

APPROVED
[Signature]
24/04/12

April 2012 – Rev 4

Three Kings Fill Management Plan

This Fill Management Plan (FMP) has been developed for the Three Kings Quarry as required by condition 26 of the final decision of the Environment Court for the reclamation of the Three Kings Quarry (Decision No. [2011] NZ EnvC 214).



Note: This plan is subject to change. The Site Manager or Consent Authority should be contacted to ensure the latest version is being viewed.

Revision Record

Date	Revision	Details/Comments
23/11/2011	-	First Draft
23/12/2011	0	Final Draft
03/02/2012	1	First Issue
28/03/2012	2	Second Issue
02/04/2012	3	Third Issue
13/04/2012	4	Fourth Issue - track changes accepted

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0.0 Review of Fill Management Plan

This plan has been reviewed for consistency with the requirements of consents and permits authorising the fill operation by:

1. Site Manager

Name: Daniel Le Roux

Signature: 

Date: 26/04/2012

2. Auckland Council

Name: _____

Position: _____

Signature: _____

Date: _____

1.0 INTRODUCTION

1.1 Objective

The objective of the fill operation is to rehabilitate ground levels of the Winstone Aggregates Three Kings site after completion of quarrying and to leave the site stable, safe, and fit for subsequent use.

The material used to fill the site must therefore be able to achieve the objective, in a manner which has no more than minor adverse effects on people or the environment, during, and after the completion of, filling.

This Fill Management Plan (FMP) sets out how the fill material quality is to be managed, and includes the monitoring and reporting to be implemented. The objectives and measures within this plan are set in accordance with Winstone Aggregates Policies and the Company's Vision of delivering "Market leadership for the next 50 years through sustainable practices". The policies most relevant to this plan are attached as Appendix 1.

1.2 Site Development

While existing resource consents authorise further excavation of the quarry down to sea-level (0m RL), Winstone intends ceasing excavation at about RL34m.

Application for the necessary resource consents to enable filling of the quarry were lodged with the previous Auckland City Council and Auckland Regional Council in 2009. Resource consent for the rehabilitation of the site was granted by a decision of the Environment Court on 26th July 2011 with fill operations commencing in 2012.

The filling of the site, to no more than the levels approved by the consent (refer Appendix 2), is subject to market demand but it is anticipated to be in the vicinity of 8 to 12 years.

1.3 Land Use and Future Use

Land use for the rehabilitated quarry has not yet been determined. The Business 7 zone provisions of the Auckland Council (AC) Operative District Plan, which presently apply to the site, effectively restrict land use to quarrying and related activities, including, subject to resource consent, rehabilitation.

It is expected that future use will be defined well in advance of the completion of filling, and, if necessary, specific requirements for defined end use(s) accommodated through review of the AC Operative District Plan.

Winstone is committed to continuing to work with AC and the community to assess the different end use opportunities for the Winstone site which integrate with the adjoining land. It is currently envisaged that any such study would take into consideration such matters as open space, recreation and community and business needs.

1.4 Relevant Resource Consent Conditions

As noted above, the objective of this FMP is to ensure that only appropriate fill materials are accepted and placed into the body of the fill. There are currently three resource consents

issued by the Environment Court to authorise the placement of fill. Two land use consents were granted, one issued pursuant to the Auckland Regional Plan: Sediment Control and the other to AC's District Plan – Isthmus Section. The third is a Discharge Permit pursuant to the Auckland Regional Plan: Air Land and Water (ARP:ALW).

The conditions of these consents were amalgamated and issued as a single suite of conditions. A copy of the final decision of the Environment Court (Decision No. [2011] NZ EnvC 214) including the amalgamated consent conditions is attached as Appendix 3. The relevant conditions to this FMP are either reproduced or listed below.

1.4.1 Structure of FMP

Condition 26 reads:

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. Certification by the Manager is required prior to the commencement of filling. 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 13, Condition 16, Condition 17 and Condition 31.*
- (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 16 and 17) 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 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.*
- (n) *Proposed groundwater monitoring regime.*

This FMP document is based on the prescribed content above.

1.4.2 List of Relevant Consent Conditions

As required by Condition 26 (reproduced above) a list of the consent conditions relevant to this FMP are summarised below. This is in addition to Condition 26 itself and a copy of the full set of conditions attached as Appendix 3.

Condition No.	Purpose/Objective
Predevelopment Conditions	
4	Access to the relevant parts of the property shall be permitted to the servants or agents of the AC to undertake inspections, investigations, monitoring, etc.
5	Legal and physical access to the sampling and monitoring locations are to be maintained.
6	Copies of the consent, reference documents and management plans are to be available onsite for viewing by staff, public and AC.
9	The upper 5m of fill shall be engineered to a compaction and stability standard in accordance with NZS 4431:1989 (for Residential Development).
10	The final 2m of fill must meet the acceptance criteria set out in the consent or the Human Health Guideline Values for Residential Land Uses and must not present a risk to human health. A confirmation report is to be provided to the AC Manager.
Operational Conditions	
11	All fill placement and management shall be undertaken in accordance with the FMP.
12	The site shall be a private commercial facility and not open to the general public.
13	<p>The following operations shall be carried out:</p> <ul style="list-style-type: none"> • All vehicles transporting fill shall report to a designated reception; • A suitably trained person shall inspect and document all incoming loads; • X-ray fluorescence analysis is to be undertake for all loads not pre-approved; • Records, documents and audits as per the FMP shall be obtained, maintained and reported to the AC Manager annually; • Loads with evidence of hydrocarbons or other contaminants shall be rejected; • A suitably trained person shall inspect all loads at the tip point as per the FMP.
14	Before acceptance of fill(from a known horticultural site, any site in the AC District Plan - Central Area Section, any site listed on MfE's HAIL or any site providing more than 200m ³) documentation of the suitability of the fill must be provided. Fill with

	contaminants not in Table 1 shall not be accepted above TP153 or above 5% of the permitted activity defined in the ARP:ALW. <i>Refer to Table 1 in the consent. Table 1 has also been reproduced in Section 3.1 of this FMP.</i>
15	If fill has not been tested then analytical testing must be done for the parameters in Table 1 at a rate of not less than 1 in every 150 incoming trucks or every 1400 tonnes.
16	Analytical testing shall demonstrate that concentrations in the fill do not exceed those in Table 1.
17	Only materials detailed in Table 2 and from within the Auckland Region are acceptable fill materials. <i>Refer to Table 2 in the consent. Table 2 has also been reproduced in section 3.3 of this FMP.</i>
18	All monitoring, chemical analyses and sampling shall be carried out by suitably qualified personnel and in accordance with MfE guidelines.
19	The weighted rolling 12-month mean will be continuously updated. If above 85%, the AC Manager is to be notified and the results reported monthly until action has reduced the mean below 85%.
20	Within the first 12 months of filling the monthly weighted rolling mean shall be no greater than the weighted rolling 12-month mean in Table 1.
21	If the controlled fill does not meet the fill acceptance criteria, the fill shall be rejected and removed to a suitably authorised off-site disposal facility.
22	If a load of fill has been removed from the site, the disposal location of all other loads received and placed from the same originating site shall be assessed by an independent expert approved by the AC Manager.
23	The consent holder will insert a condition in any major fill contract that if a load is rejected it shall be removed immediately.
24	A report shall be provided to the AC Manager within one month of disposing rejected fill.
25	The cost shall be met for sampling tests (of no more than two core samples or composite samples on each occasion) to be undertaken twice a year by AC.
Reporting	
27	An Annual Compliance Report shall be submitted to the AC Manager providing an analysis of the results of data collected as per the FMP and an evaluation of the results.
28	The FMP may be reviewed annually. Any changes shall be submitted to the AC Manager for review prior to becoming operational.
Groundwater Monitoring	
30	A continuous electrical conductivity and pH meter shall be installed at the dewatering well head. Results are to be reported in the Annual Compliance Report.
31	Groundwater monitoring shall be undertaken at the dewatering well and BH7 and analysed for the items in Table 3 at quarterly intervals for the first 2 years. After this, if no groundwater trigger level has been exceeded, sampling may be every 6 months. <i>Refer to Table 3 in the consent. Table 3 has also been reproduced in section 5.2 of this FMP.</i>
32	Trigger levels for chemical constituents as measured at the dewatering well and BH7 shall be as in Table 3 or in accordance with Conditions 33 and 34.
33	The trigger level shown in Table 3 for zinc is an interim value. It may be re-set by AC following 2-5 years of monitoring.
34	Trigger levels for cyanide and all of the organic constituents listed in Table 3 are interim values. Trigger levels may be re-set by AC following 2-5 years of sampling.
35	The Annual Compliance Report shall include a conclusion on the groundwater monitoring data and details of the monitoring for the ensuing 12 months.
Groundwater Contingency	
36	If there is an exceedance of a trigger level the monitoring well shall be re-sampled and analysed. 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 AC and Watercare Services Limited will be advised and an investigation carried out:

	<ul style="list-style-type: none"> • If the cause is not a result of the filling AC and Watercare Services Limited will be advised. • If the cause is a result of the filling the following actions will be taken: <ul style="list-style-type: none"> (i) If concentrations exceed the guidelines in ANZECC 2000 but not 50% of the drinking water MAVs then AC will determine if consent is required. (ii) If concentrations exceed 50% of the MAVs monitoring frequency will be increased to monthly and options for reducing concentrations investigated and carried out. (iii) If concentrations exceed 75% of the MAVs a remediation plan will be prepared and interventions carried out. Only pre-approved fill will be accepted until concentrations are less than 50% of the MAV.
37	Dewatering shall continue for 5 years following the completion of filling (and Permit 12977 exercised until at least December 2030). If after 5 years contaminant levels are below trigger levels pumping may cease. Should a trigger level exceedance occur (as a result of filling) then dewatering will resume or some other agreed mitigation method implemented.
Operational Conditions	
38	A Traffic Management Plan shall be prepared detailing the management practices, monitoring and reporting required to ensure compliance.
39	Any contract with a major contributor of fill shall include a condition that trucks are not to use St Andrews Road.
40	Any contract with a major contributor of fill shall include a condition requiring compliance with the Traffic Management Plan (including the Drivers Code of Conduct and to cover loads where necessary).
41	All reasonable endeavours shall be used to ensure loads from pre-approved sites are covered where necessary to avoid dust nuisance.
42	A Site Traffic Safety Plan – Drivers Code of Conduct for all visiting traffic shall be developed and implemented.
43	Prior to the commencement of any construction works on site a Construction Noise Management Plan shall be prepared to the satisfaction of the AC Manager.
44	Prior to filling signs at the access way are to be erected to detail that the fill is a private operation, access is not open to the public, hours of operation and contact details.
47	Prior to the commencement of filling an additional dust monitor shall be install and incorporated in to the Air Quality Management Plan.
Development in Progress Conditions	
48	Hours of normal operations shall be 7am to 10pm Mondays to Saturdays and 9am to 6pm on Sundays and public holidays.
50	No more than 375 trucks shall enter the site per day. A register shall be kept and submitted to the AC Manager quarterly.
51	<p>Activities associated with fill operations shall not exceed the noise limits:</p> <ul style="list-style-type: none"> • Between 904-944 Mount Eden Road <ul style="list-style-type: none"> - L₁₀ 60dBA Monday to Saturday 7am-10pm and Sunday and Public Holidays 9am-6pm - L₁₀ 45dBA and L_{MAX} 75 dBA at all other times • All other residentially zoned land <ul style="list-style-type: none"> - L₁₀ 55dBA Monday to Saturday 7am-10pm and Sunday and Public Holidays 9am-6pm - L₁₀ 45dBA and L_{MAX} 75 dBA at all other times
52	Within 3 months of the commencement of filling a report demonstrating that the activity meets the noise standards is to be submitted to the AC Manager.
53	Further monitoring confirming compliance with the noise limits is to be undertaken when the majority of the fill operation is occurring above RL70m and 6 monthly thereafter.
54	Prior to the use of self propelled compaction equipment an acoustical consultant shall be engaged to model the noise levels to demonstrate that the use of the equipment will

	not exceed the noise limits. Monitoring confirming compliance shall be conducted within one month of implementation.
55	The existing vegetated earth bund parallel to Mount Eden Road shall be retained for the duration of filling.
56	Filling is not authorised beyond the site or above the contours shown on Figure 2 - Proposed Landform for Fill Consents as submitted with the application. <i>Refer Appendix 2.</i>
58	All necessary measures shall be used to prevent the deposition of material on public roads by vehicles leaving the site. Any material on the road considered significant by the AC Manager shall be removed immediately at the cost of the Consent Holder.
59	All necessary actions shall be taken to ensure compliance with the regional air discharge permit 21875 to prevent dust nuisance from the filling.
60	Vibration from the fill activity shall not exceed the levels permitted by the Auckland City Operative District Plan.
Post Fill Completion Conditions	
61	If in the reasonable opinion of the AC Manager information and data provided in the Annual Compliance Reports are insufficient to demonstrate the final 2m depth of fill complies with the Auckland City Council's Human Health Guideline Values for Residential Land Uses then a fill validation report on the completion of fill shall be provided to the satisfaction of the AC Manager.
63	Should work on site cease or be abandon adequate preventative and remedial measures to control sediment discharge and site stability shall be implemented and maintained. All measures shall be to the satisfaction of the AC Manager.
64	All personnel working on site are made aware of and have access to the contents of the fill consent and associated erosion and sediment control plan and methodology.
65	As per condition 63 above.
66	All erosion and sediment control measures shall be constructed and maintained accordance with those described in the application and documented in the Annual Management Plan.
67	Any future amendments to the AMP that may affect the performance of erosion and sediment control measures on site shall be submitted to the AC Manager for review prior to the implementation.
68	All erosion and sediment control measures shall be constructed and maintained in general accordance with TP90 except where an alternative is accepted by the AC Manager.
69	All cleanwater runoff from stabilised surfaces including surrounding catchment shall be diverted away from earthworks areas to prevent surface erosion and sediment generation.
70	Erosion and sediment control measures are to be implemented in accordance with best engineering practiced, and maintained to perform at full operational capacity until the site has been stabilised.
71	A certificate, signed by an appropriately qualified and experienced person, shall be submitted to the AC Manager, to certify that any new erosion and sediment control measures have been constructed in accordance with conditions 67, 68 or 76, within two weeks of construction of the controls.
72	A suitably designed wheel wash facility shall be installed, operated and maintained for the duration of filling. All vehicles that have been into the fill area shall use this facility prior to exiting the site.
75	Groundwater pumped from the site shall be monitored and shall not exceed 30mg/l for suspended solids and 30NTU for turbidity. Results shall be provided to the AC Manager quarterly. If the groundwater is to be used as potable water there will be a limit of 5mg/l and 5 NTU for suspended solids and turbidity respectively.
76	Prior to commencement of work, and annually thereafter, the AMP shall be submitted to the AC Manager for review annually and shall include: <ul style="list-style-type: none"> • Plans for fill and the proposed fill contour over the next 12 months;

	<ul style="list-style-type: none"> • Maintenance of erosion and sediment control measures undertaken and proposed; • Summary of sampling results for suspended solids and turbidity; • Details of any problems in respect of water management on the site • Where necessary calculations to confirm compliance with TP90; • Indication of when the height of fill is to reaches 10m below the final fill levels; • Where site closure is proposed in the following 12 months the Plan shall address: stabilisation; ongoing treatment of discharges; provision of final contour plan; survey of the current levels; plan quantifying the difference between the levels shown on Figure 2 (<i>refer Appendix 2</i>) and any filling required to meet Condition 77.
77	Consultation with relevant stakeholders regarding the Final Contour Plan shall be undertaken not less than 24 months prior to the cessation of fill, not less than 6 months prior to the submitting a Plan Change or consent application for the end use or not less than 1 month following notification of a AC Plan Change applying to the site. Within 3 months of the completion of filling a qualified surveyor shall certify that the finished contour and if the site is to remain vacant it shall be stabilised.
Advice Notes	
5	The purpose of the FMP is to ensure the consent conditions are complied with.
14	Council are to provide the site a list of consented contaminated sites from the commencement of consent and quarterly there after.

2.0 SITE OPERATIONS

2.1 General

Winstone has operated a scoria quarry at the Three Kings site since the 1920s. Quarrying has occurred in the general location for over 150 years. The site area is approximately 15ha, with adjacent land to the immediate north, south and southwest having previously been quarried. Some of that previously quarried land has also been rehabilitated by filling, and some of it has subsequently been developed.

The predominant operations at Three Kings have been quarrying, involving extraction of rock resource, processing, stockpiling and load out.

In 2012, rehabilitation of the site is to commence through backfilling the void created by scoria extraction, using imported fill material.

The fill material imported to site will typically be the surplus soil resulting from development site excavations (including sub-divisions, roads, infrastructure projects, commercial and residential structures) from the Auckland region.

For a period of time resource extraction, processing, stockpiling, load out and fill activities will run concurrently. When extraction ceases, stockpiling and load out quarrying activities will continue utilising aggregates imported from other quarries.

A plan of the site layout while the quarry and filling operations run in parallel can be found in Appendix 4. Quarrying and product distribution will continue in the southern section of the site with filling starting primarily in the northern corner of the quarry. The rate of quarrying depends on a number of factors. The state of the market (demand) is a significant variable outside Winstone control. It dictates the level of sales and production activity. Similarly, the rate of importation of fill is again dictated by the market and the factors that drive projects and their productivity. However, the layout detailed in Appendix 4 is expected to be

maintained for the next 12 months of operations from the commencement of filling. Updates on the site layout, plans for fill and associated earthworks (including proposed fill contours) will be provided annually to the Council in the Annual Management Plan as required by consent condition.

2.2 Management Structure and Responsibilities

The owner of the Three Kings site is Fletcher Concrete and Infrastructure Limited. An organisational chart is attached as Appendix 5 which shows the Three Kings management and reporting structure.

In general terms, the Site Manager has overall responsibility for the fill operation and is required to ensure fill operations comply with the environmental monitoring programme described in this FMP. The Site Manager at Three Kings is supported in this regard by the Environmental Coordinator. The Environmental Coordinator will assist in the collection, maintenance and reporting of required data as well as undertaking regular audits of the procedures detailed in this FMP.

Fill material inspection is a shared responsibility. All site personnel involved in fill operations are required to be aware of permitted fill parameters and trained in fill acceptance, quarantine and rejection procedures. This includes weighbridge attendants, Fill Inspection Clerks, spotters and operators at the tip heads. Appendix 6 details the minimum number of personnel required for each site specific role and the number of employees that will be maintained as competent in those tasks. Refer to Section 2.4 of this FMP for further information on staff training.

In addition, the Winstone senior management team is available to provide the necessary support in areas such as environmental performance, health and safety, and human resources. This is done through site visits, operation meetings and internal audits.

2.3 Operation Hours and Access

The site is generally open to customers during the following hours:

Monday to Friday	0700 to 1700
Saturday	0700 to 1400

However, circumstances may arise whereby it is necessary to carry out general operations beyond the stated hours. Such circumstances could include mechanical breakdown or safety and emergency work. In these situations, the noise levels detailed in the consent (and reproduced in Quarry Management Plan) shall be complied with and relevant stakeholders notified.

Signage at the site access will display the hours of operation and times at which the site gates will be opened to customer vehicles. This sign will also detail that the site is operated as a private commercial facility with restricted access, meaning the site is not open to the general public.

The site entrance gates are locked outside working hours and whenever the site is not manned.

Council representatives shall be permitted access to the site at all reasonable times for the purpose of carrying out inspections, investigations and monitoring. Standard practice is that visits to site are prearranged by contacting the Site Manager and/or representative. If prearrangement is not possible, in order to comply with the Health and Safety requirements of the site, any visitors are to report to the weighbridge office to sign in. Again, to comply with Health and Safety requirements any person entering site must be accompanied by a member of staff while on site or have been fully inducted to the site.

Furthermore, it is intended that the legal and physical access to the sampling and monitoring locations required to implement this Plan are maintained. Any potential issues in this regard will be notified to Council and a resolution agreed prior to any changes being made.

2.4 Staff Training

The successful application of this FMP can only be achieved through appropriate actions by all personnel involved with the operation and management of the fill.

Employees involved in fill operations will, as appropriate, be trained to EXITO¹ National Certificate standard in Resource Recovery and Solid Waste Management standard.

Training in the specific tasks associated with acceptance, quarantine, rejection, sampling and monitoring of fill material is internally managed. The Environmental Coordinator is responsible for the training of staff on these tasks. The training includes an induction to the consents and management plans with specific regard to this FMP. The induction is followed by a series of sessions to lead staff through a detailed schedule of duties; these schedules are included in Winstone's internal training manual. The sessions include details on the process, systems, techniques and methodologies associated with completing each task successfully and in accordance with our requirements. Each trained member of staff must demonstrate competency in regards to each of the scheduled items. Competency is assessed by the Environmental Coordinator through observation of the employee as they perform their duties. Employees will be signed off as competent prior to being left unsupervised. A copy of the training schedule and sign off form for employees involved in fill operations is attached as Appendix 7.

Appendix 6 details the minimum number of personnel that will be trained in each site specific role and the number of employees that will be maintained as competent in those tasks.

Job descriptions and quarterly training reviews are the mechanisms adopted to identify ongoing training requirements in all aspects of the fill operation. A training record will be established and maintained for all site personnel.

Re-training and refresher courses are to be provided as required to personnel involved in the fill operation to ensure:

- familiarity with, conditions of consent and the FMP relevant to individual responsibilities;

¹ Extractive Industries Training Organisation

- familiarity with, and any changes to, the FMP;
- potentially contaminated fill materials from sites not pre-approved are identified and appropriately managed;
- familiarity with fill rejection and quarantine procedures;
- the correct frequency and techniques for sampling fill and monitoring groundwater are applied;
- all required records, including the nature of the material being placed and its spatial location in the fill, are maintained;
- familiarity with emergency spill procedures;
- any spills and rejected fill materials are correctly recorded and reported.

Training of site personnel will also be undertaken through site inductions and regular site operation meetings. A Health, Safety and Environmental meeting is held monthly where staff attendance is mandatory. These meetings assess the activities and any incidents of the previous month and commit to any required actions for the next. A set agenda item includes a review of the fill acceptance and rejection procedure detailed in Section 4.0 of this Plan.

Staff induction and training procedures and a record of specific, relevant employee training is to be maintained and available for inspection by AC for the duration of the consent and two years thereafter.

2.5 Fill Operations

Fill operations are earthworks involving the transportation and placement of soils and fill materials into the void created by quarrying. Fill is transported by trucks and placed progressively by earth moving machinery in layers across the site. Appendix 4 shows the location of filling operations over the next 12 months. Updates on the fill operations and associated earthworks (including proposed fill contours) will be provided annually to the Council in the Annual Management Plan as required by consent condition.

During summer months, trucks will back up over previously deposited fill and tip off at a safe distance from the tip face as directed by a spotter or machine operator. Tipped loads are pushed clear, spread in layers and will be compacted according to material type and according to the spatial location in the body of the fill.

In winter, if required, a tip head or tip dock which trucks reverse up to may be constructed. This would be at the edge of the tip face with a hardened access and turning area for the trucks to traverse. Fill loads are then deposited over the tip dock and an excavator used to lift the fill material from where it is tipped and deposit for a bulldozer to push out.

Topsoil will, where practicable, be separated from incoming loads and provided it meets criteria for the 2m surface capping requirements will be stored in bunds or mounds for use at the surface of that cap.

For customers that are back-loading aggregate, a vehicle and tub wash facility is available.

2.6 Deposition Location

Acceptance and inspection procedures described in Section 4.0 have been established to identify unacceptable fill material. However a small risk of undetected contaminants being deposited exists. In order to minimise and manage this risk, a record of the general and approximate disposal location will be recorded by the Fill Inspection Clerk. Because fill will be spread in layers, the location will be defined by a record of the general extent of daily operations and the tip head for any load tipped.

Tip head locations in use will be recorded daily using grid references and GPS. After inspection and clearance for deposition, as described in Section 4.0, the size of the load and location of disposal will be recorded in a table by the Fill Inspection Clerk. These tables will then be entered into a database at the end of each week along with the grid and GPS reference.

Also as discussed in Section 4.2 random, or more correctly scheduled or regular, fill sampling, testing, and analysis of one in 150 trucks entering the site from non-pre-approved sources will be performed. This is to provide assurance that threshold acceptance values (maximum and 12 month rolling mean) are being complied with. Furthermore, additional investigation of pre-approved loads will be undertaken if doubt or concern is raised by any member of staff on the suitability of the pre-approved material coming from a site. Such checks may include testing by the Fill Inspection Clerk or a visit to the source site undertaken by the Environmental Coordinator.

3.0 FILL CRITERIA

3.1 Acceptance Threshold

Pre-acceptance and scheduled analytical testing of non-pre-approved fill material is required to demonstrate that the chemical concentrations for parameters shown in the Table 1 of the consent (and reproduced below) are not exceeded.

Table 1. Chemical parameter concentrations for imported fill.

Parameter	Fill < 2m depth from finished level (Shallow Fill) (mg/kg)	Fill > 2m depth from finished level (Deeper Fill) (mg/kg)	Weighted Rolling 12-Month Mean Shallow Fill Acceptance Criteria (<2m deep) (mg/kg)	Weighted Rolling 12-Month Mean Deeper Fill Acceptance Criteria (>2m deep) (mg/kg)
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 _(total)	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) *	0.27	2.15	0.1	1.0
Benzene	0.2	1 **	0.2	0.4
TEX _(total) ***	20	20	3	3

Notes:

* Includes group of 7 compounds with equivalence factors that contribute to BaP(eq).

** To meet MfE Guidelines (1999) for residential use all pathways

*** Sum of Toluene, Ethyl benzene and Xylenes

General – both the maximum and weighted rolling mean criteria must be met.

If contaminants of concern are encountered that are not listed in Table 1 then the concentrations defining acceptance of the contaminant and therefore the material shall be as follows:

- at concentration no more than TP53 soil background concentration
- at concentrations no more than 5% of the permitted activity low level contamination concentration defined in the ARP:ALW 5.5.41(a)(i)(3) (if constituent are not listed in TP153)

It is noted that a difference acceptance criteria applies to the final 2m of fill material (shallow fill). The shallow fill was consented to meet the acceptance criteria set out above or the AC Human Health Guideline Values for Residential Land Uses (whichever is the more stringent) and must not contain anthropogenic extraneous waste material that presents a risk to human health. However the AC Human Health Guideline Values for Residential Land Uses have been superseded by the National Environmental Standards. The new criteria will be adopted as required.

Additional details on acceptable and unacceptable fill are set out in the following two sections.

3.2 Unacceptable Fill Material

Materials that are not accepted onto the site are listed below.

In general terms, unacceptable materials may be generically categorized as follows:

- Combustible, putrescible and degradable materials
- Hazardous substances
- Products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices
- Materials that present a risk to human health
- Liquid waste.

More specifically, the following materials will not be accepted on to the site:

- containers, sealed drums and gas cylinders
- industrial, construction or demolition site waste – asbestos sheet, carpet, cork tiles, corrugated iron, customwood and fibreboards, formica, hardboard, plywood, treated timber, sawdust, and concrete with attached and exposed building materials which are more than 1% by volume for structural steel/iron, or more than 5% by volume of attached timber.
- organic material and powders
- viscous material – liquids / tars / paints and painted material
- plastics
- asbestos
- vegetation, bark, wood chips and green waste
- household and domestic waste
- paper, cardboard, and fabrics
- medical and veterinary waste
- electrical components, cabling and insulation

All imported fill must not exceed the chemical parameter concentration limits set out in Table 1 of the consent and reproduced in Section 3.1.

3.3 Acceptable Fill Material

Table 2 of the consent (reproduced below) lists the fill material that is acceptable. This is provided the material is from within the Auckland Region and complies with the other parameters detail in this FMP

Table 2. Categories of generally acceptable fill materials.

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.

Material	Discussion
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.
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 16 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 layer of source sites.
Tiles (clay, concrete or ceramic)	Inert.

Procedures for the inspection and monitoring of incoming fill to ensure unacceptable materials are not placed in the body of the fill are described in Section 4.0.

3.4 Compaction Requirement

The fill in the upper 5m layer must be engineered to a compaction and stability standard in accordance with NZS 4431:1989 (Code of practice for Earth Fill for Residential Development). This standard is set to enable future residential use of the site no longer than 5 years after cessation of filling. The standard may be reviewed if it is deemed through a Plan Change or review that the future uses of the site requires a lesser standard of compaction.

Compaction practices and all other activities associated with fill shall not exceed the levels permitted by clause 8.8.1 of the Auckland City Operative District Plan for vibration.

An annual report is to be provided to AC containing details to confirm the engineering standards required have been achieved. In addition, this report will include a review of the equipment and methodologies used to achieve the required compaction standard over the past 12 months and those proposed in the next 12 months. This review will provide details of any vibration monitoring undertaken and a statement regarding any additional monitoring to be completed. The requirements of this annual report will make up a part of

the Annual Compliance Report submitted to the AC Manager by 30 June each year (refer to Section 6.1).

4.0 FILL ACCEPTANCE AND REJECTION PROCEDURES

4.1 Overview of Procedures

Fill being transported to the Three Kings site is classified as either pre-approved material or non-pre-approved material. The criteria for the classification of material are detailed in Sections 4.2 and 4.3 of this FMP.

However, in general terms, pre-approved material is that which comes from a site providing more than 200m³ and has been subject to soil testing and analysis which demonstrates compliance with the limits set out in Sections 3.1 and 3.3 of this FMP. Non-pre-approved material is that which has not been subject to pre-approval as less than 200m³ of material is to be placed on site from a single source.

Each load is inspected prior to the material being placed onsite. The inspection procedure varies depending on if the load is classified as pre-approved or non-pre-approved. The assessments done on pre-approved material are provided in Section 4.2 of this FMP and the regime that pertains to non-pre-approved material is provided in Section 4.3. The different management techniques applied to the loads are in accordance with the conditions of consent and have been implemented to minimise and manage the risk of non-complying material being deposited. Regardless of whether the material is defined as pre-approved or non-pre-approved Winstone staff retain the right to reject any loads that are deemed unacceptable against the criteria detailed in the consent conditions and this FMP. The specifics of the procedures implemented in regards to quarantine of isolated loads, load inspections and dealing with rejected material is provided in Sections 4.4, 4.5 and 4.6 of the FMP, respectively.

In addition, a separate plan has been prepared to detail the procedures in place to manage and record the vehicle movements associated with site. This plan is the Traffic Management Plan and it is a Resource Consent requirement. The Traffic Management Plan is to be referenced for the objectives and measures implemented to ensure the safety of all transportation modes and to minimise the effects of site traffic on the community.

4.2 Pre-Approved

Single sources of more than 200m³, or known ex-horticultural sites, or sites on the Ministry for the Environment (MfE) Hazardous Activities and Industries List (HAIL), or those from the Auckland City District Plan Central Area Section are required to provide either a Site Investigation Report or Site Validation Report prepared by a suitably qualified contaminated land specialist, in accordance with MfE guidelines² or an equivalent standard approved in writing by the AC Manager. Customers requiring pre-approval will also complete a Pre-Approval Form (Appendix 8). Fill material complying with all the acceptance criteria, and not being on the list of unacceptable materials list in Section 3.2, is then classified as pre-approved material.

² Reporting on Contaminated Sites in NZ, Contaminated Land Guidelines No 1 (November 2003)

Upon arriving at site all pre-approved loads once signed into site will be inspected by a trained staff member at the Testing Station. A visual and olfactory inspection will be completed prior to the material being authorised to tip the load. Further details on visual and olfactory inspections of loads as well as XRF testing are provided in Section 4.5.1.

Additional investigation of pre-approved loads will be undertaken if doubt or concern is raised by any member of Winstone staff on the suitability of the pre-approved material coming from a site. Such checks may include testing by the Fill Inspection Clerk or a visit to the source site undertaken by the Environmental Coordinator. The results of these additional checks will be documented in the site specific database which has been purpose built as the record keeping mechanism for the Three Kings site and is known as 'Dashboard'.

Should there be any subsequent indication of contamination or unsuitability detected during acceptance and placement of fill material by Winstone site personnel, of pre-accepted material, then the Incident and Complaints Procedure (set out in Appendix 9) will be triggered. Any such incident will require the Site Manager or representative to contact the customer. The customer will be required to put in writing that the source is continuing to provide material that has been subject to analysis and meets the acceptance criteria in Section 3.0 of this FMP.

Unless written confirmation is received, or if doubt about pre-approved source material remains, the incoming fill material from that source will be subject to the same acceptance checks as if it had not been pre-accepted (refer to Section 4.3). If concern over the suitability of the material continues the material from that source will no longer be accepted.

4.3 Non-Pre-Approved

All loads entering site not subject to pre-approval will be subject to a visual and olfactory inspection. In addition all non-pre-approved loads will be analysed by XRF or an alternative method approved by the AC Manager to check for the presence of metals. The results of each test will be recorded in Dashboard (the site specific database for record management) and in accordance with Section 6.0 of this FMP. Further details on visual and olfactory inspections of loads as well as XRF testing are provided in Section 4.5.1.

In the event that material scanned by the XRF indicates an exceedance of acceptance criteria, the load will be rejected or it may be quarantined. Further material from the source site will be prohibited pending subsequent evidence of acceptability being established in accordance with the pre-approval procedures of Section 4.2. Quarantined loads will be subject to the process detailed in Section 4.4 in regards to containment and release of material from quarantine.

Additional analytical testing applies to all fill material classified as non-pre-approved. This additional testing is scheduled at the rate or frequency of not less than 1 in every 150 incoming trucks, or 1400 tonnes (whichever comes first). Loads subject to this testing will be quarantined and sampling will be conducted by a Fill Inspection Clerk. The selection of loads for quarantine is automatically generated through our sales system which notifies the Fill Inspection Clerk of each load that meets the 150th and/or 1400tonnes criteria. This system has been set to avoid biasing the selection of loads in any way. A quarantined load will typically be sampled within two hours of the material being tipped in the quarantine area

and sampling will be completed no longer than six hours from the time of quarantine. Material will be taken from three separate locations of the quarantined load. Each location will be randomly selected by determining the areas of the load that can be safely accessed. The exposed surface area will be removed (no less than 10cm) from each randomly selected location and samples taken with a freshly gloved hand. The material from each of these locations will immediately be added to a sampling container filling a third of the container with material from each of the three sample locations. The samples will then be packaged to remain chilled and sent for analysis by an accredited laboratory for the chemical parameters listed in Table 1 of the consent and reproduced in Section 3.1 of this FMP. The submission of samples will be in accordance with chain of custody procedures. In addition a Fill Monitoring Form (Appendix 10) will be completed for each load that is sampled and held on site. Any loads sampled will remain undisturbed within quarantine until analytical results are received. Further details on the handling of loads following receipt of the results are provided in the following sections.

A duplicated set of samples will be collected and tested for every tenth load quarantined for analytical testing. The relative percent differences will be calculated between the duplicated samples for each parameter tested.

All analytical testing of non-pre-approved material will be uploaded to Dashboard and maintained in accordance with Section 6.0 of this FMP.

4.4 Quarantine

Loads from trucks selected for scheduled testing and material considered potentially contaminated after the inspection procedures will be quarantined and tested. Quarantined material will be stockpiled on a securely bunded hard stand area, until the results of laboratory tests confirm the material is acceptable or otherwise.

Quarantine areas will be established at locations separated from day to day quarry or fill operations, including any surface water ponds established for sediment control. Quarantine areas will be clearly identified by appropriate signage. The quarantine areas layout sees the area separated into bays that are sized to hold one load. Each bay is numbered and the bays are configured to allow the required turning movements of trucks to facilitate tipping in the allocated bay.

Secure bunding will minimise the potential migration of sediment and contaminants via stormwater run-off from the material placed in quarantine by containing the area. Bunding will also be in place to direct outside stormwater run-off away from the quarantine area.

Any proposed works on quarantined areas will be identified in the Annual Management Plan described further in Section 6.1.

4.4.1 Release from Quarantine

The system in place to manage the release of loads placed in quarantine is a visual onsite system. This includes a chart posted on the wall of the Testing Station which numbers each load numerically that is sent to quarantine. The other details recorded on the chart are:

- the date the load was isolated;

- the number of the bay in the quarantine area that load has been placed;
- reference to the customer details of the load (i.e. site address, truck registration, contact details, job number, etc.); and
- the stage in the testing process that the load is at. This is indicated by a colour code:
 - blue means the load is to be sampled
 - orange means awaiting test results
 - green means the material complies with the acceptance criteria
 - red means the material has failed and must be removed

The colour that is issued to a load detailed on the chart is the same colour of a sign placed on the load that is in quarantine. The colour that is on the chart (and the sign) for a specific quarantined load will depend on the phase of the sampling and testing for that load. Each load that is run through this process is managed by the Fill Inspection Clerk. It is the Fill Inspection Clerk that changes the colour associated with a load indicating that the load has moved to a new stage in the system. The Environmental Coordinator oversees the process and undertakes regular audits to ensure the system is robust. An example of how the system runs is provided below.

When a load is required to be sampled the colour on the chart will be blue as will the sign on the load in quarantine. The colour will be changed to orange once the load has been sampled and sent for analysis by an accredited laboratory. The colour associated the load will remain orange until results from testing have been received and reviewed. If the results show compliance with the acceptance criteria the colour for the load is changed to green on the chart and a green sign is placed to the side of the load indicating the load is able to be loaded out as per Section 4.4.2. If the results show that the material does not meet the acceptance criteria the colour of the chart associated with that load is changed to red and a red sign is placed on the load. The Environmental Coordinator is notified and the steps detailed in Sections 4.4.3 and 4.6 are followed.

4.4.2 Complying Analytical Result

After analytical results are available and provided they confirm compliance with the acceptance criteria in Section 3.0 the colour associated with the load is changed to green on the chart located in the Testing Station. The sign on the load in the quarantine area is also changed to green and moved to the side of the bay (which gives the fill plant operator unobstructed access to the load). The operator is then notified of the bay number that can be cleared.

As soon as practicable after the operator has been notified the material will be uplifted and placed in to the body of the fill.

The results of the analytical testing will be entered in to Dashboard and maintained as detailed in Section 6.0.

4.4.3 Non-Complying Analytical Result

If any of the Maximum Values of acceptance criteria tabulated in Section 3.1 are exceeded the colour associated with the load is changed to red on the chart located in the Testing Station. The sign on the load in the quarantine area is also changed to red and will remain on

the load (which obstructs the fill plant operator from being able to access the load). Within 2 weeks of receiving the test results showing an exceedance of the limits the material shall be removed off site to an authorised disposal facility.

There is the possibility that another representative sample of the material in quarantine may be sent for laboratory testing. Re-testing of the material is not standard practice and is at the discretion of the Site Manager or representative. A prompt decision on re-testing must be made to ensure results of any re-test are available within 2 weeks of receiving the initial test results. Also an enough time must be available to remove the material within the same time period. If conflicting results are received between the first and second laboratory test than the AC Manager is to be consulted prior to the material in question remaining on site longer than 2 weeks from receipt of the initial test results. If it is agreed, a third representative sample is to be sent for analysis. If the results from the third test show a non-compliance than the material is to be removed from site within 24 hours of receiving these results to an authorised disposal facility. If the results again show compliance the AC Manager is to be consulted prior to any action being taken.

When material is removed off site the loading out by the operator is to be supervised by the Site Manager or representative. Within one month of such disposal a written report will be provided to the AC Manager detailing the reasons for rejection, the volume and disposal location of the rejected material. Copies of the laboratory test results will be appended.

Non-compliant test results will also trigger the first step of the rejected material procedure outlined in Section 4.6. This is required to address contamination identified subsequent to the placement of fill and actions that follow if contaminated fill, has, or potentially has, been placed.

4.5 Load Inspection

To achieve effective control of fill material quality, inspections will be carried out at several stages during acceptance and placement of all loads.

All trucks delivering fill to the site will report to the incoming weighbridge, where the carrier will provide the weighbridge attendant with: customer details; vehicle registration; truck size; source of material. The information will be entered by the weighbridge attendant in to the electronic sales system. The information provided will indicate if the material has been pre-approved, requires pre-approval or subject to the procedure for non-pre-approved material.

The electronic sales system is set to flag material from potentially at risk areas (such as known ex-horticulture or contaminated sites, industrial, HAIL or commercial zones or from the Auckland Central Area Section). The system will also include any updates provided by the Council on status of land in the region.

Once signed in, trucks will make their way down the haul road into the quarried area where all loads will be inspected by a trained staff member at the Testing Station.

4.5.1 Inspection at Testing Station

The Testing Station is located at the bottom of the haul road that leads into the quarried area. The station is elevated to allow for both visual observation and sampling for XRF testing. The Fill Inspection Clerk, will follow a Fill Inspection Checklist (Appendix 11) and will also check the details on the electronic sales system, to confirm whether the material is pre-accepted or not.

The Fill Inspection Clerk will reject any material that fails XRF, visual or olfactory inspection, or if the description given by the customer does not, in the opinion of the Fill Inspection Clerk, satisfactorily match the material in the actual load.

The visual and olfactory inspection procedure requires the Fill Inspection Clerk to assess each load against the Fill Inspection Checklist (Appendix 11). The material must meet the criteria in Appendix 11 that defines acceptable material. The items evaluated that make up the visual inspection include the type of material, colour, and texture. The olfactory inspection is based on the general smell of the material. The Fill Inspection Clerk is trained that if doubt exists regarding the suitability of the material that load is to be held and the Environmental Coordinator or Site Manager notified to allow further inspection prior to the load being tipped. In the situation where the Environmental Coordinator or Site Manager are not readily available the load is to be rejected. If a load is rejected a Fill Rejection Form (Appendix 12) will be completed and the procedure detailed in Section 4.6 regarding rejecting loads followed.

After this inspection, pre-approved material will then proceed to the tipping point. Other material will be subject to immediate XRF testing, and may also be captured by the analytical testing schedule described in Section 4.3.

XRF sampling will occur during the initial visual inspection, with material taken from the load while still within the truck tray. This collection is done using a long handled trowel. The material taken will be from two discrete locations and the material composited. The procedure to composite the material involves the placement of the two samples onto a bench and equal parts of the samples placed into a container. The composite will be scanned using the hand held XRF scanner. The XRF scanner is subject to the manufactures detection and calibration guidelines.

During the time taken for the XRF analysis (up to 5 minutes) the load will either wait at the Testing Station or be directed to a holding area to wait for clearance to tip by Winstone staff and to then proceed to the tip head.

In the event that material scanned by the XRF indicates an exceedance of acceptance criteria (taking into account the margin of error associated with the XRF device) the load will be rejected. Further material from the source site will be prohibited pending subsequent evidence of acceptability being established in accordance with the pre-approval procedures of Section 4.2.

After the Fill Inspection Clerk confirms that the material has passed visual, olfactory and if required XRF scan, the load will be deposited at the tipping area in use. The location, along with the type of truck and reference number will be recorded and retained for future reference as detailed in Section 2.5.

4.5.2 Inspection at Tip Head

As this is the first time that the entire load of material is fully exposed, spotters or plant operators fully trained in inspection and rejection procedures will use the Fill Inspection Checklist (Appendix 11) to verify the deposited material is of acceptable type, smell, colour and texture.

Non-conforming loads will be reported by the spotter / plant operator to the Fill Inspection Clerk and fill rejection or quarantine procedures instigated. This includes notice to the weighbridge attendant that further loads from the source are not to be accepted on to the site until further notice.

If fill is rejected, a Fill Rejection Form (Appendix 12) will be completed. Further details on rejection reporting are provided in Section 4.6.

4.6 Rejected Material

In the event that fill material is rejected from site (due to any of the reasons detailed in this FMP) the Site Manager or representative will commence the following procedure:

- Step 1 - from records kept, the Site Manager or representative will establish whether more than one load of material had been accepted from the source site. If not, no further action will be required. Otherwise some or all of the following steps shall be carried out.
- Step 2 - from records kept, identify the mass of fill accepted and its disposal location on site. Suspend filling operations in that location, notify AC and engage an independent expert (approved by AC) to assess if the other loads deposited from the same source meet the fill acceptance criteria.
- Step 3 - update Dashboard and assess the predicted effect on the 12 month rolling mean acceptance criteria with regard to the weight (mass) accepted. Assist as required the independent expert (approved by AC) in assessing if the other loads deposited from the same source meet the fill acceptance criteria.
- Step 4 - in the event the investigation conducted by the independent expert concludes that the material in-situ does not exceed Maximum Values for acceptance tabulated in Section 3.1, then this will be reported to the AC Manager, and no further action will be required unless requested by AC within an agreed timeframe. If any of the Maximum Values are exceeded, then the material shall be excavated and disposed of at an appropriate location. AC will be notified and provided details of the excavation procedure and whether validation testing is proposed. A timeframe will be agreed upon for AC to review and provide comment. The excavation and disposal of the material is to be supervised by the independent expert. Within two weeks, following the completion of the removal of the non-complying material, the independent expert is to provide confirmation to AC of the removal and final disposal location of the material.

- Step 5 – Liaise with the AC Manager and consider whether the procedures for acceptance and placement of fill material should be reviewed and amended.

In addition, the Site Manager or representative will contact the customer immediately to:

- advise that they have been found to have, or attempted to have, unacceptable material delivered and no further fill from the source will be accepted until further notice;
- ensure the supplier understands what constitutes acceptable materials and reiterate the obligations they have to meet all the acceptance criteria;
- advise that they may be banned from disposing fill at Three Kings and are liable for any consequential monitoring and remedial costs related to their breach;
- advise that until further notice it will be a requirement to follow pre-acceptance procedures when disposing of fill at Three Kings.

4.7 Other Grounds for Rejection

The site is a private commercial facility and will not be open to the general public. Fill may be rejected for reasons other than non-compliance described in previous sections of this FMP specifically Sections 3.1 and 3.2.

Operationally, rejection may occur should ambient site conditions on any day, be such that material cannot be deposited either safely, practicably, or in accordance with the FMP or other site management plan.

Commercially, where fill material has either not been priced, pre-approved or where adequate notice of delivery has not been given by a customer, rejection may occur.

Operational and commercial grounds for rejection will be at the discretion of the Site Manager or representative.

5.0 MONITORING

5.1 Fill Monitoring

A purpose built database has been created for the Three Kings site and is known as Dashboard. Dashboard has been implemented as a record keeping mechanism but its founding purpose is the collation of soil test results to measure against the criteria tabulated in Section 3.1.

In Dashboard the customer details for a specific site is loaded into the database. The results from the soil testing are then uploaded into the system. From these results and based on the volume of material that will be placed onsite the weight rolling 12 month mean is calculated instantly. The results of this calculation are provided in a simple table with the limits listed below. A function of the systems sees that any parameters which exceeded the limits are highlighted which signifies that the material cannot be placed onsite.

Material that meets the acceptance criteria will then form part of the weight rolling 12 month mean. Material that does not meet the acceptance criteria will not be approved to

place fill onsite. The customer details for that site on Dashboard will be flagged and the soil results uploaded to Dashboard removed from the weight rolling 12 month mean.

The management of Dashboard is the responsibility of the Environmental Coordinator. The weighted rolling 12 month mean will be updated and monitored continuously as sample results are received. If the data reveals that the fill is above 85% of the weighted 12 month mean the Council will be notified immediately and monthly reports provided while the data shows that the fill remains above 85%. Action to reduce below 85% involves targeting material with lower concentrations of the parameters of concern and limiting or rejecting those sites providing material with higher concentrations of those parameters.

It is noted that in the first 12 months of fill operations the monthly weighted rolling mean shall be no greater than the weighted rolling 12 month mean as detailed in Table 1 of the consent and reproduced in Section 3.1. Careful management of pre-approved loads will be undertaken to ensure accepted material fits these criteria.

5.2 Existing Groundwater Monitoring

Groundwater is presently being abstracted from a dewatering well (DW) located near the south boundary of the site. Dewatering commenced in March 1999 and since October 2002, when drawdown ceased, has been at a rate (approximate average 2500 m³/day) which has maintained groundwater level at or above 34m RL. It is intended that this rate of abstraction be maintained while the filling of Three Kings Quarry is undertaken and for at least five years following the completion of commercial filling operation with the permit to dewater continued to be exercised until at least December 2030. The permit authorizing the abstraction (Permit No. 12977) has an expiry date 31 December 2030.

A condition of consent of Permit No. 12977 required the establishment of a network of boreholes to monitor groundwater levels as a consequence of dewatering. This monitoring is ongoing with details on procedures and contingencies detailed in the Three Kings Quarry Monitoring and Contingency Plan for Dewatering Three Kings Quarry.

5.3 Fill Groundwater Monitoring

Groundwater monitoring associated with the filling of the site and relevant to this FMP is related to monitoring groundwater quality. While abstraction continues all groundwater beneath the fill is captured and discharged at the dewatering well. However if for some reason dewatering were to cease, then the pre-pumping / abstraction environment would re-establish and groundwater levels beneath the site would recover to approximately 57m RL and spill over the tuff ring to the Meola aquifer. This is near an existing monitoring borehole (BH7) located on Landscape Road.

As such, groundwater quality monitoring is to be undertaken at DW and BH7. Trigger levels for inorganic and organic constituents as measured at DW and BH7 are as detailed in Table 3 of the consent (or any revisions to these levels as a result of the initial monitoring) which is reproduced below.

Table 3. Groundwater trigger levels (g/m³).

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
Di(2-ethylhexyl)phthalate	0.0045	0.009
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

Groundwater samples are to be taken from DW and BH7 initially at quarterly intervals starting within 3 months of after commencement of consent and for 2 years thereafter (8 occasions). Samples are to be analysed for the chemical constituents listed above. These results and an analysis of the results shall be provided in the annual reporting described in Section 6.1.

If after this initial period of sampling and analysis, no exceedance of trigger levels has occurred, samples shall then be taken from DW and BH7 at 6 monthly intervals and analysed for the chemical constituents listed above for the remainder of the term of consent.

The trigger level for zinc, which has no MAV, has been set at Australian and New Zealand Environment and Conservation Council for Fresh and Marine Water Quality (2000) – 95% protection level (ANZECC(95%)). After the initial period of monitoring (or up to 5 years) the trigger level may be reset by AC at the maximum recorded concentration plus 3 standard deviations.

For cyanide and all organic constituents listed in the table above, trigger levels are interim values based on the criteria representing the more stringent of 50% MAV or 50% ANZECC (95%). After the initial period of monitoring (or up to 5 years) the trigger levels may be reset by AC at maximum soluble concentration levels recorded plus 3 standard deviations, provided the reset trigger levels shall be no greater than the initial trigger levels tabulated.

5.4 Additional Groundwater Monitoring

Additional monitoring includes the installation of a continuous electrical conductivity and pH meter at the dewatering well head with results reported annually as detail in Section 6.1.

Groundwater being discharged from the site shall also be monitored for suspended solids and turbidity whenever a groundwater sample is taken for contaminant analysis. The concentration of suspended solids in the groundwater being discharged from the site shall not exceed 30mg/l, and the turbidity shall not exceed 30NTU. The results of this sampling shall be provided to the AC Manager quarterly and a summary of the results also included in the annual reporting.

5.5 Noise, Sediment Control and Air Quality Monitoring

Noise:

Any activity on the site associated with fill operations shall not exceed the noise limits detailed in the consent (and reproduced in the Quarry Management Plan). Within 3 months of the commencement of fill activity a report demonstrating that the activity meets these limits shall be submitted to the AC Manager. Further monitoring shall be undertaken to confirm compliance with the noise limits when the majority of the fill operation is occurring above RL70m. Once at this stage, noise monitoring shall then continue at a 6 monthly interval. As a mitigation measure, the existing vegetated earth bund parallel to Mount Eden Road shall be retained and maintained for the duration of the fill activity.

Also, prior to the use of self propelled compaction equipment a suitably qualified acoustical consultant shall undertake noise modeling of the activity. This modeling is to determine if the revised procedure will comply with the site noise limits. If the modeling shows compliance, within one month of implementation of the revised procedure, monitoring confirming compliance is to be undertaken.

Sediment Control:

All personnel on site are made aware of the consents and management plans through the site induction process. This includes information on the location of copies of these documents including the erosion and sediment control plan and methodologies which is detailed in the Annual Management Plan submitted to AC.

The latest Annual Management Plan is to be referred to for all details associated with the erosion and sediment control measures implemented on site including the specific design details, certification and any diversion of runoff to prevent surface erosion and sediment generation. Erosion and sediment control measures are to be implemented in accordance with the details of the Annual Management Plan. These measures are to be maintained to

perform at full operational capacity until the site has been stabilized against future sediment generation.

To prevent the deposition of materials on public roads by vehicles leaving the site, two wheel washes have been installed. When exiting the site all vehicles that have traversed over unsealed parts of the site are required to pass through at least one of the wheel washes. At least one of the wheel washes will remain in operation at all times and for as long as the fill consents are exercised. All necessary measures, including maintenance of access roads and wheel washes, shall be used to prevent the deposition of sediment and any other materials on public roads by vehicles leaving the site. Should material be deposited on the road to an extent considered significant by the AC Manager it shall be removed immediately by Winstone.

Air Quality:

As required by consent condition an additional dust monitor has been installed at the southern end of site. The monitoring and reporting associated with this monitor and the existing monitors are detailed in the Air Quality Management Plan. The Air Quality Management Plan is to be referred to for further details in this regards as well as the management practices in place to prevent dust nuisance to areas outside of the property.

6.0 Document Management

6.1 Annual Reporting

An Annual Compliance Report prepared by a suitably qualified person to a standard acceptable to the AC Manager shall be submitted by 30 June each year. In addition an Annual Management Plan must be submitted to AC prior to the commencement of work and annually thereafter by 30 June each year.

These reports shall provide an analysis of the results of data collected for the FMP and an evaluation of these results. This is inclusive of both fill and groundwater monitoring as detailed in the relevant sections above.

These reports shall also include details of the plans for fill and associated earthworks proposed over the next 12 months. This includes the monitoring and management of surface water. The reports are also to include information confirming that the compaction standards required have been achieved as well as any vibration monitoring undertaken and a statement regarding any additional vibration monitoring to be completed.

Any recommended changes to the FMP or erosion and sediment control measures may be included in these reports to be reviewed by the AC Manager prior to becoming operational. Furthermore, the AC Manager may advise, in writing, if any aspects of the FMP are considered to be inconsistent with achieving the provisions of the consent requiring a review of the FMP by Winstone.

There is also provision that a validation report may be required. This is conditional on the proviso that it is in the reasonable opinion of the AC Manager that the information and data provided with the annual reporting described above is insufficient to demonstrate the upper

2m of fill complies with AC's Human Health Guidelines for Residential Land Use which has been superseded by the National Environmental Standards.

6.2 Additional Reporting to Council

Not less than 24 months prior to the cessation of fill operations, or not less than 6 months prior to Winstone submitting any Plan Change or resource consent application in respect of the end use of the site, or not less than 1 month following the notification of any AC Plan change applying to the site (whichever of those is the earlier), Winstone shall consult with relevant stakeholders in respect of a proposed final contour plan.

The final contour plan produced, after having had regard to the feedback obtained through the stakeholder consultation, shall be submitted to the AC Manager and form part of any Plan Change or resource consent application sought by Winstone in respect of the site. In the event of a AC Plan Change the final contour plan shall be promoted by Winstone through the submission process.

Once a final fill contour plan is approved for the site then the identification of the upper 5m of fill (and the obligations and restrictions imposed by the consents in that upper 5m) shall be reference in that approved final fill contour plan.

Within 3 months of completion of the fill works a qualified surveyor shall certify that the finished contour levels match those set out in the final contour plan. If the site is to remain vacant with no further building or earthworks to be conducted on the site in the following 3 month period then the site shall be stabilized with appropriate ground cover to the satisfaction of the AC Manager.

Furthermore, the AC Manager shall be notified no less than six months prior to any proposed transfer of the consents authorising the rehabilitation of site.

6.3 Reporting to the Community

Winstone, together with AC and representatives of the local community established the Three Kings Quarry Site Liaison Group. The purpose of this group is to consult on an ongoing and regular basis about matters associated with the operation of the site. The group meets as necessary and no less frequently than every three months unless all representative parties agree that there is no need for a meeting.

In regards to this FMP, the quarterly meetings provide the opportunity for Winstone to present the groundwater monitoring results and tracking against the weighted rolling 12 month mean for fill material. Also, at these meetings, updates on the fill operation plans will be provided and any incident and complaints reviewed.

The Three Kings Website (<http://threekingsquarry.co.nz/>) is another medium used to get information regarding the site out to the wider community. General information about the site is provided on the website as well as copies of the site specific management plans, consent conditions, Site Liaison Group meeting minutes and presentation from the meetings.

6.4 Record Maintenance

A copy of this FMP, together with all other site management plans and resource consents are to be maintained and available on site for use by staff, AC and other authorised site visitors for as long as consents to fill the site are exercised.

The following data will be maintained for the life time of the consents authorising the rehabilitation of site and two years thereafter:

- Load Inspection
- Monitoring testing and sampling information relating to fill acceptance and groundwater monitoring
- Training procedures for staff, including staff members who have undertaken relevant training.

Aspects will have been addressed above, but generally it is noted that the annual reporting at Section 6.1 above will provide a back-up summary of this information.

More specifically the means to maintain this data and information, will be through the reporting to AC, as well as retention of records by Winstone, either in archived hard copy storage or secure electronic format being primarily Dashboard.

7.0 Contingency

7.1 Spill Contingency Measures

For sources that will supply more than 200m³ of fill material, pre-approval is a requirement before arrival at the quarry. Fill inspection, rejection and / or quarantine procedures for acceptance of fill materials for placement on site have been set out in this FMP.

In the event of oil or other petroleum product spills from trucks delivering loads to the fill or from fill placement equipment (excavators, bulldozers, trucks), spill kits are maintained on site and all site personnel are trained in their use.

A Spill Contingency Plan has been developed specifically for the site. The objective of the Spill Contingency Plan is to contain and cleanup any spills. All spills will be reported as an incident and the Incident and Complaints Procedure followed (Appendix 9). The Incident and Complaints Procedure ensures that appropriate corrective actions are undertaken and the required reporting and record management completed.

In the event of an emergency that requires evacuation of the fill tipping area or requires the assistance of external emergency services, the Three Kings site has Emergency Procedures in place. Copies of these procedures are kept on display at prominent locations in the site office and site personnel are trained in their use.

7.2 Groundwater Contingency Measures

While groundwater is being abstracted, if any groundwater trigger value detailed in Section 5.2 (or as reset after 2 years of monitoring) is exceeded the following steps are to be followed:

- the monitoring well 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 AC and Watercare Services Limited will be advised immediately of the confirmed trigger level exceedance and an investigation carried out to determine the cause of the trigger level exceedance.
- If the cause of the trigger level exceedance can be reasonably shown not to be a result of the filling operation then AC and Watercare Services Limited will be advised as soon as practicable and Winstone will participate in meetings with AC and Watercare Services Limited to assist in identifying appropriate options to reduce chemical constituent concentrations.
- If the cause of the trigger level exceedance can be reasonably shown to be a result of the filling operation the following actions will be taken:
 - If the concentration of a chemical constituent in a monitoring well exceeds the guidelines in the ANZECC 2000 guidelines but does not exceed 50% of the drinking water MAVs then AC will be consulted to determine whether resource consent will be required to authorise the on-going discharge to stormwater from the dewatering well.
 - If the concentration of a chemical constituent in a monitoring well exceeds 50% of the drinking water MAV the monitoring frequency for the chemical constituents that exceed 50% of the MAV will be increased to monthly and, in consultation with AC and Watercare Services Limited, options for reducing the chemical constituent concentrations will be identified and appropriate interventions carried out.
 - If the concentration of a chemical constituent in a monitoring well exceeds 75% of the MAV a remediation plan will be prepared in consultation with the AC and Watercare Services Limited and interventions, possibly including dewatering and groundwater treatment, will be carried out to ensure MAV criteria are not exceeded and to reduce chemical constituent concentrations to less than 50% of the drinking water MAV within twelve months. If the site is still operating, only pre-approved fill will be accepted for disposal until the chemical constituent concentrations in the monitoring wells are less than 50% of the MAV.

Furthermore, dewatering shall continue for at least 5 years following the completion of fill operations and Permit No. 12977 exercised until at least its expiry being 31 December 2030. Dewatering beyond this date is subject to resource consents.

If, after 5 years of continuous monitoring following the completion of fill operations, contaminant levels are below drinking water MAV trigger levels set out in this consent, pumping may cease.

Should subsequent monitoring at any of the monitoring bores indicate a drinking water MAV trigger level set out in the consent is exceeded, which can be reasonably shown to be a result of the filling operation, then dewatering will resume or some other mitigation method agreed as between AC, Watercare Service Limited and Winstone adopted to ensure that there will be no adverse effects on human health or the environment.

Further contingency measures relating the existing groundwater monitoring (described in Section 5.1 of this FMP) are detailed in the Three Kings Quarry Monitoring and Contingency Plan for Dewatering Three Kings Quarry.

7.3 Removal of Deposited Unacceptable Fill

Acceptance and inspection procedures described in Section 4.0 have been established to identify unacceptable fill material. However a small risk of undetected contaminants being deposited exists.

In order to minimise and manage this risk, a record is kept of each load that is tipped on site and the approximate disposal location. Once alerted that unacceptable fill material may have been deposited these records are relied upon and the procedure detailed in Section 4.6 followed.

7.4 Cessation of Filling

Should work on site cease or be abandon, adequate preventative and remedial measures to control sediment discharge and site stability are to be implemented. These measures are to be maintained for so long as necessary to prevent sediment discharge from the site and ground stability issues within the site. All measures are to be of a type and standard which are to the satisfaction of the AC Manager.

APPENDIX 1

Most Relevant Winstone Aggregate Policies – Community Relations, Dust Emission, Environment and the Iwi, Hapu and Whanau Policy

Community Relations Policy

As the largest producer of aggregate products in New Zealand, Winstone Aggregates is easily identified by the local communities in which we operate, and throughout New Zealand society as a whole.

Adverse effects generated by our activities and the activities of other players within the industry have the potential to create negative perceptions of 'who we are' and 'what we do' among the community, including not only neighbours but Iwi, local and regional Councils, conservation groups and, to a lesser extent, suppliers and purchasers.

These negative perceptions have the potential to impact upon the business at all levels.

Winstone Aggregates is committed to developing good relations with the community at all levels of the business.

The purpose set out above will be implemented through the following methods:

- Ensure ongoing compliance with regulations, conditions of consent and plan requirements in line with our Environmental Policy
- Promote awareness of the importance of the aggregate industry to communities in New Zealand
- Establish relationships with the community, based on trust and integrity
- Ensure appropriate levels of community consultation and involvement are maintained which may include organised site visits, open days, mail outs, liaison groups and meetings
- Be actively involved in and support the communities in which we operate
- Respond to complaints and enquiries promptly and in an appropriate manner

At an individual site level, Community Relations Plans will be prepared to assist in implementing the methods set out above. These plans will be developed in accordance with the 'Outline for Site Community Relations Plan' included as part of the Community Relations Guidelines, and will recognise the issues relevant to the individual site and how best to apply the above methods.



Bernie Chote, General Manager
Dated October 2007



Dust Emission Policy

Winstone Aggregates regards dust emissions as a hazard that can affect the environment and/or the health of individuals and therefore needs continual control, monitoring, evaluation and regular communication within the organisation.

It has been established by research that the dust generated in some quarry operations may be hazardous to the individual if not managed appropriately. The standards for emissions and limits for exposure are outlined in the National Ambient Air Quality Emissions Standards (NAAQES) and the Work Exposure Standards (WES).

From an environmental perspective, Winstone Aggregates is committed to working toward management of dust emissions to standards appropriate to the environments in which we operate in accordance with Ministry for the Environment (MfE) good practice guidelines and below those identified in the NAAQES. The environmental effects of dust emissions will be assessed by:

1. Environmental Monitoring.
2. Complaints Monitoring (neighbours/community).

Based on these assessments, appropriate practices and processes to control environmental dust emissions will continue to be implemented and improved at Winstone sites.

From an employee's health perspective, Winstone Aggregates is committed to working towards the elimination of any adverse health effects resulting from dust exposure, and towards providing a continually improving work environment. To establish and monitor operating performance levels, actual and perceived exposure levels will be recorded through:

1. Personal Dust Monitoring.
2. Positional Dust Monitoring.
3. Complaints Monitoring (employees).

Once the data is analysed and understood, we will seek to achieve the WES standards and eliminate, isolate or minimise the effect of personal exposure. If the standards cannot, or may not, be achieved through modification of processes and practices, and employees are potentially exposed to unacceptable dust levels, then suitable personal protective equipment (PPE) will be provided.

All sites are required to have a written dust hazard management plan (DHMP) which outlines how the effects of dust will be controlled and exposure mitigated. At all operational sites, monitoring will be supplemented by regular medical assessment of employees to evaluate potential health effects at current exposure levels.



Bernie Chote, General Manager
Dated September 2007



Environment Policy

Winstone Aggregates is committed to industry leadership in environmental management, We strive to manage operations to achieve sustainable economic development while avoiding, remedying and mitigating adverse effects on the environment. This policy acknowledges the Fletcher Building Ltd Safety, Health and Environment Policy and provides for implementation of the environmental commitments and directives of the policy.

The Company's management is committed to leadership and providing sufficient and appropriate resources to enable its employees and contractors to fulfill their environmental responsibilities. To further these commitments, Winstone Aggregates has resolved to:

1. Establish and maintain an Environmental Management Manual (EMM) that prescribes and provides for appropriate guidelines, standards, measures and procedures to:
 - Identify, manage and report all environmental effects, hazards and incidents
 - Identify and obtain required regulatory authorisations
 - Set objectives and targets and measure and review performance
 - Allocate responsibilities and induct and train staff and contractors
2. Comply with all regulatory and company environmental requirements at all times.
3. Prevent pollution and work towards environmental enhancement, particularly the maintenance and restoration of biodiversity, where practicable.
4. Strive to apply the principle of Best Practicable Option, set targets, measure and review to continually improve performance.
5. Improve resource and energy efficiencies by setting targets to avoid, reduce and recycle wastes and use energy efficiently.
6. Communicate the policy and environmental achievements with all persons working for and on behalf of the company, iwi, neighbours, regulatory authorities, customers and other stakeholders and liaise with them when appropriate in an open, informative and consultative manner.



Bernie Chote, General Manager
Dated May 2010



Iwi, Hapu and Whanau Policy

Winstone Aggregates will recognise and respect the special relationship Maori has with the land and its ecosystems by:

- Consulting tangata whenua in a meaningful and timely manner when assessing effects of proposed or operating developments
- Formulating reasonable and practicable protocols through consultation, which recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga and conducting operations in accordance with those protocols.
- Establishing and maintaining relationships with maori groups exercising kaitiakitanga over areas of mutual interest.
- Exploring and considering ways to assist maori in meeting Kaitiaki and/or joint objectives.
- Maintaining equal opportunity employment and management policies.
- Appointing and Iwi Liaison Manager to ensure implementation of this policy and to maintain a register of contacts and relationships of maori groups.
- Providing, where appropriate and related to the Company's activities, training for Winstone Aggregates personnel in Maoritanga.



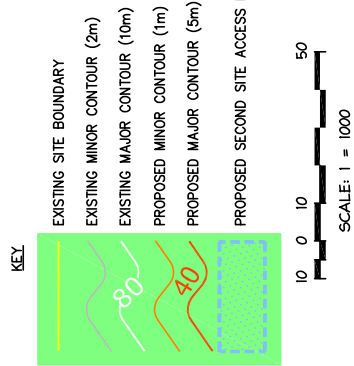
Bernie Chote, General Manager
Dated July 2008



APPENDIX 2

Proposed Landform Drawing

AREAS AND BOUNDARIES SHOWN ARE
SUBJECT TO SURVEY.



HARRISON
GRIERSON
CONSULTING ENGINEERS SURVEYORS PLANNERS
71 Great South Road Auckland Ph 09 917 5000 Fax 09 917 5001

[illegible]

THREE KINGS QUARRY



FIGURE 2
PROPOSED LANDFORM FOR
CLEANFILL CONSENTS

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
DRAWN:	DATE:	SIGNATURE:	CAD REF:
DAS	29/08/2008		12334F660070114mg
CHECKED:	DATE:	SIGNATURE:	CAD REF:
APPROVED:	DATE:	SIGNATURE:	SURVEY DATE:
			SUR REF:

EOP CONSENT

HQ REF: 1021-122314-01	SCALES: 1:1000 1:2000 (A3)	A1
DRAWING No:		REV

122314-FIG-002

APPENDIX 3

**Fill Resource Consents -
Decision No. [2011] NZEnvC214 and Amalgamated Conditions**

BEFORE THE ENVIRONMENT COURT

Decision No. [2011] NZEnvC 214

IN THE MATTER of appeals 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

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)

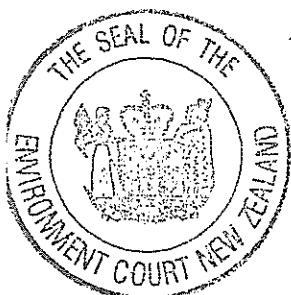
Respondent

Court: In Auckland, on the papers

Environment Judge J A Smith, sitting alone under Section 279 of the Act

FINAL DECISION OF THE ENVIRONMENT COURT

- A. Consent is granted subject to the conditions of consent attached to this decision as Annexure "A".



REASONS FOR THE DECISION

[1] This matter involved decisions by the Auckland City Council and the Auckland Regional Council to grant consent to applications by Winstone Aggregates to carry out reclamation of the Three Kings Quarry by way of controlled filling and to discharge contaminants from a cleanfill at 985 Mount Eden Road, Three Kings, Auckland. The appeals against the Councils' decisions were heard in conjunction with a direct referral of an application by Winstone Aggregates for a supplementary consent.

[2] In decision [2011] NZEnvC 130 the Court held that:

- [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 as annexed hereto (**B & C**), modified as directed, within 30 working days. Parties are to reply within 10 working days.

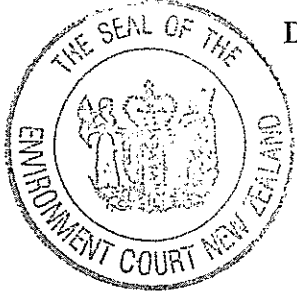
[3] The parties have now advised the Court that they have reached an agreement on the final form of conditions.

[4] The Court has considered the conditions provided and is satisfied that they include the amendments made by the Court, and incorporate the comments received from the other parties.



[5] Accordingly, consent is granted subject to the amalgamated consent conditions attached to this decision as Annexure A.

DATED at Auckland this 26th day of July 2011



J A Smith
Environment Judge

"A"

AUCKLAND COUNCIL AMALGAMATED CONSENT CONDITIONS

<u>CONSENT DETAILS</u>	
<u>Activity</u>	<u>Earthworks, landuse and discharge of contaminants onto or into land from a controlled fill operation -and all other associated discharges to ground</u>
<u>Permit No.</u>	<u>36221 / 36222 / 37770 / R/LUC/2009/743</u>
<u>Consent Holder</u>	<u>Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Ltd.</u>
<u>Duration of Consent</u>	<u>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.</u>
<u>Date of lapsing of Consent</u>	<u>This consent shall lapse after 5 years from the date of the commencement of this consent unless, before the consent lapses, the consent is given effect to or an application is made to extend the period after which the consent lapses pursuant to the Resource Management Act 1991.</u>
<u>Purpose of Consent</u>	<u>To authorise the landuse, earthworks and discharges associated with the development of a controlled fill by Winstone Aggregates at the worked out Three Kings Quarry, Auckland City.</u>
<u>Site location</u>	<u>985 Mount Eden Road, Three Kings, Auckland City</u>
<u>Legal description of Land</u>	<u>Lot 1 DP 37020, CT 953/21</u>
<u>Territorial Authority</u>	<u>Auckland Council</u>

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

ANZECC:	Australian and New Zealand Environment and Conservation Council
Commencement of works:	means the time when the Manager is informed in writing that earthworks are about to commence.
Council	<u>means the Auckland Council</u>

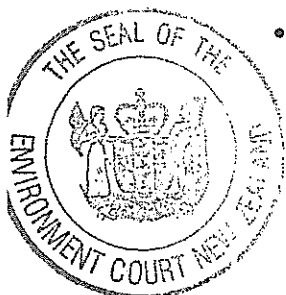


Major contributor of fill:	means any contributor of fill in excess of 200m ³ from any one site.
Manager:	means the Manager, Consents & Consents Compliance Auckland Council; or nominated Council staff acting on the Manager's behalf.
PARP:	Proposed Auckland Regional Plan: Air Land and Water
Stabilised:	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.
TP90:	means ARC Technical Publication No. 90 <i>Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region</i> , March 1999.

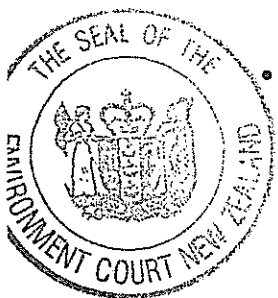
PART A: CONDITIONS APPLYING TO ALL CONSENTS

GENERAL CONDITIONS

1. That pursuant to Section 36 of the Resource Management Act 1991, 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. **[Replaces Land Use General Condition A]**
2. 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 applications, including the application numbered 37770, and information subsequently provided in response to section 92 RMA requests for further information, subject to such amendments as may be required by the following conditions of consent (and 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)), including: **[Replaces Land Use Condition 1 and Discharge Condition 1]**
 - 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;

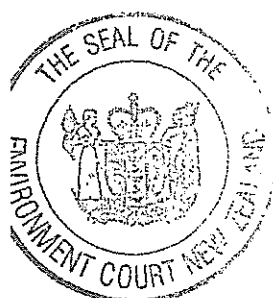


- The report entitled '*Effects of Backfilling Three Kings Quarry on Groundwater Quality*' prepared by Domain Environmental Ltd, and dated 13th October 2008;
 - The report entitled '*Three Kings Quarry, Clean fill Operations - Acoustic Report*' prepared by Siri Wilkening of Marshall Day Acoustics, and dated 17th February 2009;
 - 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 May 2009,
-
- 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 18th 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 Aggregates dated 3rd September 2009.
3. 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. **[Replaces Land Use Condition 49 and Discharge Condition 2]**
 4. The servants or agents of the Council~~Consent Authority~~ 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. **[Replaces Land Use General Condition B and Discharge Condition 3]**
 5. 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. **[Replaces Discharge Condition 4]**
 6. At least (1) one copy of this consent and reference documentation, including management plans, shall be retained and available for use on-site at all times for all personnel, in particular the cContractor importing and placing the imported fill at the site. **[Replaces Land Use Condition 2 and Discharge Condition 5]**

~~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.~~
 7. For the purposes of this consent, unless the context otherwise requires, "fill" or "controlled fill" means material that meets the acceptance criteria set out in Conditions ~~40-14~~, 16 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 Health, or in accordance with Ministry for the Environment Contaminated Land Management Guidelines No.2, Hierarchy and Application in New Zealand of Environmental Guideline Values.~~ **[Replaces Land Use Condition 1A]**

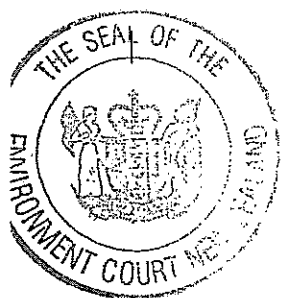


PREDEVELOPMENT CONDITIONS

8. 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. **[Replaces Land Use Condition 3]**
9. 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 or her nominee, which contains sufficient detail to confirm the engineering standards required to meet NZS 4431:1989 have been achieved for the fill. **[Replaces Land Use Condition 4]**
10. The final (upper) 2m of controlled fill material must meet the acceptance criteria set out in Conditions 14, 16 and Table 1 or the Auckland City Council Human Health Guideline Values for Residential Land Uses (whichever is the more stringent) 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. **[Replaces Land Use Condition 5]**

OPERATIONAL CONDITIONS

11. All fill placement and management works shall be undertaken in accordance with the Fill Management Plan as described in Condition 4426. **[Replaces Land Use Condition 6 and Discharge Condition 6]**
12. The site shall be operated as a private commercial facility for filling and will not be open to the general public. **[Replaces Land Use Condition 6A and Discharge Condition 6A]**
13. 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 Manager 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 Council to check for the presence of metals;



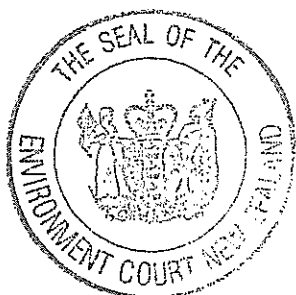
- (c) All necessary records and documentation as per the Fill Management Plan shall be obtained and maintained;
- (d) Any load with obvious evidence of hydrocarbons or other contamination (for example discolouration or odours) shall not be disposed of on the site unless it clearly meets all acceptance criteria contained in this consent.
- (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 are to verify the deposited material is of an acceptable type, smell, colour and texture. **[Replaces Land Use Condition 7 and Discharge Condition 7]**

14. Fill originating from any site providing more than 200m³ 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 4016, 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. **[Replaces Land Use Condition 8 and Discharge Condition 8]**
15. If the fill has not previously been tested to at least the same extent by the fill generator as detailed in Condition 8-14 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). **[Replaces Land Use Condition 9 and Discharge Condition 9]**
16. The analytical testing shall demonstrate that chemical parameter concentrations in the imported fill set out below are not exceeded: **[Replaces Land Use Condition 10 and Discharge Condition 10]**

Table 1

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

Parameters	Fill < 2m depth from finished level (Shallow Fill) (mg/kg)	Fill > 2m depth (Deeper Fill) (mg/kg)	Weighted Rolling 12- Month Mean Shallow Fill	Weighted Rolling 12- Month Mean Deeper Fill
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			Acceptance Criteria (<2m deep)	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	0.2	1 ¹	0.2	0.4
TEX(Total) ²	20	20	3	3

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

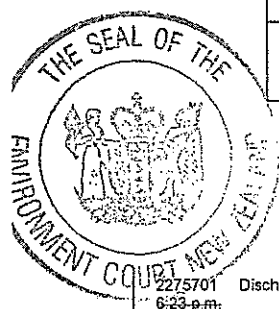
Note 2: Sum of Toluene, Ethyl benzene and Xylenes

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

17. ~~40A.~~ 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 4A-7 for all fill and ~~5-conditions 7 and 10~~ for the upper 2m of fill: **[Replaces Land Use Condition 10A and Discharge Condition 10A]**

Table 2: Fill material

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	Inert material comprising cellulose fibre, Portland cement and sand. Care needs to be taken that the product does not contain asbestos.



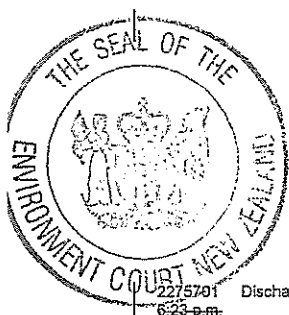
Material	Discussion
products	which is unacceptable.
Glass	Inert and poses little threat to the environment. May pose a safety risk if placed near the surface in public areas, or if later excavated. The safety risk on excavation should become immediately apparent, so glass is considered acceptable provided 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 40-16 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.

17-18. 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. **[Replaces Land Use Condition 11 and Discharge Condition 11]**

18-19. The weighted 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 weighted 12-month mean, the consent holder will report immediately to the Consent Authority Council and continue to report on a monthly basis while the data shows that the fill remains above 85% of the weighted 12-month mean. The consent holder shall take action to ensure that the fill reduces below 85% of the weighted 12-month mean as soon as possible. Once the fill reduces below 85% of the weighted 12-month mean, annual reporting to the Consent Authority Council shall resume. **[Replaces Land Use Condition 11A and Discharge Condition 11A and includes amendment as per Decision at paragraph 93]**

19-20. Within the first 12 months of the filling operation the monthly weighted rolling mean shall be no greater than the weighted rolling 12-month mean in Table 1. **[Replaces Land Use Condition 11B and Discharge Condition 11B and includes amendment as per Decision at paragraph 93]**

20-21. If the imported-controlled fill does not meet the fill acceptance criteria listed in Condition 40-16 or 40A-17 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 1640 shall be removed from the site within two weeks of receiving laboratory test results confirming unacceptability, whereas material not meeting Condition 40A-17 and Table 2 shall be rejected at the point of inspection. **[Replaces Land Use Condition 12 and Discharge Condition 12]**



~~21-22.~~ If a load of fill has been removed from the site in accordance with Condition 4221, 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~~Council. 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. **[Replaces Land Use Condition 12A and Discharge Condition 12A]**

~~22-23.~~ 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. **[Replaces Land Use Condition 12B and Discharge Condition 12B]**

~~23-24.~~ 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. **[Replaces Land Use Condition 13 and Discharge Condition 13]**

~~24-25.~~ The Consent Holder shall meet the cost of ~~random audit full sampling tests representative of the previous one month's fill material (of no more than two core samples or composite samples on each occasion) to be undertaken twice a year at random intervals every six months for the first two years of the consent by council officers or an independent consultant approved by the consent authority~~Council. ~~After two years the audit sampling shall occur annually. For the avoidance of doubt the Council may choose to undertake random audit sampling at any stage at its own cost. If an exceedance is detected as a result of the random audit sampling the Council may seek to recover the cost of that sampling from the Consent Holder.~~ **[Replaces Land Use Condition 13A and Discharge Condition 13A and includes revisions as per the Decision at paragraph 88]**

FILL MANAGEMENT PLAN

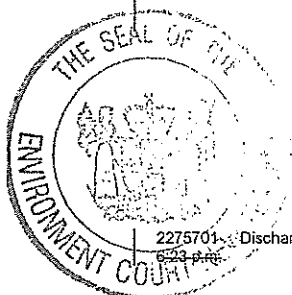
~~25-26.~~ Not less than 3 months prior to the commencement of fill activities authorised by this consent, a Fill Management Plan shall be provided to the Manager for certification. Certification by the Manager is required prior to the commencement of filling. The Manager may inform the consent holder 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.
- ~~(d)~~(vi) Training.
- (vii) Health and safety.
- ~~(e)~~(d) The fill acceptance procedures necessary to ensure compliance with Condition 713, Condition 4016, Condition 40A17 and Condition 4531.
- ~~(f)~~(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.
- ~~(g)~~(f) Fill acceptance criteria (as set out in Condition 4016 and 40A17) for the parameters to be monitored and tested.
- ~~(h)~~(g) Pre-approval procedures for offsite acceptance.
- ~~(i)~~(h) Fill acceptance, rejection, sampling, testing and quarantine procedures for material not subject to pre-acceptance approval including recording and reporting.
- ~~(j)~~(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.
- ~~(k)~~(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.
- ~~(l)~~(k) Plans for filling and associated earthworks over the next 12 months.
- ~~(m)~~(l) Measures to be used to track fill to the final disposal location on-site.
- ~~(n)~~(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.
- ~~(o)~~(n) Proposed groundwater monitoring regime.

[Replaces Land Use Condition 14 and Discharge Condition 14 and includes revisions as per the Decision at paragraph 90 and 94]



REPORTING

- ~~26-27.~~ 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 for certification. **[Replaces Land Use Condition 15 and Discharge Condition 20]**
- ~~28.~~ ~~The Manager may require a review of the Fill Management Plan may be reviewed annually by the Consent Holder and shall be reviewed in any given year if required by the Manager. [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. [Replaces Land Use Condition 16 and Discharge Condition 21 and includes revisions as per the Decision at paragraph 91]~~
- ~~27.~~ 28A. The consent holder shall notify the Manager no less than six months prior to any proposed transfer of the consent.

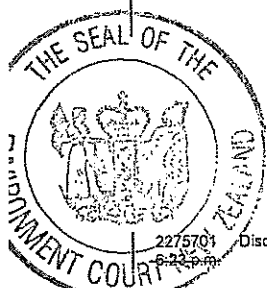
CONSENT REVIEW

- ~~28.~~ The conditions of this consent may be reviewed by the Manager pursuant to Section 128 of the Resource Management Act 1991~~thereafter~~, by the giving of notice pursuant to Section 129 of the Act, annually for the first three years after the commencement of the consent and, in the event a review is not required in the first three years of the consent, every two years thereafter, in one or more of the following times: June 2012;
- ~~29.~~ June 2013;
- ~~30-29.~~ June 2014 and at two-yearly intervals thereafter.

The purpose of the review shall be:

- (a) To deal with any actual or potential adverse effects on human health or the environment which may arise from the exercise of the consent.
- (b) To review the engineering standards for the controlled fill as set out in condition 94.
- (a)(c) To ensure that any relevant amendments to guideline values referred to in condition 7 and 14 are considered and any measures are implemented (where necessary) to the satisfaction of the Manager to protect human health and the environment.

~~To ensure that any relevant amendments to guideline values referred to in condition 1A and 8 are considered and any measures are implemented.~~



This consent may also be reviewed by the Manager pursuant to Section 128, by the giving of notice pursuant to Section 129 of the Act, in the event of any transfer of the consent under condition 28A of this consent. The purpose of the review shall be to consider the solvency of any new consent holder to determine whether it is desirable to impose a condition specifying the payment of a bond to secure costs potentially associated with future mitigation requirements under the conditions of consent. Any notification of such a transfer to the consent authority under section 137(6) of the Act shall draw the Manager's attention to condition 29 of this consent.

[Replaces Land Use Condition 22 and Discharge Condition 35 with amendments as per Decision at paragraphs 92, 97 and 98]

~~, where it is appropriate to deal with such effects at a later stage; or~~

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

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

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

PART B: CONDITIONS APPLYING ONLY TO DISCHARGE PERMIT

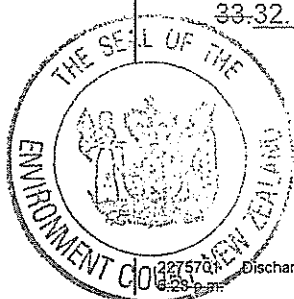
GROUNDWATER MONITORING

~~31.30.~~ 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~~ Council as part of the Annual Compliance Report. The independent expert who is appointed to undertake audit sampling in accordance with condition ~~43A-25~~ shall review the conductivity and pH results to identify and report on any undesirable trends. **[Replaces Discharge Condition 14B]**

~~32.31.~~ 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 46 ~~32~~ 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 46-32 at six monthly intervals for the remainder of the term of the consent.~~ **[Replaces Discharge Condition 15]**

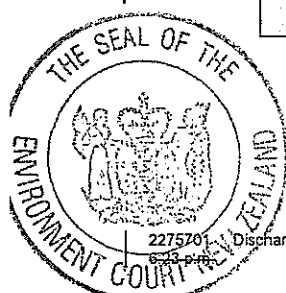
~~33.32.~~ Trigger levels for inorganic and organic constituents as measured at the dewatering well and BH7 shall be the ~~maximum recorded (2007/2008 data) concentrations plus~~



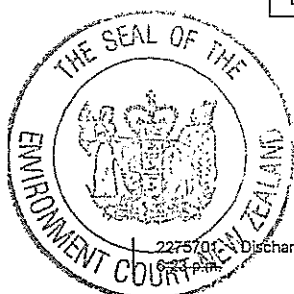
3 standard deviations as listed below in Table 3 for Arsenic, Boron, Cadmium, Chromium, Copper, Mercury, Nickel and Lead, or as set for other constituents in accordance with Conditions 4733 and 3448. [Replaces Discharge Condition 16]

Table 3: Groundwater trigger levels for the dewatering well (g/m³)

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
Di(2-ethylhexyl)phthalate	0.0045	0.009



Chemical Constituent	Proposed Groundwater Trigger Levels	Ministry of Health (2005) Drinking Water Standards (revised 2008) Maximum Acceptable Value (MAV)
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



Chemical Constituent	Proposed Groundwater Trigger Levels	Ministry of Health (2005) Drinking Water Standards (revised 2008) Maximum Acceptable Value (MAV)
2,4,6-trichlorophenol	0.1	0.2
Vinyl chloride	0.00015	0.0003
Xylenes	0.3	0.6

34.33. The trigger level shown for zinc in Table 3 is an interim value set at the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 ANZECC(2000) guideline (95%) protection level ("ANZECC (2000)"). After a minimum 2 years and not more than 5 years of monitoring in accordance with Condition 4531, this trigger shall ~~may~~ be re-set by the Council at the maximum confirmed recorded concentration plus three standard deviations. [Replaces Discharge Condition 17]

35.34. 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 for constituents in solution at the dewatering well shall ~~may~~ be re-set by the Council at maximum confirmed levels of recorded soluble concentrations plus 3 standard deviations established after a minimum 2 years and not more than 5 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. [Replaces Discharge Condition 18]

36. Each report on groundwater monitoring required under Condition 20-27 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 and shall provide the Manager with details of the proposed groundwater monitoring for the ensuing 12 months. [Replaces Discharge Condition 18A and includes revision as per the Decision at paragraph 90]

35.

GROUNDWATER CONTINGENCY

37. 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) — The Consent Authority and Watercare 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 Council will be consulted to determine whether resource consent will be required to authorise the on-going discharge to stormwater from the dewatering well.~~

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, 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.

36. The following groundwater contingency measures shall be adopted, with all the resulting costs associated with (a) and (c) below borne by the consent holder:
[Replaces Discharge Condition 19(a)-19(f) and rewritten as per Decision at paragraph 89]

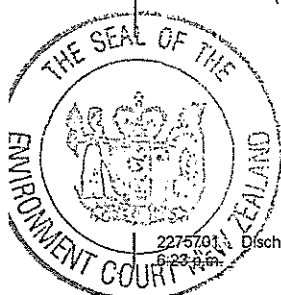
(a) In the event there is an exceedance of a groundwater trigger level (as described in Conditions 32, 33 and 34) the monitoring well shall be resampled and analysed as soon as practicable. If the check sample results do not exceed a trigger level, no further action will be taken. If the check sample results confirm a trigger level exceedance the following actions will be taken:

(i) The Council and Watercare Services Limited will be advised immediately of the confirmed trigger level exceedance.

(ii) An investigation shall be carried out to determine the cause of the trigger level exceedance.

(b) If the cause of the trigger level exceedance can be reasonably shown not to be a result of the filling operation then the Council and Watercare Services Limited will be advised as soon as practicable and the Consent Holder will participate in meetings with the Council and Watercare Services Limited to assist in identifying appropriate options to reduce chemical constituent concentrations.

(c) If the cause of the trigger level exceedance can be reasonably shown to be a result of the filling operation the following actions will be taken:

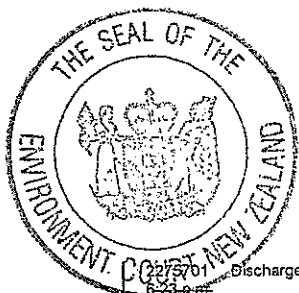


- (a)(i) If the concentration of a chemical constituent in a monitoring well exceeds the guidelines in the ANZECC 2000 guidelines but does not exceed 50% of the drinking water MAVs then the Council will be consulted to determine whether resource consent will be required to authorise the on-going discharge to stormwater from the dewatering well.
- (i)(ii) If the concentration of a chemical constituent in a monitoring well exceeds 50% of the drinking water MAV the monitoring frequency for the chemical constituents that exceed 50% of the MAV will be increased to monthly and, in consultation with the Council and Watercare Services Limited, options for reducing the chemical constituent concentrations will be identified and appropriate interventions carried out.
- (ii)(iii) If the concentration of a chemical constituent in a monitoring well exceeds 75% of the MAV a remediation plan will be prepared in consultation with the Council and Watercare Services Limited and interventions, possibly including dewatering and groundwater treatment, will be carried out to ensure MAV criteria are not exceeded and to reduce chemical constituent concentrations to less than 50% of the drinking water MAV within twelve months. If the site is still operating, only pre-approved fill will be accepted for disposal until the chemical constituent concentrations in the monitoring wells are less than 50% of the MAV.

37. The following groundwater contingency measures shall be adopted with respect to dewatering: [Replaces Discharge Condition 19(g), 19(h) and 19(i)]

- 38.(a) The consent holder shall continue to dewater dewatering for at least 5 years, and at least until December 2030, following the completion of commercial filling operations at the site and shall continue to exercise Permit 12977 at least until December 2030. Dewatering beyond December 2030, if necessary, will be subject to the grant of any necessary resource consents.
- 39.(b) If, after 5 years of continuous monitoring contaminant levels are below drinking water MAV trigger levels set out in this consent, pumping may cease.
- 40.(c) 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 the Council, Watercare and the Consent Holder to ensure that there will be no adverse effects on human health or the environment.

PART C: CONDITIONS APPLYING ONLY TO LANDUSE CONSENT



OPERATIONAL CONDITIONS

Traffic Management Plan

~~41-38.~~ 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.

[Replaces Land Use Condition 17]

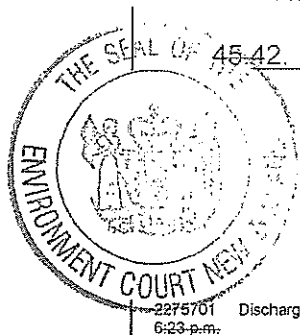
~~42-39.~~ The consent holder will insert a condition in any contract between the consent holder and any major contributors of fill for Three Kings Quarry that any trucks transporting such fill to the Quarry are not to use St Andrews Road, unless the fill originates from along St Andrews Road. **[Replaces Land Use Condition 17A]**

~~43-40.~~ 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). **[Replaces Land Use Condition 17B]**

~~44-41.~~ 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. **[Replaces Land Use Condition 17C]**

Site Traffic Safety Plan - Drivers Code of Conduct

~~45-42.~~ 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 20-44 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.

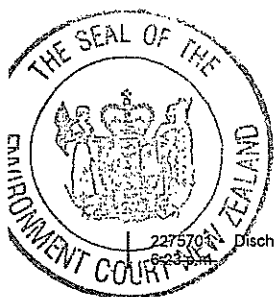
To the satisfaction of the Manager the consent holder shall take all practicable steps to ensure that:

- (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.

[Replaces Land Use Condition 18]

Construction Noise Management Plan

- 46-43. 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: **[Replaces Land Use Condition 19]**

- (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

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

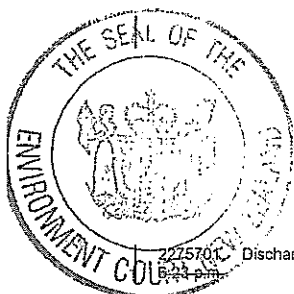
- (a) that the fill is a private operation,
- (b) that access is not open to the general public,
- (c) hours of operation and when the gates will be opened to customer vehicles,
- (d) contact details, including after hours emergency contacts.

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

[Replaces Land Use Condition 20]

Road Condition Survey

45. 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.



48. [Replaces Land Use Condition 21 and removes reference to second access way as this part of the application was withdrawn at the Council hearing]

Road Maintenance Agreement

49.46. 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 to cover the costs of repair of any damage to public carriageways and footpaths (and associated road components) within the zones surveyed under condition 45(24), attributable to the site activities authorised by this Resource Consent. [Replaces Land Use Condition 22]

Air Quality Monitoring Equipment

50.47. 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. [Replaces Land Use Condition 23]

DEVELOPMENT IN PROGRESS CONDITIONS

Hours of Operation

51.48. 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 5127(a). [Replaces Land Use Condition 24]

Pedestrian Refuge

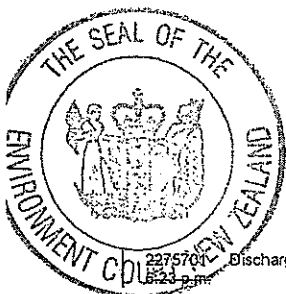
52.49. For the purpose of ensuring pedestrian safety, the consent holder shall appoint, at their cost, a professional traffic engineer to provide a design for a pedestrian refuge island on Mount Eden Road at an appropriate location between Graham Breed Drive and the entrance to Three Kings School to the satisfaction of the Manager. The facility shall then be installed at the consent holder's expense. The refuge is to be installed prior to the cleanfilling operations commencing. [Replaces Land Use Condition 25 and includes edit as per the Decision at paragraph 96]

Truck Movements

53.50. 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 Manager on a quarterly basis to certify compliance with this condition. [Replaces Land Use Condition 26]

Noise Control

54.51. 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	7:00 am to 10:00 pm	L ₁₀ 60 dBA
Sunday & Public Holidays	9.00 am to 6.00 pm	
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	7:00 am to 10:00 pm	L ₁₀ 55 dBA
Sunday & Public Holidays	9.00 am to 6.00 pm	
At all other times	L ₁₀ 45 dBA L _{MAX} 75 dBA	

N.B - Noise shall be measured and assessed in accordance with NZS6801.: 1991 and NZS6802.2008

[Replaces Land Use Condition 27a]

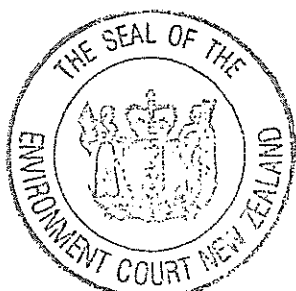
- 55-52. Within 3 months of the commencement of the fill activity the consent holder shall submit to Manager a report demonstrating that the activity meets the noise standards outlined in this condition. **[Replaces Land Use Condition 27b]**
- 56-53. The consent holder shall undertake further monitoring 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. **[Replaces Land Use Condition 27c]**
- 57-54. 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 5127(a). Monitoring confirming compliance with the noise limits shall be conducted within one month of implementation of the revised procedures. **[Replaces Land Use Condition 27d]**
- 58-55. The existing vegetated earth bund parallel to Mount Eden Road shall be retained for the duration of the filling activity. **[Replaces Land Use Condition 27e]**

Fill Volumes

- 59-56. 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. **[Replaces Land Use Condition 28]**

Sale of Aggregate

- 60-57. The sale of aggregate to the general public is not permitted. **[Replaces Land Use Condition 29]**



Control of Deposition of Material on Public Roads

61-58. 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. **[Replaces Land Use Condition 30]**

Dust Suppression

62-59. All necessary actions shall be taken to ensure compliance with the regional air discharge permit 21875 to prevent dust nuisance from the filling to neighbouring properties and public roads, reserves and areas outside of the subject site. These include, but shall not be limited to: **[Replaces Land Use Condition 31]**

- (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

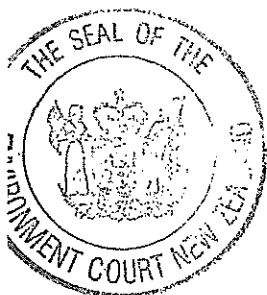
63-60. Vibration from the fill activity and associated compaction of fill shall not exceed the levels permitted by clause 8.8.1 of the Auckland City Operative District Plan. **[Replaces Land Use Condition 32]**

POST FILL COMPLETION CONDITIONS

Final Fill Validation Report

64-61. If in the reasonable opinion of the Manager information and data provided in the Annual Compliance Reports tendered under Condition ~~28~~ (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.

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.



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

- (a) 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;
- (b) 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 1640;
- (c) 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.

[Replaces Land Use Condition 34]

Traffic Review

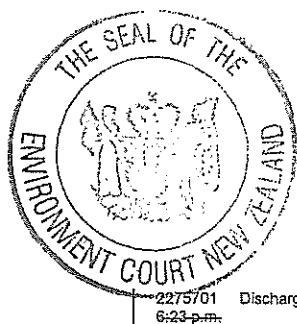
65-62. If after the fill activity commences it becomes evident that the traffic generated by the development is causing an operational or safety problem on the surrounding road network, determined by accidents, complaints to Council, or by observations and data collected by suitably experienced Council 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 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. **[Replaces Land Use Condition 35a]**

Cessation of Fill Activity

66-63. 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. **[Replaces Land Use Condition 36]**

Earthworks

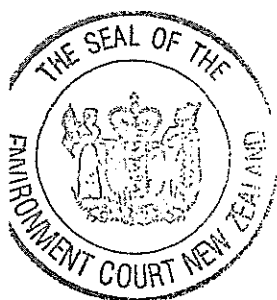
67-64. All personnel working on site are made aware of and have access to the contents of this consent document and the associated erosion and sediment control plan and methodology. **[Replaces Land Use Condition 37]**



- 68-65. 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. **[Replaces Land Use Condition 38]**
- 69-66. 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"). **[Replaces Land Use Condition 39]**
- 70-67. Any future amendments to the 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 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. **[Replaces Land Use Condition 40]**
- 71-68. All erosion and sediment control measures shall be constructed and maintained in general accordance with TP90 and any amendments to that document, except where an alternative standard is accepted in accordance with Conditions 6739, 6840 or 7648. **[Replaces Land Use Condition 41]**
- 72-69. 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. **[Replaces Land Use Condition 42]**
- 73-70. 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. **[Replaces Land Use Condition 43]**
- 74-71. 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 6739, 6840 or 7648 of this consent, within 2 weeks following the construction of the controls. **[Replaces Land Use Condition 44]**

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

~~75-72.~~ 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. **[Replaces Land Use Condition 45]**

~~76-73.~~ No further quarrying shall be undertaken within 20m of the bore identified as the "Municipal Supply Bore" in ARC Permit 12977. **[Replaces Land Use Condition 46]**

~~77-74.~~ A minimum buffer distance of at least 50 metres shall be maintained between any rainfall soakage point and the dewatering bore intake. **[Replaces Land Use Condition 46A]**

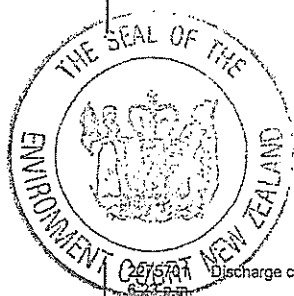
Earthworks - monitoring

~~78-75.~~ 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 associated discharge permit. 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 ~~Consent Authority~~Council 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. **[Replaces Land Use Condition 47]**

Earthworks - reporting

~~79-76.~~ (48) Prior to the commencement of work, and annually thereafter, the AMP shall be submitted to the ~~Consent Authority~~Council containing the following information:

- (a) Plans for fill and associated earthworks, including the proposed fill contour 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.
- (e)(f) Information that provides an early indication to the Manager when the height of the fill reaches a level 10m below the final fill levels identified in



Harrison Grierson Plan 122314 Fig 002, so as to ensure that the provisions of Conditions 9, 10 and 77 are able to be met.

(f)(g) 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;
- iii. Provision of the final contour plan following the consultation set out in Condition 77;
- iv. A survey of the current fill levels from where the engineered filling is to begin; and
- v. Provision of a plan that quantifies the difference between the levels shown on Harrison Grierson plan 122314 FIG 002 and any additional filling sought to meet the considerations expressed in the consultation required by Condition 77.

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. **[Replaces Land Use Condition 48 with an amendment as per Decision at paragraph 95]**

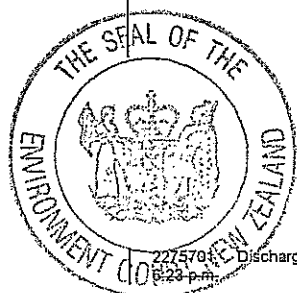
Finished Contour Plan and Landscaping

80-77. Not less than 24 months prior to the cessation of fill operations, or not less than 6 months prior to the consent holder submitting any Plan Change or resource consent application in respect of the end use of the site, or not less than 1 month following the notification of any Council plan change applying to the site (whichever of those is the earlier), the consent holder shall consult with relevant stakeholders (including South Epsom Planning Group, Three Kings United Group, Auckland Council, iwi and the Auckland Volcanic Cones Society) in respect of a proposed Final Contour Plan.

The consultation process shall involve consideration of the following:

- The desirability of an integrated final landform, and a more usable and efficient open space network surrounding the site.
- How the landform might best relate to the surrounding topography, in particular Big King Reserve, Hunters Quarry, and the Council Sites.
- Whether the contour should rise toward Big King Reserve on the northern part of the site, and if so how this rising contour is to be provided

The Final Contour Plan produced by the consent holder, after having had regard to the feedback obtained through the stakeholder consultation, shall be submitted to the Manager and shall form part of any Plan Change or resource consent application sought by the consent holder in respect of the site, or in the event of a Council Plan Change shall be promoted by the consent holder through the submission process.

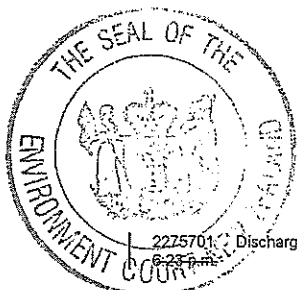


For the avoidance of doubt, once a final fill contour plan is approved for the site (either through a plan change process or further resource consent), then the identification of the upper 5m of fill (and the obligations and restrictions imposed by this consent in respect of that upper 5m) shall be by reference to that approved final fill contour plan.

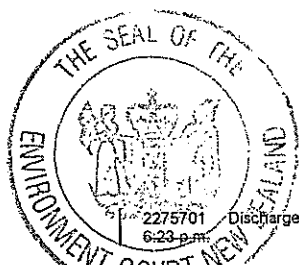
Within 3 months of the completion of the fill works the consent holder shall submit to the Manager an as-built contour plan of the site a qualified surveyor shall certify that the finished contour levels match those set out in the finished contour plan and, and, should if the site is to remain vacant 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. [Replaces Land Use Condition 33]

PART D: ADVICE NOTES APPLYING TO ALL CONSENTS

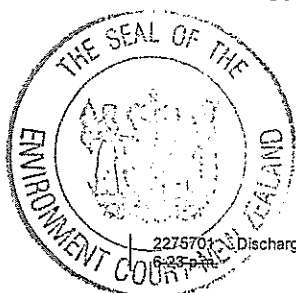
1. The consent holder is advised that the date of the commencement of this consent will be as determined by Section 116 of the RMA, unless a later date is stated as a condition of this consent. **[Discharge Advice Note 1 and Land Use Advice Note 12]**
2. The consent holder is referred to Section 124 of the Resource Management Act 1991, which provides for the exercising of a consent while applying for a new consent for the same activity. **[Discharge Advice Note 2 and Land Use Advice Note 14]**
3. This consent does not absolve the grantee from obtaining all other necessary consents or permits that may be required for the activity. 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. **[Discharge Advice Note 3 and Land Use Advice Notes 3 and 15]**
4. The consent holder shall ensure that there are adequate provisions on site to prevent possible fuel spillage. **[Discharge Advice Note 4 and Land Use Advice Note 16]**
5. The purpose of the Fill Management Plan is to ensure that the consent holder implements, and complies with, the conditions of the consents. **[Discharge Advice Note 5]**



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. **[Discharge Advice Note 6 and Land Use Advice Note 17]**
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. **[Discharge Advice Note 7 and Land Use Advice Note 18]**
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. **[Discharge Advice Note 8 and Land Use Advice Note 19]**
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. **[Discharge Advice Note 9 and Land Use Advice Note 20]**
10. The ~~Consent Authority~~ 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. **[Discharge Advice Note 10 and Land Use Advice Note 21]**
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~~ Council unless other criteria contained within Section 126 are met. **[Discharge Advice Note 11 and Land Use Advice Note 22]**
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: **[Discharge Advice Note 12 and Land Use Advice Note 23]**
 - (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

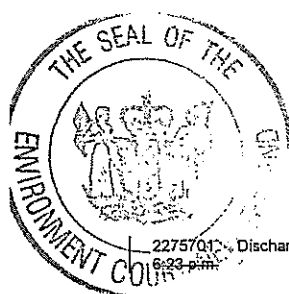


- (d) Limiting vehicle speeds to avoid dust mobilisation.
13. The Consent Holder is referred to Section 127 of the RMA which provides for the application, at any time, for changes to or cancellation of conditions of consent other than duration, and the provisions therein for making application to do so. **[Discharge Advice Note 13 and Land Use Advice Notes 9 and 24]**
 14. Upon commencement of this consent, the ~~consent authority~~ Council'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. **[Discharge Advice Note 14]**
 15. Subject to section 198 of the Local Government Act 2002 and Auckland 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. **[Land Use Advice Note 1]**
 16. 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 fill operations the Quarry Management Plan (July 2007) is required to be amended, in consultation with the Site Liaison Group, to include the filling and sale of imported aggregated activities. **[Land Use Advice Note 2]**
 17. 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; **[Land Use Advice Note 4]**
 - 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.
 18. A copy of this consent should be held on site at all times during the establishment and construction phase of the activity. **[Land Use Advice Note 5]**
 19. 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 by email, phone or fax. **[Land Use Advice Note 6]**
 20. 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. **[Land Use Advice Note 7]**
 21. The consent holder shall comply with all relevant Council Bylaws. In particular the consent holder shall comply with Part 27 of the Auckland Council Consolidated Bylaw,



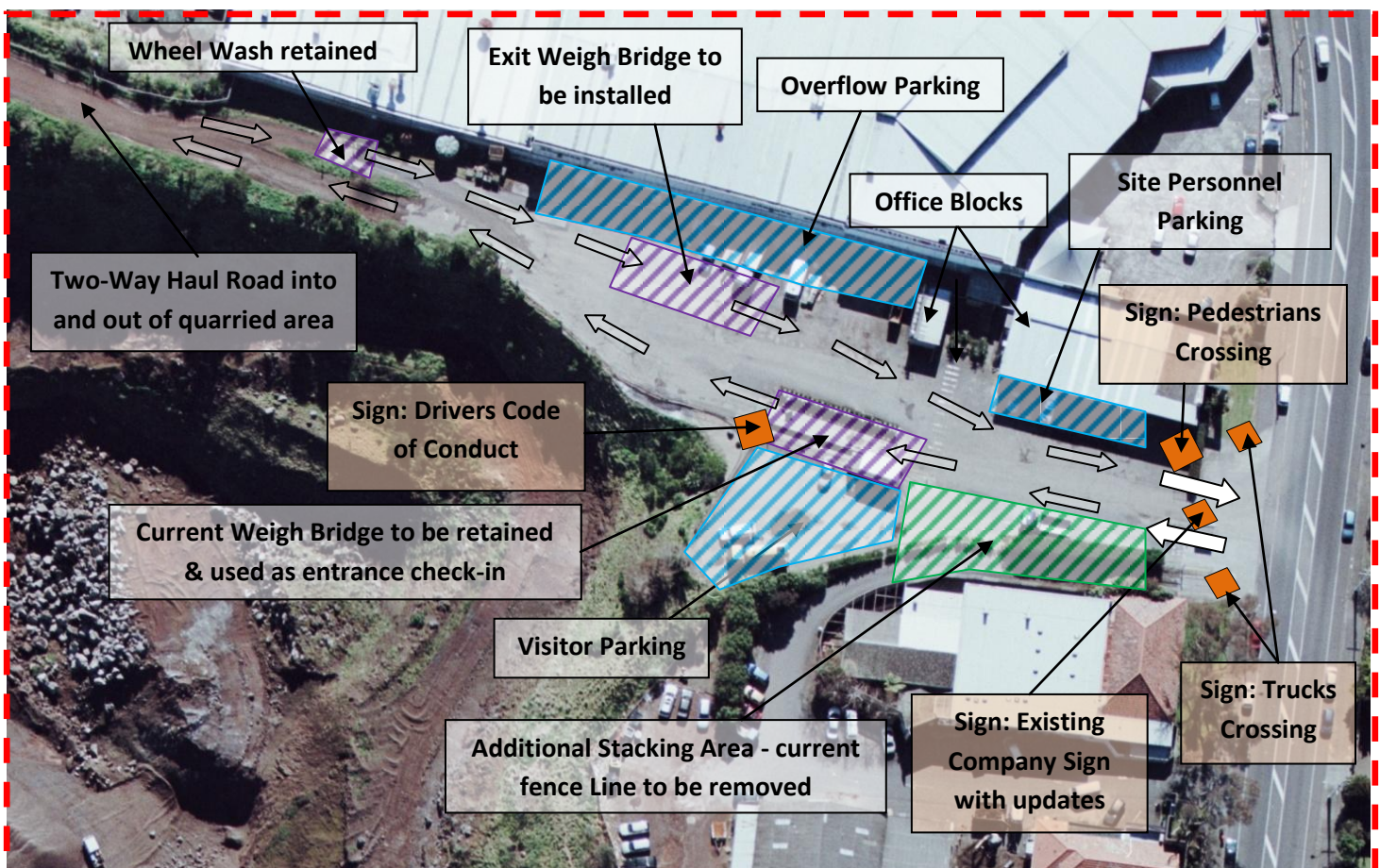
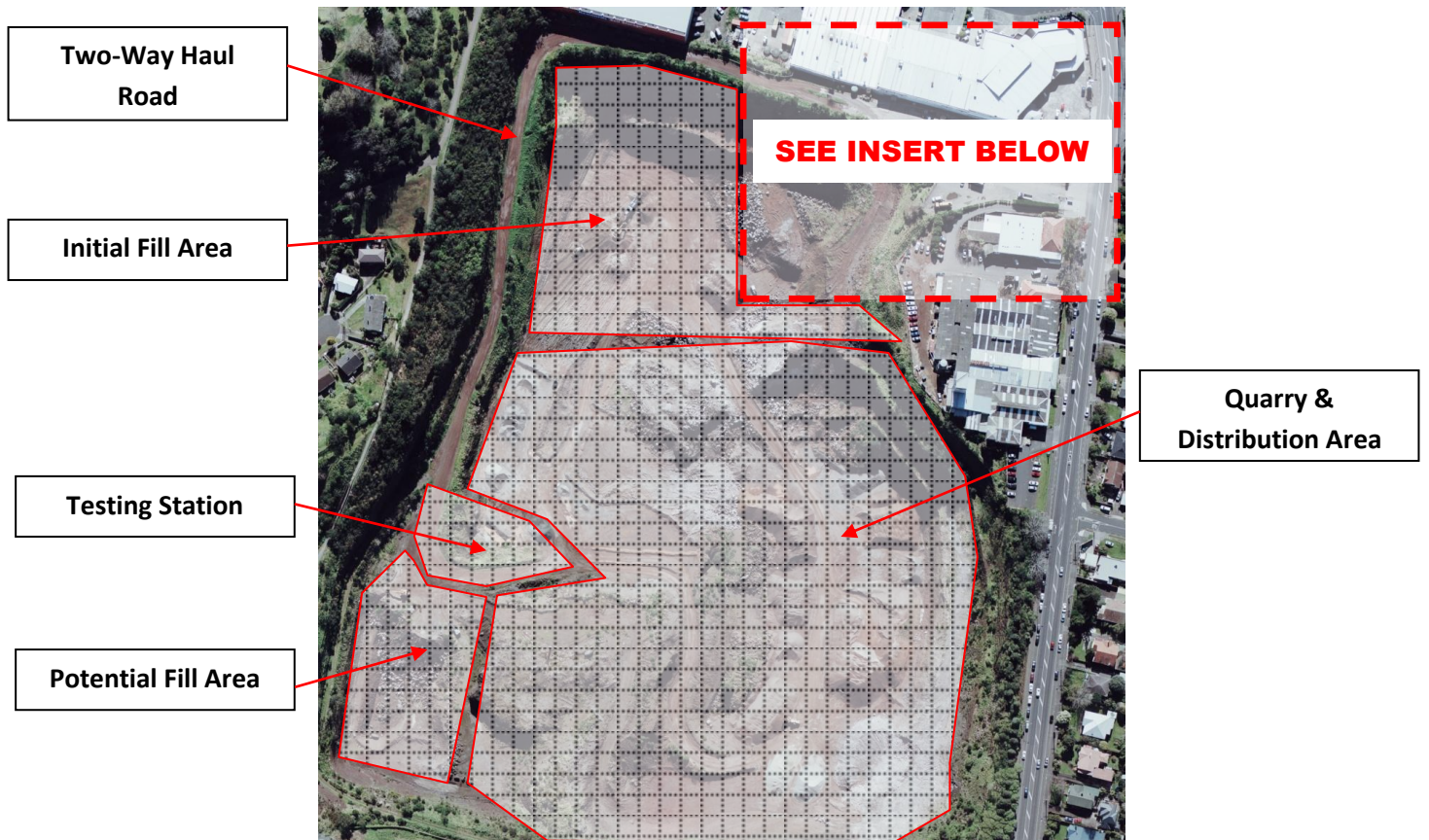
which addresses signage, or seek a dispensation from the Bylaw. **[Land Use Advice Note 8]**

22. 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. **[Land Use Advice Note 10]**
23. 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. **[Land Use Advice Note 11]**
24. 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 Auckland Council. **[Land Use Advice Note 13]**
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. **[Land Use Advice Note 25]**



APPENDIX 4

General Site Layout



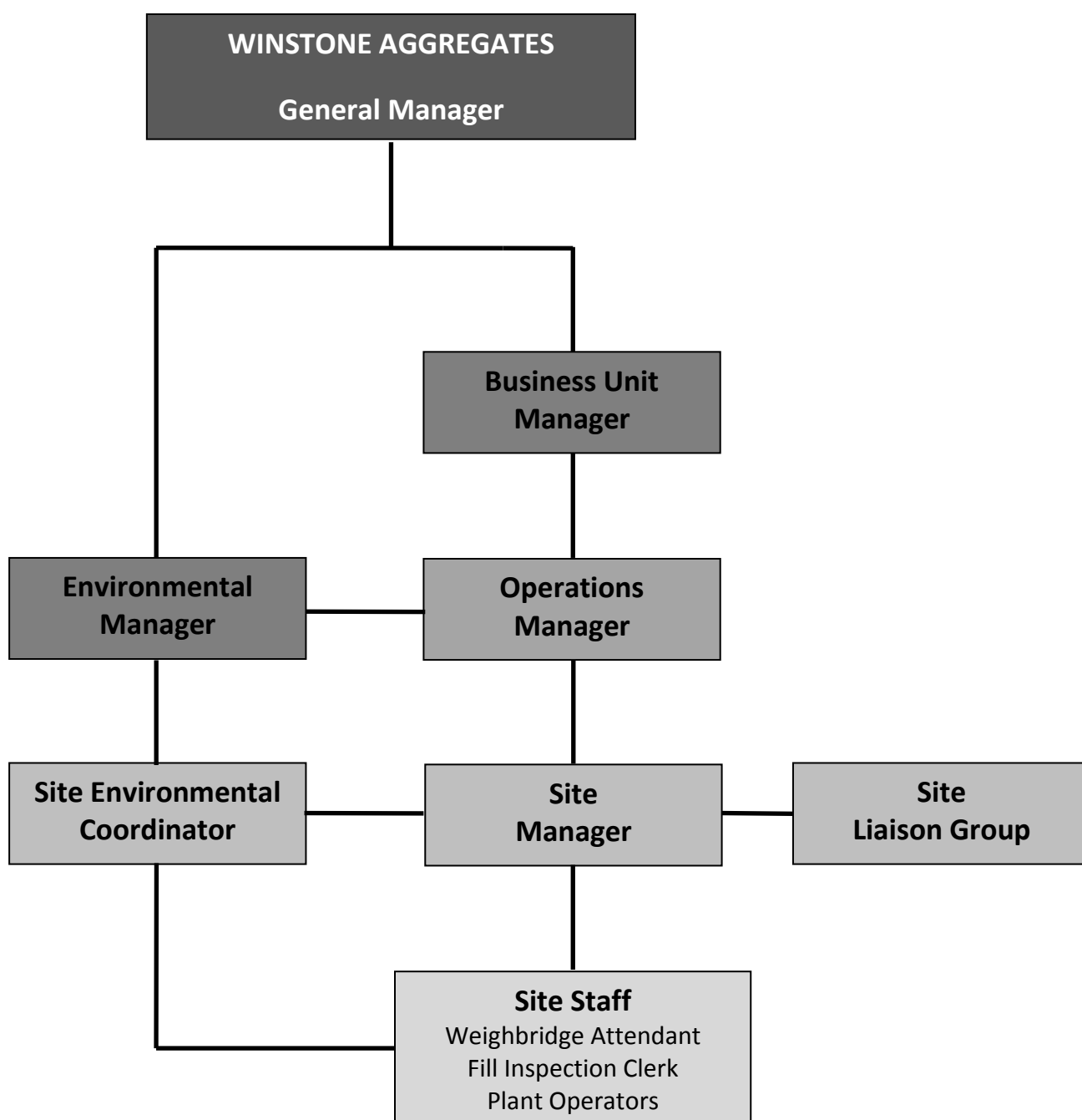
GENERAL SITE LAYOUT

APPENDIX 5

Organisational Chart – Three Kings Management and Reporting Structure

ORGANISATIONAL CHART

Three Kings Management and Reporting Structure



APPENDIX 6

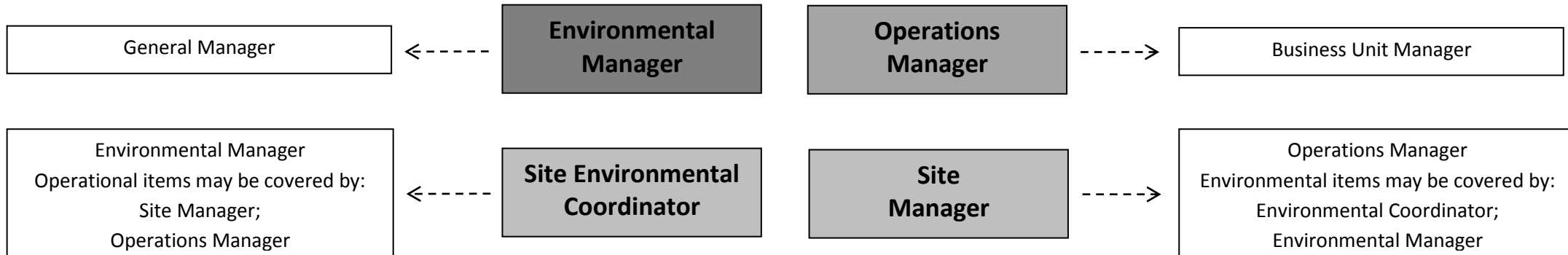
Employee Cover Schedule

EMPLOYEE COVER SCHEDULE



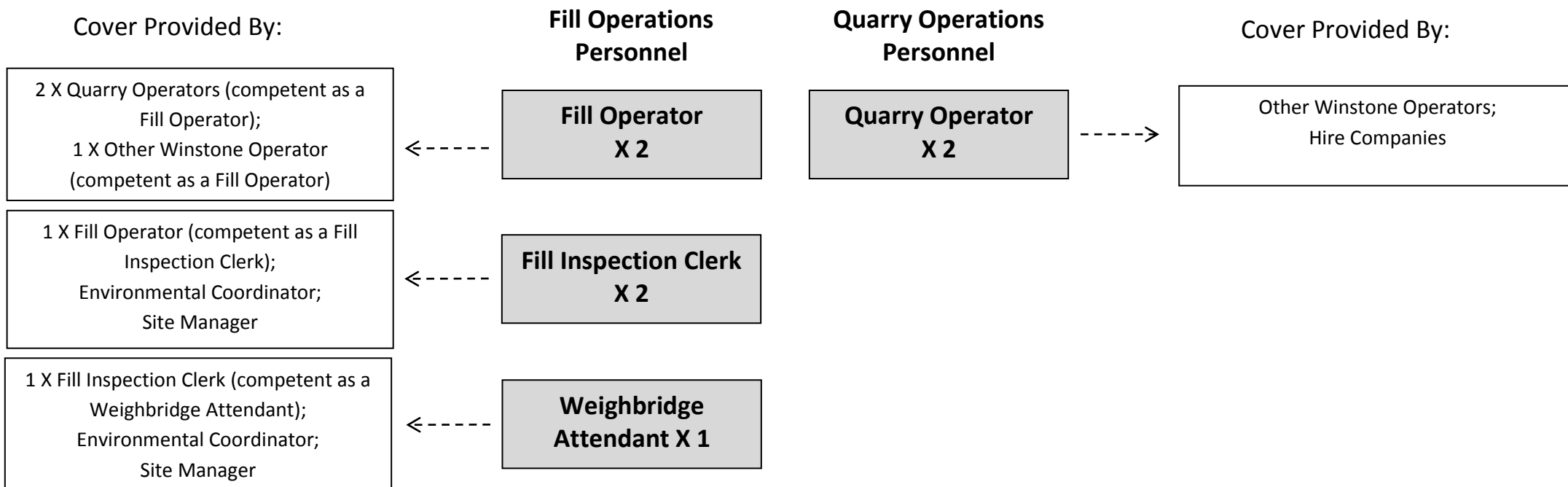
Management

Cover Provided By:



Site Staff

Cover Provided By:



Appendix 7

Training Schedule

TRAINING PLAN – TESTING STATION

Name:

Training Supervisor(s):

Training commenced:

NB: * Indicates minimum training required before first day on the job.

Date completed	Signed (Trainee)	Signed (Trainer)
----------------	------------------	------------------

Health and Safety

H&S Induction-New employee(SAF 7)

H&S Awareness Questions (SAF 6 APP.1)

Location and use of safety equipment
(e.g 1st aid cabinets, releasing fire extinguishers)

General safety procedures

H&S Manual, Chapter 2

PPE required for role

Hazard Register – Road Trucks

*		
End of 1 st Week		
*		
*		
*		
*		

Licences, certificates and unit standards

EXITO National Certificate standard in Resource Recovery and Solid Waste Management

X-Ray Safety, Security and Inspection Course

Key Tasks

Communicating with Customers (site procedures/process & assessment criteria)

Reporting Incident and/or Complaints

Induction of Drivers (Drivers Code of Conduct)

Start Up of Testing Station Facilities

Assess Loads (against Fill Inspection Sheet)

Process Permit to Tip Loads

Process No Permit to Tip Loads

Create Job Number (JDE)

XRF Sampling and Testing (acceptance criteria)

Data Recording (Tip Register)

Reject Loads (Reject Fill Form)

Quarantine Loads (Test Load Board)

Test Load Sampling (Fill Monitoring Form & CoC)

Test Load Processing (Test Load Results Summary)

TRAINING STATUS

Can work under supervision	Competent to work without supervision	Competent to train others

Date:

Signature:

(Environmental Coordinator / Site Manager)

Document

Writer

E. LaFace

Date

30-Mar--12

File

Testing Station Training Plan

Authorised

T. Carpenter

Revision

A1

Page

1 of 1

Appendix 8

Pre-Approval Form

THREE KINGS QUARRY

PRE-APPROVAL APPLICATION FORM FOR DISPOSAL OF CLEAN FILL



Section 1: Applicant Details

Customer	Fill Site Address
Contact Name	Contact Phone Number
Email Address	Fax Number

Section 2: Transporter Details

Name	Transporter Address
Contact Name	Contact Phone Number
Email Address	Fax Number

Section 3: Job Details

Volume of Fill (m³) Type of Job Site

Type of Fill ☐ Top Soil ☐ Concrete ☐ Asphalt
(Tick as many as apply) ☐ Clay ☐ Rock ☐ Other

Other comments relating to description of waste (please attach additional pages if necessary)

.....

.....

Past Land Use of Site ☐ Residential ☐ Horticultural ☐ Industrial
(Tick as many as apply) ☐ Agricultural ☐ Other

Has this material been assessed for the presence of contamination? ☐ Yes ☐ No

If yes above, have you attached the relevant reports/test results? ☐ Yes ☐ No

Are these works associated with remediation of a contaminated site? (please describe)

.....

.....

Are there any known hazardous substances present in the material or safety and handling instructions?

.....

.....

Section 4: Drivers Code of Conduct

The Three Kings site is located in a busy residential area. Therefore your assistance in helping us be a good neighbour is most appreciated. You can do this taking into considering the following items when planning to use the site:

- Operating hours are Monday to Friday 0700-1700 and Saturday 0700-1400
- Trucks are not to arrive before 0700 and at no time of the day are they to queue or park outside the site
- Only main routes are to be used to and from the site - St Andrews Rd (which runs parallel to Mt Eden Rd) is prohibited
- Loads are to be covered to avoid dust nuisance (or alternative i.e. maintaining damp loads)
- No engine brakes are to be used around the site
- There are two schools located in the area and if possible deliveries between 0830-0930 and 1430-1530 are to be avoided.
- Drivers coming to the site are to be briefed on these items and issued a Drivers Code of Conduct Card. This induction can be done by appointment prior to using the site or it will be done on first entry.

These items are based on our consent requirements and are detailed the Traffic Management Plan (TMP). The TMP and all other management plans can be viewed onsite by contacting us on 09 625 7854 and making an appointment or online at: <http://threekingsquarry.co.nz/>

Section 5: Declaration

The information provided is true and accurate as of the date signed below. I have read and understood the details of Section 4 above the Site Traffic Safety Plan – Drivers Code of Conduct.

Name	Signature
Company	Position
Date	

APPENDIX 9

Incident and Complaints Procedure

Incident and Complaints Procedure

Three Kings

Purpose:

The Incident and Complaints Procedure has been established to ensure such events are managed in an appropriate, timely and consistent manner. This procedure is in place to make certain adequate investigation is undertaken and corrective actions and/or possible mitigation measures are implemented. It also details the protocol for document control to meet all reporting requirements.

Responsibility:

The Site Manager with assistance from the Environmental Coordinator is responsible for managing all incidents and complaints.

Winstone Aggregates senior management team will provide the necessary support as required.

Procedure:

Step 1 – Complaint Received or Environmental Incident Reported

- Person directed to Site Manager or Environmental Coordinator (who will continue with the steps that follow)
- If the above cannot be contacted the receiver is to continue with Steps 2 to 3
- The Site Manager or Environmental Coordinator once available will complete Steps 3 to 9

Step 2 – Information collected

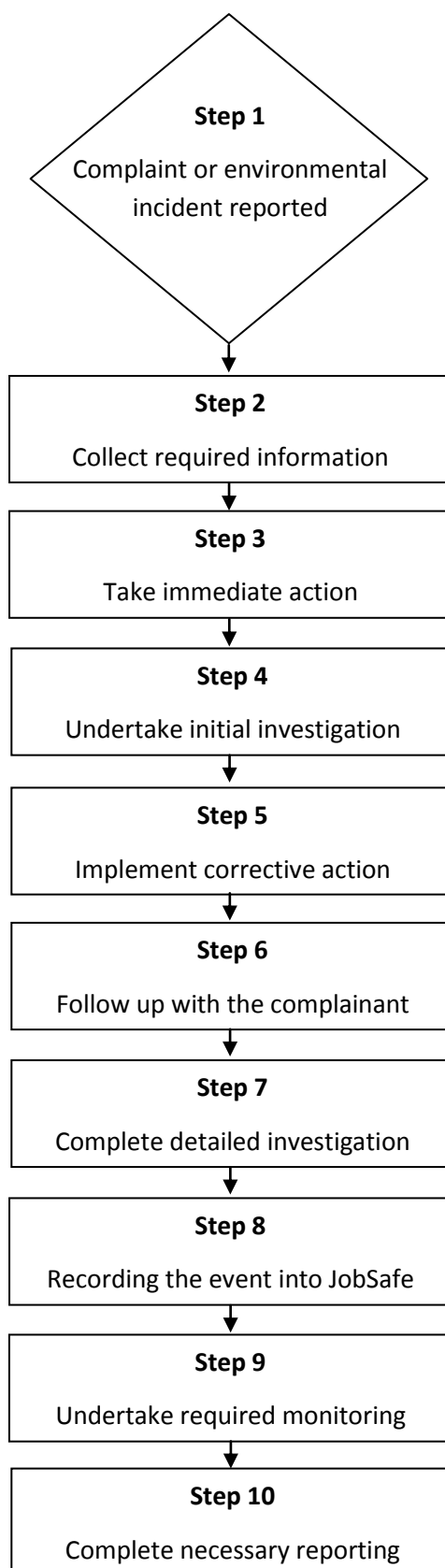
- Details of the incident or complaint are to be initially logged on the Incident and Complaints Record Form
- It is important to acquire as much information as possible to enable the best responsive action; therefore follow the prompts on the form

Step 3 – Immediate action

- Can an immediate action be undertaken?
 - Yes:
 - Direct the relevant parties as required
 - Record details of action taken
 - No:
 - Determine what is limiting immediate action and give direction to take action as soon as possible
 - If appropriate action cannot be determined proceed to Step 4
 - In the case of a staff member fielding the call this is the stage where they are to hold and await for guidance from the Site Manager or Environmental Coordinator.
- **Step 4 – Initial investigation**
 - Gain clarity on the matter through different means
 - Understand from all parties involved their perception of the event

- **Step 5 – Corrective Action**
 - Look to address not only the event at hand but put in place any required preventive measures
 - Call upon senior management if support is required
 - Corrective action is to be appropriate to the magnitude of the problem and the impacts encountered
 - This is to avoid over-compensating or under-compensating for a problem
 - Completion of corrective action may need to be deferred to the completion of Step 7 – Detailed Investigation.
- **Step 6 – Follow up contact**
 - Notify the person who originally reported the incident or complaint of the action that has been undertaken
 - Contact is to be made within 24hrs of report to discuss action taken or to be completed
 - Provide any necessary documentation
- **Step 7 – Detail investigation**
 - Determine the severity, cause and consequence of the event
 - Establish likelihood of repeat incidents and/or risk of escalation
 - Study any similar event to identify and trends or repeat offenders
 - Examine the human factors surrounding those involved
- **Step 8 – Recording the event**
 - All incident or complaints are initially to be recorded on the Incident and Complaints Record Form
 - These details are to be transfer on the JobSafe within one week of the event
- **Step 9 – Monitoring**
 - The implemented action is to be monitored to ensure effectiveness over a period relevant to the response
 - Close out any additional actions required
 - All incidents and complaints are to be reviewed monthly to establish any preventive or mitigative measure required
- **Step 10 – Reporting**
 - All incidents and complaints are to be:
 - reviewed at the site's monthly Health, Safety and Environmental Meeting
 - reported monthly to Winstone Aggregates General Manager which in turn is reported to Fletcher Building Corporate Management
 - Discussed at the quarterly Site Liaison Meeting
 - Reported in writing to the Council quarterly.

Incident and Complaints Procedure – Flow Chart



Incident and Complaints Record Form

COMPLAINANT DETAILS			
Complainant's Name			
Address			
Contact Details	Ph:	Mob:	
Complaint Source	<input type="checkbox"/> Council <input type="checkbox"/> Customer <input type="checkbox"/> Public <input type="checkbox"/> Sub/Supplier <input type="checkbox"/> Staff <input type="checkbox"/> Other: _____		
Received By			
COMPLIANT DETAILS			
Date			
Time Complaint Received			
Time of Incident			
Location of Complaint			
Nature of Complaint			
ACTION TAKEN			
Initial Response Taken			
Response Completed By	Name:	Date:	Time:
Key Points of Investigation			
Investigation Completed By	Name:	Date:	
Proposed Corrective or Preventive Action			
Response Completed By	Name:	Date:	
Actions Approved By	Name:	Date:	
CLOSE OUT			
Details of Follow Up With Complainant			
Follow Up Completed By	Name:	Date:	

APPENDIX 10

Fill Monitoring Form



THREE KINGS
Fill Monitoring Form

Date:
Source:
Weighbridge Docket No:
Transport Company:

Time:
Vehicle Type:
Job No:
Size of Load:

CONTENTS	PROPORTIONS %	DESCRIPTION									
Brick, Concrete, Stone											
Soil/Clay											
Asphalt											
Steel											
Vegetation											
Paper, Plastic											
Wood											
Glass											
Oil/Tar											
Other (describe)											
Odour		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Sample taken</td> <td style="width: 33%;">YES</td> <td style="width: 34%;">NO</td> </tr> <tr> <td>pH</td> <td></td> <td></td> </tr> <tr> <td>Hydrocarbons</td> <td></td> <td></td> </tr> </table>	Sample taken	YES	NO	pH			Hydrocarbons		
Sample taken	YES	NO									
pH											
Hydrocarbons											
Colour											
Moisture											
ACTION TAKEN (i.e. sample sent for analytical testing)											

Inspector: _____

Signed: _____

APPENDIX 11

Fill Inspection Checklist

TYPE OF MATERIAL		
Accept		Reject
<ul style="list-style-type: none"> • CURED ASPHALT • BRICK • CERAMICS • CONCRETE – less than 1% by volume of structural or reinforcing steel or 5% by volume of wood • FIBRE CEMENT BUILDING – product is not to contain asbestos which is unacceptable • GLASS – not to be placed immediately adjacent to finished surface • ROAD SUBBASE • SOIL, ROCK, GRAVEL, SAND, CLAY – must meet chemical acceptance criteria and less than 5% by volume of organic content (plants, roots, grass, etc.) • TILES – only clay, concrete or ceramic 		<ul style="list-style-type: none"> • >5% Combustible materials (e.g.: paper, cardboard) • >5% Organic materials (e.g. plants, animal) • Any contaminated soils or waste materials • Asbestos • Plastic • Municipal Waste
SMELL		
<i>(notify Site Manager / Environmental Coordinator if you have an ailment which may impend your sense of smell so appropriate cover can be arranged)</i>		
Accept		Reject
<ul style="list-style-type: none"> • Earthy • Clay / natural 		<ul style="list-style-type: none"> • Septic • Acid • Rancid • Fragrant • Bitter • Oil/petrol • Tar • Other
COLOUR		
Accept		Reject
<ul style="list-style-type: none"> • Brown • Yellow/brown • Grey 	<ul style="list-style-type: none"> • Earth • Clay 	<ul style="list-style-type: none"> • Bright or distinct colour eg black, red, yellow, orange, blue, green, white
TEXTURE		
Accept		Reject
<ul style="list-style-type: none"> • Solid clumps • Compactable loads 		<ul style="list-style-type: none"> • Non compactable loads • Viscous materials
RECYCLABLE MATERIALS		
Accept		Reject
<ul style="list-style-type: none"> • Topsoils - if a mixed load • Rock • Concrete 		<ul style="list-style-type: none"> • Treated Timber • Polyurethane • Polystyrene • General Refuse

IF IN DOUBT – HOLD THE LOAD AND CONTACT:
Environmental Coordinator 027 504 3624 or
Site Manager 027 497 4143

APPENDIX 12

Fill Rejection Form

Carriers Name:

Carriers Address:

Contact Name:

Phone:

Date:

Dear

I would like to advise that the following truck, rego _____ has been rejected from Three Kings due to the load failing to meet our acceptance criteria. As a result this load must be removed from the site.

Attached to this letter is the field sheet completed by a Winstone Aggregates

We are currently investigating this matter and will be contacting you directly to discuss the further if required.

If there are any queries please do not hesitate to call.

Yours Sincerely,

Elyse LaFace
Environmental Coordinator
Cell: 027 504 3624

THREE KINGS REJECTED FILL FORM

Fill Source:		
Description of Observed Fill (i.e. clay, topsoil, concrete, etc.):		
Reason for Rejection:		
Total Volume Rejected:	(Truck Type)	
Vehicle's Registration No:		
Weighbridge Docket No:		
Photo Taken (Circle One):	YES	NO
Winstone Aggregates Representative:		
Signed:		

Note:

The Three Kings Fill Management Plan (FMP) details information on acceptance limits and grounds for rejection as stipulated in our resource consent conditions authorising the rehabilitation of the site. The procedure to be followed in the situation of the rejection of a load is set out in Section 4.5 of the FMP. The FMP and all other management plans can be viewed onsite by contacting us on 09 625 7854 and making an appointment or online at: <http://threekingsquarry.co.nz/>