield no more than 2,000m^3 of fill or 0.066% of the total fill. Even 100 sites would still not produce 1% of the fill volume. Thus the mass loading of a particular contaminant is attenuated by the overall fill volume and the limitation on fill volume from any one site.

The Residents Groups

[47] SEPG, STEPS and TKUG have all had active involvement in the area over many years. There have been ongoing concerns about the operation of Three Kings Quarry and the dewatering well, and Dr Bellamy for SEPG outlined some of these concerns as did the TKUG group. Concerns have included noise, dust and traffic. In more recent years the dewatering consent has led to concerns about potential subsidence. Which aquifers were fed from Three Kings have also been the subject of debate over many years. The residents have also had concerns that if the site was refilled and then the dewatering ceased, that this may lead to other problems as the

water levels rose again, particularly if there was a prospect of it being drawn down quickly from time to time.

[48] It would be fair to say that the major concern of the residents in relation to contaminants was the potential to contaminate the groundwater supply and thus the Western Springs aquifer, and also for the potential of materials arriving on site to become airborne and contaminate nearby properties and people. The conditions of consent sought to address these matters in various ways, with further improvements being provided as late as the final closing.

The Auckland Council

[49] The former Auckland Regional Council and Auckland City Council both granted the consents. The subsequent appeal by Winstones has sought variation of the conditions and this has been the subject of ongoing discussions between the parties.

[50] The position had been reached by the opening that the Council and Winstones were agreed on all conditions, subject only to a debate as to whether the Council was to certify or approve management plans. In the end, this matter was resolved between the parties with suggested wording to the relevant conditions which require a review, certification or approval, with the following words:

> **Note that for the purposes of this consent review, certification or approval by the Council means assessed by Council staff or consultant acting in a technical certification capacity, and in particular as to whether the document or matter is consistent with or sufficient to meet the conditions of this consent.**

[51] It also transpired that the Council owned the site to the south of Three Kings. As we have discussed, this has issues relating to the storage and leaching of organic materials which needs to be investigated by the Council urgently.

Watercare

[52] Watercare were a Section 274 party only to the direct referral. They held particular concerns in relation to potential of fill to contaminate groundwater. However, by the time of the hearing they considered that the proposed conditions (and also those now annexed hereto as **B**) met their particular concerns by:

[a] Addressing the materials to be brought onto the site; and

[b] Ensuring that there were appropriate trigger levels below MAV which required the applicant to take steps to avoid adverse effects on water quality.

The Issues

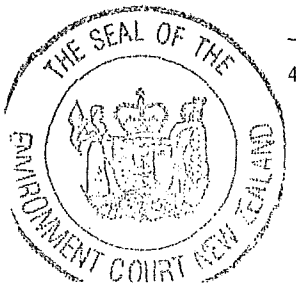
[53] The major issue advanced by Envirowaste was whether this site was a cleanfill site as proposed. This argument became largely redundant with the application for general fill as a full discretionary activity, compared with a cleanfill as a restricted discretionary. Nevertheless, the significant modifications made to the proposed conditions, both prior to the hearing and by the end of the hearing, meant there was greater specificity about what materials could be brought onto the site and the permitted levels of various contaminants within it, both at a maximum level and on a rolling mean basis. Envirowaste raised concerns about the rolling mean, although some of its expert witnesses supported this approach. Envirowaste also raised the issue, supported by the Residents, that an air discharge consent was also required.

[54] We understood that all the experts agreed with the proposition that cleanfill was material that when buried, had no more than a minimal adverse effect on human health or the environment. Counsel accepted that where there was a de minimis effect, then this could be properly disregarded by the Court in reaching its assessment.[4] In assessing the adverse effect, it was acknowledged that it was appropriate to consider effects that may have a low risk probability of occurrence, but nevertheless had significant consequences.

The Air Discharge

[55] We deal very briefly with the issue of air discharge. Our view is somewhat simpler than that put to us by various consultants. *Rule 4.5.1* of the *Auckland Regional Plan: Air, Land, Water* provides as a general permitted activity:

General Permitted Activity Rule



[4] See ***Bayley v Manukau City Council***, [1998] NZRMA 513 at [521]

4.5.1 Unless provided for otherwise in this plan, activities that discharge contaminants into air are Permitted Activities, subject to the following conditions:

(a) That beyond the boundary of the premises where the activity is being undertaken, there shall be no noxious, dangerous, offensive or objectionable odour, dust, particulate, smoke or ash: and

(b) That there shall be no noxious, dangerous, offensive or objectionable visible emissions; and

(c) That beyond the boundary of the premises where the activity is being undertaken there shall be no discharge into air of hazardous air pollutants that does, or is likely to, cause adverse effects on human health, ecosystems or property; and

(d) That beyond the boundary of the premises where the discharge into air of agrichemicals or paint or power coatings is being undertaken there shall be no drift or overspray from the application.

[56] If the activity is not covered by *Rule 4.5.1* or any of the other specific rules, then it becomes a discretionary activity by virtue of *Rule 4.5.2*.

[57] *Rule 4.5.44* includes:

4.5.44 The discharge of contaminants into air from the storage, handling, redistribution, or repackaging of minerals, ores and/or aggregates is a Permitted Activity, subject to conditions (a) to (c) of Rule 4.5.1.

[58] *Rule 4.5.46* provides:

4.5.46 The discharge of contaminants into air from cleanfills is a Permitted Activity, subject to the conditions (a) to (c) of Rule 4.5.1.

[59] *Rule 4.5.49* similarly includes earthworks:

4.5.49 ... which includes the disturbance of land surfaces by blading, contouring, ripping, moving, removing, placing or replacing soil or earth, or by excavation or by cutting or filling operations.

[60] We conclude on the wording provided that the application for activity in this case also constitutes earthworks, whether or not the application is for cleanfill as that term is defined in the Regional Plan. Nor can we see any other provision that would not enable *Rule 4.5.1* to otherwise apply. We conclude that it would still be a permitted activity as earthworks provided the criteria of *Rule 4.5.1* are met, which is the applicant's intent.

Cleanfill

[61] Cleanfill is defined in the Auckland Regional Plan as:

> **Cleanfill**
>
> A cleanfill is any land that only accepts cleanfill material.
>
> Cleanfill material means material that when buried will have no adverse effect on people or the environment: and includes virgin materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of:
>
> - Combustible, putrescible, degradable or leachable components
> - Hazardous substances
> - Products or materials derive from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices
> - Materials that may present a risk to human health
> - Liquid waste

[62] Interestingly, inert materials are described to include concrete, and accordingly, the meaning of the words degradable or leachable must be taken in the context of concrete being described as inert.

[63] We have concluded unanimously, and by a wide margin, that cleanfill is here used primarily to describe the type of material accepted. It is appropriate to include maximum concentrations for contaminants to ensure the fill consists of materials that when buried will not have a significant impact on the environment or human health. The potential for contaminants in the material to be soluble or to be adsorbed or to be filtered by soil, creates a potential for the materials when placed in the fill to contaminate water and have an effect on people or the environment. In this case, the only argument related to whether it had the potential to alter the chemical constitution of the groundwater to such an extent that it could have an effect on either people or the environment.

Risk

[64] The Court has frequently said that the Act is not a no risk statute. This acknowledges that in all human enterprise there is always an element of risk. There are those risks that can be foreseen and prevented. But there are other risks which are beyond the best design or intent and can confound all human endeavour i.e. earthquake or volcanic activity.

[65] In examining risk under the Act, the Court therefore must take a practical and robust approach to both the risk itself and its prevention. After examination of a number of expert witnesses, it appeared to be agreed that the risk we were examining in this case is the risk of importing contaminated material in such quantities as to lead to impacts on the groundwater sufficient to harm human health or the environment.

[66] It was accepted that the applicant's compliance with the more restrictive of the MAV maximum allowable values for drinking water standards, or the ANZECC values would avoid adverse effects on human health or the environment. We then pursued throughout the hearing the question: What is the risk of contaminant levels in the water exceeding those values?

[67] We noted firstly that the trigger values for mitigation action were at less than half of the MAV/ANZECC values and that the actual values likely in the fill material at the current time are orders of magnitude lower again. All witnesses agreed that the types of soils to be placed at the site and the steps to be taken in relation to placement and compaction were such that the prospects of high water transmissivity through the fill material was low. Although several of the experts suggested that there might be preferential flow paths, they also acknowledged that this would mean less leachable material because less material would be exposed to the water. Controls on contaminate testing of materials submitted for acceptance in the fill and limits on load size before testing was required and working, mixing and compacting of the fill material at the face will limit the extent of any possible preferential flow path in the fill.

Modelling and Mass Loading

[68] Modelling of water flow through the fill was performed to simulate a 5,000 year period and assumed a maximum value of all contaminants throughout all of the fill at a homogenous level. This model provided for constant dewatering throughout the period so that infiltration flow from rainfall through the fill was at the maximum at all times, as were the outflows.

[69] In our view, this was a very conservative scenario. We are unable to envisage any basis upon which the maximum values of contaminants could be contained throughout the entire fill. Given the requirement to meet the mean values, the testing proposed and the unlikely event of material coming from a significant unidentified

contaminated site in the region, we very much doubt that the overall levels will be very much dissimilar to those for the capping layer at Greenmount and/or in general background average for the region.

[70] In our view, the adoption of a rolling mean average weighted with the mass of loads means that all approved sites can be assumed at the levels identified in the various reports. For material not subject to pre-approval, the sampling of each 150th load, will lead to that concentration being attributed over the previous loads. Although there can be some variety in that, it means that any failed load would be attributed over the previous 149 non-preapproved loads. It is highly unlikely that loads from a series of different sites would have uniform contaminant levels. Over the time of the filling, the sampling numbers will mean that statistically the prospects of the materials varying much from the average of all samples becomes less and less.

[71] Fundamentally, the materials that can be put into this site are ones that occur in the Auckland region, and will almost always be natural materials related to site redevelopment, roadworks and the like. We have no reason to believe that they will be atypical of the material types occurring in the region. In fact, particular controls are required for large quantities from one site (testing and pre-approval) and specific testing of material from identified contaminated sites. Also relevant to that consideration is our conclusion that it is the mass contaminant levels of the entire fill which will have the impact, not particular loads.

[72] Our reasoning for this is that possible groundwater contamination from the fill is based upon the amount of water moving through the fill and that infiltrating the site. In addition to that moving through the fill itself are the other waters being received at the dewatering well from the surrounding 600 hectares. In those circumstances, the dilution of any fill leachate by other groundwater has been variously estimated by differing witnesses between 18 to over 100. Thus, any contaminant in any leachate from the fill would be further diluted by the other groundwater and would be inconsequential in the context of the overall water and mass which is contributing to the groundwater quality. We keep in mind that the Three Kings site is only a small part of the 640ha Three Kings Aquifer.

[73] We also take into account that existing information on the performance of the soil types shows a high level of adsorption and filtering already by groundwater, and

we have no reason to believe that this would not occur with any contaminants that might be included within the fill mass.

Controls on Risk

[74] Given the requirement for pre-approval for any known HAIL risk sites, we consider that the potential for casual loads to significantly change the mass parameters are de minimis:

[a] There are controls over the maximum quantities of the identified contaminants within the fill;

[b] The sheer mass of 3,000,000m^3 of fill;

[c] Testing and observation of loads;

[d] The controls to identify deviation from both the mean and maximum figures;

[e] The limits on the casual loads of 200m^3; and

[f] The significant dilution of the Three Kings aquifer at some 2,200m^3 per day.

[75] We conclude that the levels of the various determinands in the dewatering well are a function of the overall composition of the fill and the surrounding catchment area. We conclude that the model over-estimates the effects of leachate from fill on groundwater quality. We conclude that any leachate will also be diluted by the waters drawn down by the dewatering well, reducing the overall effects of any contamination to de minimis levels.

[76] Nevertheless, we accept that there is a very small risk that gross non-compliance by contractors could escape oversight and have some effect on contaminant levels. To avoid this very remote possibility, the applicant has agreed to an extremely comprehensive monitoring and audit process. This includes testing every non pre-approved load by XRF testing. This will identify mineral levels in the

samples and would give a very high level of confidence that the consent conditions have been complied with.

[77] There was some suggestion that the levels from XRF testing did not exactly coincide with laboratory sampling. We agree that there is a variation in correlation variation, depending on the amount of moisture in the soil. Some readings are high, some are low. Again, our concern is not with precise numbers, but with gross contamination. We are very confident that XRF will pick out gross contamination, at least in respect of the elements which it identifies.

[78] There was a suggestion that we should also test for other substances using other methodologies, including Photometric Infrared Detection. The staff currently visually inspect each load, and use olfactory tests for hydrocarbons and other volatiles. We consider that this is sufficient to protect against this possibility of gross contamination.

[79] We keep in mind that there is laboratory testing of 1 in 150 loads, and if any serious non-compliance was encountered, it is likely that Winstones itself would take serious action against the contractors. We also consider that such controls are ones likely to be seen as reasonable by contractors and not lead to deliberate attempts to breach.

[80] Overall however, we consider that the obligations imposed by this consent are more onerous than any other modern landfill, or any other controlled fill site we are aware of. In addition to the XRF testing of each casual load, the applicant will:

[a] Test every 150th load by laboratory sampling;

[b] Any loads deposited after laboratory testing from the same site, which then shows non-compliance with the conditions enables Winstones to test and extract those later loads from the site;

[c] Every load is subject to both visual and olfactory examinations on at least two occasions:

[i] At the gate; and

[ii] At the tip site.

[d] Mass leachate issues are addressed with regular water testing at both water extraction sites and one background test, suggested currently at Bore Hole 7, which is not currently influenced with the well extraction;

[e] Constant monitoring of PH and conductivity. These levels need to be set by the applicant.

[81] Our overall conclusion is that the application by its nature is one which would avoid adverse effects on human health and the environment by the utilisation of cleanfill materials. To provide a very high level of assurance in respect of existing quality drinking water beneath the site, conditions avoid any potential adverse effects and give a very high level of confidence that there will be no effect on human health or the environment from the granting consent.

[82] Given the conditions that are now proposed, we conclude that the application is for fill within the parameters of TP153, and accordingly, that consent can be granted on a restricted discretionary basis. Given the very limited nature of the discretions involved, Mr Kirkpatrick acknowledged that consent should properly follow if we concluded that the proposal was for cleanfill. Nevertheless, we consider that the conditions give a very high level of public confidence in respect of water quality and the avoidance of any adverse impact upon human health or the environment.

The Water Extraction Consent

[83] In reaching this conclusion we have assumed that the application will be subject to the modifications proposed as conditions, including a condition to continue water extraction from the well on-site. Given that Winstones holds a consent to operate this activity until 2030, they intend to operate for that period, or 5 years after the cleanfill is concluded, whichever comes first. This does not, of course, prevent Winstones, or another party, seeking a further consent for abstraction for water, nor does it mean that any abstraction after 2030 needs to occur.

[84] There was much argument as to the extent to which this Court should take into account the fact that the consent of Winstones abstraction consent expires on 2030.

This refers in turn to what is the environment as described in the Act and set by the Court of Appeal in ***Queenstown Lakes District Council v Hawthorne Estate Limited & Anor.***[5] Our understanding is that the environment is that which is existing, that which is permitted by the Plan, and that for which consents have been granted, if unimplemented (at the discretion of the deciding authority). In this case there are no unimplemented consents. Although we can assume that in the future there may be the prospect of the consent ending, we do not consider that that has any particular impact in this case, given that the dewatering would continue until 2030 or 5 years after the filling was completed (at the minimum). We can assume that within that time, maximum likely leaching of any materials is likely to occur. We consider capping of the fill will significantly reduce the potential for contamination.

[85] Although it was suggested to us that these materials had scales of hundreds of years to move several metres, we think that any material that is moving at that pace is likely to take many centuries to reach the dewatering well, given that it is around 30m under the site. It appears to us likely that any consideration for recharge or abstraction will be carefully considered in light of the likely geological conditions known at that time. It may be that by this stage, the water treatment station constructed by Watercare would be utilised for a potable supply for the local population.

Recharging of Western Springs Aquifer

[86] Other groups, including particularly STEPS, suggested that the groundwater should be recharged so that the overflow recommences into the Western Springs aquifer by potentially recharging Meola Creek and other groundwater. It was then suggested by some witnesses that the flow of water over the tuff lip may create some horizontal pressure through the fill thus leaching contaminants. We prefer the evidence of Mr Burden and others on this issue, and do not consider that recharging the aquifer is likely to leach as much material as the full dewatering. Given the very low permeability of the fill soils involved, we consider that the overall effect of groundwater recharge would be simply to have the groundwater around Three Kings move through the scoria, leaving the rehabilitated area to release water more slowly due mainly to pore pressure as the groundwater level falls. Given that in the normal course groundwater levels are unlikely to fluctuate by more than 2m, we suspect that

[5] (CA) [2006] NZRMA 424 at [84]

there would be very little water flow into general groundwater from the fill site, given that the pore pressures near the surface of the fill would be significantly lower than they would be deeper in the fill.

[87] There was some suggestion that Bore Hole 7 would not pick up flows from Three Kings. We do not agree, and have concluded as a fact that Bore Hole 7 is an appropriate bore hole to measure water flow from Three Kings Aquifer to the Western Springs Aquifer if dewatering ceases. We do accept that there are other intermediate sources of contamination which may confound any results, but those sources are existing already, including the BP Station and a number of properties and roads, as well as the former Hunter Quarry site rehabilitation. Overall, we have concluded that any effective groundwater recharging of the site would have de minimis effects in terms of potential discharges from the fill site and should be disregarded for current purposes.

Conditions

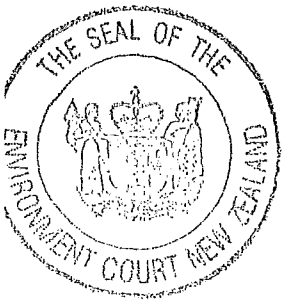
[88] In reaching these conclusions we have discussed the conditions in generic form only. During the course of the hearing those conditions have been improved significantly to the extent where they now would represent an average contaminant level within the fill site compatible with TP153 and very low levels of other forms of contamination. That appears to be accepted by most of the expert witnesses before the Court. The applicant has now incorporated a suggestion by the Court that all material should be sourced within the Auckland region. Questions of sampling gave the impression that it was necessary for the Council to undertake regular sampling at set times, but not at others. It is the intention of the Court that the Council is able to undertake full sampling tests at the cost to the applicant at least twice a year at random intervals. It is intended this would comprise no more than two core samples (or composite samples) for testing. We also do not intend that this would prevent the Council carrying out a random audit (at any time), with or without additional sampling, at its own cost. In the event that a breach of condition was established, it seems that the Council would in those circumstances seek reimbursement from Winstones. Condition (13A) needs to be amended accordingly.

[89] Condition (19) also troubles the Court as a matter of detail. In respect of groundwater contingency, we conclude there should be three levels of contingency:

[a] Where 50% of MAVs are reached. Various steps in Condition (19) are not all mandatory, nor are they particularly helpful in advising what must occur. It seems to us that at the 50% level, further testing must be undertaken and a remedial plan set in place to achieve the water levels return the normal range. The normal range would need to be defined, but one assumes that it is the average of all samples prior to a marked upward trend in any figure being detected. It also needs to deal with the question where the upward trend is attributed to something other than the operation of Three Kings fill operations. This would seem to involve reporting to the Council and Watercare, and participating in any meetings to identify mechanisms for remedial work to lower the particular trend line;

[b] At 75% - 80% of MAV the condition could require the remediation plan to consider the dewatering of the site, or any other interventions necessary to achieve treatment. This might include dewatering and treating the dewatered site then reinjecting the water. The actual methodology might be set out in a rehabilitation plan. However, it does seem that one would need to see a downward trend within 3 – 6 months with a figure of less than 50% MAV being achieved within a reasonable period of time (i.e. 1 year). It would also need to deal with whether or not fill should continue to be received in the meantime if the site is still open;

[c] Where the trigger levels are reached for MAV or ANZECC then the question arises as to what steps should be taken further. As a matter of practicality it appears that if this level is reached, then the contingency plans have failed and the applicant would be in breach of the resource consent. Accordingly, there needs to be a clear condition of consent that levels of the various determinands will never exceed the MAV or ANZECC limits included. If they do, it would be for the Council to decide on the appropriate course of action. We assume a full Section 128 review of the consent would be appropriate including any remediation conditions necessary to remedy the contamination.



[90] We agree with those who criticise the current conditions as suggesting that you can obtain a resource consent for breaching the conditions of consent.

Accordingly, the reference at the end of paragraph (19)(f) is inappropriate. We agree that items (g), (h) and (i) are helpful, but a rewording of the entire condition may make the various trigger points and their actions clearer. A condition should also be included that on an annual basis as part of the full management plan, the consent holders will supply to the Council an annual water monitoring plan to be certified by the Council.

[91] We have concerns about Condition (21). We are unable to see why changes can't be required annually, particularly where there may be some new identified human health issue. We have concluded that this condition could be simply amended to require an annual review of the fill management plan.

[92] Condition (22) should be reviewed to provide for annual reviews for the first three years after the commencement of the consent and in the event that there are no reviews required for three consecutive years, then every two years thereafter. The review should deal with any actual or potential adverse effects on human health or the environment which may arise from the exercise of this consent deleting the balance of that clause.

[93] In relation to the land use conditions, we consider that the rolling average should be referred to as a weighted rolling mean, and Condition (11) should be amended to reflect that and any other reference to rolling mean contained in the decision.

[94] After the first sentence in Condition (14) we would add:

> Certification by the manager is required prior to the commencement of filling.

[95] Condition (14)(c) should be amended to include a fill contour plan for the following 12 months of operation.

[96] Condition (25) should read:

> The refuge is to be installed prior to the filling operations commencing.

[97] At Condition (35), 1991 should be changed to "*thereafter*".

[98] Condition (35)(f) should continue by inserting:

> ... any measures are implemented (where necessary) to the satisfaction of the Manager to protect human health and the environment.

[99] Generally we would also require that the activity consent is also included with the conditions and that the relevant maps are attached. In particular on this site, this would involve the final full contour map which needs to be amended to more properly reflect:

[a] Contour rising towards Big King Reserve on the northern portion of the site;

[b] Relating to the topography at Hunters Quarry by way of battering or the like;

[c] Providing for connection to Mt Eden Road, preferably sloping from Big King Reserve towards Mt Eden Road;

[d] Providing for the complications of the Council site and the recreation playground at the southwestern end of the site, probably by battering the slopes; and

[e] Providing some natural form and indication as to how drainage is to be provided (which we understood to be peripheral).

Councils' decisions

[100] Finally, we note that the outcome of our consideration of this matter reaches a similar conclusion to that of the Commissioners. Under Section 290A of the Act we have had regard to that decision, but consider it of limited usefulness given the significant changes to the proposed conditions of consent. However, the approach of both groups of Hearing Commissioners is consistent with our decision.

[101] In particular, we note the ACC Commissioners for the Council at page 20 of the Hearings Report:

> **10.6 The composition of the fill material and whether it legally constitutes "Cleanfill" ...**
>
> ...
>
> We have carefully considered the evidence from both Mr Burden and Mr Dolan in that respect and conclude that provided the sampling

> regime and methods for managing the quality of the Cleanfill are rigorous then the proposal will fall within the term "Cleanfill" and as such as a controlled fill activity will be consistent with the District Plan. ...

[102] We agree and would add that it is also consistent with the Regional Plan.

The Direct Reference

[103] The direct reference is a fully discretionary activity and the applicant proposes that it should proceed on the same basis as the application for resource consent. Given our conclusion as to the previous application being cleanfill, under the Proposed Plan it would follow that this application should be granted consent as a discretionary activity because it meets the criteria for cleanfill and is otherwise in accordance with the general criteria of the plan. Given our view that the cleanfill consent is the more appropriate consent, we would normally not have considered it necessary to take this matter further.

[104] However, Mr Matheson tells us that his client is particularly concerned about trade competition and the potential for Envirowaste to appeal the substantive decision and thus delay the implementation of the consent. Given that concern we will address the application for a general fill resource consent on its merits.

[105] Given our general conclusion as to compliance of the previous application with the general provisions of the Plan, it would follow that a controlled fill in this form would avoid adverse effect on the human health and the environment, and accordingly, rehabilitate valuable inner-city land for other purposes. With the extensive suite of controls, adverse effects on the environment would be de minimis and human health and the environment would be protected.

[106] Accordingly, we would be providing a scarce resource within the urban area which would be available for the most appropriate use at the time that it is ready. This would require a planning process, and thus the process for its final use is one which can be reserved for a later date.

[107] As Business Zone 7 land within the Auckland Council area, its reclamation by controlled filling excluding refuse disposal is a full discretionary activity under *Rule 8.7.4.3*:

2. Reclamation by controlled filling excluding refuse disposal

... The outline plan will indicate how the operators intend dealing with such matters as:

- noise, odour, pests, dust and material dispersal nuisance;
- fire risks;
- type and amount of material and method deposit and cover;
- type and conduct of vehicles with delivery access;
- hours of operation;
- effluent monitoring and disposal;
- stormwater management;
- where the extraction is still ongoing those methods undertaken to ensure compatibility of operations and maintenance of safety aspects;
- security;
- landscaping screening and fencing

...

[108] The Plan goes on to say:

> The activity is regarded as transitional. Accordingly the outline plan must indicate what the final state of the land will be, and it must demonstrate a land form suitable for subsequent use.

[109] Importantly, this does not go on to give a range of criteria to be addressed. It is important to recognise that generally speaking, quarrying activities which are controlled need to include in the management plan provisions for progressive rehabilitation before quarrying ceases and rehabilitation objectives and possible techniques and an indication of the range of potential activities which could utilise the quarry when extraction is complete.

[110] Given the lack of any particular criteria within the Plan, the more general objectives and policies of the Plan are summarised by Mr M Weingarth, senior planner with the Council:[6]

> 51. Part 2 of the District Plan sets out the scope of underlying principles which form the objectives and policies relating to various aspects of development within the city. In principle, the District Plan seeks to achieve the sustainable management of the resources, whilst allowing for economic and urban growth at a rate that does not

[6] Weingarth, EIC, at [51] & [52]

detract from the existing environment. It also takes account of heritage issues, natural environment issues and social needs.

52. Overall, I am of the opinion that this proposal will generally adhere to the principles of the District Plan as it will help to enhance the availability of land and other important building resources, whilst allowing economic development at a scale that protects the existing natural and built environment of the locality.

The Auckland Regional Plan: Air, Land and Water

[111] The Regional Plan has a wider range of provisions and we will address a number arising in terms of the Plan. As far as the Regional Plan on Sediment Control is concerned, it does not appear that this gives any particular concerns to planners or specialists. Although an earthworks consent is to be obtained, the natural internalised catchment of the quarry and the attenuation achievable both through the cleanfill and scoria is sufficient to satisfy the experts that there is no risk from sediment. For the most part, the existing quarry sediment and silt control works can operate until the land is filled.

[112] As far as the *Auckland Regional Plan: Air, Land and Water* is concerned, we have already addressed the air provisions in general terms. So far as the general objectives of the Plan contained in *Objective 5.3* are concerned, these seek to firstly maintain high quality environments and minimise adverse effects, and wherever possible, enhance degraded areas. If not dealing directly with cleanfills, avoiding any adverse effect from discharges from landfills is encompassed within 5.3(c)(ix). In broad terms it could be said that the objective of avoiding adverse effects on human health or the environment is subsumed within the objectives of Regional Plan. This includes discharges from stormwater, industrial processes, sewage treatment, land management, contaminated land and landfills. The discharge of contaminants from a cleanfill that doesn't comply with the permitted activity *Rule 5.5.48* is a restricted discretionary under *Rule 5.5.53*. Thus, it would follow that a full discretionary activity is nevertheless concerned with the discharges which may occur. That has certainly been the focus of the evidence given to us.

[113] Given our conclusions that there is no more than de minimis risk to human health or the environment with appropriate conditions, it must follow that the benefits of rehabilitating this land would assist in avoiding the site becoming contaminated in the future, and thus meet *Objective 17.3.3* of the Auckland Regional Policy Statement,

as well as the objective of maintaining water quality and water bodies (*Objective 8.3*) and *Policy 8.4.1.*

[114] Although the strategic objectives are at a very high level, no witnesses suggested to us that the provision of an integrated quarry and landfill site within the urban centre and close to some major proposed earthworks (including for example Waterview) would not achieve strategic objectives and policies for the region.

[115] The issue is of course that this must be done in a way that avoids adverse effects on human health and the environment in particular, and in a more general sense, avoids contamination of groundwater.

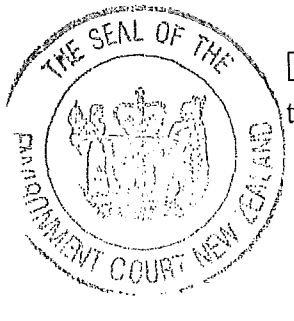
Other Matters

Section 104(1)(c) of the Act

[116] Having addressed adverse effects and the provisions of the relevant policies, we consider now whether there are any other matters which should be taken into account under Section 104(1)(c) of the Act.

[117] We have regard to the desirability of water being reintroduced to the Western Springs aquifer. Although we agree this would be desirable, we acknowledge that there is currently in place a resource consent to enable water abstraction to at least 2030 and that the recharging of the groundwater is unlikely to occur until after the site has been rehabilitated.

[118] We also take into account the many years of frustration of residents of Three Kings area, as expressed by Mr Bell and others. Their concerns are with the number of vehicles on the road, vehicle movements and the like. Although we acknowledge the potential amenity effects and traffic effects, we consider that these need to be considered in the context of a busy business and industrial area, protected by appropriate zoning (as Business Zone 7) and anticipated to generate traffic. The Plan also seems to envisage the rehabilitation of these quarry sites in due course, and accordingly, the intention is that the more enabled the owner is to complete the works, the sooner the land will be available for other purposes.



[119] We acknowledge the frustration of nearby residents with dust and noise from the site in the past. The use of aggregate and scoria crushers and sorting plant has

clearly caused noise and dust problems in the past. With the extensive sprinkler and truck wash system we are satisfied dust can and should be contained on site. In respect of noise, insufficient detail was given for us to be clear as to its cause. However, we anticipate that fill materials will be damp or covered to comply with traffic requirements. We also consider the noise of the machinery for placement of landfill is likely to have no discernable impacts. When the final cap forming is taking place we accept that there may be some noise, but it would be covered by the construction standards.

[120] Although we agree the question of trade competition could be relevant to our discussion at this point, we put that to one side given that we are undertaking a full evaluation. We believe a critical positive benefit of this application is that the works can be undertaken in a way that enables, not only the construction industry and the quarry owner to develop the land, but also provide for a scarce urban resource, namely, developed land which could be used for a wide range of uses.

Part 2 of the Act

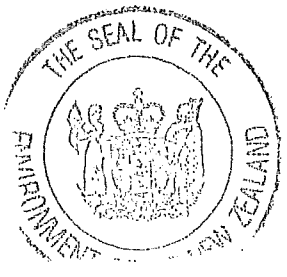
[121] Turning to Part 2 of the Act, we are satisfied that the activity is providing for ordered development, utilising the region's material resources to rehabilitate a quarry in a popular residential and business area. That enabling can occur while avoiding adverse effects on human health or the environment, and thus enabling the wider community to provide for their needs for housing and business use, and/or recreation, depending on the end use of the land. Particularly, this land has the benefit that that final use can be one subject to a proper procedure by way of Plan Change in due course.

[122] We accordingly are satisfied that the activity meets the sustainable purpose of the Act. We recognise the legitimate concern of residents for human health and the environment, which includes:

[a] Groundwater quality being maintained in case future human use is required;

[b] Improving the current poor state of the Western Springs aquifer; and

[c] Having some input into the end use of the land created.



[123] We are satisfied that all these matters are adequately provided for. In particular, the final use of the this land is a matter for the future Council, and should be addressed through some form of integrated land use planning. We agree with residents that this should addressed sooner, rather than later, because of the need to integrate this land with the surrounding land, particularly the Council reserves land and nearby parks, and the existing shopping centre.

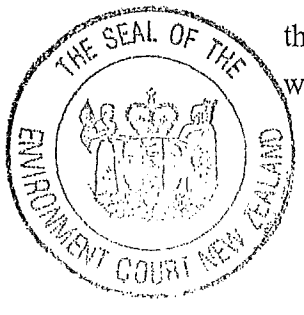
[124] In relation to the Western Springs Aquifer, the rehabilitation of this site does at least give the prospect of being able to recharge the aquifer, and thus allow water to flow towards Western Springs. We have concluded that in respect of traffic, dust and noise, there are no outcomes anticipated that will be any more serious than those under the existing quarry consent, and we anticipate dust and noise should reduce considerably. It appears to us that many of the concerns relating to the quarry operation, related to the crushing of rock and scoria. The traffic movements intended will be similar to the current operation. Some improvements are provided for in the conditions of consent, including encouraging all contractors to cover loads where feasible. In respect of dust and noise, there is a well-established sprinkler system around the periphery, together with watering trucks, and the applicant is confident it can meet the Council constraints at the boundary.

[125] Historical concerns relating to dust relate to the quarry operation. The landfill does not include any known dusty operations. Most fill material is moved promptly to the cleanfill site, and tends to be installed promptly without excessive dust generation. We note however that there are extensive dust control measures in place already.

Outcome for Direct Referral

[126] Although we have undertaken a more exhaustive examination of the criteria under the Act, the outcome is still the same. With the conditions proposed, the site can be rehabilitated with no more than minimal risk to human health or the environment. Put another way, the Court is satisfied that it represents sustainable management as that term is described in terms of the Act.

[127] Accordingly, we conclude that consent can be granted, both in terms of the decision appealed from, and in terms of the direct referral, and we would consider that the wording could clearly include cleanfill and/or fill, being material as described within the consent itself.



Expert Witnesses and Trade Competition

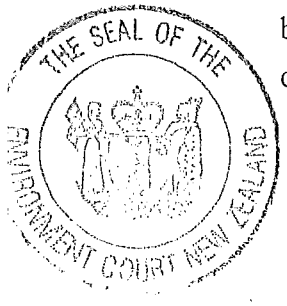
[128] We cannot leave this decision without addressing issues which came up in the course of it in relation to the role of expert witnesses. We recognise that the applicant's conditions of consent changed considerably from the time of the Council consent to the time of the closing of the hearing. By the commencement of the hearing the conditions of consent were such that the material in the fill would on average meet the criteria of TP153.

[129] We recognise the genuine concern and limited resources of the resident groups. Most of those groups would acknowledge that background levels of TP153 would be acceptable. There were some concerns about the calculation of the average, and Professor Triggs identified a number of these. In that regard, even most of the Envirowaste witnesses recognised that with the changes to the conditions, the application came very close to the definition of cleanfill within the Plan and also an activity that they would consider acceptable.

[130] One difficulty with many busy professionals is the limited opportunities that are given to assimilate changes of position which are adopted close to, or during, a hearing. Accordingly, although we reach decisions very different to those in the briefs of evidence for a number of expert witnesses for Envirowaste, we acknowledge that those opinions were prepared at a time when the change of position of Winstones was not known to them.

[131] Nevertheless, it is important, particularly where there is a trade competition case, that expert witnesses avoid becoming too aligned with the position of the client they are appearing for. In that regard, where there was conflict between the evidence of Winstones and Envirowaste expert witnesses, we have preferred the evidence of Winstones.

[132] The key witness for Envirowaste was Mr L Dolan, describing himself as an independent consultant. However, it transpired that Envirowaste represented 80% of Mr Dolan's 2009/2010 income and 95% of 2010/2011 income. Moreover, Mr Dolan has his office space within the Envirowaste premises using Envirowaste equipment, including stationery. His role included identifying prospective applications and bringing them to the attention of Envirowaste. In this case he was also instructed to draft the submission to the Council in respect of the application. At the very least,



this detail of Mr Dolan's involvement should have been given to the Court as part of his brief, and it is likely that Mr Dolan would not have been able to give evidence as an expert witness.

[133] Although trade competition did not become directly prohibited in terms of the Act until 1 October 2009, Section 104(3) of the Act has always provided that the Court may not take into account trade competition, or the effects of trade competition. The Court has always discouraged the use of the Act's provisions to delay competition or seek restrictions over a party which would make that party less competitive. The Court has consistently acknowledged that issues of public interest (i.e. in this case, human health or the environment) can be legitimately pursued even by a trade competitor. However, the Court will rigorously examine the evidence to satisfy itself that the trade competitor is pursuing legitimate issues under the Act, rather than an ulterior purpose of obstructing a trade competitor.

[134] Given that the evidence has already been advanced in this matter and many of the positions adopted by Envirowaste were also adopted by other residents groups, we have concluded that this is a matter that should properly be addressed in terms of any cost applications, rather than in terms of the merits of the proposal itself.

Directions

[135] We conclude consent should be granted on the appeal and directions referred.

[136] Winstones is to prepare a further set of conditions incorporating those annexed hereto as **B & C**, but including within it:

[a] the consents;

[b] a final fill contour plan; and

[c] amendments to the conditions we have discussed.

[137] Both consents could be combined in a single consent for controlled fill. These are to be circulated to the other parties within 20 working days.

[138] The parties have 10 working days to comment upon those conditions. If agreement cannot be reached, Winstones is to file those with the Court within a further 10 working days (40 days total), together with any submissions as to its preferences.

[139] All other parties have to the same date to file their submissions for their preferred conditions, and the Court will then proceed to issue its decision.

[140] Any application for costs is to be made within 30 working days, and any reply thereto within 10 working days thereafter.

SIGNED at AUCKLAND this 18th day of May 2011

For the Court:

Judge J A Smith
Environment Judge

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2.1.2 Cleanfilling

In contrast, cleanfills are promoted as low-cost alternatives to landfills for "inert" waste that will have potentially no adverse environmental effect, or only minor effects. The cleanfill site selection process can be less stringent. There is no need for the construction of liners, leachate collection systems or gas control systems, and the required environmental monitoring can be reduced. The result is a significant reduction in the cost of establishing and operating a cleanfill compared to a landfill.

The material deposited in a cleanfill will typically be from construction and demolition activities, and will generally comprise soil, rock, concrete, bricks and similar inert material. However, not all construction and demolition waste can be considered to be inert and suitable for cleanfilling.

Criteria limiting the waste that can be accepted provide the primary environmental control for a cleanfill. For this control to be effective, waste acceptance must be extensively monitored and the criteria enforced during the operational period of the cleanfill.

Cleanfills can, however, present an attractive option to irresponsible waste generators seeking to dispose of non-cleanfill waste at a low cost. Particular vigilance is required by operators and consent authorities enforcing waste acceptance control to ensure that this does not happen.

2.2 Cleanfill definition

Cleanfill material is material that does not undergo any physical, chemical, or biological transformations that will cause adverse environmental effects or health effects once it is placed in a cleanfill. Cleanfill material has no potentially hazardous content and must not be contaminated by or mixed with any other non-cleanfill material.

Cleanfill material and cleanfills are defined as follows.

Cleanfill material

Material that when buried will have no adverse effect on people or the environment. Cleanfill material includes virgin natural materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of:

- combustible, putrescible, degradable or leachable components
- hazardous substances
- products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices
- materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances
- liquid waste.

Cleanfill

A cleanfill is any landfill that accepts only cleanfill material as defined above.

Annexure **B**

AUCKLAND COUNCIL DISCHARGE PERMIT 37770 CONDITIONS – FINAL REPLY VERSION

Note: For the purposes of this consent "approval", "review" or "certification" by the Council means assessed by Council staff acting in a technical certification capacity, and in particular as to whether the document or matter is consistent with, or sufficient to meet, the conditions of this consent.

GENERAL CONDITIONS

1. The proposal shall be carried out generally in accordance with the plans and information submitted with the application to the Auckland Regional Council and numbered 37770, subject to such amendments as may be required by the following conditions of consent.

2. This consent shall expire on 31 December 2030 unless it has lapsed, been surrendered or been cancelled at an earlier date pursuant to the Resource Management Act 1991.

3. The servants or agents of the Auckland Regional Council shall be permitted access to the relevant parts of the property at all reasonable times for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.

4. That legal and physical access to the sampling and monitoring locations be maintained for sampling and monitoring and also for the implementation of the Fill Management Plan and also for any contingency measures.

5. At least (1) one copy of this consent and reference documentation shall be retained and available for use on-site at all times for all personnel, in particular the Contractor importing and placing the imported fill at the site.

5A. If implemented by the consent holder, this consent will replace the discharge of contaminants (cleanfill) consent [Permit 36222] and the consent holder shall surrender that earlier consent if it has been granted.

OPERATIONAL CONDITIONS

6. All fill placement and management works shall be undertaken in accordance with the Fill Management Plan as described in Condition 14.

6A The site shall be operated as a private commercial facility for filling and will not be open to the general public.

7. The following operations shall be carried out:

   (a) All vehicles transporting fill shall report to a designated reception area at the site entrance on Mt Eden Road;

   (b) A suitably trained person shall inspect all incoming loads and these inspections shall be documented and subject to internal quality procedures and audit which

shall be reported to the Consent Authority annually. For all incoming loads not subject to pre-approval, such inspections shall include analysis by x-ray fluorescence or an alternative method approved by the Consent Authority to check for the presence of metals;

(c) All necessary records and documentation as per the Fill Management Plan shall be obtained and maintained;

(d) Any load with obvious evidence of hydrocarbons or other contamination (for example discolouration or odours) shall not be disposed of on the site unless it clearly meets all acceptance criteria contained in this consent.

~~(d)~~(e) All loads shall be inspected at the tip point of disposal in accordance with the Fill Management Plan. The entire load of material will be fully exposed and spotters or plant operators fully trained in inspection and rejection procedures to verify the deposited material is of an acceptable type, smell, colour and texture.

8. Fill originating from any site providing more than 200m^3 of fill or from any known horticultural site, or from any site located within the area covered by Auckland City Council District Plan - Central Area Section, or any site listed on the Ministry for the Environment's Hazardous Activities and Industries List (HAIL) shall be placed into the fill area only with appropriate documentation of the suitability of the fill prepared by a suitably qualified contaminated land specialist in the form of a Site Investigation Report, or Site Validation Report, that has been prepared in accordance with the Ministry for the Environment guidelines *Reporting on Contaminated Sites in New Zealand, Contaminated Land Guidelines No 1*, November 2003 (or equivalent standards as approved in writing by the Manager) and which has been prepared in accordance with all acceptance criteria set out in this consent and with reference to any contaminants that could reasonably be expected to be present due to the current and former land use of the site of origin of the material. Any fill with contaminants of concern identified in the pre-approval documentation and not listed in Table 1 shall not be accepted at concentrations above TP153 soil background concentrations. For constituents not listed in TP153 or Condition 10, contaminants of concern shall not be accepted at concentrations above 5% of the permitted activity low level contamination concentration defined in Rule 5.5.41(a)(i)(3) of the Auckland Regional Plan: Air, Land and Water (October 2010) or in any subsequent update of the guidelines referred to in that rule.

9. If the fill has not previously been tested to at least the same extent by the fill generator as detailed in Condition 8 then the consent holder shall undertake analytical testing of imported fill,, for the chemical parameters set out in Table 1 at a rate of not less than 1 in every 150 incoming trucks or every 1400 tonnes (whichever comes first).

10. The analytical testing shall demonstrate that chemical parameter concentrations in the imported fill set out below are not exceeded:

Table 1

Note: for the avoidance of confusion both the maximum and rolling mean criteria must be met.

Parameters	Fill < 2m depth from finished level	Fill >2m depth (Deeper Fill)	Weighted Rolling 12-	Weighted Rolling 12-

	(Shallow Fill) (mg/kg)	(mg/kg)	Month Mean Shallow Fill Acceptance Criteria (<2m deep)	Month Mean Deeper Fill Acceptance Criteria (>2m deep)
Arsenic	30	100	12	12
Boron	260	260	130	130
Cadmium	1	7.5	0.65	0.65
Chromium	400	400	125	125
Copper	325	325	90	90
Cyanide	0	25	0	1.0
Lead	250	250	65	65
Mercury	0.75	0.75	0.45	0.45
Nickel	320	320	105	105
Zinc	1160	1160	400	400
TPH				
C^7-C^9	120	300	20	20
C^{10}-C^{14}	300	300	50	50
C^{15}-C^{36}	1000	5600	500	500
DDT	0.7	12	0.35	0.7
Aldrin	0.7	12	0.35	0.7
Dieldrin	0.7	6	0.35	0.7
BaP (eq)[3]	0.27	2.15	0.1	1.0
Benzene	~~1~~[1] 0.2	1[1]	~~0.4~~ 0.2	0.4
~~Toluene~~TEX(Total)[2]	20	20	3	3

Note 1: To meet MfE Guidelines (1999) for residential use all pathways.

Note 2: Sum of Toluene, Ethyl benzene and Xylenes

Note 3: Includes group of 7 compounds with equivalence factors that contribute to BaP(eq)

10A. Only materials of the following nature and from within the Auckland Region are acceptable fill materials (as defined in *A Guide to the Management of Cleanfills, Ministry for the Environment, 2002)* and may be received at the site:

Material	Discussion
Asphalt (cured)	Weathered (cured) asphalt is acceptable. After asphalt has been exposed to the elements for some time, the initial oily surface will have gone and the asphalt is considered inert.
Bricks	Inert – will undergo no degradation.
Ceramics	Inert.
Concrete	Inert material and may include attached structural building materials with a maximum 1% by volume of structural or reinforcing steel or 5% by volume of wood.
Fibre cement building products	Inert material comprising cellulose fibre, Portland cement and sand. Care needs to be taken that the product does not contain asbestos, which is unacceptable.

Material	Discussion
Glass	Inert and poses little threat to the environment. May pose a safety risk if placed near the surface in public areas, or if later excavated. The safety risk on excavation should become immediately apparent, so glass is considered acceptable provided it is not placed immediately adjacent to the finished surface.
Road sub-base	Inert.
Soils, rock, gravel, sand, clay, ~~etc~~	Acceptable provided they meet acceptance criteria outlined in Condition 10 and Table 1 ~~,~~ and do not have more than 5% of volume of organic content, ie. plant material, tree roots and grass associated with the surface layers of source sites.
Tiles (clay, concrete or ceramic)	Inert.

Table 2: Fill material

11. All monitoring, chemical analyses and sampling undertaken in accordance with this consent shall be carried out by suitably qualified personnel in accordance with Ministry for the Environment *Contaminated Land Management Guidelines No 5, Site Investigation and Analysis of Soils* and the Fill Management Plan for the site, or equivalent standards approved in writing by the Manager.

11A The rolling 12-month mean will be updated continuously as sample results are received. If the data reveals that the fill is above 85% of the 12-month mean, the consent holder will report immediately to the Consent Authority and continue to report on a monthly basis while the data shows that the fill remains above 85% of the 12-month mean. The consent holder shall take action to ensure that the fill reduces below 85% of the 12-month mean as soon as possible. Once the fill reduces below 85% of the 12-month mean, annual reporting to the Consent Authority shall resume.

11B Within the first 12 months of the filling operation the monthly rolling mean shall be no greater than the 12-month rolling mean in Table 1.

12. If the imported fill does not meet the fill acceptance criteria listed in Condition 10 or 10A and Tables 1 and 2, the fill shall be rejected and removed to a suitably authorised off-site disposal facility. Material not meeting the criteria of Table 1 Condition 10 shall be removed from the site within two weeks of receiving laboratory test results confirming unacceptability, whereas material not meeting Condition 10A and Table 2 shall be rejected at the point of inspection.

12A If a load of fill has been removed from the site in accordance with Condition 12, the disposal location of all other loads received and placed from the same originating site (if any) shall be assessed by an independent expert approved by the Consent Authority. If the assessment concludes that the fill material from the other loads from the same originating site does not meet the fill acceptance criteria then fill material from those loads shall also be removed from the site.

12B The consent holder will insert a condition in any contract between the consent holder and any major contributors of fill requiring contractors to agree that if the consent holder rejects a load it shall be removed immediately.

13. A written report, detailing the reasons for rejection, final disposal location of the rejected fill, volume of fill disposed of, and copies of the laboratory test results, within one month of disposing of the rejected fill shall be provided to the Manager.

Without restricting the power of council under this consent,

13A The consent holder shall meet the cost of random audit sampling representative of the previous one month's fill material to be undertaken every six months for the first two years of the consent by council officers or an independent consultant approved by the consent authority. After two years the audit sampling shall occur annually.

FILL MANAGEMENT PLAN

14. Not less than 3 months prior to the commencement of fill activities authorised by this consent, a Fill Management Plan shall be provided to the Manager— for certification. The Manager may inform the consent holder of any aspects of the FMP, or subsequent changes considered to be inconsistent with achieving compliance with the provisions of the consent. The FMP shall include, but not be limited to, the following:

(a) An introduction, including but not necessarily limited to:

(i) Project description.

(ii) Purpose

(b) A list of relevant Resource Consent conditions.

(c) Details of site management responsibilities including but not necessarily limited to:

(i) Site owner and operator.

(ii) Management structure.

(iii) Right of access.

(iv) Operating hours.

(v) Staff requirements.

(vi) Training.

(vii) Health and safety.

(d) The fill acceptance procedures necessary to ensure compliance with Condition 7, Condition 10, Condition 10A and Condition 15.

(e) A list of unacceptable fill materials that will prevent acceptance of fill that would have more than minor adverse effects on people and the environment.

(f) Fill acceptance criteria (as set out in Condition 10 and 10A) for the parameters to be monitored and tested.

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(g) Pre-approval procedures for offsite acceptance.

(h) Fill acceptance, rejection, sampling, testing and quarantine procedures for material not subject to pre-acceptance approval including recording and reporting.

(i) A contingency plan for the removal and disposal of fill which does not meet the conditions of this consent but was not previously identified as such prior to placement of the fill.

(j) Describe the means to maintain the following information for the life time of this consent and two years thereafter:

(i) Load inspection.

(ii) Monitoring, testing and sampling documentation relating to fill material acceptance.

(iii) Training procedures for staff and a record of employees who have undertaken relevant training.

(k) Plans for filling and associated earthworks over the next 12 months.

(l) Measures to be used to track fill to the final disposal location on-site.

(m) Details of the proposed works around any stockpiles of fill, including quarantine areas, to minimise the potential of contamination migration via stormwater runoff, in particular, keeping stockpiled material away from temporary and permanent surface water ponds, and bunding to contain stormwater runoff.

GROUNDWATER MONITORING

(14A) The consent holder shall install a continuous electrical conductivity and pH meter at the dewatering well head and report the results to the consent authority as part of the Annual Compliance Report. The independent expert who is appointed to undertake audit sampling in accordance with condition 13A shall review the conductivity and pH results to identify and report on any undesirable trends.

15. Groundwater monitoring shall be carried out at both the dewatering well and monitoring well BH7 at 109 Landscape Road (i.e. the existing borehole in the network that is used for monitoring groundwater behaviour for Auckland Regional Council dewatering permit 12977) in the following way:

(a) For the first two years after the commencement of the consent, the samples shall be analysed for the chemical constituents listed in Table 3 Condition 16 at quarterly intervals, commencing within three months of the commencement of consent.

(b) If after the first two years after the commencement of consent no groundwater trigger level has been exceeded then the samples shall be analysed for the chemical constituents listed in Table 3 Condition 16 at six monthly intervals for the remainder of the term of the consent.

16. Trigger levels for inorganic and organic constituents as measured at the dewatering well and BH7 shall be the maximum recorded (2007/2008 data) concentrations plus 3 standard deviations as listed below or as set in accordance with Conditions 17 and 18.

Table 3: Groundwater trigger levels for the dewatering well (g/m^3)

Chemical Constituent	Proposed Groundwater Trigger Levels	Ministry of Health (2005) Drinking Water Standards (revised 2008) Maximum Acceptable Value (MAV)
Arsenic	0.002	0.01
Boron	0.07	1.4
Cadmium	0.00009	0.003
Chromium	0.0011	0.05
Copper	0.003	1(GV) 2 MAV
Mercury	0.0004	0.002 total
Nickel	0.003	0.02
Lead	0.0007	0.01
Zinc	0.008	1.5(GV) No MAV
Benzo-a-pyrene equivalent	0.00035	0.0007
DDT	0.0005	0.001
Aldrin & dieldrin	0.00002	0.00004
Benzene (TPH (total) surrogate)	0.005	0.01
Cyanide	0.04	0.08
Bromodichloromethane	0.03	0.06
Bromoform	0.05	0.1
Carbon tetrachloride	0.0025	0.005
Chloroform	0.1	0.2
Di(2-ethylhexyl)adipate	0.05	0.1
Di2-	0.0045	0.009

ethylhexyl)phthalate		
1,2-dibromo-3-chloropropane	0.0005	0.001
Dibromochloromethane	0.075	0.15
1,2-dibromomethane	0.0002	0.0004
1,2-dichlorobenzene	0.75	1.5
1,4-dichlorobenzene	0.2	0.4
1,2-dichloropropane	0.025	0.05
1,3-dichloropropene	0.01	0.02
Endosulfan	0.01	0.02
Endrin	0.0005	0.001
Ethylbenzene	0.15	0.3
Fluoranthene	0.002	0.004
Heptachlor and its epoxide	0.00002	0.00004
Hexachlorobenzene	0.00005	0.0001
Hexachlorobutadiene	0.00035	0.0007
Lindane	0.001	0.002
Pentachlorophenol	0.0045	0.009
pH	Below 7 or greater than 8.5 pH	7.0 - 8.5 pH
Styrene	0.015	0.03
Tetrachloroethene	0.025	0.05
Toluene	0.4	0.8
Trichlorobenzenes	0.015	0.03
1,1,1-trichloroethane	1.0	2.0
Trichloroethene	0.04	0.08
2,4,6-trichlorophenol	0.1	0.2
Vinyl chloride	0.00015	0.0003
Xylenes	0.3	0.6

17. The trigger level shown for zinc is an interim value set at the ANZECC(2000) guideline (95%) protection level. After a minimum 2 years of monitoring in accordance with Condition ~~16~~15, this trigger shall be re-set at the maximum recorded concentration plus three standard deviations.

18. For cyanide and all of the organic constituents listed in Table 3, trigger levels shown are also interim values based on the more stringent criteria of either 50% MAV or ANZECC (2000). Soluble trigger levels at the dewatering well shall be re-set at maximum levels of recorded soluble concentrations plus 3 standard deviations established after a minimum 2 years of quarterly sampling and analysis provided that the resetting of these maximum levels shall be no greater than the 50% MAV or ANZECC (2000) levels.

18A Each report on groundwater monitoring required under Condition 20 shall include a conclusion on whether any of the groundwater monitoring data assessed to date has revealed any undesirable trend in the quality of the groundwater.

GROUNDWATER CONTINGENCY

19. In the event that there is an exceedance of a groundwater trigger level (as described in Table 3 of Condition 16) the following contingency measures shall be adopted, with all resulting costs borne by the consent holder:

(a) The monitoring well shall be resampled and analysed as soon as practicable. If the check sample results do not exceed a trigger level no further action will be taken. If the check sample results confirm a trigger level exceedance, then some or all of the following actions will be taken:

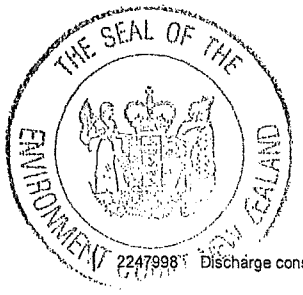
(b) ~~As soon as practicable, Auckland City Council, Auckland Regional Council, and/or their successors~~The Consent Authority and Watercare/~~Metrowater~~ will be advised immediately of the confirmed trigger level exceedance.

(c) An investigation shall be carried out to determine the cause of the trigger level exceedance. This may include additional sampling of groundwater (including the provision of and sampling at additional wells) and, in the case of the dewatering well, investigation of filling activities in the vicinity of the monitoring well.

(d) If the concentration of any of the chemical constituent listed in Table 3, Condition 16 in the monitoring well continues to increase, the monitoring frequency for the chemical constituents that exceed the trigger level will be increased to monthly and consideration will be given to modifying or ceasing filling activities in the vicinity of the monitoring well.

(e) If the concentration of chemical constituent in the monitoring well continues to increase and exceeds the guidelines in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 (ANZECC (95%) guidelines) but do not exceed the drinking water MAVs then the ~~ARC (or its successor)~~Council will be consulted to determine whether resource consent will be required to authorise the on-going discharge to stormwater from the dewatering well.

(f) If the concentrations of any chemical constituent in the monitoring well continue to increase and exceed both ANZECC (95%) guidelines and drinking water MAVs then options for treatment of the groundwater shall be identified and, if it



represents the best practicable option, be implemented. If options for treatment cannot be implemented, ~~ARC (or its successor)~~the Council will be consulted to assess the need for a consent application to authorise the on-going discharge of groundwater from beneath the quarry to either stormwater or into the Three Kings basalt aquifer.

(g) The consent holder shall continue dewatering for at least 5 years, and at least until December 2030, following the completion of commercial filling operations at the site.

(h) If, after 5 years of continuous monitoring contaminant levels are below drinking water MAV trigger levels set out in this consent, pumping may cease.

(i) Should subsequent monitoring at any of the monitoring bores indicate a drinking water MAV trigger level set out in this consent is exceeded, which can be reasonably shown to be a result of the filling operation, then either the consent holder will resume dewatering, or will adopt some other mitigation method agreed as between ~~Auckland~~the Council, Watercare and the ~~consent~~ Consent ~~holder~~Holder to ensure that there will be no adverse effects on human health or the environment.~~.~~

REPORTING

20. An Annual Compliance Report shall be submitted to the Manager by 30 June each year which provides an analysis of the results of data collected for the Fill Management Plan and an evaluation of the results in respect of compliance levels The report shall be prepared by a suitably qualified person to a standard acceptable to the Manager and shall consider all data collected from the commencement date of this Resource Consent and up until 31 May prior to reporting. On the basis of this report the Consent Holder may submit recommended changes to the Fill Management Plan to the Manager.

21. The Manager may require a review of the Fill Management Plan at 2 yearly intervals. Any changes resulting from a review whether in response to the Manager's requirement, or as initiated by the Consent Holder shall be submitted to the Manager for review prior to becoming operational. The Manager may advise the Consent Holder, in writing, if any aspects of the Plan are considered to be inconsistent with achieving the provisions of the consent.

CONSENT REVIEW

22. The conditions of this consent may be reviewed by the Manager pursuant to Section 128 of the Resource Management Act 1991, by the giving of notice pursuant to Section 129 of the Act, in one or more of the following times:

- June 201~~2~~1;
- June 201~~3~~2;
- June 201~~4~~3 and at two yearly intervals thereafter.

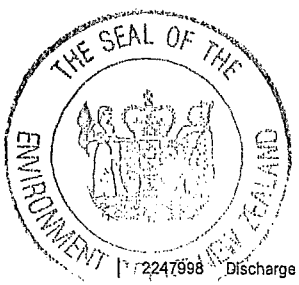
The purpose of the review shall be:

(a) To deal with any adverse effects on the environment which may arise from the exercise of the consent, where it is appropriate to deal with such effects at a later stage; or

(b) To require a consent holder to adopt the best practicable option to avoid or mitigate any adverse effects on the environment; or

(c) To deal with any other adverse environment effect, which the exercise of the consent may have an influence on.

~~(c)~~(d) To ensure that any relevant amendments to guideline values referred to in Condition 8 are considered.



ADVICE NOTES

1. The consent holder is advised that the date of the commencement of this consent will be as determined by Section 116 of the RMA, unless a later date is stated as a condition of this consent.

2. The consent holder is referred to Section 124 of the Resource Management Act 1991, which provides for the exercising of a consent while applying for a new consent for the same activity.

3. This consent does not absolve the grantee from obtaining all other necessary consents or permits that may be required for the activity.

4. The consent holder shall ensure that there are adequate provisions on site to prevent possible fuel spillage.

5. The purpose of the Fill Management Plan is to ensure that the consent holder implements, and complies with, the conditions of the consents.

6. All archaeological sites are protected under the provisions of the Historic Places Act 1993 (HPA). It is an offence under the HPA to destroy, damage or modify any archaeological site whether or not the site is entered on the New Zealand Historic Places Trust (NZHPT) register of historic places, historic areas, wahi tapu and wahi tapu areas. Under sections 11 and 12 of the HPA, an application must be made to the NZHPT for an authority to destroy, damage or modify an archaeological site(s) where avoidance of effect is not practicable. It is the responsibility of the consent holder to consult with NZHPT about the requirements of the HPA should these become necessary as a result of any activity associated with the proposed development.

7. Section 137 RMA allows for the transfer of a resource consent by the holder to any owner or occupier of the site in respect of which the permit is granted, or to a local authority, unless the permit expressly provides otherwise.

8. The Applicant may wish to transfer this resource consent, if granted, to any subsequent owner of the property, if sold, or to occupiers of the land.

9. Section 138 RMA details the conditions relating to surrender of a resource consent. A consent authority may refuse to accept the surrender of part of a resource consent where that may (2)(b) affect the ability of the consent holder to meet other conditions of the consent; or (2)(c) lead to an adverse effect on the environment There also remains some liability to the person surrendering the resource consent under (3)(a) and (b) of this section. This liability relates to breaches of conditions of the consent occurring before surrender and to the completion of the work required to give effect to the consent.

10. The ~~ARC~~ Consent Authority would be unlikely to allow the surrender of part of this consent under section 138(2)(c) without substantial supporting information indicating that the predicted fate and transport of contaminants had occurred and that no on-going risk was posed to human health or the environment.

11. The Consent Holder is advised that, pursuant to Section 126 of the RMA, if this resource consent has been exercised, but is not subsequently exercised for a continuous period of five years, the consent may be cancelled by the Consent Authority ~~ARC~~ unless other criteria contained within Section 126 are met.

12. That any dust emissions during the earthworks operations are controlled in accordance with the Ministry for the Environment guidelines *Good Practice Guide for Assessing and Managing the Environmental Effects of Dust*, 2001. Dust shall be mitigated, as a minimum, by:

    (a) Using a water truck to dampen dust on the access road and filling areas. Wind direction, strength and soil conditions shall be considered and an appropriate level of watering and material covering established prior to daily works commencing;

    (b) Covering of inbound dusty loads;

    (c) Use of a wheelwash for outbound vehicles; and

    (d) Limiting vehicle speeds to avoid dust mobilisation.

13. The Consent Holder is referred to Section 127 of the RMA which provides for the application, at any time, for changes to or cancellation of conditions of consent other than duration, and the provisions therein for making application to do so.

14. Upon commencement of this consent, the consent authority's staff shall provide to the consent holder's Quarry Manager a list of consented contaminated sites and will ensure that an updated list is provided to the quarry manager quarterly. This will assist the Quarry Manager in making fill waste acceptance decisions.

Annexure **C**

AUCKLAND COUNCIL LAND USE CONSENT CONDITIONS - FINAL REPLY VERSION

Note: For the purposes of this consent "approval", "review" or "certification" by the Council means assessed by Council staff acting in a technical certification capacity, and in particular as to whether the document or matter is consistent with, or sufficient to meet, the conditions of this consent.

Definitions

~~ARC:~~	~~means the Auckland Regional Council or its successor.~~
Manager:	means the ~~Group~~ Manager, Consents & Consents Compliance~~, Regulatory Services, ARC~~Auckland Council; or nominated ~~ARC~~ Council staff acting on the Manager's behalf.
ANZECC:	Australian and New Zealand Environment and Conservation Council
TP90:	means ARC Technical Publication No. 90 *Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region*, March 1999.
PARP:	Proposed Auckland Regional Plan: Air Land and Water
Stabilised:	means an area inherently resistant to erosion such as rock (excluding Sedimentary Rocks), or rendered resistant by the application of aggregate, geotextile, vegetation or mulch. Where vegetation is to be used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once an 80% vegetation cover has been established.
Commencement of works:	means the time when the Manager is informed in writing that earthworks are about to commence.
Major contributor of fill:	means any contributor of fill in excess of 200m^3 from any one site.

Pursuant to Section 108 of the Resource Management Act 1991 this consent is subject to the following conditions:

Staging of Conditions

Stage 1 Conditions: Pre-development - Conditions required to be met prior to works commencing on site;

Stage 2 Conditions: Development in progress - Conditions required to be met throughout the period of works on site;

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Stage 3 Conditions: Post-Fill Completion - Conditions required to be met following fill completion; and

Review and Other - Conditions that relate to the development in its entirety, including earthworks.

General Conditions

A. That pursuant to Section 36 of the Resource Management Act 1 991, this consent (or any part thereof) shall not be exercised until such time as all charges in relation to the receiving, processing and granting of this resource consent are paid in full.

B Servants or agents of the Consent Authority ~~ARC~~ are to have access to relevant parts of the property at all reasonable times for the purpose of carrying out inspections, surveys, investigations, tests, measurements and for to take samples.

Activity in Accordance with Application and Plans

(1) Except as otherwise required by any other condition of this consent, the proposed activity shall be carried out in accordance with the plans and all information submitted with the application, and information subsequently provided in response to section 92 RMA requests for further information other than in respect of any plans and other application details showing and referencing a proposed second access which shall be amended by the deletion of that proposed second access in its entirety (as that access is refused consent).

- The Assessment of effects entitled *'Three Kings Quarry Clean fill Proposal, Volume 1: Application for Resource Consent and Assessment of Environmental Effects (February 2009)'* prepared by Richard Compton of Winstone Aggregates, and dated February 2009;
- The report entitled *'Three Kings Quarry - Modelling of Clean fill Drainage'* prepared by Barnaby C Harding of Pattle Delamore Partnership Ltd, and dated 9th October 2008;
- The report entitled *'Assessment of Air Quality Effects from the Proposed Clean fill at the Winstone Aggregates Three Kings Quarry'* prepared by Andrew Curtis of URS New Zealand Ltd, and dated 30th July 2008;
- The report entitled *'Effects of Backfilling Three Kings Quarry on Groundwater Quality'* prepared by Domain Environmental Ltd, and dated 13th October 2008;
- The report entitled *'Three Kings Quarry, Clean fill Operations - Acoustic Report'* prepared by Sun Wilkening of Marshall Day Acoustics, and dated 17th February 209;
- The report entitled *'Three Kings Quarry Filling, Mt Eden Road, Auckland - Transportation Assessment Report'* prepared by Max Robitzsch of Traffic Design Group, and dated 12th June 2008;
- The letter entitled *'Managed Clean fill at Three Kings Quarry Fill Operations and Development Option Assessment'* prepared by Graeme Twose of Tonkin & Taylor Ltd and dated 1st July 2008;
- The letter entitled *'Managed Clean fill at Three Kings Quarry Fill Operations and Development Option Assessment'* prepared by Graeme Twose of Tonkin & Taylor Ltd and dated 8th July 2008;

- The letter entitled *'Three Kings Quarry - Assessment of Backfilling'* prepared by Ian Jenkins of URS New Zealand Ltd and dated 22nd October 2008;

- The report entitled 'Historical Contamination Assessment *'Three Kings Quarry'* prepared by Domain Environmental Ltd, and dated 18th February 2009;

- Plans prepared by Harrison Grierson entitled *'Three Kings Quarry'*, being Dwg No. 122314-GIG-001, 002, 003, 004 & 005, all drawn on 29th August 2008 and plotted on 10th October 2008;

- Plans Figure 1 - 5, entitled *'Winstone Aggregates Ltd Three Kings Quarry, Three Kings'* dated September 2007;

- Plan prepared by Traffic Design Group, entitled *'Three Kings Quarry, Three Kings, Auckland, Indicative Layout - Proposed Second Access'* Dwg No. 8823A1 1A dated 9th July 2009;

- The letter entitled *'Notified Resource Consent Application for Three Kings Quarry'* prepared by John Earley of Winstone Aggregates and dated 8th May 2009;

- The letter entitled *'Application for Resource Consent - ACC Reference RJLUC/2009/743'* prepared by Richard Compton of Winstone Aggregates and dated 21~ May 2009,

- The letter entitled *'Three Kings Resource Consent - Classification of Activities'* prepared by Bal Matheson of Russell McVeagh and dated 21st May2009,

- The letter entitled *'Three Kings Quarry - Consent to Fill Geotechnical Response to Section 92 Queries from ACC'* prepared by Graeme Twose of Tonkin & Taylor Ltd and dated 15th May 2009,

- The letter entitled *'Application for Resource Consent - ACC Reference PJLUC/2009/743: Request for Further Information'* prepared by Richard Compton of Winstone Aggregates and dated l8th May 2009;

- The letter entitled *'Application for Resource Consent - ACC Reference R/LUC/2009/743; Request for Further Information'* prepared by Richard Compton of Winstone Aggregates and dated 16th July 2009;

- The letter entitled *'Winstone Aggregates Three Kings Quarry, Consent Application, RILUC/2009/743, Assessment of NZTA Submission'* prepared by Max Robitzsch of Traffic Design Group, and dated 16th July 2008;

- The letter entitled *'Winstone Aggregates Three Kings Quarry, Consent Application, RILUC/2009/743, Section 92 Response'* prepared by Max Robitzsch of Traffic Design Group, and dated 15th July 2008;

- The letter from Tim Sinclair of Tonkin & Taylor Ltd, entitled *'Managed Clean fill at Three Kings Discussion on Potential Vibration Issues'* dated 20th August 2009; and

- The letter from Richard Compton of Winstone Aggregate dated 3rd September 2009.

(1A) For the purposes of this consent, unless the context otherwise requires, "fill" means material that meets the acceptance criteria set out in Condition 10 and Table 1.

Contaminant concentrations for which acceptance criteria are not set out in Condition 10, Table 1, shall be evaluated against Auckland City Council Investigation/Preliminary remediation criteria for soils - Human Heath, or in accordance with Ministry for the Environment Contaminated Land Management Guidelines No.2, - Hierarchy and Application in New Zealand of Environmental Guideline Values.

Consent Conditions and Management Plans

(2) A copy of all Resource Consents and the management plans required by them shall be kept at site during the exercise of those consents.

Predevelopment Conditions

Monitoring

(3) The consent holder shall pay the Council a consent compliance monitoring charge of $2000.00 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs that have been incurred to ensure compliance with the conditions attached to this consent. (This charge is to cover the cost of inspecting the site, carrying out tests, reviewing conditions, updating files, etc, all being work to ensure compliance with the resource consent).

The $2000.00 (inclusive of GST) charge shall be paid as part of the resource consent fee and the consent holder will be advised of the further monitoring charge or charges as they fall due. Such further charges are to be paid within one month of the date of invoice.

(4) The controlled fill in the upper 5m layer shall be engineered to a compaction and stability standard in accordance with NZS 4431:1989 (Code of practice for Earth Fill for Residential Development) that enables future residential use of the finished landform no longer than 5 years after cessation of filling. This condition may be reviewed where a proposed Plan Change or review (or any resource consent addressing the use of the site as a whole) indicates that future uses will demand a lesser standard of compaction. The consent holder shall provide an annual report to the Manager, or his nominee, which contains sufficient detail to ~~(Resource Consent Monitoring Leader) (hereafter referenced as the Manager) that~~ confirms the engineering standards required to meet NZS 4431:1989 ~~that~~ have been achieved for the fill.

(5) The final (upper) 2m of fill material must meet the Auckland City Council Human Health Guideline Values for Residential Land Uses and must not contain anthropogenic extraneous waste material that presents a risk to human health. The consent holder shall provide a completion report to the Manager that confirms that those standards are met.

Operational Conditions

(6) All fill placement and management works shall be undertaken in accordance with the Fill Management Plan as described in Condition 14.

(6A) The site shall be operated as a private commercial facility for filling and will not be open to the general public.

(7) The following operations shall be carried out:

a) All vehicles transporting fill shall report to a designated reception area at the site entrance on Mt Eden Road.

b) A suitably trained person shall inspect all incoming loads and these inspections shall be documented and subject to internal quality procedures and audit which shall be reported to the Consent Authority (regional consents monitoring) annually. For all incoming loads not subject to pre-approval, such inspections shall include analysis by x-ray fluorescence or an alternative method approved by the Consent Authority to check for the presence of metals.

c) All necessary records and documentation as per the Fill Management Plan shall be obtained and maintained.

d) Any load with obvious evidence of hydrocarbons or other contamination (for example discolouration or odours) shall not be disposed of on the site unless it clearly meets all acceptance criteria set out in Condition 10 and Table 1.

e) All loads shall be inspected at the tip point of disposal in accordance with the Fill Management Plan. The entire load of material will be fully exposed and spotters or plant operators fully trained in inspection and rejection procedures to verify the deposited material is of an acceptable type, smell, colour and texture.

(8) Fill originating from any site providing more than $200m^3$ of fill or from any known horticultural site, or from any site located within the area covered by Auckland Council District Plan - Central Area Section, or any site listed on the Ministry for the Environment's Hazardous Activities and Industries List (HAIL) shall only be placed into the fill area with appropriate documentation of the suitability of the fill prepared by a suitably qualified contaminated land specialist in the form of a Site Investigation Report, or Site Validation Report, that has been prepared in accordance with the Ministry for the Environment guidelines *Reporting on Contaminated Sites in New Zealand, Contaminated Land Guidelines No. 1*, November 2003 (or equivalent standards as approved in writing by the Manager and which has been prepared in accordance with all acceptance criteria set out in ~~Condition 10 and Table 1~~this consent and with reference to any contaminants that could reasonably be expected to be present due to the current and former land use of the site of origin of the material. Any fill with contaminants of concern identified in the pre-approval documentation and not listed in Table 1 shall not be accepted at concentrations above TP153 soil background concentrations. For constituents not listed in TP153 or Condition 10, contaminants of concern shall not be accepted at concentrations above 5% of the permitted activity low level contamination concentration defined in Rule 5.5.41(a)(i)(3) of the Auckland Regional Plan: Air, Land and Water (October 2010) or in any subsequent update of the guidelines referred to in that rule.

(9) If the fill has not previously been tested to at least the same extent by the fill generator as detailed in Condition 8 then the consent holder shall undertake analytical testing of imported fill for the chemical parameters set out in Table 1 at a rate of not less than 1 in every 150 incoming trucks or 1400 tonnes (whichever comes first).

(10) The analytical testing shall demonstrate that chemical parameter concentrations in the imported fill set out below are not exceeded:

Table 1

Note: for the avoidance of confusion both the maximum and rolling mean criteria must be met.

Parameters	Fill < 2m depth from	Fill >2m depth (Deeper	Weighted	Weighted

	finished level (Shallow Fill) (mg/kg)	Fill) (mg/kg)	Rolling 12-Month Mean Shallow Fill Acceptance Criteria (<2m deep)	Rolling 12-Month Mean Deeper Fill Acceptance Criteria (>2m deep)
Arsenic	30	100	12	12
Boron	260	260	130	130
Cadmium	1	7.5	0.65	0.65
Chromium	400	400	125	125
Copper	325	325	90	90
Cyanide	0	25	0	1.0
Lead	250	250	65	65
Mercury	0.75	0.75	0.45	0.45
Nickel	320	320	105	105
Zinc	1160	1160	400	400
TPH				
C_7-C_9	120	300	20	20
C_{10}-C_{14}	300	300	50	50
C_{15}-C_{36}	1000	5600	500	500
DDT	0.7	12	0.35	0.7
Aldrin	0.7	12	0.35	0.7
Dieldrin	0.7	6	0.35	0.7
BaP (eq)[3]	0.27	2.15	0.1	1.0
Benzene	0.24[4]	1[1]	0.2 ~~0.4~~	0.4
~~Toluene~~TEX (Total)[2]	20	20	3	3

Note 1: To meet MfE Guidelines (1999) for residential use all pathways.

Note 2: Sum of Toluene, Ethyl benzene and Xylenes

Note 3: Includes group of 7 compounds with equivalence factors that contribute to BaP(eq)

(10A) Only materials of the following nature and from within the Auckland Region are acceptable fill materials (as defined in *A Guide to the Management of Cleanfills, Ministry for the Environment, 2002)* and may be received at the site, provided they also comply with conditions 1A and 5 for the upper 2m of fill:

Material	Discussion
Asphalt (cured)	Weathered (cured) asphalt is acceptable. After asphalt has been exposed to the elements for some time, the initial oily surface will have gone and the asphalt is considered inert.
Bricks	Inert – will undergo no degradation.
Ceramics	Inert.
Concrete	Inert material and may include attached structural building materials with a maximum 1% by volume of structural or reinforcing steel or 5% by volume of wood.
Fibre cement building products	Inert material comprising cellulose fibre, Portland cement and sand. Care needs to be taken that the product does not contain asbestos, which is unacceptable.

Material	Discussion
Glass	Inert and poses little threat to the environment. May pose a safety risk if placed near the surface in public areas, or if later excavated. The safety risk on excavation should become immediately apparent, so glass is considered acceptable provided it is not placed immediately adjacent to the finished surface.
Road sub-base	Inert.
Soils, rock, gravel, sand, clay.	Acceptable provided they meet acceptance criteria outlined in Condition 10 and Table 1 and do not have more than 5% of volume of organic content, ie. plant material, tree roots and grass associated with the surface layers of source sites.
Tiles (clay, concrete or ceramic)	Inert.

Table 2: Fill material

(11) All monitoring, chemical analyses and sampling undertaken in accordance with this consent shall be carried out by suitably qualified personnel in accordance with Ministry for the Environment *Contaminated Land Management Guidelines No. 5, Site Investigation and Analysis of Soils* and the Fill Management Plan for the site, or equivalent standards approved in writing by the Manager.

(11A) The rolling 12-month mean will be updated continuously as sample results are received. If the data reveals that the fill is above 85% of the 12-month mean, the consent holder will report immediately to the Consent Authority and continue to report on a monthly basis while the data shows that the fill remains above 85% of the 12-month mean. The consent holder shall take action to ensure that the fill reduces below 85% of the 12-month mean as soon as possible. Once the fill reduces below 85% of the 12-month mean, annual reporting to the Consent Authority shall resume.

(11B) Within the first 12 months of the filling operation the monthly rolling mean shall be no greater than the 12-month rolling mean in Table 1.

(12) If the imported fill does not meet the fill acceptance criteria listed in Condition 10 and Table 1 above the fill shall be rejected and removed to a suitably authorised off-site disposal facility, within two weeks of receiving laboratory test results confirming unacceptability.

(12A) If a load of fill has been removed from the site in accordance with Condition 12, the disposal location of all other loads received and placed from the same originating site (if any) shall be assessed by an independent expert approved by the Consent Authority. If the assessment concludes that the fill material from the other loads from the same originating site does not meet the fill acceptance criteria then fill material from those loads shall also be removed from the site.

(12B) The consent holder will insert a condition in any contract between the consent holder and any major contributors of fill requiring contractors to agree that if the consent holder rejects a load it shall be removed immediately.

(13) A written report, detailing the reasons for rejection of imported fill, the final disposal location of the rejected fill, volume of such fill disposed of, and copies of the laboratory

test results shall be provided to the Manager within one month of disposing of the rejected fill.

(13A) The consent holder shall meet the cost of random audit sampling representative of the previous one month's fill material to be undertaken every six months for the first two years of the consent by council officers or an independent consultant approved by the consent authority. After two years the audit sampling shall occur annually.

Fill Management Plan:

(14) Not less than 3 months prior to the commencement of fill activities authorised by this consent, a Fill Management Plan shall be provided to the Manager for certification. The Manager may inform the consent holder of any aspects of the ~~CMP~~Fill Management Plan, or subsequent changes considered to be inconsistent with achieving compliance with the provisions of the consent. The Fill Management Plan shall include, but not be limited to, the following:

(a) An introduction, including but not necessarily limited to:

(i) Project description.

(ii) Purpose

(b) A list of relevant Resource Consent conditions.

(c) Details of site management responsibilities including but not necessarily limited to:

(i) Site owner and operator.

(ii) Management structure.

(iii) Right of access.

(iv) Operating hours.

(v) Staff requirements.

(vi) Training.

(vii) Health and safety.

(d) The fill acceptance procedures necessary to ensure compliance with Condition 7, Condition 10, Condition 10A and Condition 15.

(e) A list of unacceptable fill materials that will prevent acceptance of fill that would have more than minor adverse effects on people and the environment.

(f) Fill acceptance criteria (in Condition 10 and 10A) for the parameters to be monitored and tested.

(g) Pre-approval procedures for offsite acceptance.

(h) Fill acceptance, rejection, sampling, testing and quarantine procedures for material not subject to pre-acceptance approval including recording and reporting.

(i) A contingency plan for the removal and disposal of fill which does not meet the conditions of this consent but was not previously identified as such prior to placement of the fill.

(j) Describe the means to maintain the following information for the life time of this consent and two years thereafter:

i. Load inspection.

ii. Monitoring, testing and sampling documentation relating to fill material acceptance.

iii. Training procedures for staff and a record of employees who have undertaken relevant training.

(k) Plans for fill and associated earthworks over the next 12 months.

(l) Measures to be used to track fill to the final disposal location on-site.

(m) Details of the proposed works around any stockpiles of fill, including quarantine areas, to minimise the potential of contamination mitigation via stormwater runoff, in particular, keeping stockpiled material away from temporary and permanent surface water ponds, and bunding to contain stormwater runoff.

Reporting

(15) An Annual Compliance Report shall be submitted to the Manager by 30 June each year which provides an analysis of the operation of the Fill Management Plan. The report shall be prepared by a suitably qualified person to a standard acceptable to the Manager and shall consider all data collected from the commencement date of this Resource Consent and up until 31 May prior to reporting. On the basis of this report the Consent Holder may submit recommended changes to the Fill Management Plan to the Manager for certification.

(16) The Manager may require a review of the Fill Management Plan at the times specified in Condition ~~36~~ 35. Any changes resulting from a review whether in response to the Managers requirement or as initiated by the Consent Holder shall be submitted to the Manager for certification prior to becoming operational. The Manager may advise the Consent Holder, in writing, if any aspects of the Plan are considered to be inconsistent with achieving the provisions of the consent.

Traffic Management Plan

(17) Not less than three (3) months prior to the commencement of fill operations authorised by this consent, the Consent Holder shall prepare, and submit for review to the Manager, a Traffic Management Plan (TMP) to ensure compliance with conditions of this Resource Consent.

The Council will advise the Consent Holder in writing if any aspects of the TMP are considered to be inconsistent with achieving compliance with the provisions of this consent. The TMP may form part of an overall management plan for the site.

The TMP shall include details of site traffic management practices, and the monitoring and reporting required for compliance. This shall generally address, but not be limited to the following details:

(a) Ingress and egress to/from the site.

(b) Indicative routes to the site from the State Highways

(c) Parking for contractors and workers.

(d) Details of how traffic will be managed, including overflow parking for truck waiting to deliver fill or collect aggregate from the site

(e) Location of any traffic signage required and any proposed signage for traffic management purposes during operations.

(f) Contact details of the site manager.

(g) The consent holder shall use all reasonable endeavours to ensure that heavy vehicles carrying fill to the site are covered where necessary and do not use local roads unless absolutely necessary.

(17A) The consent holder- will insert a condition in any contract between the consent holder and any major contributors of fill for Three Kings Quarry ~~(defined as more than 200m^3 of fill)~~ that any trucks transporting such fill to the Quarry are not to use St Andrews Road, unless the fill originates from along St Andrews Road.

(17B) The consent holder will insert a condition in any contract between the consent holder and any major contributor of fill requiring contractors to comply with the drivers code of conduct and the traffic management plan (including to cover loads where necessary).

(17C) The consent holder shall use all reasonable endeavours to ensure that loads from pre-approved sites shall be covered where necessary to avoid dust nuisance.

Site Traffic Safety Plan - Drivers Code of Conduct

(18) For the purposes of ensuring the safety of all transportation modes, i.e. motorists, cyclists and pedestrians, and to minimise the effects of site traffic on the community, the Consent Holder shall develop and implement a Site Traffic Safety Plan - Drivers Code of Conduct (STSP) for all traffic visiting the site which shall address the following:

(a) consideration for all other transport modes and road users beyond the site, particularly those in the immediate vicinity of any site access point;

(b) attention to vehicle maintenance for vehicles travelling to and from the site on public roads;

(c) the requirement for vehicular users of the site to be made aware of the presence of Three Kings and Carlson Schools, and that during school terms best endeavours shall be made to avoid arriving at the site in the hours between 0830 to 0930 and 1430 to 1530;

(d) appropriate signage to be erected at any site access point reminding drivers to take care, particularly during the hours in (c) above, and also "Trucks Crossing~ signage to alert pedestrian traffic on the western side of Mt Eden Road to a potential hazard, as required by Condition ~~(26~~20~~)~~ of this resource consent.

(e) a procedure for monitoring and reporting, by drivers and/or members of the public, of any safety incidents or breaches of the STSP. All such events reported under this condition shall also be reported to the Manager and at the Site Liaison Group (SLG) meeting following such reported incidents.

The STSP shall be brought to the attention of all drivers and/or vehicle owners using the site. Furthermore the STSP shall be developed in consultation with the Site Liaison Group and the Principals, or their nominees, of Three Kings and Carlson Schools.

To the satisfaction of the Manager the consent holder shall take all practicable steps to ensure that:

(a) safe pedestrian access and thoroughfare shall be maintained on all footpaths adjacent to the site.

(b) drivers using the site shall be made aware of the preferred routes to and from the site as indicated in the TMP, and that the use of engine brakes for vehicles travelling through Mt Eden Village and along Mt Eden Road outside the subject site is to be avoided.

(c) all signage shown on the TMP is to be erected and maintained in good order during the exercise of this Resource Consent.

Construction Noise Management Plan

(19) If the consent holder intends to rely on the construction noise limits set out in the District Plan for any construction works on the site, the consent holder shall, prior to the commencement of any such construction, submit a Construction Noise Management Plan (CNMP) consistent with the NZS standard 6803:1999 Acoustics - Construction Noise prepared by a person suitably qualified in environmental acoustics to the satisfaction of the Manager. The CNMP shall include but not be limited to:

(a) A description of the final construction methodology, including a list of potentially noisy plant and equipment, the estimated noise levels and the approximate locations within the site;

(b) Predicted noise levels and where the predicted noise levels exceed the construction noise standard NZS 6803:1999 , specific noise mitigation measures must be implemented which may include but not be limited to acoustic screening, alternative equipment etc;

(c) Noise monitoring must be undertaken at the onset of works that are likely to exceed the relevant noise limits. Additional monitoring will be required to be undertaken in the event of any complaints received;

(d) In the event of the measured noise levels exceeding the relevant standard, the Manager must be notified without delay and further mitigation options shall be investigated and implemented;

(e) A complaints management system must be implemented. It must specify the responsible persons for maintaining the complaints register, procedures to be followed in investigating and resolving complaints and procedures for reporting complaints to council; and

(f) The name and contact telephone numbers of the Site Manager or other persons responsible for supervision of the works, implementation of the Noise Management Plan and complaint receipts and investigations.

Signage

(20) Prior to the fill activity commencing, the consent holder shall erect signs at the existing access way off Mt Eden Road which detail:

(a) that the fill is a private operation,

(b) that access is not open to the general public,

(c) hours of operation and when the gates will be opened to customer vehicles,

~~(d) that fill material is restricted to fill,~~

(ed) contact details, including after hours emergency contacts.

The signs shall be made and erected to the satisfaction of the Manager.

Road Condition Survey

(21) Prior to commencement of fill activity, the Consent Holder in conjunction with a representative of the Manager shall undertake a carriageway condition survey of Mount Eden Road, between points 50m north and south of the existing and proposed site access ways. The condition survey shall include a photographic or video record of the specified section of carriageway and footpaths at the crossing location.

Road Maintenance Agreement

(22) Following the road condition survey, and prior to the commencement of the fill activity, the Consent Holder shall enter into a maintenance agreement with ~~Council's, Transport Operations (or subsequent local authority equivalent)~~Council to cover the costs of repair of any damage to public carriageways and footpaths (and associated road components) within the zones surveyed under condition (21), attributable to the site activities authorised by this Resource Consent.

Air Quality Monitoring Equipment

(23) Prior to the commencement of the Fill operation the dust monitor recommended in the Consent Holder's report 'Assessment of Air Quality Effects' shall be installed in accordance with, and incorporated into the Air Quality Management Plan required by, ARC Permit 21875.

Development in Progress conditions

Hours of Operation

(24) The hours of operations for the fill activity and sale of imported aggregate activities shall be between 7am to 10pm Mondays to Saturdays and 9am to 6pm on Sundays and public holidays except that ancillary activities (such as maintenance of machinery) may occur outside of those hours where such activities are in compliance with the conditions of this consent including Condition 27(a).

Pedestrian Refuge

(25) For the purpose of ensuring pedestrian safety, the consent holder shall appoint, at their cost, a professional traffic engineer to provide a design for a pedestrian refuge island on Mount Eden Road at an appropriate location between Graham Breed Drive and the entrance to Three Kings School to the satisfaction of the ~~Councils Traffic and Safety Operations~~ Manager. The facility shall then be installed at the consent holder's expense. The refuge is to be installed prior to clean filling operations commencing.

Truck Movements

(26) In accordance with the details of the resource consent application, no more than 375 trucks shall enter the site per day, A register shall be kept on site which records all truck movements to and from the site, and shall include the category of vehicle, i.e. identification as a four, six or eight wheeler, articulated truck or truck and trailer heavy vehicles and a copy of it shall be submitted to the ~~Resource Consent Monitoring Leader~~Manager on a quarterly basis to certify compliance with this condition.

Noise Control

(27)(a) Any activity on the site associated with fill operations at the Three Kings Quarry shall not exceed the following noise limits at residentially zoned land fronting Mount Eden Road between street numbers 904 and 944 (including 14-16 Kingsway):

Monday to Saturday Sunday & Public Holidays	7:00 am to 10:00 pm 9.00 am to 6.00 pm	L_{10} 60 dBA
At all other times	L_{10} 45 dBA L_{MAX} 75 dBA	

At all other residentially zoned land noise limits as per the table below shall not be exceeded.

Monday to Saturday Sunday & Public Holidays	7:00 am to 10:00 pm 9.00 am to 6.00 pm	L_{10} 55 dBA
At all other times	L_{10} 45 dBA L_{MAX} 75 dBA	

N.B - Noise shall be measured and assessed in accordance with NZS68OI.: 1991 and NZS6802.2008

27(b) Within 3 months of the commencement of the fill activity the consent holder shall submit to Manager a report demonstrating that the activity meets the noise standards outlined in this condition.

27(c) The consent holder shall undertake further monitoring confirming compliance with the noise limits when the majority of the fill operation is occurring above RL 70m and following this at a 6 monthly interval.

27(d) Should the consent holder propose to use self propelled compaction equipment, a suitably qualified acoustical consultant shall, prior to the equipments use, undertake noise modelling to predict noise levels to demonstrate that the revised fill procedure will not generate noise in excess of the noise limits in Condition 27(a). Monitoring confirming compliance with the noise limits shall be conducted within one month of implementation of the revised procedures.

27(e) The existing vegetated earth bund parallel to Mount Eden Road shall be retained for the duration of the ~~controlled (fill)~~ filling activity.~~:~~

Fill Volumes

(28) This Resource Consent does not authorise any filling of the site beyond and above the contours shown on Figure 2 - Proposed Landform for Fill Consents, (Drawing 122314-FIG-002 dated 29/08/08 and prepared by Harrison Grierson Consultants) as submitted with the application.

Sale of Aggregate

(29) The sale of aggregate to the general public is not permitted.

Control of Deposition of Material on Public Roads

(30) All necessary measures, including, but not limited to maintenance of access roads and manoeuvring areas, wheel washing facilities shall be used to prevent the deposition of sediment, and any other materials on the public roads by vehicles leaving the site. Should material be deposited on the road to an extent considered significant by the Manager it shall be removed immediately by and at the cost of the Consent Holder.

Dust Suppression

(31) All necessary actions shall be taken to ensure compliance with the regional air discharge permit 21875 to prevent dust nuisance from the ~~controlled (fill)~~ filling to neighbouring properties and public roads, reserves and areas outside of the subject site. These include, but shall not be limited to:

(a) Staging of areas of works

(b) Retention of existing vegetation and bunds around the perimeter of the site

(c) The installation and maintenance of wind fences and where practicable vegetated strips as the fill level rises

(d) Watering down of internal haul roads which are not metalled or adequately sealed.

(e) Watering down fill materials which are dry and/-or contain dust substances.

(f) Suspension of fill operations if necessitated by the prevailing weather conditions

(g) Providing dust prevention monitoring records to Manager on a 3 monthly basis after commencement of the fill activities to ensure on-going compliance with this condition.

Vibration Controls

(32) Vibration from the fill activity and associated compaction of fill shall not exceed the levels permitted by clause 8.8.~~2 7~~1 of the Auckland City Operative District Plan.

Post Fill Completion conditions

Finished Contour Plan and Landscaping

(33) Within 3 months of the completion of the ~~controlled (~~fill~~)~~ works the consent holder shall submit to the Manager an as built contour plan of the site and, should the site remain vacant with no further building or earthworks to be conducted on the site in the following 3 month period (following the completion of fill), then the site shall be hydroseeded or otherwise sown with appropriate ground cover to the satisfaction of the Manager.

Final Fill Validation Report

(34) If in the reasonable opinion of the Manager information and data provided in the Annual Compliance Reports tendered under Condition (16) are insufficient to demonstrate the final 2m depth of fill complies with Auckland City Council's Human Health Guideline

Values for Residential Land Use then the Consent Holder shall provide a fill validation report on the completion of fill, to the satisfaction of the Manager.

(a) The consent holder shall consult with the Manager and Council's Environmental Health Officer (Contamination) prior to undertaking the validation exercise to ensure that the proposed validation methodologies are appropriate.

(b) The validation report shall be in respect of the top 2m of fill and shall:

(i) Show the final filled levels on an appropriately scaled site plan, including the relative levels prior to and post fill completion, as well as showing the location by grid co-ordinate references of the fill material defined by its compaction and stability characteristics;

(ii) Specify the status of the fill at each location by grid co-ordinate references on a appropriately scaled plan in terms of the chemical parameter acceptance criteria set out in Condition ~~11~~10;

(iii) Demonstrate that the site is suitable for residential land use with respect to the levels of contamination in the uppermost 2m of soil.

In the event of the validation report identifying contamination levels in excess of the Auckland City Council's Human Health Guideline Values for Residential Land Uses in the top 2m of fill, the consent holder at their own expense will remediate that top 2m of fill to the extent necessary to comply with the Guideline Values.

Review Conditions

(35) The conditions of this consent may be reviewed by the Manager ~~(Resource Consent Monitoring Leader)~~ pursuant to Section 128 of the Resource Management Act 1991, by the giving of notice pursuant to Section 129 of the Act, in one or more of the following times:

- June ~~2011~~2012
- June ~~2012~~2013
- June ~~2013~~ 2014 and at two yearly intervals thereafter.

The purpose of the review shall be:

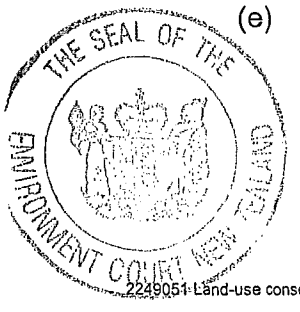
(a) To deal with any adverse effects on the environment which may arise from the exercise of the consent, where it is appropriate to deal with such effects at a later stage; or

(b) To require a consent holder to adopt the best practicable option to avoid or mitigate any adverse effects on the environment; or

(c) To deal with any other adverse environment effect, which the exercise of the consent may have an influence on.

(d) To review the engineering standards for the controlled fill as set out in Condition 4.

(e) To alter the monitoring requirements, including requiring further monitoring, or increasing or reducing the frequency of monitoring and/or frequency of reporting.



(f) To ensure that any relevant amendments to guideline values referred to in Condition 1A and 8 are considered.

Traffic Review

(35a) If after the fill activity commences it becomes evident that the traffic generated by the development is causing an operational or safety problem on the surrounding road network, determined by accidents, complaints to Council, or by observations and data collected by suitably experienced Council staff, within a two year period of the consent to fill being exercised, then the applicant will be required to appoint, at their cost, a professional traffic engineer to investigate and recommend means of rectifying any problem(s) identified, to the satisfaction of the ~~Council and Council's Traffic Safety and Operations~~Manager. Should the recommended means of rectifying issues which are attributable to the Consent Holders activities be physical works, then these physical works shall be installed at the consent holders expense. Provided that the total financial obligation of the Consent Holder under this condition shall be limited to $20,000. If the recommended physical works exceed $20,000, then the Consent Holder acknowledges that the recommendations for such works constitute a reason for Council to review this consent, pursuant to s128 of RMA.

Cessation of Fill Activity

(36) Should the consent holder cease or abandon work on-site, they shall first take adequate preventative and remedial measures to control sediment discharge and site stability, and shall thereafter maintain these measures for so long as necessary to prevent sediment discharge from the site and ground stability within the quarry pit. All such measures shall be of a type, and to a standard, which are to the satisfaction of the Manager ~~(Resource Consent Monitoring Leader)~~.

Earthworks

(37) All personnel working on site are made aware of and have access to the contents of this consent document and the associated erosion and sediment control plan and methodology.

(38) Adequate preventative and remedial measures to control sediment discharge shall be put in place in case work on the site is abandoned, and thereafter those measures maintained for so long as necessary to prevent sediment discharge from the site. All such measures shall be of a type, and to a standard, which are to the satisfaction of the Manager.

(39) All erosion and sediment control measures shall be constructed and maintained in accordance with those described in the application for Land Use Consent: Sediment Control No. 36221 (File Reference 20828). These measures shall be documented by the Consent Holder in an Annual Management Plan ("AMP").

(40) Any future amendments to the ~~Plan~~ AMP that may affect the performance of erosion and sediment control measures on site shall be submitted to the Manager for review prior to the implementation of the changes. The Manager will advise in writing if any aspects of the Plan are considered to be inconsistent with achieving the provision of this consent. The ~~plan~~ AMP may form part of an overall management plan for the site. All subsequent changes shall be submitted to the Manager for review prior to becoming operational.

(41) All erosion and sediment control measures shall be constructed and maintained in general accordance with TP90 and any amendments to ~~this~~ that document, except

where an alternative standard is accepted in accordance with Conditions 39~~7~~, 40~~8~~ or 48~~15~~.

(42) All 'cleanwater' runoff from stabilised surfaces including catchment areas above the site shall be diverted away from earthworks areas via a stabilised system, so as to prevent surface erosion and sediment generation.

(43) Erosion and sediment control measures are to be implemented in accordance with best engineering practice, and maintained to perform at full operational capacity until the site has been stabilised against future sediment generation. Site stabilisation shall mean when the site is covered by an erosion proof ground cover, and includes vegetative cover which has obtained a density of more than 80% of a normal pasture sward.

(44) A certificate, signed by an appropriately qualified and experienced person, shall be submitted to the Manager, to certify that any new erosion and sediment control measures have been constructed in accordance with Conditions 39~~7~~, 40~~8~~ or 48~~15~~ of this consent, within 2 weeks following the construction of the controls.

Information supplied shall include:

a) contributing catchment area

b) retention volume of the structures, including dead and live storage

c) shape and dimensions of structures

d) position of inlets/outlets

e) stabilisation of structures/measures

f) confirmation of compliance (or otherwise) with TP90

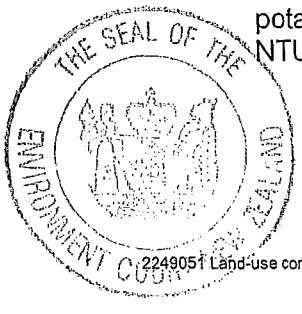
(45) To prevent the deposition of slurry, clay or other materials on public roads by vehicles leaving the site, a suitably designed wheel wash facility shall be provided, operated and maintained for as long as this consent is exercised. When exiting the site all vehicles that have traversed over unsealed parts of the site, or have had wheels otherwise come into direct contact with cleanfill material shall use this facility. Should any material be deposited on the road by vehicles exiting the site it shall be removed immediately. The wheel wash shall remain in operation at all times.

(46) No further quarrying shall be undertaken within 20m of the bore identified as the "Municipal Supply Bore" in ARC Permit 12977.

(46A) A minimum buffer distance of at least 50 metres shall be maintained between any rainfall soakage point and the dewatering bore intake.

Earthworks - monitoring

(47) Groundwater pumped from the site shall be monitored for suspended solids and turbidity, as part of the contaminant monitoring regime of associated consent 36222. The concentration of suspended solids in the groundwater being discharged from the site shall not exceed 30 mg/l, and turbidity shall not exceed 30NTU. The results of this sampling shall be provided to the ~~ARC~~ Consent Authority on a quarterly basis. Provided that if the groundwater is ever to be used as potable water, that portion being used as potable water shall be subject to a limit of 5mg/l TSS and a turbidity of no more than 5 NTU.



Earthworks - reporting

(48) Prior to the commencement of work, and annually thereafter, an Annual Management Plan (AMP) shall be submitted to the ~~ARC~~ Consent Authority containing the following information:

a) Plans for ~~clean~~fill and associated earthworks over the next 12 months.

b) Details of maintenance activities in respect of erosion and sediment control measures undertaken in the previous 12 months, and maintenance activities proposed over the next 12 months.

c) Summary of sampling results for suspended solids and turbidity, carried out during the previous 12 months.

d) Details of any problems in respect of water management on the site during the previous 12 months, and proposals for addressing such problems.

e) Where necessary calculations to confirm compliance (or otherwise) with TP90 over the next 12 months.

f) Where site closure is proposed in the following 12 months, the Plan should also address the following matters:

i. Proposals for stabilisation of the site; and

ii. Proposals for the ongoing treatment of any discharges from the site.

The Annual Management Plan commencing 31 May 2011, shall be submitted by 30 June every year, for the period ending 31 May of that year, for the Manager's review, prior to the commencement of works proposed in the Annual Management Plan.

Expiry

(49) This consent will expire on 31st December 2030 unless it has lapsed, been surrendered or been cancelled at an earlier date pursuant to the Resource Management Act 1991.

Advice notes

1. *Subject to section 198 of the Local Government Act 2002 and Auckland ~~City~~ Council's Policy on Development Contributions, a development contribution is payable on this proposal. A notice of assessment will be sent out which outlines the quantum of the contribution payable for this consent. Please note that with respect to this development, building consents will not be released, code of compliance certificates will not be issued, and*

2 *The Consent Holder is advised that in accordance with the existing Quarry Management Plan (July 2007) and the provisions of the District Plan at clauses 8.7.4.1 and 8.7.4.2, that prior to the commencement of ~~clean~~ fill operations the Quarry Management Plan (July 2007) is required to be amended, in consultation with the Site Liaison Group, to include the ~~clean~~ filling and sale of imported aggregated activities.*

3 *The applicant needs to obtain all other necessary consents and permits, including those under the Building Act 2004, and comply with all relevant Council Bylaws. It is further noted that this consent does not constitute building consent approval. Please check as to whether or not a building consent is required under the Building Act 2004. If a building consent application is already lodged with Council or has already been*

obtained, you are advised that, unless otherwise stated, the use shall not commence until conditions of this resource consent have been met. Furthermore, if this consent and its conditions alter or affect a previously approved building consent for the same project, you are advised that a new building consent may need to be applied for. If the tree/s to which this consent relates are not located on land owned by the consent holder, the approval of the tree owner/s or an order to be made by the court under Section 129C of the Property Law Amendment Act 1952 may need to be obtained to give effect to the consent.

4 *Pursuant to section 125 of the Resource Management Act 1991, this resource consent will expire 5 years after the date of commencement of consent unless, before the consent lapses;*

- *the consent is given effect to; or*
- *an application is made to the consent authority to extend the period of the consent, and the consent authority decides to grant an extension after taking into account the statutory considerations, set out in section 125(1)(b) of the Resource Management Act 1991.*

5 *A copy of this consent should be held on site at all times during the establishment and construction phase of the activity.*

6 *The consent holder is requested to notify Council, in writing, of their intention to begin works, a minimum of fourteen days prior to commencement. Notification should be provided on the Resource Consent Monitoring - Notice of Works Starting form included with this consent decision. Notification can be submitted ~~the following ways:~~*

- ~~*By email to rcmadmin@aucklandcity.govt.nz.*~~
- ~~*By post to Auckland City Environments, Private Bag 92516, Wellesley Street, Auckland 1141 Attention; Resource Consent Monitoring Administrator.*~~
- ~~*By fax to 09 353 9186 Attention Resource Consent Monitoring Administrator.*~~

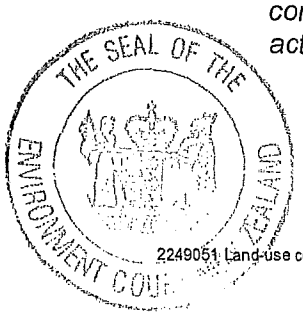
~~*If there is no Resource Consent Monitoring – Notice of Works Starting form attached to this decision please contact Councils Resource Consent Monitoring Administrator on 09 353 9186 to request a copy.*~~*by email, phone or fax.*

7 *This consent does not constitute building consent approval Please check as to whether or not a building consent is required under the Building Act 2004. If a building consent application is already lodged with Council or has already been obtained you are advised that unless otherwise stated, the use shall not commence until conditions of this resource consent have been met.*

8 *The consent holder shall comply with all relevant Council Bylaws. In particular the consent holder shall comply with Part 27 of the Auckland ~~City~~ Council Consolidated Bylaw, which addresses signage, or seek a dispensation from the Bylaw.*

9 *Pursuant to section 127 of the Resource Management Act 1991, the consent holder may apply to the Council to change or cancel any of the conditions imposed on this consent (other than any condition as to the duration of the consent).*

10 *The conditions of consent apply to the consent holder and all persons, companies, contractors and agents, including sub-contractors, carrying out works on the site and activities authorised by this consent.*



9 *Pursuant to section 127 of the Resource Management Act 1991, the consent holder may apply to the Council to change or cancel any of the conditions imposed on this consent (other than any condition as to the duration of the consent).*

10 *The conditions of consent apply to the consent holder and all persons, companies, contractors and agents, including sub-contractors, carrying out works on the site and activities authorised by this consent.*

11 *The Land Use Consent: Sediment Control and associated conditions shall be included with any Contract Documents and all personnel working on the site (consultants, contractors and sub contractors) shall have access to the relevant documentation inclusive of the consent conditions*

12 *The consent holder is advised that the date of the commencement of this consent will be as determined by Section 116 of the RMA, unless a later date is stated as a condition of this consent*

13 *The consent holder shall make the Contractor/Consultant associated with the proposed works aware of the Industry Education Programme available to Plan Preparers and Plan Implementers through the ~~ARC~~Auckland Council.*

14 *The consent holder is referred to Section 124 of the Resource Management Act 1991, which provides for the exercising of a consent while applying for a new consent for the same activity.*

15 *This consent does not absolve the grantee from obtaining all other necessary consents or permits that may be required for the activity.*

16 *The consent holder shall ensure that there are adequate provisions on site to prevent possible fuel spillage.*

17 *All archaeological sites are protected under the provisions of the Historic Places Act 1993 (HPA). It is an offence under the HPA to destroy, damage or modify any archaeological site whether or not the site is entered on the New Zealand Historic Places Trust (NZHPT) register of historic places, historic areas, wahi tapu and wahi tapu areas. Under sections 11 and 12 of the HPA, an application must be made to the NZHPT for an authority to destroy, damage or modify an archaeological site(s) where avoidance of effect is not practicable. It is the responsibility of the consent holder to consult with NZHPT about the requirements of the HPA should these become necessary as a result of any activity associated with the proposed development.*

18 *Section 137 RMA allows for the transfer of a resource consent by the holder to any owner or occupier of the site in respect of which the permit is granted, or to a local authority, unless the permit expressly provides otherwise.*

19 *The Applicant may wish to transfer this resource consent, if granted, to any subsequent owner of the property, if sold, or to occupiers of the land.*

20 *Section 138 RMA details the conditions relating to surrender of a resource consent. A consent authority may refuse to accept the surrender of part of a resource consent where that may (2)(b) affect the ability of the consent holder to meet other conditions of the consent; or (2)(c) lead to an adverse effect on the environment There also remains some liability to the person surrendering the resource consent under (3)(a) and (b) of this section. This liability relates to breaches of conditions of the consent occurring before surrender and to the completion of the work required to give effect to the consent.*

21 *The ~~ARC~~ Auckland Council would be unlikely to allow the surrender of part of this consent under section 138(2)(c) without substantial supporting information indicating*

that the predicted fate and transport of contaminants had occurred and that no on-going risk was posed to human health or the environment.

22 *The Consent Holder is advised that, pursuant to Section 126 of the RMA, if this resource consent has been exercised, but is not subsequently exercised for a continuous period of five years, the consent may be cancelled by the ARC unless other criteria contained within Section 126 are met.*

23 *That any dust emissions during the earthworks operations are controlled in accordance with the Ministry for the Environment guidelines Good Practice Guide for Assessing and Managing the Environmental Effects of Dust, 2001. Dust shall be mitigated, as a minimum, by:*

a) Using a water truck to dampen dust on the access road and filling areas. Wind direction, strength and soil conditions shall be considered and an appropriate level of watering and material covering established prior to daily works commencing;

(b) Covering of inbound dusty loads;

(c) Use of a wheelwash for outbound vehicles; and

(d) Limiting vehicle speeds to avoid dust mobilisation

24 *The Consent Holder is referred to Section 127 of the RMA which provides for the application, at any time, for changes to or cancellation of conditions of consent other than duration, and the provisions therein for making application to do so.*

25 *As part of the any consent process for the future use of the site, and if dewatering continues, the consent holder shall consider options for discharging stormwater runoff back to the Three Kings aquifer or to otherwise divert from soakage to ground.*

Annexure **D**

ESL Submissions - Criteria Comparison Table - Exhibit G (version 2.0)

#	Description - Trace Elements - Max and Mean Limits	Arsenic	Boron	Cadmium	Chromium	Copper	Mercury	Nickel	Lead	Zinc
1	Three Kings Background - TP153	2.27	107	0.43	89.1	53.2	0.147	320	43	421
2	Maximum Volcanic Range - TP153	12	260	0.65	125	90	0.45	320	65	1160
3	WA 2008 Application (Max)	ns	ns	ns	ns	ns	ns	ns	ns	ns
4	WA Application @ Council hearing >1.0m (max)	100	260	7.5	400	325	0.75	320	250	1160
5	Consent Granted >2.0m (max)	100		7.5	400	325		320	250	1160
6	WA 2010 Application >1.0m (max)	100		7.5	400	325		320	250	1160
7	WA Application @ Council hearing <1.0m (max)	30	260	1	400	325	0.75	320	250	1160
8	Consent Granted <2.0m (max)	30		1	400	325		320	250	1160
9	WA 2010 Application <1.0m (max)	30		1	400	325		320	250	1160
10	WA EC Evidence >2.0m (max)	100	260	7.5	400	325	0.75	320	250	1160
11	WA EC Evidence >2.0m (mean)	12	130	0.65	125	90	0.45	105	65	400
12	WA EC Evidence <2.0m (max)	30	260	1	400	325	0.75	320	250	1160
13	WA EC Evidence <2.0m (mean)	12	130	0.65	125	90	0.45	105	65	400
14	ESL (Dolan) EC Evidence (max all depths)	12	260	0.65	125	90	0.45	320	65	421
15	Puketutu (2001)	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill
16	Puketutu 2009 Management Plan (max)	112	260	3.3	186	536	1.2	320	780	1590
17	Puketutu 95%UCL mean concentrations 2000-2008 (R Burden, EIC, Table 2.4)	8.4		0.21	67.9	46.7	0.24	66.1	84.5	127.2
18	Puketutu max concentrations - drainage tests (R Burden, Rebuttal, para 2.3)	73		0.3	155	72	0.2	94	92	103
19	Greenmount Closed Landfill - fill (max)	30	196*	10	400	325	0.75*	250	250	1160
20	Greenmount Closed Landfill - topsoil (max)	30	196*	1	130	130	0.75*	150	140	1160

#	Description - Organics and Hydrocarbons - Max and Mean Limits	BaP eq	Cyanide	DDT	Aldrin	Dieldrin	C7-C9	C10-C14	C15-C36	BTEX Total	Benzene	Toluene
21	Three Kings Background - TP153											
22	Maximum Volcanic Range - TP153											
23	WA 2008 Application (Max)	2.15	ns	8.4	ns	ns	ns	ns	ns	ns	ns	ns
24	WA Application @ Council hearing >1.0m (max)	2.15		12			500	510	20000			
25	Consent Granted >2.0m (max)	2.15		12			500	510	5600			
26	WA 2010 Application >1.0m (max)	2.15		12			500	510	20000			
27	WA Application @ Council hearing <1.0m (max)	0.27		0.7			500	510	1000			
28	Consent Granted <2.0m (max)	0.27		0.7			120	510	1000			
29	WA 2010 Application <1.0m (max)	0.27		0.7			120	510	1000			
30	WA EC Evidence >2.0m (max)	2.15	25	12	12	6	300	300	5600		1	20
31	WA EC Evidence >2.0m (mean)	1	1	0.7	0.7	0.7	20	50	500		0.4	3
32	WA EC Evidence <2.0m (max)	0.27	0	0.7	0.7	0.7	120	300	1000		0.2	20
33	WA EC Evidence <2.0m (mean)	0.1	0	0.35	0.35	0.35		50	500		0.2	3
34	ESL (Dolan) EC Evidence (max all depths)	0.1	1	0.05	0.05	0.05	20	50	500	20	20	20
35	Puketutu (2001)	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill	cleanfill
36	Puketutu 2009 Management Plan (>0.5m/<0.5m)	2.15/0.27		12/0.7			100 (C1-C7)	500	20000			
37	Puketutu mean concentrations 2009/2010 (R Burden, EIC, Table 2.5)	0.21		0.064			0.06	1.6	38.2			
38	Puketutu max concentrations (none stated)											
39	Greenmount Closed Landfill - fill (max)	25	50	12	0	0	120	500	10000	0	0	0
40	Greenmount Closed Landfill - topsoil (max)	0.27	0	0.7	0	0	0	500	500	0	0	0

Notes:

* default to Schedule 10 or TP153

ns = none stated

All figures mg/kg