IN THE MATTER OF **the Resource Management Act 1991 and**

Applications by Winstone Aggregates (a division of Fletcher Concrete and Infrastructure Ltd) for land use consents, discharge permits and water permits to enable the establishment operation, maintenance and eventual closure of a cleanfill on a rural site at 616 Paremata-Haywards Road (State Highway 58), Pauatahanui. Applications for the necessary consents were lodged with:

- **Wellington Regional Council (reference number WGN130115 [32017] to [32020];**
- **Hutt City Council (reference number RM120381);**
- **Porirua City Council (reference number RC 6425 – LU0186/12.**

DECISION OF INDEPENDENT COMMISIONERS

Summary of Proposal:

Winstone Aggregates proposes to develop a cleanfill in four stages over a 13.87 hectare area of a rural property by progressively filling the beds and gullies of three Pauatahanui Stream tributaries. The proposed 13.87 hectare area is to accommodate up to 1,750,000m³ of cleanfill. The rate of filling and the duration of the activity will depend on the availability of cleanfill in the region. The application stated that it could take up to 57 years to completely fill the cleanfill. However, depending on the filling rate, the cleanfill could be complete in much less time. Durations of 35 years were sought for the discharge and water permits. The proposed cleanfill is to replace the Dry Creek cleanfill which is expected to reach full capacity by 2015.

The proposed cleanfill would raise the ground level compared with the current topography and the final stage would restore the filled area for future farming use. Filling of the streams necessitates the reclamation and piping of up to 1658 metres of tributary stream bed. The final stage of the cleanfill incorporates an artificial water course to replace the filled main tributary stream. Fencing and riparian planting along lengths of other nearby Pauatahanui Stream tributaries are proposed as compensation for the loss (by reclamation) of sections of natural streams. Landscape planting is also proposed for all finished batter faces and at identified locations within the cleanfill to provide vegetative screening of the cleanfill site.

A new vehicle crossing onto State Highway 58 (*SH58*) is proposed for all cleanfill vehicle movements and modifications to the layout of SH58 are also recommended (and conditionally approved by the New Zealand Transport Agency (*NZTA*) before commencement of cleanfilling. The applicant also proposed a modified, alternative, vehicle access location during the hearing.

SUMMARY OF DECISION: Consent is refused for all land use consents, water permits and discharge permits applied for. The reasons for refusing consent are detailed in the following decision and summarised in Part 26 of the decision.

The Hearing:

The hearing was held in the Council Chamber, Porirua City Council, Hagley Street, Porirua commencing at 9.00 am on Tuesday 1st October, Wednesday 2nd October, Thursday 3rd October and Friday 4th October 2013 and again on Monday 16th December 2013.

In accordance with the Hearing Panel's directions, the section 42A reports prepared by officers employed by the three consent authorities and the expert evidence presented on behalf of the applicant, and on behalf of 8 submitters[1] was pre-circulated prior to the hearing.

At the Panel's request, a series of expert witness conferencing meetings were held on the topics of traffic effects, landscape and visual impacts, noise, stream ecology and ecological offsets, stormwater management and erosion and sediment control and the Resource Management Act 1991 (*RMA*) planning framework. We record our thanks to the witnesses who initiated and participated in those conferencing sessions. We also record our thanks to the applicant, the Councils and to the submitters who made their witnesses available for these conferencing sessions. We found the joint statements of agreed and disputed matters to be helpful in clarifying the issues at the hearing.

The adjournment between Friday 4th October 2013 and Monday 16th December 2013 was to allow the applicant and Council reporting officers to provide additional information in response to questions from the Hearing Panel and to enable the completion of an independent traffic safety audit report. The hearing was adjourned on the afternoon of Monday 16th December 2013 to allow the applicant to prepare and circulate closing legal submissions which were received on 18th December 2013. After considering these closing submissions, the Panel closed the hearing on 20th December 2013.

A list of persons who presented submissions and evidence to the hearing is included in Attachment 1 to this decision.

Prior to the hearing (on Monday 30th September 2013), the Panel visited and viewed the vicinity of the proposed cleanfill site, State Highway 58, the wider Pauatahanui area, Mt Cecil Road and the existing Dry Creek cleanfill.

Preliminary Procedural Matters:

Dr Stewart, on behalf of 8 submitters, raised three procedural issues at the outset of the hearing: (1) a statement in GWRC's guidance to potential submitters that submissions by email could not be accepted; (2) alleged deficiencies in the arrangements and information provided prior to the pre-hearing meetings; and (3) the inclusion in the section 99(5) report on the pre-hearing meetings of information that was shared on a 'without prejudice' basis. We record that we addressed these issues at the outset of the hearing. All of the issues raised relate to processes, separate to this hearing, that were conducted by Council officers under authority delegated to them. We have no jurisdiction to inquire into or remedy the issues raised and that was the finding we made at the hearing. We record that matter here for completeness.

Two submissions, from the Mayor of Upper Hutt City and Michael and Kathleen Sudfeldt, were received after the closing date for submissions. Winstone

[1] Submitters Paul McCready, JoAnn McCready, Margaret Morgan, Kevin Nash, Karen Nash, Ngaire Anne Schofield, John Schofield, Kevin Wright

confirmed at the hearing that the company did not oppose an extension of the submissions period to allow the late submissions to be received as valid. We made a decision at the hearing, and record it here for completeness, to extend the submission period (pursuant to section 37 of the RMA) to allow the submissions of the Mayor of Upper Hutt City and Michael and Kathleen Sudfeldt to be received within the submissions period.

Contents

1 Introduction

1.1 This is the decision of an independent Hearing Panel appointed to hear and determine the applications by Winstone Aggregates (***Winstone***) for consents to enable the establishment and operation of a proposed cleanfill described below. The proposed cleanfill is located mostly within Porirua City. A small area of the proposed site access is located within Hutt City. Land use consents are required from the Porirua City, Hutt City and Wellington Regional Councils. Discharge permits and a water permit are also required from Wellington Regional Council. Accordingly, the Hearing Panel was appointed by Wellington Regional Council (***GWRC***[2]***),*** Hutt City Council (***HCC***) and Porirua City Council (***PCC***).

1.2 The Hearing Panel comprised independent commissioners Christine Foster (Chair), Elizabeth Burge, Kate McArthur and Andy Carr. Whilst the Hearing Panel was jointly appointed, the commissioners' individual delegations were not identical. All Panel members were delegated full authority to hear and determine all GWRC consents applied for. However, PCC and HCC did not delegate authority to Commissioner Burge to determine the land use consents sought from those two authorities. This limitation in the delegations was, in the Panel's view, unnecessary and unsatisfactory. However, the Panel records that it respected the territorial authorities' wishes in this regard and that Commissioner Burge took no part in the deliberations or determination of the PCC and HCC applications. In accordance with the delegations granted, and for the avoidance of doubt, the parts of this decision that pertain to the consents sought from GWRC are the joint and unanimous decision of all Panel members. The parts of this decision that pertain *only* to the consents sought from PCC and HCC are the joint and unanimous decision of Commissioners McArthur, Carr and Foster.

2 Winstone's Proposal

2.1 Winstone currently operates a cleanfill at Dry Creek, Lower Hutt. The Dry Creek site has operated since the early 1990s and meets a market demand for the disposal of cleanfill from within the Hutt Valley and further afield throughout the Wellington region. The Dry Creek cleanfill is expected to reach its full capacity by about 2015.

2.2 Winstone has identified a site, at 616 Paremata-Haywards Road (SH 58), and has entered into an agreement with the landowners for the development of a cleanfill on that site (subject to securing resource consent). The 2011 agreement with the landowners provides for a term of 23 years for the development of the proposed cleanfill. However, Winstone presented a letter from one of the landowners dated 2nd October 2013 which states that the term of the agreement should be extended to match the term of any resource consent(s) granted and that Winstone would have the right to negotiate an extension of term if consent was renewed in future. The agreement also includes a requirement for covering the finished surface of the cleanfill with a minimum of 50mm of clay and 75mm of topsoil. Winstone has also entered into an agreement with the owner of a large parcel of land on the opposite (north-eastern) side of SH58 (Lot 3 DP367887) for use of that land for mitigation and environmental offset activities including riparian fencing and planting.

2.3 The proposed cleanfill is to be developed in four stages, all accessed via a single point of entry and exit on SH58. Following some discussion at the hearing about the merits of the SH58 vehicle crossing location proposed in the application, Winstone

[2] 'GWRC' means 'Greater Wellington Regional Council' – the trading name of the Wellington Regional Council

proposed an alternative location 70m to the north of the original. Winstone has been in discussion with the New Zealand Transport Agency (***NZTA***) about the proposed new vehicle crossing and the proposed use of the site. NZTA has given its conditional written approval for the proposal and for location of the vehicle crossing. NZTA's conditions limit the number of truck movements per hour to and from the site during peak traffic hours on SH58 (7am to 8am and 4pm to 6pm weekdays). They also require pavement strengthening if necessary and construction of the access to the satisfaction of PCC's roading engineer. Independent of Winstone's proposal, NZTA proposes to remove the existing passing lane along the section of SH58 that passes the proposed site vehicle crossing point.

2.4 The proposed four stages of development of the cleanfill comprise:

Stage	**Finished Level**	**Estimated Duration**	**Cleanfill Volume**	**Area Occupied**	**Length of Stream to be Piped**
Stage 1 Development of site access, first section of internal access road, installation of erosion and sediment control facilities, kiosk, on-site parking and staff facilities (relocated from Dry Creek).	RL 158	6 months	Nil	1.96 ha	25m perennial stream + 381m intermittent or headwaters stream
Stage 2 Construction of shear key, toe buttress and piping of lower sections of stream and installation of sub-surface drainage, overland flow path and commencement of mitigation planting to screen views to the cleanfill and commencement of cleanfill deposition.	RL 158	7 years	220,000m³	Stages 1 + 2 4.39 ha	384m perennial stream + 184m intermittent or headwaters stream
Stage 3 Cleanfill deposition will continue, the internal access road will be extended as the cleanfill face is raised, and the overland flow path will be continued around the cleanfill footprint.	RL 158	20 years	530,000m³	Stages 1, 2 & 3 = 6.89 ha	66m perennial stream + 141m intermittent or headwaters stream

Stage	Finished Level	Estimated Duration	Cleanfill Volume	Area Occupied	Length of Stream to be Piped
Stage 4 Cleanfilling deposition will continue, the internal access road will be extended, the overland flow path will be fully extended and, at the completion of filling, the surface will be contoured and covered with clay and topsoil and rehabilitated for pastoral stock grazing; the overland flow path will be rehabilitated as a replacement stream including riparian fencing and planting.	RL 200	30 years	1,000,000m^3	Stages 1, 2, 3 and 4 = 13.87 ha	477m perennial stream
Total Cleanfill	RL 200	57 years (or less, depending on rates of fill)	1,750,000m^3	13.87 ha	1658m (952m perennial stream + 706m intermittent or headwaters)[3]

2.5 Notable features of the proposed cleanfill are:

Proposed Vehicle Access:

2.6 The proposed vehicle access point is to be a stop-controlled access intersection with SH58 located approximately 260m north of the intersection of Mt Cecil Road and SH58. The proposed design assumes that the existing SH58 passing lane is removed. Northbound entry to the site (i.e. from the Hutt Valley) is to be via a dedicated left-turn deceleration lane. No merge lane is proposed for north-bound exit. Southbound entry to the site (i.e. from Porirua) is to be via a dedicated right-turn bay with sufficient length to allow two vehicles to wait clear of the southbound SH58 through traffic.

2.7 It is proposed to shift the existing road centreline closer to the site so as to develop a minimum 4.5-metre wide merge lane for southbound exit movements. This merge lane would broadly occupy the road space currently used for the passing lane. This means that through traffic will be required to overtake merging trucks on their left-hand side. In accordance with NZTA's requirements, Winstone proposes to re-

[3] These are the stream lengths given in Appendix 'B' of the Tonkin & Taylor ecological offset report. We note that the application described different stream lengths but we have relied on the Tonkin & Taylor figures as accurately depicting the proposal.

surface the re-configured SH58 pavement including new lane marking. No median barrier separation is proposed to be incorporated into the entry/exit lane arrangement. The vehicle access will include a security gate. The site will be inaccessible to vehicles outside the proposed hours of operation. The security gate is proposed to be located at a sufficient distance along the internal access road to ensure any queued vehicles do not block the SH58 entry lanes.

2.8 We note that Winstone has obtained NZTA's written approval pursuant to section 176 (1) (b) for the proposed works within the NZTA designated road at the site entrance.

2.9 A sealed internal access road will extend from the SH58 entrance to the kiosk and parking area. From there, the access road will extend (formed but not necessarily sealed) to the active cleanfill face.

On-Site Machinery:

2.10 During Stage 1 construction, on-site machinery is expected to include:

(a) A 20-tonne excavator;

(b) A motor scraper;

(c) A bulldozer/compactor;

(d) A water cart.

2.11 No fill material or cleanfill is proposed to be brought to the site. During all subsequent stages, Winstone expects to use the above-listed machinery on-site and there will be truck movements associated with bringing in construction materials and cleanfill, and departing the site empty.

Proposed Changes to Tributary Streams:

2.12 The Pauatahanui Stream flows through the land east of the site, and east of SH58, to the Pauatahanui Estuary and Inlet north of the site. There are three tributary streams that flow through the site and enter the Pauatahanui Stream east of SH58. Winstone does not propose to modify the existing culverts under SH58 other than minor modifications to improve fish passage.

2.13 The two smaller streams within the site will be affected by the Stage 1 earthworks. Three stormwater retention ponds (numbered 1, 2 and 3) are proposed to be installed upstream and downstream of these two streams to receive and treat surface water runoff from earthworks activities within these stream gullies. Stormwater retention ponds are not expected to be required in the long term and are anticipated to become artificial wetlands.

2.14 The main tributary stream flows through the area proposed to be filled with cleanfill. It is to be progressively piped, broadly following the natural channel, as cleanfilling proceeds. The design capacity of this pipe is proposed to be sufficient to pass a 10-year + 16% annual return interval (***ARI)*** discharge of water without climate change. Sub-surface drainage will also be progressively installed connecting sub-surface flows to the drainage pipe. Chimney drains are proposed to take surface water from the active cleanfill surface to the sub-surface drainage pipe. Chimney drains are vertical drains that convey surface water through the cleanfill. They will be progressively increased in height to match the height of the cleanfill surface.

Winstone's witnesses described these chimney drains as having a grate over the inlet with a cover of clean rubble or broken concrete and large gravels. We viewed such a chimney drain at the Dry Creek site.

2.15 All flow along the stream will be diverted around the cleanfill working area using bunds to divert water to a constructed channel. This diversion channel will be progressively shifted as the cleanfill surface is raised. Once the cleanfill is complete, Winstone intends to divert all surface water from the cleanfill surface to the diversion channel and proposes to rehabilitate the channel to have a more natural form and riparian margins and restore some hydrological and ecological function. The main pipe beneath the cleanfill is not intended to be a conduit for all long term flows post-completion but will provide an alternative pathway for storm event flows from the finished surface of the cleanfill and overflow from the stream.

Stormwater and Sediment Management:

2.16 As already noted, stormwater retention ponds are proposed for the Stages 1 and 2 access and site facilities development activities. A fourth stormwater retention pond is proposed at the downstream end of the main tributary – between the toe of the cleanfill batter slope and SH58. It will provide stormwater detention and treatment during construction and cleanfilling. Other additional temporary sediment retention ponds may also be installed on the cleanfill surface as filling proceeds. All sediment retention ponds are to be designed and constructed in accordance with GWRC's usual guidelines[4] including decanting earth bunds and floating decants as necessary. Sediment retention ponds are to be sized based on a minimum 3% volume for catchment size. That is, a minimum of $3m^3$ of pond volume will be provided for every $100m^2$ of contributing catchment. The pond design is intended to cater for a 5% annual exceedence probability rainfall event. According to Winstone's and GWRC's consultant sediment and stormwater management specialists (Mr Graeme Ridley for Winstone and Mr Gregor McLean for GWRC), this is an appropriate design standard for the Wellington region. Winstone proposes to provide detailed design drawings through a future cleanfill management plan and annual management plan process. Winstone also proposes to progressively rehabilitate all disturbed areas of soil to minimise both sediment runoff and dust generation. Winstone proposes that the maximum area exposed at any time will not exceed 5 hectares.

Dust Management:

2.17 Winstone proposes to use surface water collected on site for dust suppression using a water cart. Sediment retention pond number 3 (located near the proposed operational hub and staff facilities) is to be designed with sufficient capacity for this purpose. Winstone proposes to detail the specific dust management measures in a future cleanfill management plan.

Proposed Cleanfill Foundations

2.18 A geotechnical report by Tonkin & Taylor, commissioned by Winstone, concluded that the site shows little evidence of slope instability and is suitable for the proposed cleanfill activity subject to appropriate foundation treatment and seismic design. Tonkin & Taylor recommended the construction of a shear key to provide support for the cleanfill structure and to resist lateral forces including fill and groundwater pressure and to provide seismic support. In accordance with Tonkin & Taylor's recommendation, Winstone proposes to excavate to bedrock in the area of the toe of

[4] GWRC's *Erosion and Sediment Control Guidelines 2002* Chapter 3

the proposed cleanfill across a 30-metre width and replace the material there with engineered weathered rock fill with sub-surface drainage up to 5m to 10m above the bed of the main tributary stream in that area. The structure would then continue as a toe buttress forming the batter face of the cleanfill. This buttress is to gradually decrease in width to a minimum of 5 metres width at the top of the filled face at RL158 metres. Approximately 5,000m³ of material is expected to be required for this construction. The toe batter is planned to be a 2:1 slope with outer benches stabilised with topsoil and grass. The intention is that the finished outer batter slopes will be able to be grazed by stock on completion and a stock access track is to be provided across the finished batter face.

Material to be Accepted as Cleanfill:

2.19 Winstone proposes that the only material that will be accepted at the site will be 'cleanfill' as defined in Table 4.1 of the Ministry for the Environment 2002 *'Guide to the Management of Cleanfills'* as well as the following 'conditionally acceptable material' as defined in Chapter 4.2.2 of the Ministry Guidelines:

(a) Reinforced concrete (provided reinforcing steel cut off);

(b) Small amounts of vegetative material including untreated timber and topsoil (but not exceeding approximately 5% of any load);

(c) Concrete slurry (which Winstone proposes to deposit into a dedicated slurry tip where it will dry before being incorporated into the cleanfill – as occurs at Dry Creek cleanfill).

2.20 No material that is leachable, degradable, putrescible, combustible, unsafe or hazardous waste as described in Chapter 4.1 or in Table 4.2 of the Ministry Guideline is to be accepted at the proposed cleanfill. Winstone proposes to have no less than two staff on site at all times who will visually inspect all incoming loads and also inspect loads as they are off-loaded at the cleanfill face. Staff are instructed to reject any load that:

(a) smells septic or acidic or rancid or 'fragrant' or smells of hydrocarbons;

(b) contains bright or distinct colours;

(c) has obvious staining;

(d) contains obviously putrescible or viscous material;

(e) includes material that is not able to be compacted;

(f) contains asbestos.

2.21 Details of all loads and the trucks carrying them are recorded at the site office. Winstone accepts pre-approved loads from sites that can demonstrate the material is bona fide cleanfill. Winstone randomly tests every 150th load (excluding pre-approved loads). Any material identified as unsuitable at the tip face is required to be removed by the carrier, although it may be stored on site temporarily until the carrier is able to remove it to an appropriate waste disposal facility. Cleanfill material is sorted and stored at the tip face before being spread and compacted by Winstone's machinery.

Hours of Operation:

2.22 Winstone proposes that the cleanfill will operate between 7am and 5pm Monday to Friday and between 7am and 12 noon on Saturdays (including for all operation and warming-up of machinery). Winstone seeks consent to allow machine maintenance and dust suppression activities as well as maintenance of sediment control structures and on-site security activities outside these times. In addition, Winstone seeks consent to operate outside these times at any time in order to receive cleanfill generated by emergency works and civil emergencies. Winstone also seeks consent to operate on up to four Sundays in any calendar year (between the hours of 7am and 5 pm).

Ancillary Activities:

2.23 The nature of the vehicles and machinery to be operated on site will necessitate the storage on-site of minor quantities of some hazardous substances including diesel fuel and motor oils. No distribution, product mixing or blending activities need to be provided for and no explosives are proposed to be used or stored on the site.

On-Site Management:

2.24 Winstone proposes to prepare a future cleanfill management plan to address the operational management of:

(a) Site construction;

(b) Stormwater management and sediment control;

(c) Cleanfill acceptance criteria;

(d) Dust management;

(e) Noise management;

(f) Monitoring;

(g) General site maintenance and house-keeping.

Environmental Mitigation and Compensation:

2.25 Acknowledging the impact the proposed cleanfill construction would have on the tributary streams and on the visual character of the site, Winstone proposes the following mitigation and stream ecology offset compensation:

(a) Retiring and fencing off the riparian margins of parts of other tributaries and the main channel of the Pauatahanui Stream flowing through land on the eastern side of SH58 near the site. The fenced-off 15-metre-wide riparian margins are to be re-planted in native species and protected by covenants on the land title. The detail of this proposed off-setting is discussed in more detail later in this decision;

(b) Removal of two existing barriers to fish passage within the nearby Pauatahanui Stream (and consent is sought for these in-stream activities);

(c) Planting of areas within the cleanfill footprint to compensate for areas of native bush that will be removed and to provide a visual screen of some parts of the site from some viewing positions.

3 Consents Sought

From Porirua City Council:

3.1 The site is within the *Rural Zone* of the Porirua City District Plan. A cleanfill is not a listed permitted activity in the *Rural Zone.* Rule D4.1.4 is a 'default' rule that provides for all activities that are not otherwise provided for as discretionary activities.

3.2 Dr Ian Stewart, a Resource Management Consultant with qualifications in zoology and botany who presented submissions and evidence on behalf of several submitters from the Mt Cecil Road locality, proposed an alternative analysis of the district plan rules. It was his opinion that the proposal must be considered as a non-complying activity because:

(a) Cleanfills are explicitly included in the district plan's definition of 'earthworks';

(b) The material Winstone proposes to accept at the site includes material that is outside the strict definition of 'cleanfill' included in the Ministry's Guideline (i.e. it includes conditionally acceptable material);

(c) In Dr Stewart's opinion, these non-cleanfill materials are 'waste';

(d) Dr Stewart observes that there is a separate district plan definition of 'offensive trade' which includes 'solid waste management';

(e) In Dr Stewart's opinion this takes the proposed activity from being a 'cleanfill' to dealing in waste and therefore being a 'solid waste' disposal activity which is, by definition, an 'offensive trade'; and

(f) Offensive trades are listed in Rule D4.1.5 as non-complying activities in the *Rural Zone.*

3.3 Mr Richard Watkins, PCC's Principal Resource Consent Planner and author of PCC's section 42A report, disagreed with Dr Stewart. Mr Kerry Geange, Winstone's consulting Resource Management Planner, also disagreed with Dr Stewart. It was Mr Watkins' and Mr Geange's view that the inclusion of small quantities of conditionally acceptable materials does not change the basic nature of the activity from a 'cleanfill' to a 'waste disposal' or 'offensive trade' activity. Mr Bal Matheson, Winstone's Legal Counsel, submitted that even with small quantities of conditionally-acceptable material included, material will still be 'cleanfill' as anticipated by the Ministry Guideline. The point made in the Guideline is exactly that this material *is* acceptable (subject to conditions). It was Mr Matheson's view that the district plan distinguishes between waste management facilities (which it lists as non-complying activities) and cleanfilling activities (which it does not). His view was that the district plan intends that the two activities be treated differently because of the difference in nature of the material disposed of. It was Winstone's witnesses' evidence that the material to be deposited at the proposed cleanfill will overall be inert and not contaminated. Therefore, it will not be subject to the requirements of the Health Act as would a general waste disposal facility.

3.4 Our view is that, even with small quantities of conditionally-acceptable material, the material accepted will fall within the ambit of 'cleanfill' as provided for by the Ministry Guidelines and by the District Plan. We are satisfied that the proposed activity falls for consideration as a discretionary activity under Rule D4.1.4.

3.5 We also note that there was some confusion at the hearing as to whether the removal of indigenous vegetation proposed by Winstone within part of the site is a permitted activity or requires consent. Mr Watkins clarified in oral evidence that Rule D4.2.1 of the District Plan prescribes the following standard for permitted activity removal of 'native vegetation' within the *Rural Zone*:

'There shall be no destruction of any native vegetation where:

(a) The area of native vegetation exceeds 1 hectare with an average height of 3 metres or more; or

(b) The area of native vegetation is part of an area in one or more sites which exceeds 1 hectare with an average height of 3 metres or more.'

3.6 The evidence is that the 0.7 hectares of indigenous vegetation that Winstone proposes to clear in order to prepare part of the property for the deposition of cleanfill is part of a larger area of vegetation having average height of greater than 3 metres. The larger area is greater than 1 hectare. Mr Watkins' conclusion, and we agree, is that the proposed vegetation removal does not comply with the District Plan standard and would require consent as a discretionary activity under the default Rule D4.1.4. However, we note that the overall activity (including the proposed vegetation removal) is a discretionary activity anyway.

From Hutt City Council:

3.7 The part of the site that is within HCC's jurisdiction is within the *General Recreation Activity Area* of the City of Lower Hutt District Plan. The proposed earthworks, which exceed permitted activity standards, are a restricted discretionary activity under Rule 14I 2.2 (a). The proposed internal access road requires discretionary activity consent under Rule 7A 2.3 (b). Mrs Sarah Clarke, HCC's Senior Resource Consents Planner and author of HCC's section 42A report, recommended that the activities within Hutt City should be considered overall as a discretionary activity on a bundled basis.

3.8 We also note that separate written approval would be required from HCC, under section 176 of the RMA, for occupation and use of part of Felix Road for access to the cleanfill site.

From Wellington Regional Council:

3.9 Winstone sought the following permits to enable construction and operation of the proposed cleanfill:

Water Permit [32017]: To permanently divert the full flow of up to 952 metres of permanently-flowing tributaries of the Pauatahanui Stream and up to 706 metres of intermittently-flowing tributaries of the Pauatahanui Stream and to temporarily divert the flow of the Pauatahanui Stream and tributaries of that Stream during construction and installation of structures including pipes beneath the proposed cleanfill (a discretionary activity under Rule 16 of the *Regional Freshwater Plan – the **RFP***);

Discharge Permit [32018]: To discharge treated stormwater contaminated with sediment and chemical flocculant to water and to land where it will enter unnamed tributaries of the Pauatahanui Stream (a discretionary activity under Rule 2 of the *Regional Plan for Discharges to Land*);

Land Use Consent [32019]: To undertake activities within the beds of tributaries of the Pauatahanui Stream including:

(a) Piping and reclaiming sections of the tributary streams (a non-complying activity under Rule 50 of the RFP);

(b) Remediating a perched culvert to provide for fish passage (discretionary activity under Rule 49 of the RFP);

(c) Installing an outlet structure and associated erosion protection structures where the sub-surface drainage pipe discharges from the base of the proposed cleanfill (a discretionary activity under Rule 49 of the RFP);

(d) Removing a concrete ford from the bed of the Pauatahanui Stream (a discretionary activity under Rule 49 of the RFP);

(e) Associated disturbance of stream bed material, discharge of bed sediments, and deposition of material onto the stream bed during construction activities (all discretionary activities under the RFP); and

(f) Maintenance of all structures within stream beds (a controlled activity under Rule 43 of the RFP once the structures are in place and provided certain standards are met and, otherwise a discretionary activity under Rule 49 of the RFP);

Discharge Permit [32020]: To discharge contaminants, primarily dust, to air in the course of constructing and operating the proposed cleanfill (a discretionary activity under Rule 23 of the *Regional Air Quality Management Plan*):

Land use consent [32021]: To disturb soil on erosion-prone land and to undertake roading and tracking activities associated with the construction of the proposed cleanfill and to discharge cleanfill material and contaminants to land (a restricted discretionary activity under Rule 1 of the *Regional Soil Plan*.

3.10 There was dispute at the hearing between Dr Stewart (on behalf of submitters) and Winstone and the Council reporting officers as to whether the GWRC and PCC applications should be considered on a bundled basis overall as a non-complying activity because of the non-complying activity status of one aspect of the proposal. Dr Stewart's view was that the non-complying activity (piping and reclaiming the stream bed) is integral to the overall proposal and not severable from all other aspects of it. It was also his view, discussed above, that the PCC application should be treated as a non-complying activity. He considered that there is sufficient overlap between the inherent nature of the activities captured by the GWRC and PCC consents to warrant them being considered, on a bundled basis and overall, as non-complying activities.

3.11 Mr Fern's and Mr Geange's approach was to consider all of the GWRC consents in terms of their individual consent status (in other words not bundled).

3.12 Our view is that all of the GWRC consents sought are intrinsically linked. For example, the air discharge cannot occur without the soil disturbance and the disturbance of erosion-prone gullies cannot be fully undertaken without the piping and reclamation of the tributary streams. Equally, the discharge of stormwater via the proposed pipe(s) cannot occur unless the stream is piped. Our view is that there is clear inter-dependence between the activities requiring GWRC consent and that they should be considered, overall, as a non-complying activity.

3.13 Mr Matheson and all planners who gave evidence[5] were agreed that the three suites of PCC, HCC and GWRC consents should not be bundled across plan jurisdictions as a non-complying activity. Mr Matheson highlighted the point, in his closing legal submissions, that the PCC District Plan does not address the one aspect of the proposal that requires non-complying activity consent under the GWRC RFP. That is, the stream piping and reclamation. No consents are required from PCC for this specific activity. Mr Matheson's position is, therefore, that there is not in fact the overlap between plan rules that Dr Stewart contends.

3.14 Mr Matheson stated that, whilst cross-plan bundling is a practice adopted in some circumstances, there is no absolute requirement to bundle consents across multiple plans. However, Mr Matheson took the view that if we were to consider the proposal overall as a non-complying activity, he was confident that the broad judgment approach of the RMA would mean the proposal comfortably passes at least one of the section 104D threshold tests. In our determination of these applications, we have not elevated the PCC application to non-complying activity status because we do not consider it would be consistent with the District Plan's framework of objectives, policies and rules to do so. Our approach has been to consider the PCC application as a discretionary activity.

3.15 There was no dispute that the HCC consent should be considered, on a stand-alone basis, as a discretionary activity.

3.16 To summarise, we have considered the application to GWRC as a non-complying activity and the applications to PCC and HCC as discretionary activities.

3.17 Winstone sought the maximum 35-year durations permissible under the RMA for the water and discharge permits. Winstone proposes no limit on the duration of the HCC and PCC land use consents.

Other Consents

3.18 The planning experts for Winstone and GWRC (Mr Geange and Mr Fern) agreed that there may be additional consents required for several (four) culverts proposed to be installed within a section of tributary stream put forward for ecological offset compensation. However, they agreed that this controlled activity consent should be applied for separately once the outcome of the current applications is known.

3.19 Mr Watkins stated in his report that a portion of the site, located some distance from the proposed cleanfill, is identified in GWRC's *Selected Land Use Register* as being potentially contaminated. This part of the site had been historically used as a landfill. Mr Watkins' view, undisputed by any party, was that no resource consent is required under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011

[5] Mr Richard Watkins for PCC, Mrs Sarah Clarke for HCC, Mr Chris Fern for GWRC and Mr Kerry Geange for Winstone

because the proposed cleanfill site is sufficiently distant from the part of the site historically used as a landfill.

4 Relevant Provisions of the RMA

(a) Decision-Making Authority

4.1 This Hearing Panel's power to grant or refuse the applications is set out in sections 104B and 104D of the RMA:

'Section 104B Determination of applications for discretionary or non-complying activities

After considering an application for a resource consent for a discretionary activity or non-complying activity, a consent authority –

(a) may grant or refuse the application; and

(b) if it grants the application, may impose conditions under section 108'

'Section 104D Particular restrictions for non-complying activities

(1) Despite any decision made for the purpose of section 95A (2) (a) in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either -

(a) the adverse effects of the activity on the environment (other than any effect to which section 104 (3) (a) (ii) applies) will be minor; or

(b) the application is for an activity that will not be contrary to the objectives and policies of –

(i) the relevant plan [being, in this case, the relevant operative regional plans]'.

4.2 We note that, for the GWRC application, if we conclude that the proposed activities would have effects that are more than minor and are contrary to the objectives and policies of the relevant regional plans, we are not able to consider that application on its merits. However, if we find that the proposal has either less than minor effects or is not contrary to the relevant objectives and policies, then we are free to consider the application on its merits.

(b) Section 104 Considerations

4.3 Section 104 of the RMA sets out the matters we must have regard to when considering the applications and the submissions received. The relevant matters for these applications that were identified in evidence and legal submissions are:

(a) The actual and potential effects on the environment of allowing the proposed cleanfill construction and operational activities; and

(b) The relevant provisions of the following national and regional policy documents:

- The *National Policy Statement for Freshwater Management 2011*;
- The *New Zealand Coastal Policy Statement 2010*;
- The *Resource Management (National Standards for Air Quality) Regulations 2004*;
- The 2010 Government policy document *Safer Journeys – Road Safety Strategy*;
- The operative Wellington *Regional Policy Statement 2013* (the *RPS*);
- The operative *Regional Freshwater Plan for the Wellington Region 1999* (the *RFP*);
- The operative *Regional Air Quality Management Plan for the Wellington Region 2000* (the *Air Plan*);
- The operative *Regional Plan for Discharges to Land in the Wellington Region 1999* (the *Land Plan*);
- The operative *Regional Soil Plan for the Wellington Region 2000* (the *Soil Plan*);
- The operative Regional Coastal Plan for the Wellington Region 2000 (the *Coastal Plan* which has relevance in the context that any material discharged from the proposed cleanfill could be transported downstream to the Pauatahanui Inlet);
- The operative *Porirua City District Plan*;
- The operative *City of Lower Hutt District Plan.*

4.4 The relevant provisions of these statutory documents were summarised in the applications and were, helpfully, included in full within or as attachments to the section 42A reports of Mr Watkins, Mr Fern and Mrs Clarke. We include them in this decision by reference to those reports and we discuss the implications of those provisions in Part 22 of this decision.

4.5 In addition, we consider that the provisions of the GWRC *Parks Network Plan* 2011 (a management plan prepared under the Reserves Act 1977) are also potentially relevant to the extent that the site of the proposed cleanfill adjoins the Belmont Regional Park. Concerns were raised about potential adverse effects on the values of the Belmont Regional Park in the submission of GWRC's Parks Planner. In the event, Winstone proposed conditions of consent that would address the concerns raised in a manner consistent with the objectives of the *Parks Network Plan*.

4.6 Some submitters suggested in their evidence that the *Pauatahanui Judgeford Structure Plan* is also relevant. However, Mr Geange (Winstone's consultant Resource Management Planner) pointed out in his evidence that, although this Structure Plan has been developed in consultation with the community and adopted by the Council, it is not a statutory plan prepared following the rigorous process of Schedule 1 of the RMA. It was Mr Watkins' and Mr Matheson's view that we should accord this Structure Plan little weight. We have reviewed the Structure Plan and do not consider that its contents are reasonably necessary to determine the

applications. The Structure Plan is intended to assist future land use and transportation planning decisions within the Pauatahanui Village and Judgeford rural areas and to inform *subsequent* District Plan reviews. It does discuss and foreshadow increased intensity of rural residential subdivision in the Pauatahanui rural area. However, none of the land use planning and district plan changes necessary to effect the Structure Plan's recommendations has materialised in the statutory district plan or in any district plan changes. It would be inappropriate for us to give the Structure Plan's contents any weight in determining our decision.

(c) Section 104 (3) Written Approvals

4.7 Winstone had secured the written approvals of the site landowners and of NZTA. In accordance with the express proscription of section 104 (3), we have not had regard to any effects on the landowners or on NZTA. However, we note that NZTA's written approval represents only NZTA in its capacity as the authority responsible for the operation and maintenance of SH58. There are also effects on *users* of SH58 that we must consider. In this respect, we note that submissions were received from individual SH58 users and from the Pauatahanui Residents Association Inc., Automobile Association, the Mayor of the City of Upper Hutt and from the New Zealand Police raising concerns about potentially adverse traffic safety effects. We discuss these later in this decision.

(d) Particular Matters Applying to Discharges

4.8 Section 105 of the RMA applies to applications for discharge permits and requires us to have regard to the following matters in addition to considering the matters set out in section 104:

> *(a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
>
> *(b) The applicant's reasons for the proposed choice; and*
>
> *(c) Any possible alternative methods of discharge, including discharge into any other receiving environment.*

4.9 Section 107 prevents the grant of a discharge permit if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:

> (c) *the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*
>
> (d) *any conspicuous change in the colour or visual clarity:*
>
> (e) *any emission of objectionable odour:*
>
> (f) *the rendering of fresh water unsuitable for consumption by farm animals:*
>
> (g) *any significant adverse effects on aquatic life.*

4.10 We discuss these matters further after discussing the actual and potential effects of the proposal on the environment later in this decision.

(e) Part 2

4.11 Section 104 is subject to Part 2 of the RMA. We consider that means that, whilst we must have regard to the matters listed in section 104, we must also give appropriate weight to the relevant provisions of sections 5, 6, 7 and 8. Of particular relevance to these applications are:

(a) The definition of 'sustainable management' in section 5 which includes:

- enabling people and communities to provide for their social, economic and cultural wellbeing and for their health and safety – in this case the establishment of a large cleanfill which would support the regional community's construction industries and economic wellbeing is one consideration. Another consideration is the impact of the proposed cleanfill on the health and safety of people living near the site (and, particularly, road safety and the potential for noise and dust);

- sustaining the potential of natural and physical resources to meet reasonably foreseeable future needs (including the natural and physical resources of the rural environment and the potential of the region's cleanfill resources);

- safeguarding the life-supporting capacity of water, soil and ecosystems (including the Pauatahanui Stream and its tributaries and the downstream estuary and Pauatahanui Inlet); and

- avoiding, remedying or mitigating adverse effects on the environment.

4.12 The following section 6 matters are also particularly relevant:

(b) The preservation of the natural character of the coastal environment and of rivers (including streams) and their margins, and the protection of them from inappropriate use and development (section 6 (a)) which is directly relevant for the proposed stream reclamation and stream works. This is also directly relevant because of the potential adverse effects of sediment generated by the cleanfill contributing to sediment accumulation in Pauatahanui Inlet and estuary;

(c) The protection of areas of significant indigenous vegetation (section 6 (c));

(d) The protection of significant habitats of indigenous fauna (section 6 (c)) which is relevant in this case because the evidence identified the Pauatahanui Stream and its catchments as providing habitat for a number of important indigenous species. Concerns were also raised about the potential impact of the clearance of indigenous vegetation on habitat availability for the gecko species referred to in the submission of the GWRC Parks Planner;

(e) The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga (section 6 (e)). In this regard, we note that Winstone commissioned cultural impact assessments from the two acknowledged tangata whenua of the Porirua and Lower Hutt areas. The reports were prepared by Te Runanga o Toa Rangatira Incorporated on behalf of Ngati Toa Rangatira (the *Ngati Toa Report*) and by Raukura Consultants on behalf of the Wellington Tenths Trust and Port Nicholson Block Settlement Trust (the *Trust Report*).

The site is within an area described in both reports as not being an area of settlement but, rather, an area that people travelled through on their way between the Hutt Valley and Porirua and as an area for hunting and gathering. The Ngati Toa report describes Ngati Toa Rangatira as having exercised tino rangatiratanga or full chiefly authority and control over the land and resources within this area. The Ngati Toa Report asserts, and the Trust Report confirms, that Ngati Toa Rangatira have sole mana whenua over the area including the site.

The Ngati Toa Report concluded that the site is of medium cultural significance and identified a number of potential environmental and cultural impacts as well as measures recommended to mitigate those impacts. We note that the Ngati Toa Report comments (on page 5) that the documentation received from Winstone was incomplete and that the Report authors had yet to review the full application and assessment of effects. However, we also note that neither Ngati Toa Rangatira nor the Trusts lodged submissions on any of the applications. The Ngati Toa Report also recommends that Winstone enter into a memorandum of understanding with Ngati Toa to allow Ngati Toa to exercise kaitiakitanga and to ensure that cultural aspects of the environment are properly taken into account as the project progresses.

The Trust Report recommended that any conditions of consent should pay particular attention to drainage from the site and erosion and sediment control. We note that Winstone has endeavoured to incorporate into draft conditions the mitigation recommendations of both cultural impact assessment reports. We also note that the Ngati Toa Report recommended a memorandum of understanding to be negotiated separately with Ngati Toa Rangatira. Winstone included in supplementary evidence a draft memorandum that the company proposed to put to Ngati Toa if consent was granted.

4.13 We also note the following relevant section 7 matters to which we must have particular regard:

- Kaitiakitanga (section 7 (a))
- The ethic of stewardship (section 7 (aa));
- The efficient use and development of natural and physical resources (section 7 (b));
- The maintenance and enhancement of amenity values (section 7 (c));
- The intrinsic values of the Pauatahanui Stream and tributaries and downstream estuary (section 7 (d));
- The maintenance and enhancement of the quality of the environment (section 7 (f));
- The finite characteristics of natural and physical resources (section 7 (g)) including the finite nature of the rural land resource and rural landscape and the limited opportunities available for establishing cleanfills in suitable locations within the region.

4.14 Aspects of these Part 2 matters were raised in the submissions received and we discuss the submitters' concerns later in this decision.

4.15 We note that we are also required by section 8 to take into account the principles of the Treaty of Waitangi. There was no suggestion in either of the cultural impact assessment reports that there are any outstanding issues arising under section 8.

5 Notification and Submissions Received

5.1 The applications were jointly publicly notified in the Dominion Post, Hutt News, Upper Hutt Leader and Kapi-Mana newspapers between the 2nd and 6th February 2013. Submissions closed on 6th March 2013. Twenty three submissions were received before the closing date, mostly opposed to the proposed cleanfill.

5.2 As already recorded, we extended the time period for submissions to allow two late submissions to be received as valid. Accordingly, a total of 25 submissions were received.

5.3 A helpful tabular summary of submitters' concerns was attached to Mr Watkins' and Mr Fern's section 42A reports and we have carefully read all of the submissions and their attachments. The concerns of submitters can be grouped under the following headings:

(a) Potential adverse soil erosion and sediment transport via the tributary streams to Pauatahanui Stream and, ultimately, to contribute to silt accumulation in Pauatahanui Inlet and potential adverse effects on downstream water quality;

(b) The potential for contaminants deposited within the cleanfill to leach from below the cleanfill to groundwater and tributary streams in the Pauatahanui catchment and to pollute stream water;

(c) The impact of stream loss on the intrinsic values of the tributary streams and on habitat availability for fish and the cumulative impact on stream values in the wider Pauatahanui catchment;

(d) Related to the above, a concern that the proposed offset compensation proposed is insufficient to compensate for the actual loss of tributary stream values (and a suggestion that additional land at Haywards Quarry should be included in the offset compensation package);

(e) The impact of truck movements on the safety of other vehicles using SH58 and consequent effects on vehicles using the SH58/Mt Cecil Road intersection;

(f) The impact of truck movements in increasing delays for other users of SH58;

(g) Support for and opposition to the removal of the existing SH58 passing lane;

(h) Potential for dust to be carried from the site onto nearby properties and for dust to pollute rain-fed tank water on nearby properties;

(i) Potential for noise and particularly frequent loud-impact noises affecting the peace and quiet of nearby properties;

(j) Opposition to the clearance of indigenous vegetation and the potential loss of habitat for birds and other fauna;

(k) Potential impact of vegetation clearance and of the operation of the proposed cleanfill on the adjoining Belmont Regional Park and on ecological corridors connected to the Park;

(l) Adverse visual impacts for nearby residents associated with exposure of a large area of earthworked ground, artificial cut faces and associated machinery movement and dust over an extended (35-year) period;

(m) Potential loss of amenity values and reduction in attractiveness and property value for nearby properties as a result of perceptions of those properties being near a 'tip site';

(n) Concern about the proposed hours of operation, and particularly the proposed weekend hours and the possibility of machinery working after dark and early morning;

(o) Concerns about the potential for landslide from the cleanfill site affecting SH58;

(p) Opposition to the 35-year duration of consents sought;

(q) Concern that the proposal is contrary to relevant planning and transportation planning policy documents;

5.4 We note that two pre-hearing meetings[6] were held but that no resolution of primary issues of concern was achieved between Winstone and submitters at these meetings. Dr Stewart expressed some concern to us, on behalf of submitters who had attended the meetings, that the meeting records detailed matters that had been discussed on a 'without prejudice' basis. Whilst we agree that it seems odd that 'without prejudice' proceedings should be recorded in this way, we do not consider that any specific advantage or disadvantage was created for any party by that recording.

6 Principal Issues in Contention

6.1 All of the matters raised in submissions remained in dispute at the hearing. We discuss them, and the evidence relevant to each issue, in the following sections under the topic headings listed in paragraph 5.3 above. Before doing so, it is important to describe the physical setting of the site and the nature of the surrounding environment.

7 Physical Setting

7.1 The site of the proposed cleanfill is part of a rural property in the Judgeford area of the Pauatahanui Basin approximately 8.6 kilometres south-east of the Pauatahanui Inlet. The property is currently grazed by sheep and beef cattle. The owners of the property live in a house approximately 260 metres north of the proposed cleanfill site.

[6] As provided for in section 99 of the RMA.

7.2 As earlier noted, there are three tributary streams flowing through the site to the Pauatahanui Stream which flows towards the Inlet on the north-eastern side of SH58. The Pauatahanui Stream is recognised in Appendices 2 and 3 of the RFP as having a high degree of natural character with nationally-threatened species of fish and indigenous aquatic plants recorded in the catchment. The stream is acknowledged as having regionally-significant aquatic ecological values. The Pauatahanui Inlet is identified on Planning Map 2b of the Regional Coastal Plan for the Wellington Region as an area of significant conservation value.

7.3 The upper catchment of the site, where the permanently-flowing main tributary has its source, is a mixture of pasture and large areas of regenerating native bush. The nearest parts of the adjoining Belmont Regional Park feature similar regenerating native bush. Transpower's high voltage transmissions lines traverse one of the ridges in the upper catchment. The land in the lower reaches is predominantly in pasture. The lower reaches of the streams flow through pasture paddocks and the banks appear to be moderately eroded. The hill sides are moderately to very steep (which the Panel experienced first-hand on our site visit).

7.4 The surrounding area also features pastoral farmland on the lower slopes and a mixture of exotic plantation forestry and regenerating native bush on the upper slopes of the wider Pauatahanui catchment hills. The site is part of a larger farm property. There are several smaller rural residential 'lifestyle' properties to the east of SH58 accessed from Mt Cecil Road. Several of the submitters opposed to the proposal live at these Mt Cecil Road properties.

7.5 SH58 connects the Hutt Valley and SH2 with Porirua and State Highway 1 (*SH1*). 2011 traffic count data indicates an 85th percentile volume of approximately 15,600 vehicles per day of which approximately 9.4% were heavy vehicles. 2011 surveys of speed in the vicinity indicate 85th percentile vehicle speeds of 99 kph and 100 kph southbound and northbound, respectively, at Mt Cecil Road. SH58 is identified in PCC's District Plan as a 'major arterial' and in HCC's District Plan as a 'primary distributor' road. Immediately to the north of Mt Cecil Road, passing the proposed site entrance, there is a 200-metre-long southbound passing lane which is acknowledged by all relevant experts to have shortcomings given its short length and the approach to Mt Cecil Road on an outward curve at its southern end. We heard various opinions on the merits and shortcomings of this passing lane and note that NZTA intends to close it in the foreseeable future regardless of this application.

7.6 SH58 is characterised by a daily morning and evening peak associated with commuter travel. Based on October 2011 surveys, week-day morning peak traffic movements southbound (towards the Hutt Valley) were described as typically over 800 vehicles per hour and afternoon peak movements northbound were approximately 800 vehicles per hour. Peak-hour traffic volumes in both directions were over 1,400 vehicles per hour. These volumes are less than the design capacity of the road. However, sections of SH58 through Judgeford are narrow and feature multiple curves with restricted forward sight distances and a 2010 NZTA strategic study[7] assigned an upper limit level of service 'E' to SH58 recognising the narrow road width which in some locations reduces the theoretical capacity of the route, the curvilinear nature of the highway and the potential for cross-centreline and head-on crashes.

[7] From NZTA's *State Highway 58 Strategic Study* (August 2012) quoted on page 13 of the Traffic Design Group Transportation Assessment Report attached to the PCC application.

7.7 NZTA's Crash Analysis System for the five-year period 2007 to 2011 records five crashes within 300 metres either side of Harris Road (to the north of the site) and two crashes within 300 metres either side of Mt Cecil Road. The evidence of submitters living in Mt Cecil Road included data from more recent NZTA crash analysis records. Collectively, the data indicate that the whole of SH58 regularly experiences traffic crashes related to poor geometry, loss of control whilst cornering and driver error. However, the section of SH58 in the vicinity of the proposed site access had a low number of crashes relative to SH58 as a whole.

7.8 The nearest intersection is the Mt Cecil Road intersection with SH58. It is located on the brow of a hill at the southern termination of the southbound passing lane and has a relatively tight horizontal curve over the brow of the hill which results in poor forward visibility for drivers approaching on SH58 and reduced sight distances for drivers exiting Mt Cecil Road. There is a dedicated right-turn lane on SH58 for northbound vehicles from the Hutt Valley turning right from SH58 into Mt Cecil Road. The analysis of gaps available in the traffic stream, included with the Traffic Design Group Transportation Assessment Report, and the gap analysis presented in the evidence of Mrs Harriet Fraser (a consultant Transportation Planner called by submitters who live in Mt Cecil Road) confirmed the occurrence of 'platooning' of vehicles travelling on. The shortcomings of the Mt Cecil Road intersection geometry were evident on our site visit.

7.9 The nearest Mt Cecil Road property to the site is number 9, owned and occupied by John and Anne Schofield (submitters). The Schofield property is a small farmlet which adjoins the land within which Winstone proposes to set aside riparian margins for restoration as ecological compensation. The Schofields' house is located approximately 164 metres north of the originally-proposed entrance to the proposed cleanfill. There are clear views over the site of the proposed cleanfill from the front yard of the Schofield property. Views to the proposed cleanfill site from the near vicinity of the dwellings on all other nearby properties are partially or fully obscured by intervening topography or vegetation.

8 Potential Soil Erosion and Sediment Management

8.1 One of the issues of primary concern in submissions and at the hearing was the potential for the cleanfill construction and operation to generate or mobilise silts and sediments. In this section, we address this potential for sediment transportation and the potential adverse effects of the deposition of sediments in the downstream environment (and, particularly in the Pauatahanui estuary and Inlet). We discuss in the following section the potential for adverse effects on the quality of the flowing water in the receiving environment immediately downstream of the proposed stormwater discharge.

8.2 Mr Fern described the Pauatahanui catchment as inland hill country and basins. The 9.6-kilometre long Pauatahanui Stream is a deeply-incised system bounded on either side by steep to moderately steep topography. The underlying rock is weathered greywacke overlain by terrace alluvium (silts and gravels). The area is also known to have a high percentage of clay.

8.3 All water bodies and river beds in the Pauatahanui Stream catchment are recognised in Appendix 2 of the RFP as water bodies with a high degree of natural character to be managed for aquatic ecosystem purposes. The Pauatahanui Stream and its tributaries are also recognised in Appendix 3 of the RFP as water bodies having nationally threatened indigenous fish.

8.4 The Pauatahanui Inlet is the largest relatively unmodified estuary in the lower North Island and is classified as a nationally significant wildlife site due to its provision of habitat for indigenous waterfowl and migratory wading birds. The Inlet is also recognised in Appendix 2 of the RFP as having a high degree of natural character. As earlier noted the Inlet, including the estuary, is also identified in the Coastal Plan (on Planning Map 2B) as an area of significant conservation value. The objectives and policies of the RFP and Coastal Plan are directed at protecting the mauri of water and respecting the relationship of tangata whenua with water bodies, protecting natural character, protecting ecosystem habitat values and the life-supporting capacity of water and aquatic ecosystems.

8.5 The policy framework provides for the use and development of freshwater resources subject to managing adverse effects and enabling community involvement[8].

8.6 Winstone commissioned MWH to undertake an assessment of effects on stream ecology. The MWH report describes the main tributary through the site as having:

(a) A catchment area of approximately 0.5 hectares and mainstream length of 1.5 kilometres;

(b) A mixture of gravel, cobble and boulder substrate stream bed;

(c) A mix of pasture and regenerating native vegetation in the upper catchment and open pasture grazed by stock in the lower catchment;

(d) Confluence with the Pauatahanui Stream via a 1800mm culvert beneath SH58 (and this culvert is perched and impedes fish passage);

(e) A typical wetted width of 1 metre, average centre channel water depth of 0.13 metres;

(f) Total discharging winter/spring base flow of approximately 20 litres per second (20 L/s).

8.7 The MWH report describes the main tributary as having good aquatic habitat in terms of abundance, diversity and hydrological conditions with the upper reaches providing channel shading and riparian cover. Lower reaches of the stream are generally more open (with less shading) and have been exposed to stock damage. Tributary 2, within the footprint of the proposed cleanfill, occupies a small gully and has no definable channel with little visible surface flow. It has been badly damaged by stock access, is puggy and provides marginal habitat for invertebrates and fish. The intermittent and headwater streams within the footprint of the proposed cleanfill have either soft sediment beds and are heavily grazed by stock or have steep gradient with a stony bed and good riparian cover and light stock grazing.

8.8 MWH's water quality sampling indicated a slight to moderate enrichment from agricultural run-off. Mr Keith Hamill, a Water Quality Scientist who reviewed the water quality results, concluded that the tributary streams have good water quality values. Mr Hamill commented, though, that there is negligible base line information describing current water quality in the Pauatahanui Stream. GWRC monitors water quality at a site approximately 8 kilometres downstream of the proposed cleanfill site. Monitoring data from that site indicates increased presence of nuisance periphyton and macrophyte growth but provides no information describing water quality

[8] As summarised in section 4.3.1 (page 40) of the application to GWRC.

upstream or in the receiving environment immediately downstream of the proposed stormwater discharge from the cleanfill site.

8.9 Mr Fern described the Pauatahanui Stream as being subject to sedimentation pressure from the surrounding catchment. He noted an increase in forest harvesting, stream works and smaller earthworks applications over the last 10 years and sediment entering the stream via run off from rural land during rain events. It was Mr Fern's opinion that this sedimentation pressure makes the Pauatahanui Stream receiving environment an environment that is sensitive to additional sediment load from a sediment-generating activity such as the construction and operation of a cleanfill.

8.10 The accumulation of sediment in the Pauatahanui Inlet has been a matter of concern to PCC and GWRC and the community for a long time and there are a number of policy initiatives under way to attempt to arrest sediment generation in the contributing catchments, of which the Pauatahanui Stream is the greatest relative sediment contributor, and to minimise sediment transportation to the Inlet[9]. Together with the objectives of the RPS and RFP, these policy initiatives seek to achieve integrated management of harbour and catchment resources, reduce sedimentation rates and pollutant inputs and restore the ecological health of the catchment and Inlet.

8.11 The proposed stormwater management system, including the sub-surface pipe drainage, has been designed to accommodate a 10-year ARI (return period) storm event together with an overflow path to pass a 100-year return period event as secondary flow - consistent with the requirements of the PCC *Code of Land Development and Subdivision Engineering* (2010). The 10-year design flows were adjusted +16% to provide an allowance for climate change.

8.12 The stormwater assessment report included with the GWRC application, prepared by Harrison Grierson Consultants Limited, proposes a 600mm pipeline to discharge flows from the site up to the 10% AEP event. The report concluded that the existing 450mm and 300mm culverts that carry flows from the small tributaries within the site under SH58 do not have sufficient capacity to discharge the 100-year +16% (climate change adjusted) flows from the upper catchment. However, there is sufficient storage height above the culverts to ensure that any surplus discharge would not overtop SH58 and would be no different from the existing situation. The proposed replacement 1800mm culvert carrying the main tributary flows beneath SH58 has enough capacity to discharge the 100-year + 16% flow without heading up.

8.13 Flow that exceeds the capacity of the proposed pipeline is to be attenuated and treated within the cleanfill footprint using retention ponds and rock chimneys or diverted by temporary channels and the future permanent replacement stream to the proposed 1800mm culvert. When the cleanfill is completed, the sub-surface stormwater pipeline is to be used as an underfill drain to receive groundwater seepage as well as overflow from the replacement stream in large rain events (that is via overland flow across the finished cleanfill surface/pasture). Intake points into the pipeline are to be installed at each cleanfill development stage. A primary low-level intake with a standard wingwall and debris fence within the steam channel are proposed with a secondary high-level intake with what was described in the Harrison

[9] These were referenced in the oral evidence of submitters and include a 'Pauatahanui Inlet Action Plan – Towards Integrated Management' produced in 2000 by the Pauatahanui Inlet Advisory Group (comprising local residents and officers of GWRC and PCC); a 'Porirua Harbour and Catchment Strategy Action Plan' produced jointly by PCC, Wellington City Council, GWRC and Ngati Toa Rangatira in 2012.

Grierson report as a 'scruffy dome manhole with bund'. Any overland flow from the overtopped future permanent stream would enter via this high-level intake.

8.14 The detail of erosion and sediment management measures are proposed to be specified in a *Cleanfill Management Plan* in consultation with GWRC at the outset of the project together with an *Annual Management Plan* which is to detail the intended works and management measures for each successive 12-month period of the project based on monitoring results for the preceding 12-month period and management lessons learnt during the project's progress. Mr Graeme Ridley, an Environmental Consultant specialising in erosion and sediment control called by Winstone, prepared the *Erosion and Sediment Control Plan* that accompanied the application. He listed, in paragraph 6.2 of his evidence, the erosion and sediment control principles adopted in developing the Plan.

8.15 The proposed project staging intends that the site access preparation is to be undertaken as a discrete package of works (Stage 1) done relatively quickly to minimise the potential for sedimentation. The exposed area of active cleanfill in subsequent stages is to be a maximum of 5 hectares at any one time including all exposed earthworks and unsealed access roading. Work in the beds of the tributary streams is proposed to incorporate channel diversion and to be done during dry weather as far as practicable.

8.16 Winstone proposes to undertake on-going monitoring of water quality in the main tributary stream and in the Pauatahanui Stream. Where monitoring detects an 'undesirable trend' in water quality, Winstone proposes to implement an 'adaptive management' response to minimise future sedimentation effects. The precise detail of this 'adaptive management' response was not spelt out in the proposed conditions of consent but, instead, is to be detailed in the future management plans. The Erosion and Sediment Control Plan (*ESCP*) included with the application to GWRC, prepared by Ridley Dunphy, stated that the on-site management measures would essentially replicate those at the existing Dry Creek cleanfill. No specific discharge quality standards were proposed in the application. However, following questions from the Panel at the hearing and discussion between experts, Winstone and GWRC witnesses tabled the set of draft conditions dated 29th November 2013 which propose a process of baseline monitoring and setting of limits and trigger actions through future discussion with GWRC.

8.17 The Ridley Dunphy report acknowledges (on page 8) that the highest probability of storm events occurs in winter months and that care would be needed during these times (including limiting the exposed area, stabilising finished fill areas as soon as practicable, careful maintenance and management of stormwater facilities and close monitoring of operations and discharge quality). However Winstone proposes no winter restrictions. Winstone does not propose to apply chemical flocculation as a first-instance measure but proposes to have flocculation chemicals on site to use if necessary in large rainfall events.

8.18 Winstone has been monitoring upstream and downstream water quality at its Dry Creek cleanfill since September 2012. Based on the monitoring results, Winstone concluded that cleanfilling activity at the Dry Creek site does not give rise to off-site sediment transportation and extrapolated that the same standard would be achieved at the proposed cleanfill site. However, we note that the exposed area at the Dry Creek site is approximately half that proposed at the Pauatahanui site. Winstone proposed that in-stream monitoring (within the main tributary and the Pauatahanui Stream) would focus on water clarity and turbidity and the presence of suspended solids. Winstone's application proposed in-stream standards limiting median turbidity

and suspended solids to a maximum increase of 33% compared to upstream water quality measured over any 3-month period, pH to be within the range 6.0 to 9.0 and avoidance of conspicuous oil, grease films, scums, foams, floatable or suspended materials, colour change, odour or the rendering of water unsuitable for consumption by farm animals. To support this standard, Winstone proposes to undertake pre-development baseline in-stream turbidity monitoring as well as in-stream monitoring following storm rain events.

8.19 Winstone's and GWRC's witnesses made the point that, at times when rainfall on the cleanfill site creates a risk of sediment transport, rainfall in the wider catchment would be causing elevated turbidity and suspended sediments in the Pauatahanui Stream and all tributaries compared with baseline conditions. Their argument is that suspended material generated from the site will be an insignificant proportion of total suspended sediment sourced from the larger catchment. However, we note that the concern of the community, expressed in the policy documents referred to earlier, is with total accumulated sediment load transferred to the Inlet rather than with turbidity in the Stream.

8.20 GWRC engaged Gregor McLean, an Environmental Consultant specialising in erosion control and stormwater management, to review the Ridley Dunphy erosion and sediment control plan. In his review report and evidence to the hearing, Mr McLean noted the absence of design details for the sediment retention ponds and sediment-laden and clean water diversion measures but accepted that the measures are to be designed in accordance with GWRC's erosion and sediment control guidelines and that there is space within the site to install them as necessary. Further detail was provided in response to a section 92 request from GWRC and Mr McLean agreed that the proposed sediment retention facilities would be sufficient to accommodate the design 10-year ARI rainfall events. He noted that larger rainfall events up to the 100-year ARI would overtop the sediment retention ponds and, in these events, sediment removal efficiency would drop significantly which is an issue where overland flow is to discharge via the chimney drains direct to the downstream tributary and Pauatahanui Stream. Mr McLean recommended larger sediment retention ponds than recommended in GWRC's guidelines should be applied in this situation where the downstream receiving environment is sensitive to sediment inputs. Mr McLean also noted that underfill drainage systems can have high sediment loads for an initial period after installation and that these should be directed to sediment control facilities for treatment before discharge.

8.21 Mr McLean did not consider that the proposed rock-covered chimney drains would provide any meaningful treatment of sediment-laden surface water. Once installed, there would be no way of cleaning out or upgrading the interior of these drains and Mr McLean also suggested that discharging sediment-laden runoff to these drains could compromise their integrity. It was his view that chemical flocculation should be adopted as a first instance treatment measure to minimise the potential for sediment transportation. Mr McLean also considered that some winter restrictions should be considered to minimise the potential for sediment transportation. Mr McLean did not consider that the proposed programme of in-stream monitoring (using grab samples) would provide much in the way of useful baseline information. He recommended a longer (two-year) period of sampling using in-situ equipment rather than grab sampling. Mr McLean was also critical of the absence from Winstone's proposed adaptive management approach of detailed actions to be implemented in response to any findings of compromised in-stream water quality.

8.22 Mr Ridley did not expect that chemical flocculation would be necessary but, in the event, Winstone proposed this as a first-instance option in the revised suggested conditions for Stages 1 and 2.

8.23 In response to the Panel's questions and qualms about the adequacy of the on-site erosion and sediment control measures, monitoring and water quality standards, Winstone and GWRC prepared the amended set of draft conditions dated 29th November 2013.

8.24 Mr Ridley agreed that clay-based earthworks sites can lead to an increase in turbidity downstream of sediment retention ponds. However, he distinguished the proposed cleanfill from other earthwork sites in that (apart from the initial access road and facilities platform construction) Dry Creek has many potential sources of fill including a range of soil particle sizes rather than a percentage of clay-based particles typical of cut to fill earthworks activities. Mr Ridley also stated that the majority of the sediment leaving the sediment retention ponds will be in the finer fraction, such as clay and fine silt particles, and that these fine particles don't accumulate in a stream bed. For that reason, his assessment was that the proposed cleanfill would be very unlikely to create deposition issues in the downstream *freshwater* environment but would, more likely, result in increased turbidity levels. Mr Dean Miller, a consultant Environmental Scientist specialising in freshwater ecology called by Winstone, acknowledged that sediment would be generated in events that exceed the design capacity of the sediment retention ponds and that this sediment would likely flow via the Pauatahanui Stream and deposit in the Inlet. However, no evidence clearly stated the likely increase in suspended sediment concentration from background levels during dry periods or rainfall events and no estimate was provided of the likely annual load of sediment leaving the site.

Finding: Erosion Control and Sediment Management

8.25 We consider that the Pauatahanui Stream and downstream Inlet comprises a receiving environment that is, for the purposes of section 105, sensitive to inputs of additional sediment. The proposed cleanfill is an activity that has a high risk of sediment discharge during construction and on-going operation. We consider that highly rigorous erosion control and sediment management measures would need to be implemented at the proposed cleanfill to avoid and appropriately mitigate the potential for off-site sediment transport.

8.26 We are not satisfied that the proposed on-site sediment management measures described in the application and in the applicant's evidence are sufficient to properly respond to the sensitivity of this receiving environment given the inherent sediment-generating nature of the proposed activities. We are not satisfied, either, that the standards and management plan approach detailed in the amended draft conditions are sufficient to properly manage the potential for sediment transportation from the proposed cleanfill earthworks activities upstream of such a sediment-sensitive nationally-important estuarine environment. It is the potential for sediment generated at the cleanfill to accumulate in the downstream Pauatahanui estuary and Inlet that is of particular concern. Whilst we consider that tighter controls could be built into conditions of consent, the draft set of conditions we were supplied with does not achieve what we consider is necessary. In particular, we consider there needs to be greater attention given to understanding and minimising the annual sediment loads generated by the operation (as opposed to a focus on the concentrations as measured at the current Dry Creek facility). There should also be consideration of increased pond size and quality limits prior to discharge from the sediment retention ponds (as recommended by Mr McLean).

8.27 Mr Geange noted in his evidence that the Transmission Gully Road of National Significance, which has been authorised for construction, must be considered to be part of the future Pauatahanui catchment environment. His point was that the influence of that project on future water quality should be taken into account. Our view is that this makes the Pauatahanui Inlet more sensitive, not less sensitive, to future sediment inputs, particularly in light of the relevant NZCPS and Regional Coastal Plan objectives and policies.

9 Potential Adverse Effects on Water Quality

9.1 As earlier noted, we consider the Pauatahanui Stream to be an environment that is sensitive to inputs of sediment and other pollutants. Under the RFP, water quality in the Pauatahanui catchment is managed for aquatic ecosystem purposes. Several submitters raised issues relating to the potential for water quality to be adversely affected by the construction and ongoing operation of the proposed cleanfill. Sediment discharge to the stream and potential for sediment to reach the Inlet were the primary water quality concerns and we have addressed those issues in the preceding section. Here we address the potential for sediment and other contamination from the cleanfill to adversely affect the water quality of the receiving environment immediately downstream of the site.

9.2 The submission of the Judgeford Golf Club expressed concerns that any sedimentation caused by cleanfill activities could adversely affect the quality of downstream water that the Club relies on for irrigation of its golf course. The Club's concern is that additional sediment loads in the Pauatahanui Stream could potentially clog the Club's water abstraction equipment.

9.3 Concerns were raised about (1) the effects of sediment on in-stream values (both suspended and deposited sediment) and (2) the potential for leachate to pollute water. Our findings on leachate are discussed in Part 10 later in this decision.

9.4 Water quality issues were addressed in the evidence of Mr Miller (for Winstone) and Mr Hamill (for GWRC). In response to pre-hearing comments by Mr Hamill on the paucity of water quality information in the application, Winstone collected data from the Pauatahanui Stream during June and July 2013 over a range of flow conditions. These data were presented in Appendix 5 of Mr Miller's evidence. Mr Miller described the baseline water quality in the Pauatahanui Stream in the vicinity of the site as '*characterised by high water quality overall with high levels of dissolved oxygen, low levels of turbidity and low total suspended solids'.* He also stated that total suspended solids and turbidity levels appeared to be stable in response to rainfall and elevated flows. Macroinvertebrate communities indicated excellent water quality and a relatively sensitive receiving environment in the vicinity of the site. Mr Miller considered the data was an adequate basis for characterising the baseline conditions for the Pauatahanui Stream and sufficient for assessing the potential effects of the proposal on the receiving waters. However, Mr Hamill did not entirely agree that the collected data was sufficient to assist in *setting limits* within the conditions that were proposed by Mr Fern and Winstone.

9.5 Background testing for metal contaminants within the receiving environment was also undertaken to establish a baseline for monitoring of any leachate contamination. Results were considered against the ANZECC 95% species protection levels. Most contaminants were within the 95% trigger values, although some were exceeded (i.e. total and dissolved aluminium and total chromium, zinc and copper).

9.6 Mr Miller's assessment, which relied on recent water quality monitoring results from the Dry Creek cleanfill, was that the water quality effects from the proposed cleanfill would be no more than minor. From the current Dry Creek monitoring results (both routine monitoring and monitoring following rainfall events) Mr Miller determined there was no significant change in total suspended solids or turbidity between sampling sites upstream and downstream of the cleanfill. Concentrations of major ions increased in the downstream samples, indicating increased alkalinity, conductivity and hardness. Dissolved heavy metals were generally within the ANZECC 95% protection trigger values for aquatic life and no increase between median concentrations upstream and downstream was detected. Mr Miller predicts that the proposal is likely to result in similar low levels of contaminants with the key contaminant of concern being sediment. The degree of sediment contamination of the Pauatahanui Stream environment in the immediate downstream reaches will depend entirely on the effectiveness of the sediment and erosion control plan to control movement of sediment particles from the land surface into drainage and stormwater and ultimately the stream.

9.7 Mr Miller was confident that the erosion and sediment control measures would be adequate to ensure only low concentrations of suspended sediment enter the streams, although he noted there is potential for elevated concentrations to occur when rainfall events exceed the design level for erosion and sediment controls. As already noted, we were not presented with any evidence that clearly stated the likely increase in suspended sediment concentration from background levels during dry periods or rainfall events. Neither did the evidence estimate the likely annual load of sediment leaving the site.

9.8 Mr Miller described the potential effects of prolonged or heavy elevated suspended sediment in the stream as including:

(a) restricted periphyton growth;

(b) reductions in food for aquatic herbivores;

(c) smothering of the gills of invertebrates and fish; and

(d) reductions in feeding ability for visual hunters.

9.9 According to Mr Miller, the effects of short term discharges of sediment were likely to include evacuation of the stream reach (by fish and drifting invertebrates) or avoidance (by migrating fish or drifting invertebrates). Mr Miller also noted that banded kokopu (recognised in Appendix 3 of the RFP) were particularly sensitive to turbidity values between 20 and 25 NTU with 20 NTU causing avoidance in migrating juvenile banded kokopu and 25 NTU impeding feeding of adults. Mr Miller referred to the evidence of Mr Ridley in concluding that deposited sediment cover was unlikely to be an issue in the Pauatahanui Stream because of the fine nature of the particles and the steep nature of the stream at this point. From this, we infer that as long as sediment and erosion protection controls are effective and well-maintained, any sediment leaving the site will be of a fine particle size, likely to remain in suspension and unlikely to affect aquatic life as long as the baseline for turbidity remains well below 20 NTU.

9.10 In considering large storm events, Mr Miller's opinion was that short term elevated suspended sediment (i.e. up to 24 hours) was unlikely to have direct adverse effects on aquatic life, although the risks of deposited sediment were increased following such events. Given the relatively steep slope of the stream at the site and the ability

for sediment controls to pick up some larger particles even when design criteria are exceeded, Mr Miller considers it unlikely that deposited sediment will be significantly increased by the change in land use from agriculture to cleanfill. Winstone proposed conditions requiring the monitoring of deposited sediment and aquatic macroinvertebrates. Mr Miller considers the sediment effects on the Pauatahanui Stream and Inlet are likely to be no more than minor or negligible, respectively, except in rainfall events which exceed the design criteria of the on-site sediment controls. Under these circumstances, Mr Miller expects the proposal will likely contribute to cumulative sediment effects on the Inlet, though this may be offset by the reduction in sediment losses from the ecological offset area and mitigation plantings within the site.

9.11 It was Mr Miller's opinion that GWRC's own assessment of water quality effects does not strongly support the officers' recommendations for increased sediment retention ponds or mandatory flocculation.

9.12 We turn now to consider the proposed régime of monitoring and 'adaptive management' proposed by Winstone and accepted by GWRC for the construction and operation of the cleanfill.

9.13 Mr Hamill advised that in his opinion there was not enough water quality information for the Pauatahanui tributary streams to establish a 'baseline condition'. The water quality experts were in general agreement that it was preferable to establish a water quality baseline for the streams *before* determining trigger levels for mitigation actions or compliance standards (limits), particularly for sediment contamination. Mr Miller recommended a combination approach using minimum (effects-based) standards and also a percentage in-stream change determined from baseline monitoring (to allow for situations where minimum standards are exceeded upstream of the activity). We agree that this dual approach could be useful, however we note that (despite our repeated requests to GWRC and Winstone) the consent conditions proposed by Winstone's and GWRC's ecologists (set out in the document dated 29th November 2013) do not contain any minimum standards or trigger limits.

9.14 The draft conditions propose that Winstone will submit a Baseline Monitoring *Plan* (*BMP*) to GWRC within 3 months of the commencement of the consent. This BMP is to (1) establish trigger TSS and turbidity levels (NTU), (2) characterise the water quality and aquatic ecology in the receiving environment and (3) establish an electrical conductivity trigger for leachate monitoring. The BMP is to be approved by GWRC. The locations of the monitoring points for the BMP are contained within the draft consent conditions. Baseline monitoring for a *Cleanfill Aquatic Monitoring Plan* (CAMP) and a final ESCP are also outlined in the consent conditions, however the frequency for ESCP monitoring and the methods for the CAMP baseline monitoring are still to be determined in consultation between Winstone and GWRC. Baseline monitoring is to cease on GWRC's approval of the final CAMP once a report is submitted to GWRC outlining the results of the BMP and advising the trigger values and compliance levels.

Finding: Water Quality

9.15 We did not find the proposed 'leave it until later' approach proposed in the conditions to be useful for determining or managing the potential adverse effects of sediment discharge to the stream - particularly given the sensitive nature of the stream and Inlet and the listing of the species and waters in the RFP Appendices. Established and effects-based guidelines or limits for aspects of water quality such as turbidity, macroinvertebrates, deposited sediment and water clarity are commonly used

throughout many regions in New Zealand. Interim values could easily be set, in our view, for example for:

(a) Turbidity: this could be set at half the maximum limit to avoid sub-lethal effects on banded kokopu juveniles – for example: 'The activity shall not *cause* turbidity to exceed 10NTU beyond the reasonable mixing zone on the Pauatahanui Stream during base flow conditions. Where upstream turbidity exceeds 10 NTU the cleanfill activity shall not cause an increase of more than 30% turbidity at the downstream site when compared to the upstream value';

(b) Water Clarity: this could adopt the conspicuous change standards in the RFP – for example: 'The activity shall not cause more than a 30% decrease in visual clarity between upstream and downstream sites on the Pauatahanui Stream as measured by horizontal sighting of a 200mm black disc.';

(c) Deposited Sediment: this could relate to the guidelines for the protection of aquatic biodiversity in Clapcott et al 2011[10] – for example: 'The activity shall not cause the deposited sediment (measured using the instream visual assessment protocols of Clapcott et al 2011) to exceed 20% cover of the bed of the stream after the zone of reasonable mixing during base flows. If 20% cover is exceeded at both the upstream and downstream sites the activity shall not cause the deposited sediment to exceed 10% more than the upstream site percentage cover';

(d) QMCI: for example: 'The activity shall not cause more than a 20% decrease in QMCI between appropriately matched habitats in upstream and downstream sites.'

9.16 Given the differences in scale between the existing Dry Creek cleanfill and the proposed cleanfill operation, the limitations of the water quality dataset used to determine the effect at Dry Creek and the proposed use of chimney drains as a primary 'treatment' method, we did not find the evidence that there would be no more than minor sediment effects on water quality particularly compelling. The evidence and further information from Mr Gregor Maclean on the efficacy of chimney drains to treat sediment discharges also gave us little comfort with regards to the potential for adverse effects in the Pauatahanui Stream and Inlet.

9.17 The water quality and ecology experts were all in agreement that an 'adaptive management' approach to determining trigger values and to manage adverse effects was the most desirable outcome for the DCR project. However, we found it difficult to establish the linkages between the yet-to-be-determined trigger values and any concrete actions with respect to the ESCP or on-site operations. It is our view that if trigger levels are exceeded then an audit of the erosion and sediment control structures and network as well as on-site operations is warranted and should be required by condition of consent, rather than specified at a later date in a management plan. If continued or multiple exceedences of trigger values occur, particularly under base flow conditions or following rainfall events within the design specifications of the erosion and sediment control facilities, flocculation measures must be required to commence. The linkages between the trigger values and the actual management actions required to be taken need to be specified and clearly

[10] Clapcott JE, Young JS, Quinn JM, Death RG (2011) *Sediment Assessment Methods: Protocols and guidance for assessing the effects of deposited sediment on in-stream values* (Cawthron Institute, Nelson, NZ) referred to in the draft conditions.

defined. Any adaptation is able to be made through the review provisions of the consent following consideration of regular monitoring reports.

9.18 Our conclusion is that the proposal, including the conditions proposed by Winstone and GWRC, does not go far enough in setting enforceable limits for water quality. For this reason, we are not satisfied that the proposal will be completely consistent with the relevant objectives and policies of the RPS or the RFP or the NPS for Freshwater that were referred to in the evidence of Mr Geange and Mr Fern. In our view, the proposal is also potentially inconsistent with the NZCPS.

9.19 We are satisfied that there are no practicable alternatives available to Winstone other than discharge into the receiving environment proposed. However, we are not satisfied that the suite of proposed on-site erosion and sediment control measures and the proposed conditions of consent collectively represent the best practicable means of avoiding, remedying or mitigating potential adverse water quality effects resulting from sediment transportation from the site.

9.20 The frequency proposed for monitoring of some parameters (particularly macroinvertebrates) and the number of parameters (e.g. SAM5 for deposited sediment) seems excessive in our opinion and unlikely to add value, although the experts are all in agreement that this is necessary.

9.21 We accept the evidence of the relevant experts that, at the times when sediment discharge from the site is likely to occur, the Pauatahanui Stream receiving environment will have elevated levels of turbidity and suspended solids. Therefore, we do not consider that the proposal would, at these times, create a conspicuous change in colour or contravene this descriptive standard of section 107 of the RMA. We note that Winstone has agreed to accept the section 107 minimum standards as compliance standards in the conditions and that Mr Hamill considers they are achievable for this site. We agree that is appropriate and, with those limits in place, we do not expect there would be any discernible difference in the quality of water abstracted by the Judgeford Golf Club.

10 Potential Contaminant Leaching

10.1 In response to questions put by Panel members during the hearing, Winstone commissioned Mr Robert Burden, a consultant Environmental Scientist specialising in the investigation and risk assessment and management of contaminated land and water, to prepare a supplementary statement of evidence addressing the potential for contaminants to leach from the proposed cleanfill. We were particularly interested in the potential for vegetation deposited within the cleanfill (even in small quantities) to change the chemical composition of material within the cleanfill and to generate contaminants. We were also interested in the likely time it would take for drainage water to move down through the cleanfill and join groundwater and surface water flows.

10.2 Mr Burden did not expect the fill material to discharge significantly contaminated drainage water (leachate) *if* the proposed cleanfill acceptance criteria proposed by Winstone were rigorously implemented by the cleanfill operator. Mr Burden expects that drainage water from the fill would contain dissolved chemical constituents but that the concentrations would be low and would have less than minor effects on the receiving environment. That is because:

(a) The proposed fill acceptance criteria have been selected to be protective of both human health as established by the *National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health* (2011) and protective of the environment including groundwater and surface water as established by the *Auckland Regional Plan Permitted Activity Criteria* (2007) and *Proposed Unitary Plan Permitted Activity Criteria* (2013). The more stringent criteria from these standards have been selected for the proposed cleanfill; and

(b) Investigations at the existing Dry Creek cleanfill and other cleanfills, including facilities in other cities, have shown that the bulk of fill disposed of is likely to contain natural background concentrations of chemical constituents at significantly lower concentrations than the acceptance criteria.

10.3 Mr Burden considered that cleanfill placed at the proposed cleanfill should be expected to have less than minor effects on the receiving environment. Mr Burden made the point that the National Environmental Standard and Auckland Council Permitted Activity criteria have been proposed as cleanfill acceptance criteria rather than natural background concentrations because the acceptance criteria take account of the fact that, while the concentrations of chemical constituents in some cleanfill may exceed natural background concentrations, the criteria are still sufficiently low not to result in more than minor effects on the receiving environment.

10.4 Mr Burden explained that after water drains down through the cleanfill, it will enter the under-fill drainage system and then discharge to Pauatahanui Stream tributary. He conservatively estimated the dilution of fill drainage as it discharges into the stream as approximately ten-fold. His estimate was conservative because it only included potential groundwater dilution and did not take account of significant further dilution that would occur as a result of surface water discharging from the wider Pauatahanui catchment. Mr Burden used contaminant concentrations from leaching tests carried out on a Winstone cleanfill in Auckland and estimated drainage concentrations after passing through the cleanfill and dilution in the Pauatahanui Stream. All estimated concentrations are less than or equal to the ANZECC guideline concentrations.

10.5 Mr Burden also relied on the results of water quality testing of groundwater beneath the same Auckland facility where fill has been placed for over 20 years. The test results showed chemical concentrations were low and, except for copper, were less than the ANZECC guidelines even before the groundwater is discharged to and mixed with surface water in the stream receiving environment. It was his opinion that even the copper concentration would be less than the ANZECC guideline value once diluted with stream water. Mr Burden noted that the acceptance criteria proposed for the Pauatahanui site are similar to or more stringent than those for the Auckland facility.

10.6 Mr Burden also relied on monitoring results from downstream of the existing Dry Creek cleanfill. The results demonstrate that the mean concentrations of all chemical constituents are less than the ANZECC guidelines. Water samples from downstream of the Dry Creek cleanfill were also tested for petroleum hydrocarbon compounds and semi-volatile organic compounds. None of the water samples contained detectable concentrations of these compounds.

10.7 Mr Burden's opinion was that the rate at which rainfall would infiltrate the cleanfill will depend on the permeability of the cleanfill and the depth of the cleanfill. Rainfall infiltrating the cleanfill will preferentially move through regions of relatively permeable material but overall will move relatively slowly because the fill will not be saturated

with water. Rainfall drainage is therefore expected to take several years to pass down through the cleanfill. According to Mr Burden, this means that there is time for the water to interact with the cleanfill and to mobilise chemical constituents although he noted that these would be in low concentrations. However, stormwater that flows down chimney drains would move significantly more quickly and may discharge from the under-fill drainage system in a matter of days or weeks but, at that rate, would have little time to interact with the cleanfill. The result, according to Mr Burden, is that that stormwater flowing down the chimney drains would contain low concentrations of chemical constituents.

10.8 Mr Burden did not expect vegetative matter, at up to 5% of any load, to have a significant effect on the chemical composition of water discharging from the cleanfill. He noted that the decomposition of vegetation releases organic acids which may decrease the pH of fill drainage water and potentially increase the leaching of metals. However, in such small quantities, Mr Burden did not expect the pH of water passing through to be much altered. He also noted that, based on his observations at other cleanfills, most of the fill deposited can be expected to contain significantly less than 5% vegetation.

10.9 Winstone's evidence included detailed examples of the information packs given to prospective cleanfill clients (outlining the types of cleanfill that will be accepted) and conditions of entry for the Dry Creek cleanfill, load inspection procedures. The evidence also included examples of documentation recording loads that had been rejected from, or refused entry to, the Dry Creek cleanfill. Winstone also operates a system of 'pre-approval' of loads from identified sites. Mr Dan McGregor, Winstone's Environmental Projects Planner, stated that Winstone requires testing of samples of material from prospective pre-approval sites that have been used for activities with potential for land contamination. Mr McGregor gave a recent example of an application to dispose of material from the Haywards substation that was declined after laboratory test results of sampled material indicated contamination. Mr McGregor's evidence was that all pre-approved loads are sampled before approval and every 150th non-pre-approved load is sampled and laboratory tested by Winstone. Winstone also gave us numerous examples of consent conditions for other cleanfills in New Zealand which limit the vegetative content of any load to a maximum of 5%. Winstone's evidence was that these restrictions are enforceable by the operator on site and achievable.

10.10 Mr Mike McSaveney, Winstone's National Operations Manager (Australia and New Zealand) confirmed that there would be no fewer than two staff on site at all times that the cleanfill is operational (one to inspect loads on arrival and one to inspect loads as they are tipped at the cleanfill face). He also stated that, during busy times, additional staff could be brought in from Winstone's Belmont Quarry (approximately 6 kilometres away).

10.11 Dr Stewart, on behalf of the Mt Cecil Road submitters, agreed that any adverse effects from the discharge of sediment-laden water to land could be remedied by appropriate conditions.

10.12 Rather late in the hearing, Mr Fern proposed an amendment to his recommended conditions to limit the concentrations in cleanfill material to the background soil concentration ranges for the region. Mr Fern presented a table of 'target' analyte background soil concentration ranges for a number of elements. His proposal was more stringent than the limits he had earlier proposed which had been accepted by Winstone. Winstone's experts considered that Mr Fern's proposed limits are unreasonable because they are, even on GWRC's own information, lower than the

range of naturally-occurring soil contaminants. That would mean that even clean soil from within the region is at risk of failing the cleanfill acceptance criteria.

Finding: Potential Contaminant Leachate

10.13 We are satisfied that, *provided* the proposed cleanfill acceptance criteria are rigorously implemented, the cleanfill should not generate contaminant leachate comprising harmful or undesirable concentrations. However, the pertinent point emphasised by Mr Burden is the importance of rigorous on-site management and strict enforcement of the cleanfill acceptance criteria. We accept that Winstone has in place well-established and proven methods to ensure that cleanfill loads brought to its cleanfills contain only acceptable material. That makes it all the more difficult to understand the presence of the (albeit small amount) of domestic rubbish including disposable nappies that we observed at the Dry Creek cleanfill. Rigorous inspection is the key to minimising the potential for contamination of the cleanfill.

10.14 The other implication of Mr Burden's evidence, in relation to the length of time it might take for leachate to drain from the site, is the importance of monitoring, upstream and downstream of the cleanfill, to detect the presence of leached contamination.

10.15 We agree that the more stringent contaminant concentrations recommended by Mr Fern are not reasonable.

11 Loss of Stream Ecological Values and Adequacy of Offset

11.1 A number of submitters were concerned about the loss of intrinsic and ecological values associated with the staged piping of the three tributaries of the Pauatahanui Stream. Concerns were voiced specifically about the loss of fish habitat and the cumulative effect of the loss of up to 952m of permanent stream[11] and 706m of intermittent stream (total of 1658m of stream length) from the wider Pauatahanui catchment. Mr Fern advised, in answer to our questions, that the length of stream reclamation represents 0.47% of the entire length of all streams in the Pauatahanui catchment and 20.12% of stream length in the Dry Creek sub-catchment[12]. The adequacy of the proposed ecological off-set compensation to compensate the actual loss of tributary stream values was also questioned. A submitter suggested that additional land at Haywards Quarry should be included in the offset compensation package.

11.2 Evidence on the ecological effects on stream habitat and the offset compensation proposal was presented by consultant Freshwater Ecologists Mr Dean Miller, Drs Ian Boothroyd and Graham Ussher for Winstone, and Mr Keith Hamill for GWRC. The original Assessment of Ecological Effects was completed by Mr David Cameron (an Ecologist employed by MWH). The key values associated with the loss of stream channel were identified by the experts as direct loss of fish and aquatic invertebrate habitat in the piped reaches, loss of fish passage and habitat in the catchment upstream of the piping, loss of hydrological and ecological connectivity and function

[11] We note that Dr Ussher gave this length as 982 metres (paragraph 2.1 Dr G Ussher statement of evidence), and that the length is given as 982m in the proposed GWRC conditions of consent for WGN130115 [32017]. It was elsewhere given as 952m. The differences were confusing, but we have relied on the figures presented I Appendix B of the Tonkin & Taylor ecological offset report.

[12] Although Mr Fern did not have information on the length of existing reclaimed or piped stream in the catchment on which to base a conclusion about cumulative effects.

as well as the cumulative effects of habitat loss. Species identified as most likely to be affected included banded kokopu (a native fish with good climbing ability identified in Appendix 3 of the RFP), freshwater crayfish (koura) and long fin eel, both of which are identified by the *Conservation Threat Classification List* as nationally declining species.

11.3 The MWH assessment report identified the effects of the habitat loss on the local aquatic ecology as "significant" and the cumulative losses of habitat to the wider catchment as causing a "significant decrease in the availability of high quality habitat". For these reasons a comprehensive offset compensation programme was recommended. Mr Cameron used the *Stream Ecological Valuation Ecological Compensation Ratio (SEV*) method to determine the values of the affected lengths of stream. His findings were used by Dr Ussher as inputs to his calculation of the number of 'ecological units' lost from the affected streams and, using a multiplier, the number of 'ecological units' needed to balance the lost ecological values. Dr Boothroyd clarified that the SEV should not be mistaken for a statement of 'aquatic ecological values'. Rather, it is an indicator that can be used to calculate an environmental compensation ratio (the multiplier).

11.4 Dr Ussher explained in his evidence that two approaches used in New Zealand for calculating full replacement of ecological values lost as a result of development impacts are the SEV method (used by Mr Cameron) and the *Habitat Hectares Biodiversity* approach (the *Habitat approach*). Dr Ussher adopted the *Habitat* approach in the Tonkin & Taylor *Ecological Offset Mitigation* Report. We note that the *Habitat* approach is not commonly applied to stream mitigation or compensation calculation. The reasons Mr Miller supported the use of the alternative *Habitat* approach in this case were that:

(a) The SEV method is not specifically developed for intermittent streams;

(b) The use of the 'potential value' of the streams to be piped in the calculation of the compensation ratio was unrealistic because these streams would be unlikely to reach their potential value as the landowner is understood to have no intention of establishing riparian vegetation; and

(c) The offset planting and management were proposed to begin prior to the main piping activities and therefore accounting for the delays of plant growth to accrue benefits to the stream was not required.

11.5 We did not find the evidence for the *Habitat Hectares Biodiversity* approach to be compelling. The SEV method is in common use throughout many regions of New Zealand and we note that the final package agreed between the ecological experts that was recommended in the final draft conditions (dated 29th November 2013) ultimately used the SEV approach.

11.6 The purpose of the offset calculation was to provide a means for Winstone to achieve an overall neutral or positive outcome for residual adverse ecological effects. The experts were in agreement (following expert conferencing) that the *Habitat Hectares* approach outlined in the Tonkin & Taylor report could be used in preference of the SEV method to determine how much stream length and planted area would be required by the offset compensation package to ensure 'no net loss' of ecological values from stream piping and reclamation. Also as compensation for lost fish passage, the experts recommended that two fish barriers on the Pauatahanui Stream were to be removed and the culvert under SH58 remediated to improve fish passage.

11.7 The experts' agreed recommendation was that ecological offset comprising 1675m of permanent stream and 550m of intermittent streams should be provided. They also agreed that the areas identified on the land to the east were appropriate provided the entire area was be fenced to exclude stock, planted with indigenous species and protected in perpetuity by a covenant registered on the land's title. They agreed that the offset areas proposed by Winstone achieved no net loss (and likely long term net gain in ecological benefits), equivalence (involving like-for-like stream types within the same catchment) and permanent protection, which are the principles Dr Ussher explained are usually applied in developing offset proposals.

11.8 Dr Ussher presented in his evidence a useful diagram depicting the predicted balance of ecological losses and gains over the proposed life of the project. The diagram shows that, whilst there would be a net loss of ecological values in the immediate term, a no-net-loss position would be reached by year 7 of the project, following restoration work planned for Stages 1, 2 and 3. After year 7, Dr Ussher's diagram shows net gain from the offset proposal. The benefits are greatest until the commencement of Stage 4 when a decline in benefits is predicted (coinciding with extension of the reclaimed and piped stream in that stage of works) but net gains are predicted even accounting for this Stage 4 stream loss.

11.9 During the course of the hearing it became apparent that some of the tributaries within the ecological offset area would not be fenced and planted right up to the boundary between the offset area and the Schofield property. This would mean that the planted areas would not be contiguous with some existing riparian vegetation on the Schofield property. Also four stock crossings (each approx. 7m in width) were included within the ecological offset area late in the hearing, reducing the length of stream to be planted for compensation.

11.10 As a result of these changes the Hearing Panel requested Mr Hamill to advise his opinion on the loss of the additional areas proposed for stock crossings from the offset area. Mr Hamill's supplementary statement of evidence recommended increasing the lengths of offset stream to 1770m of permanent stream and 705m intermittent stream to allow for stock access and stream crossings, based on the SEV method. Winstone agreed to increase the ecological offset area up each of the tributaries to the boundary with the Schofield property and to increase the offset compensation area to include Mr Hamill's recommendations. These agreed amendments are recorded in the final offset mitigation plan dated 29th November 2013. In addition to these areas, we note that Winstone proposes to add a 7,000m² area of indigenous planting to compensate for the clearance of regenerating indigenous vegetation from the upper gully of the main tributary within the cleanfill site.

11.11 As the cleanfill construction extends up the gully an overland flow path is proposed to be constructed, which will eventually be connected to the stream channel at the top of the cleanfill following completion of Stage 4. During the hearing Winstone proposed that this overland flow path be constructed as a replacement stream, including riparian rehabilitation with the final design to be prepared by a qualified ecologist. The purpose of the replacement stream is to provide some mitigation for the permanent loss of the natural stream and channel and to restore some hydrological and ecological function to the tributary. The reconnection of the upper catchment will ensure fish passage is restored over the long term. Winstone also agreed to implement riparian management of the stream banks as the channel of the overland flow path extends up catchment.

11.12 All ecological experts agreed that there was ecological benefit, in the long term, from re-establishing a stream environment as close as practicable to a natural stream channel as soon as practicable following cleanfill completion, in addition to re-connecting the flow in the upper catchment to the Pauatahanui Stream. Some of the riparian planting along the replacement stream was also considered by Mr Matiu Park, a consultant Ecologist called by Winstone, to contribute some mitigation for the loss of indigenous vegetation in the upper catchment.

11.13 Dr Stewart on behalf of the Mt Cecil Road submitters questioned the validity of ecological offset compensation, given the wording of Policy 4.2.10 of the RFP which is to *avoid adverse effects* on the rivers identified in Appendix 2 of the RFP and their margins when considering the protection of their natural character from the adverse effects of use and development. It was his opinion that the proposed piping and reclamation could not be reconciled with the 'avoidance' intention of Policy 4.2.10 nor with the criteria listed in Policy 4.2.33 which provide guidance on what constitutes minor adverse effects. The explanation to Policy 4.2.10 states that *'only activities with effects that are no more than minor will be allowed in the water bodies identified'.* Policy 4.2.33 provides that adverse effects of activities are likely to be no more than minor if the following criteria are met:

(1) the activity does not require exclusive use of the river….; and

(2) any adverse effects on plants, animals or their habitats are confined to a small area or are temporary, and the area will naturally re-establish habitat values comparable with those prevailing before commencement of the activity; and

(3) there are no significant or prolonged decreases in water quality; and

(4) there are no off-site adverse effects; and

(5) river bank or shoreline stability is not adversely affected; and

(6) there are no adverse effects on the natural character of wetlands, and lakes and rivers and their margins.

11.14 We also note Policy 7.2.15 which is *'to ensure that the reclamation or drainage of any river or lake bed is only carried out when:*

- *there are no practicable alternatives which do not involve reclamation or drainage; and*
- *the reclamation or drainage provides significant benefits to the community; and*
- *the reclamation or drainage is consistent with Policy 4.2.10.'*

11.15 Policy 4.2.10 is, then, central to consideration of whether stream reclamation can be authorised under the RFP and all of the tributary streams within the Pauatahanui Stream catchment are captured by this policy.

11.16 Dr Stewart commented that the proposed offset areas are located in what he considered to be a more vulnerable part of the catchment although we note that none of the ecological experts for Winstone or GWRC shared that view. Dr Stewart also noted the submitters' concern that the proposed reclamation would isolate the upper catchment from the lower catchment and the sea.

11.17 Mr Fern's assessment, in his section 42A report, was that the proposed stream reclamation would be inconsistent with Objective A2 of the NPS for Freshwater (which seeks to ensure overall water quality in the region is maintained and to protect the quality of outstanding freshwater bodies).

11.18 Mr Matheson addressed in his closing legal submissions the question of whether the avoidance approach of RFP Policy 4.2.10 presents an absolute obstacle to the proposed reclamation. His view was that it does not. For example, the RFP does not prohibit streambed reclamation. Mr Matheson referred to the Environment Court decisions *Wairoa River Canal Partnership v Auckland Regional Council* (16 ELRNZ 152) and *Man O'War Station Ltd v Auckland Council* (NZ Env C 233) in clarifying that the expression 'avoid' is a step short of 'prohibit'.

Finding: Stream Ecology and Proposed Ecological Offset

11.19 It was the agreed view of the ecological experts that the area, location and type of ecological offset compensation they recommended would result in no net loss of ecological values from the Pauatahanui Stream catchment. This point was accepted by the submission of the Pauatahanui Inlet Community Trust and Guardians of Pauatahanui Inlet. The no-net-loss conclusion relies on full implementation of all offsetting and mitigation including the replacement stream designed with specialist ecologist input to achieve a 'naturalised' form, which cannot occur until completion of Stage 4. We note that it will be difficult to provide fish passage connection between the upper stream and the Pauatahanui Stream because of the steep slope of the batter slopes between the Stage 4 level and the outlet to Pauatahanui Stream.

11.20 We find that the proposed ecological offset work will result, long term, in at least a no-net-loss and likely a positive benefit in ecological values in this catchment. Our view is that this can be reconciled with the relevant District Plan and RPS policies relating to the maintenance of ecological health. We accept that it would be impracticable, if not impossible for a cleanfill activity of any size anywhere in the Wellington region to avoid reclamation. For this particular site, there are no alternatives to reclamation if a cleanfill of any size is to be progressed. Our view is that the availability of the cleanfill, and the reclamation it relies on, will result in benefits for the community. In terms of the specific criteria of Policy 4.2.33, we find that:

(a) Although the reclamation will require exclusive use of the stream bed, the land within which the stream flows is private land and is not accessible to the public (so no actual loss of public access would result);

(b) The experts agree that the reclaimed length of stream bed is a small proportion of the total catchment. Our view is that the adverse effects on plants, animals and habitats will be highly confined. Although the area will not naturally re-establish, the proposed offset work will replace the values lost and the proposed replacement stream could replace some of the stream habitat values;

(c) No prolonged decreases in water quality will result from the reclamation works beyond the construction period;

(d) All of the adverse effects would be contained within the sections of affected stream and within the site;

(e) The stream banks will disappear but the work will not exacerbate stream bank or riparian soil stability or contribute to soil erosion;

(f) The two cultural impact assessments accept the necessity for the reclamation and raise no specific issues in relation to mahinga kai, wāhi tapu or sites of special value to tangata whenua;

(g) The reclamation work will destroy the natural character of the affected lengths of stream but the offset work will result, in the long term, in no net loss of natural character.

11.21 We do not construe Policy 4.2.10 as requiring us to focus only on the adverse impact of the proposed reclamation on the affected sections of stream. It is relevant and appropriate for us to also consider the mitigation proposed. The expert evidence is clear that the overall result for this catchment will be no net loss of ecological value within approximately 7 years and potentially an improvement in ecological value over a longer period compared with the state of the streams that might be expected to result if pastoral farming continues around them. However, we acknowledge that the proposal, even with the replacement stream long term, would isolate the upper catchment from the lower catchment and the sea. That is because of the steep gradient proposed immediately upstream of the point of discharge from the site to the Pauatahanui Stream (i.e. the under-fill pipe and the surface of the batter slopes). The experts did not discount the possibility of some fish migrating via the replacement stream but noted that it would be difficult.

11.22 We agree with Mr Matheson that the Policy 4.2.10 'lens' should consider the full picture of impact and mitigation that would result from the proposed reclamation. On this basis, it is our conclusion that the proposal can be reconciled with the RFP policies, including Policies 4.2.10 and 4.2.11 and with section 6 (a) of the RMA. Our assessment is that the package of offset and mitigation works proposed appropriately addresses the quality of the catchment environment and the intrinsic values of the stream ecosystems as required by section 7 of the RMA.

11.23 Our conclusion is that the proposed reclamation, mitigated and offset by the package of measures proposed, is not inconsistent with Objective A2 or other provisions of the NPS for Freshwater.

12 Traffic Safety

12.1 As earlier noted, Winstone obtained the written approval of NZTA to the proposed location of the cleanfill. Indeed, Winstone's witnesses clarified in evidence that NZTA preferred this proposed location over an alternative that Winstone had earlier mooted (accessed via Harris Road). Winstone presented, in the application to PCC, a concept design for the proposed site entrance that had been approved by NZTA. PCC's witnesses raised no issues with the proposed design, accepting NZTA's approval of it. Most of the opposing submissions raised concerns about the suitability of the location of the proposed entrance and concerns about the impact of trucks entering and leaving the site via the entrance configuration proposed. Surprisingly, in spite of NZTA's approval of the proposed access location and design, the submissions of the New Zealand Police and the Automobile Association highlighted significant concerns about the risk to traffic safety presented by the proposed arrangement. The evidence presented to the hearing on behalf of these organisations was firm that the proposed access intersection configuration presents a real risk to traffic safety. Senior Sergeant Richard Hocken, who presented evidence

on behalf of the New Zealand Police, went as far as saying that he expected that, if the vehicle entrance was installed as proposed, serious injury or fatality would result. The submitters who live locally described graphically for us the risks associated with travelling on SH58 past the site and of the difficulties they experience in safely negotiating the Mt Cecil Road intersection. Mrs Harriet Fraser, a consultant Traffic Engineer called by 7 submitters who live in Mt Cecil Road, raised a number of specific concerns about the proposed entrance location and design.

12.2 At our request, Dr Fergus Tate (NZTA's National Road Safety Manager) and Mr Mike Seaborne (NZTA's Central Area Manager) attended the hearing and explained why NZTA has no concerns about the proposed vehicle entrance location. We are grateful to Dr Tate and Mr Seaborne for their attendance. We are mindful, however, that section 104 (3) of the RMA prevents us having regard to any effects on NZTA so do not propose to traverse the evidence given by the NZTA witnesses. We expect that the explanations given by Dr Tate and Mr Seaborne would have been helpful to the submitters who had difficulty understanding the reasons for NZTA's written approval.

12.3 The issues raised by submitters caused us considerable concern about potential risks to traffic safety. For that reason, we commissioned an independent traffic safety audit. At our request (and with Winstone's agreement) GWRC officers engaged Mr Jonathan England (a consultant Chartered Professional Engineer employed as Road Safety Audit Team Leader of MWH's Road Safety Audit Team who has completed over 320 road safety audits over the past 19 years throughout New Zealand) and Mr Oliver Brown (a consultant Civil Engineer and member of MWH's Road Safety Audit Team) to undertake a road safety audit in accordance with usual requirements for such audits[13].

12.4 At the same time, Winstone forwarded a suggested alternative entrance located approximately 70 metres north of the original proposed entrance. The purpose of the alternative entrance location is to lengthen the proposed acceleration lane for trucks exiting the site southbound (towards the Hutt Valley) and to create greater separation from the Mt Cecil Road intersection. Winstone asked us to amend the application to include both alternative entrance locations and to come to a decision as to which should be preferred.

12.5 The MWH report of Mr England's and Mr Brown's investigation concluded that the location in the application and the alternative location of the proposed entrance and the design of the vehicle entrance have some notable shortcomings. Specifically:

(a) Length of the right turn bay for vehicles approaching the site from Porirua: Failure to provide sufficient storage length could result in approach turning vehicles slowing in the adjacent through-lane or right turning vehicles queuing outside the turn lane thereby impeding the progress of through traffic travelling to the Hutt Valley and increasing the risk of rear-end or side-swipe loss of control crashes. The high traffic volumes during peak periods increases the likelihood and exposure to these types of crashes. MWH noted that this shortcoming could be overcome by lengthening the turn bay (and there is space within the road corridor to do so) and assessed the risk of death or serious injury as likely but infrequent – a 'moderate' safety concern;

[13] The brief to MWH required the road safety audit to be carried out in accordance with the *NZTA Road Safety Audit Procedures* (Interim Release, May 2013) and the IPENZ Code of Conduct.

(b) Right turn exit tracking curve: MWH considered that a truck and trailer turning right out of the site towards the Hutt Valley may result in the truck body crossing into or coming close to the lane line located between the through-traffic lane and the acceleration lane. This could result in Hutt-bound through-traffic side-swiping a right-turning vehicle or shying away from the right-turning vehicle and slowing in the through lane with potential for rear-end type crashes or entering the road shoulder where cyclists could be present. MWH noted that this could be overcome by providing sufficient clearance between the lanes and assessed the risk of death or serious injury as likely and occasional – a 'moderate' safety concern;

(c) Sight distance looking north (towards Porirua) from the proposed intersection: The site distance could be impeded by vegetation on the adjacent embankment as well as the embankment itself. There is potential for right-turning drivers exiting the site to pull in front of through traffic that has been obscured by the embankment and/or vegetation resulting in 'failure to give way' type crashes. MWH assessed the risk of death or serious injury as likely and occasional – a 'moderate' safety concern – but noted that the sight distance could be improved by clearing the vegetation and removing part of the embankment (all within the road designation);

(d) Dual exit lanes: MWH had assumed that two exit lanes were proposed from the site. Only one is proposed. MWH's concern on this point is overcome by Winstone's clarifying that only a single exit lane is proposed;

(e) Intersection delay and driver frustration: MWH noted that long delays and poor levels of service are expected for turning movements at the proposed intersection(s). Long delays lead to driver frustration and can result in drivers selecting gaps in traffic that are too small to safely undertake their turning manoeuvres and thereby forcing their way into the main traffic stream. This can result in crossing and turning and rear-end type crashes.

The Traffic Design Group Limited (*TDG*) Transportation Assessment Report estimated potential delays for right-turning trucks entering from SH58 as an average of 52-66 seconds per truck during the morning peak and 70 – 123 seconds per truck for the afternoon peak. During the inter-peak periods, the estimated delay for right-turning trucks is 30-32 seconds per truck. For exiting trucks, the average delay during the morning and afternoon peak periods was estimated at 54-110 seconds per truck and 27-35 seconds per truck during inter-peak periods.

MWH assessed the risk of death or serious injury as likely and occasional and recommended that options to reduce intersection delay should be considered. Mr England clarified in evidence to the hearing that the extent to which this would be a problem depends on whether the drivers using the facility are regular users of the cleanfill who are familiar with the situation or occasional drivers unfamiliar with the site and highway conditions;

Mrs Fraser also made the point that the assessment of delay did not account for potential future SH58 traffic growth associated with the Transmission Gully Motorway. In response to a request for further information from PCC, Mr Georgeson (a consultant Chartered Professional Engineer specialising in traffic engineering called by Winstone) provided further analysis of data supplied by Mr Kelly (a consultant Transportation Planner called by PCC) describing the estimated increased traffic flows resulting from the Motorway.

Mr Georgeson anticipated that additional highway volumes would result in increased delays and queues for vehicles turning to and from the site. He estimated that, for maximum truck volumes in the morning SH58 peak, the right-turn entry queue would increase from 1.5 vehicles to 3.2 vehicles. For the afternoon peak, the right-turn entry queue would increase from 2.6 to 5.3 vehicles.

(f) Southbound exit acceleration lane length: The MWH report expects that unladen heavy vehicles will be exiting the proposed site from a standstill. In the direction of the Hutt Valley, the acceleration lane has a maximum grade of 7.7% before merging with the Hutt-bound through traffic on the approach to a left-hand vertical crest curve with Mt Cecil Road intersection on the inside of the curve. The acceleration lane length is insufficient to allow a heavy vehicle to accelerate to a sufficient speed to facilitate safe merging with through-traffic. There will be a substantial speed differential between through traffic (having 85th percentile speeds over 100kph) and trucks in the acceleration lane (travelling at between 40 to 60 kph). This creates uncertainty for the faster vehicle driver as to whether to overtake or not – leading to rear-end type crashes related to sudden braking or side-swipe loss of control type crashes. The speed differential is further compounded by the approach to a left-hand vertical crest curve with the Mt Cecil Road intersection which increases the complexity for overtaking drivers and increases the potential conflict with other road users at the Mt Cecil Road intersection. MWH's concerns apply equally to the proposed alternative entrance location (in other words the additional 70 metres of acceleration lane makes little difference). MWH recommended that the speed differential between through-traffic bound for the Hutt Valley and the acceleration lane traffic should be no more than 20 kph. MWH assessed the risk of death or death as likely and frequent – a serious safety concern;

(g) Location of Hutt-bound merge lane vis-à-vis the Mt Cecil Road intersection: MWH considered that the combination of the 7.7% uphill gradient, horizontal curve, vertical crest curve and the presence of the Mt Cecil Road intersection is undesirable and presents a number of safety concerns that could result in head-on, loss-of-control, side-swipe and crossing and turning type crashes. MWH had observed unsafe overtaking manoeuvres at this southern end of the existing passing lane that continued into the merge area and through the Mt Cecil Road intersection. The unsafe merges were more prevalent where slow-moving vehicles such as buses travelling at 50 kph were being overtaken. The issues observed are similar to those anticipated for trucks using the proposed acceleration/merge lane:

- The large speed differential creates uncertainty for faster drivers as to whether to overtake or not;

- If a driver in the left-hand lane decides to under-take a slow-moving truck in the acceleration lane and makes an error, they will be forced off the road or at least onto the narrow shoulder which will lead drivers into vehicles that may be waiting at the Mt Cecil Road intersection limit line resulting in run-off-the-road loss-of-control or 'T'-bone type crashes;

- A vehicle in the left-hand lane passing a slow heavy vehicle in the acceleration lane could be hidden from view from a driver waiting in

the right-turn bay to turn from SH58 into Mt Cecil Road. This could lead to right-turn type crashes;

- The acceleration lane is likely to be used as a passing lane with Hutt-bound drivers choosing to overtake slower moving vehicles in the same direction. This could result in overtaking vehicles being forced over the centre line at the merge area and potentially into the Mt Cecil Road right-turn bay leading to loss-of-control overtaking or head-on type crashes.

MWH recommended that the speed differential be limited to less than 20 kph thereby improving the decision making opportunity for Hutt-bound drivers. MWH also recommended a clear separation between the acceleration lane and the Mt Cecil Road intersection. MWH assessed the risk of death or serious injury as likely and frequent – a serious safety concern;

(h) Cleanfill security gate location: The security gate needs to be positioned so as to avoid vehicles queuing onto SH58. MWH assessed the risk of death of serious injury as likely and occasional but acknowledged that this issue could readily be overcome in the detailed design;

(i) Shoulder width provision for cyclists: MWH observed that the 7.7% uphill gradient meant that cyclists would be moving relatively slowly with an increased likelihood of weaving even with experienced cyclists. Narrow shoulders would increase the risk of side-swipe or rear-end type crashes. It appears that there is sufficient road corridor to ensure an appropriate shoulder width is maintained in the re-configured entrance and road design;

(j) Vegetation at the Mt Cecil Road intersection: MWH observed that vegetation immediately north of the intersection obscures clear sight lines to the north but acknowledged that this obstruction could easily be cleared;

(k) Lane marking, signs and street lighting: MWH recommended that the re-configured entrance and road lanes be clearly marked with a new surface layer to avoid confusion and with appropriate road signage.

12.6 Mr England advised that his safety audit recommendations regarding the clearance of visibility obstructions had been forwarded to NZTA's road maintenance team.

12.7 Mr Georgeson[14], responded in supplementary evidence to the points raised in the MWH safety audit report and put forward some adjustments to design that he and Winstone considered would overcome the safety concerns raised by MWH.

12.8 Mr England, who attended the hearing to answer our questions about the traffic safety audit, agreed that most of the vehicle entrance's shortcomings could be overcome by design adjustments. However, he remained substantially concerned by two aspects of the proposed configuration: the length and location of the Hutt-bound acceleration lane in relation to the Mt Cecil Road intersection. In answer to the Panel's questioning, Mr England stated that he considered these features of the proposed entrance configuration and the juxtaposition of the Hutt-bound merge with the Mt Cecil Road intersection present an unacceptable level of risk and that, if not addressed, would make the proposed configuration unsafe.

[14] It is relevant to note that, whilst Mr Georgeson and Ms Fraser are qualified and experienced in the specialist field of traffic engineering and transportation planning, neither is an accredited road safety auditor.

12.9 Mr Georgeson and Mrs Fraser had differing opinions about the speed that exiting trucks would achieve up the 7.7% gradient Hutt-bound. Both had undertaken truck trials using different vehicles. The speed is relevant in terms of the likely speed differential between through traffic and exiting trucks. Mr Paul McCready, a submitter, runs an engineering business from his Mt Cecil Road property and drives heavy vehicles along SH58 on a daily basis. It was his opinion that trucks accelerating uphill Hutt-bound from the site will not be able to achieve adequate merging speed and will cause queuing of vehicles behind them. Mr McCready considered that the late-model Freightliner truck used in Mr Georgeson's acceleration trial is not representative of the typical older-model and lesser powered trucks used to transport cleanfill. This truck type is, he said, a long-haul freight vehicle. Both Mrs Fraser and Mr Georgeson agreed that there would be a range of trucks and truck engine capacities arriving at and leaving the site and therefore there would be a range from slow to faster trucks. It was Mr Georgeson's opinion that there is sufficient sight distance in both directions for vehicles approaching the entrance from the direction of Porirua or from the Hutt Valley to allow drivers to see any trucks exiting the site and to slow safely. We also note the concern of submitters, based on personal experience, that not all drivers perform 100% perfectly all of the time and that driver error will periodically occur as demonstrated by the crash record[15]. We note, in this regard, that one of the three objectives of the *Safer Journeys* strategy is to make the road transport system more accommodating of human error.

12.10 Mr Georgeson presented a plan demonstrating that the proposed design incorporates sufficient space to enable a truck and trailer unit to contain its right-turn exit within the dedicated acceleration lane. However, Mrs Fraser's concern was (based on observations of a range of actual truck movements and driver capabilities) that there remains a risk that some less competent truck drivers may not confine the manoeuvre as intended. There was some discussion at the hearing of the merits of incorporating safety posts to delineate and separate the acceleration lane from the through-traffic lane. Mr Georgeson stated that he did not consider such a measure to be necessary. The correspondence between NZTA and Winstone also confirmed that NZTA does not support the use of such posts.

12.11 Mr Georgeson stated in his supplementary evidence that NZTA has recently been reviewing the speed limit along this section of SH58 and that the Agency is considering reducing it to 80 kph. One outcome expected to result from the reduced speed limit is that the speed differential between through traffic and merging heavy vehicles should reduce. He also stated that PCC has joined with NZTA to facilitate complementary side road changes. According to Mr Georgeson, the posted speed limit reduction will now progress through a statutory process involving engagement with stakeholders and the wider community before gazettal and implementation possibly in early 2014. However, Mr Georgeson accepted that the speed limit reductions are not certain and that the original and alternative entrance designs had been put forward on the basis of the current 100 kph speed environment.

12.12 In his closing legal submissions on behalf of Winstone, Mr Matheson submitted that there is a further detailed design stage to go through before the entrance is

[15] We note that the traffic experts (Mr Kelly, Mr Bill Barclay on behalf of Hutt City Council, and Mr Georgeson) agreed in witness conferencing prior to the hearing that SH58 generally has a poor crash history but that the crash history in the location of the proposed entrance is relatively good. However, we note that Mrs Fraser was not authorised by her clients to participate in witness conferencing. Mrs Fraser's opinion was that the relatively good crash record is in the absence of the risks that would be posed by introducing an entrance in the location proposed. Her opinion was that this would create new and unacceptable crash risks and worsen the overall SH58 safety profile.

constructed and that this process will include further traffic safety audits. The outcome of those audits will need to satisfy both NZTA and PCC that the proposed access and associated highway works are safe. Mr Matheson noted that the MWH safety audit was undertaken at concept design stage and that there are further stages of design and safety auditing yet to play out which could resolve the concerns raised by MWH. According to him, the road safety audit is intended to be iterative. He also observed that the purpose of a safety audit is 'simply to make recommendations'. Mr Matheson is confident that a design solution will be developed as part of the iterative audit process and that, if such a solution cannot be found the project will not proceed. Mr Matheson also reminded us that it was not MWH's role to provide solutions to the problems identified. He stated that we are required to look beyond the problems and to identify whether we can develop consent conditions that satisfactorily address the potential issues raised in respect of traffic safety. It was Mr Matheson's submission that such appropriate conditions could be developed.

12.13 Accordingly, it was Mr Matheson's submission that the written approval of NZTA should be given considerable weight. Mr Matheson confirmed that Winstone will accept a requirement that operation of the cleanfill entrance be conditional upon the SH58 speed limit being reduced to 80 kph and to the use of safe hit posts to define the access way and to prevent the right-turn lane into the site and the southbound acceleration lane being used as a passing lane.

12.14 Mrs Fraser stated that a reduction to 80 kph will not necessarily completely resolve the speed differential concern because of the likelihood that actual vehicle speeds will be higher (perhaps up to 90 kph) and that the speed differential will still be greater than 20 kph. Mr Matheson highlighted the wording used in the MWH safety audit report which recommended that the speed differential be *minimised* to *preferably* less than 20 kph. He submitted that MWH had not recommended the speed differential be completely eliminated. Mr England was clear in his answers to our questions that, even if the actual travelling speeds of through traffic and therefore the speed differentials were reduced and even with the entrance shifted 70 metres to the north, this would not overcome the significant safety risks presented by the location of the termination of the merge between the acceleration lane and the through lane I close proximity to the Mt Cecil Road intersection and the challenges presented by the horizontal and vertical alignment of SH58 in that location. He identified this as a physical limitation of the site and road at this point.

12.15 Some of the submitters who live in Mt Cecil Road also raised concerns about safety risks for school children and other pedestrians waiting for school buses at the Mt Cecil Road intersection. They clarified that this is not a formalised bus stop but has become a convenient location for picking up and dropping off children. However, Mrs McCready also clarified that, due to the existing potentially dangerous conditions at the intersection, families prefer to use the bus stop at Moonshine Road (further to the north). Margaret Morgan told us in evidence that she regularly walks to and through the Mt Cecil Road intersection and that she has seen other people also walking there.

12.16 Mrs McCready also told us that the northbound lane past both of the proposed site access points is commonly used by motorists as a passing lane. She expects that vehicles will attempt to pass northbound trucks that are slowing to enter the site and that this will also create new safety risks. We note that some submitters expressed concern at the hearing about whether the proposed alternative entrance location could be considered to be within the scope of the original application.

12.17 We note Mrs Fraser's opinion that the proposed entrance configuration would be inconsistent with the relevant safety objectives of the *New Zealand Transport Strategy 2008, Government Policy Statement on Land Transport Funding 2012, National Infrastructure Plan 2011, Safer Journeys – New Zealand's Road Safety Strategy 2010 – 2020, Connecting NZ (2011),* the *Greater Wellington Regional Land Transport Strategy 2010 – 2040* and the PCC District Plan.

12.18 Mr Watkins' original recommendation was that a grant of consent could be made, relying on the traffic evidence available to him at that time which suggested the proposal would not have adverse traffic safety effects. Having considered the MWH road safety audit and the evidence of Mr England, Mr Watkins amended his recommendation and concluded that consent should not be granted on the grounds of potential adverse traffic safety effects.

12.19 We also note that the Automobile Association's submission and tabled evidence recommended the construction of a grade-separated entrance arrangement (e.g. an overpass or underpass beneath SH58) to completely separate truck traffic visiting the site from through-traffic on SH58. Mr Georgeson's view was that the cost of such a measure would be disproportionate to the risks involved and that there is insufficient space clear of the Pauatahanui Stream to fit such a structure and that the gradients of the south-facing on-ramps and off-ramp would be excessive. Mr England made the point that a grade-separated structure would not resolve the challenges associated with traffic merging from any under-road tunnel. Neither would it resolve the risks associated with the merge occurring in the context of the geometry of the Mt Cecil Road intersection.

Finding: Traffic Safety

12.20 Whilst we accept Mr Matheson's point in principle – that appropriate conditions *may* be able to be developed to address the significant safety issues identified – we were not presented with a complete suite of conditions that *will* address all identified safety issues, nor did the expert evidence provide complete solutions to all safety matters, in particular the physical limitations of this section of highway. We are not prepared to grant land use consent for an activity reliant on a vehicle entrance in the location proposed in the hope that some future road safety audit process might address the significant safety issues arising for this particular location.

12.21 None of the measures discussed in Mr Georgeson's or any witnesses' evidence actually addresses the risks inherent in the *location* of both the proposed and alternative vehicle entrance locations. It is the location that determines the position of the merge between through-traffic and Hutt-bound trucks so close to the Mt Cecil Road intersection which combines a 7.7% uphill gradient with adverse horizontal and vertical curves. It is our view that the proposed site access scheme cannot be considered in isolation from the Mt Cecil Road intersection because of their close proximity.

12.22 We note Mr Georgeson's views that the proposed arrangement does not introduce any 'new' merge at this location. In our view however, there is a material difference between the existing and the proposed situations, because slower moving vehicles will be travelling in the right-hand lane rather than being within the left-hand lane as is more commonly encountered. In our view this creates additional complexity and driver uncertainty. We further note that the merge area is an integral part of the passing lane, yet NZTA intends to remove the passing lane for safety reasons.

12.23 Mr England was candid in his oral answers to our questions that significant re-configuration of the Mt Cecil Road intersection and the approaches to it would be necessary in order to make the proposed merge arrangement function safely. Mr England accepted that some re-configuration may be possible that would make it safe. The plain position is, however, that no upgrading of this existing intersection is currently proposed.

12.24 In this respect, it is our view that both the proposed location and the alternative location for the vehicle entrance to this site are not suitable for the intended activity. The safety risks identified by Mr England, the New Zealand Police and Mrs Fraser on behalf of submitters who live locally were not described as remote possibilities. Rather, they were described as 'likely' and 'frequent' with the potential for death or serious injury. Our conclusion is that a grant of consent for this proposal, with that level of risk, would fail to promote the health, safety or wellbeing of the community and would be inconsistent with the sustainable management purpose of the RMA. We have also considered the relevant provisions of the 2010 *Safer Journeys – Road Safety Strategy* and conclude, on the evidence presented, that the proposed access arrangements would fail to give proper effect to the objectives of that Strategy. We also agree that the proposed entrance would be inconsistent with the safety objectives of the policy documents referred to by Mrs Fraser.

12.25 We note that the estimated delays for truck drivers entering the site from the north on SH58 are in the order of 52 – 66 seconds during the morning peak and 70 – 123 seconds during the afternoon peak. Delays during the inter-peak are lower, at 30 – 32 seconds per truck. Delays for trucks exiting the site are 54 – 110 seconds per truck during peak periods and 27 – 35 seconds during inter-peak periods. These are potentially long delays and we agree with Mr England that there is potential for truck driver frustration at such delays. We are not satisfied that any of the measures discussed in evidence (e.g. driver education, signage) will be rigorously effective in preventing driver frustration, particularly for drivers who have busy commercial schedules to keep. Delays will only be compounded as traffic number increase, for example as a result of increased traffic flows from Transmission Gully Motorway when that is commissioned.

12.26 For completeness, we record that we are satisfied that the proposed alternative entrance location falls within the scope of the original application. The only party that could, in our view, potentially be directly adversely affected by the proposed location is that belonging to Mr and Mrs Schofield (9 Mt Cecil Road) in terms of noise, traffic movements, vehicle lights, earthworks construction, dust and visual appearance. We explicitly provided an opportunity at the reconvened hearing for submitters, including Mr and Mrs Schofield, to present evidence in relation to the proposed alternative location. Mrs Schofield took the opportunity to do so and we have noted her concerns.

12.27 We do not consider that the suggestion of a grade-separated vehicle entrance or tunnel has any merit in this particular situation for the reasons explained by Mr Georgeson and Mr England.

13 Potential Traffic Delays

13.1 There was no dispute between the traffic experts (Mr Georgeson for Winstone, Mr Kelly for PCC and Mrs Fraser for submitters) that trucks slowing to enter the site and trucks exiting the site would cause delays to through-traffic on SH58. Mr Kelly and Mr Georgeson did not consider this would create any difficulty for the through-traffic.

Mr Georgeson's opinion was that there is ample visibility in both directions for on-coming traffic and that, therefore, oncoming traffic will have ample time in which to safely slow down if necessary. Mr England concurred.

13.2 There was dispute at the commencement of the hearing about the length of clear sight line from the Mt Cecil Road intersection looking north. However, Mr Georgeson specifically measured the sight distance in accordance with agreed methodology and the experts agreed that the sight distances are 310 metres to the south and 320 to the north.

13.3 Mrs Fraser considered that the need for through traffic to slow would impose delay costs on SH58 motorists and that it introduces a safety risk.

13.4 Mr Georgeson's assessment, detailed in the TDG Transportation Assessment report, was based on actual truck movements at Dry Creek. For the five-year period 2007 to 2012, Winstone's records show an average of 44 trucks per day, 85th percentile of 62 trucks per day, 95th percentile of 105 trucks per day and a maximum of 259 trucks per day. The TDG report confirms that the patterns of truck movements are relatively similar from day to day.

13.5 One of the conditions imposed by NZTA in its conditional written approval is a limit on the number of truck movements to and from the site during peak commuter travel times on SH58. This was worded in the draft conditions as a maximum of 40 truck movements per hour to the site and 40 truck movements per hour from the site between the hours of 7.00 am - 9.00am and 4.00 pm - 6.00 pm on weekdays. According to the figures in the TDG Transportation Assessment, average hourly truck numbers do not exceed 7 and the peak movements typically occur between 11.00 am and 2.00 pm. The TDG assessment of effects was based on the following assumptions:

(a) Peak truck movements of 40 – 50 trucks per hour during the SH58 inter-peak period and 20 – 30 trucks per hour during the SH58 peak periods. This was considered to provide a conservative design assumption based on a busiest day scenario;

(b) 85th percentile truck movements of 10 trucks per hour during the peak and inter-peak periods on SH58; and

(c) Average truck movements of 5 trucks per hour (all turns) during the peak and inter-peak periods on SH58.

13.6 Even applying maximum truck volumes, Mr Georgeson's estimates of average delays for through-traffic on SH58 are a maximum of 6.5 seconds and, generally, substantially less (as presented in Appendix 1 of the TDG Transportation Assessment Report). Mr Georgeson's opinion was that there would be occasions, under both average and larger volumes of traffic, when through-traffic will need to slow momentarily at the merge with exiting trucks to allow safe merging movements even with the proposed alternative entrance in much the same way as the existing situation – except that he expected this would occur on fewer occasions on account of the removal of the passing lane.

13.7 Mrs Fraser's opinion was that the need for through-traffic to slow as exiting trucks join either northbound or southbound through-traffic flows will not be on an occasional basis. It was her opinion that this would occur almost every time a truck exits the site throughout the day, given the traffic volumes and speeds along SH58

the likely (slow) truck acceleration rates. Mrs Fraser also considers that such slowing will not be momentary, based on the truck trials she conducted in which it took 309 seconds for a northbound unloaded single-unit truck to reach 68 kph and 25 seconds for the same truck to reach 36 kph southbound. Mrs Fraser expects that northbound through-traffic could regularly be delayed by more than 30 seconds as a Porirua-bound truck exits the site and significantly longer for southbound traffic slowing to merge with exiting Hutt-bound trucks.

13.8 Mrs Fraser also made the point that the assessment of delay did not account for potential future SH58 traffic growth associated with the Transmission Gully Motorway. Mr Georgeson acknowledged in his evidence that traffic volumes on SH58 east of the Motorway route will increase. In response to a request for further information from PCC, Mr Georgeson provided further analysis of data supplied by Mr Kelly describing the estimated increased traffic flows resulting from the Motorway. Mr Georgeson anticipated that additional highway volumes would result in increased delays and queues for vehicles turning to and from the site (discussed earlier). In all scenarios, Mr Georgeson estimates that all queues would be able to be accommodated within the right-turn bay where its width exceeds 3.5 metres. Outside peak times and with lesser truck volumes, Mr Georgeson's analysis demonstrates that movements during inter-peak periods would easily be accommodated in the space available for queuing with little change in performance even with the Motorway flows added.

13.9 Submitters also made the point that any crash that closes SH58 creates potentially long delays for motorists. Their point was that this should be counted as a potential cost of the proposal.

13.10 There was no dispute that the truck movements would be accommodated within the capacity of SH58 and the point was made that most of the trucks already use SH58 to access the Dry Creek cleanfill.

Finding: Potential Traffic Delays

13.11 We agree with Mrs Fraser that the duration of delays caused by having to slow for exiting trucks will depend on the acceleration capability of individual trucks. The evidence is that there is likely to be a range of engine capabilities and driver competence. We accept that trucks in both directions are likely to create incidents of slowing and delay frequently throughout every day that the cleanfill operates. This delay must be acknowledged as a cost (adverse effect) of the proposal. However, we do not consider that the anticipated delays for through-traffic constitute a significant adverse effect that would, itself, warrant declining consent. In coming to this conclusion, we have explicitly considered the potential future traffic patterns on SH58 and, specifically, additional traffic from the Transmission Gully Motorway.

13.12 We are satisfied that there is sufficient sight distance from the nearest bends to the originally-proposed site entrance to enable all vehicles to clearly see any turning trucks (entering or exiting) and to slow to avoid them.

13.13 We have considered the implications of delays for truck drivers entering and exiting the site in the foregoing discussion of safety issues. We acknowledge that any delays associated with traffic crashes associated with vehicle movements to and from the proposed cleanfill site should be seen as new adverse transportation effects associated with the project.

13.14 The rationale for the 40 truck-per-hour limit imposed by NZTA for peak travel periods is difficult to understand. Winstone's own evidence is that average peak-period truck movements to and from the Dry Creek cleanfill are of the order of 20 – 30 vehicles per hour. Our conclusion is that the limit of 40 would not be a meaningful limit for the foreseeable future.

14 Removal of the SH58 Passing Lane

14.1 Some submitters support this initiative because they consider that the passing lane is too short and, being on a 7.7% uphill gradient, creates situations where drivers have not quite completed their passing manoeuvre before the end of the merge. Other submitters oppose the removal of the passing lane because it is the only passing lane for south-bound traffic between Pauatahanui and the Haywards intersection with SH2.

14.2 Winstone included in its application a copy of a letter from NZTA dated 22nd February 2012 which states that the passing lane is substandard and that a decision had been made that the passing lane could be removed (and setting out a number of conditions Winstone would have to meet in the design and construction of the proposed site entrance).

14.3 It was Winstone's evidence, confirmed by the oral evidence of Dr Tate and Mr Seaborne for NZTA, that NZTA intends to close the passing lane regardless of Winstone's proposal. This Panel has no jurisdiction over NZTA's decision-making about the design of and provision of passing facilities within SH58 and have no comment on its decision to close the passing lane. We simply note that, if the cleanfill were to proceed with an access along this section of SH58 the evidence was clear that would be incompatible with retention of the passing lane.

15 Dust

15.1 Submitters who live in the Mt Cecil Road vicinity (including Margaret Morgan, Mr and Mrs Schofield, Mr Wright and Mr and Mrs McCready) raised concerns about the potential for dust to blow from the site onto their properties and settle on land, cars, houses and animals and to pollute roof-fed tank water supplies.

15.2 Mr Andrew Curtis, a consultant Chemical Engineer specialising in air quality assessment called by Winstone, examined the topography and wind records for the proposed site. He concluded that the topography would have a significant effect on local meteorology in that the valley would funnel winds from the (predominant) north to a northwest direction and would funnel winds from the south to a southeast direction. Mr Curtis considered data from the nearest meteorological stations at Wallaceville and Linden which are both some distance from the proposed site. He considered that these two stations were unlikely to be representative of local meteorological conditions because they are located in valleys which are orientated differently to the Pauatahanui site. Therefore, he generated a synthetic meteorological data set for the proposed site using a computer model called *The Air Pollution Model* calibrated with meteorological data from the available stations. Mr Curtis' windrose illustrating the modelled conditions indicated the predominant wind directions are from the northwest and north-northwest. Submitters were critical of the absence of meteorological data from nearer to the Pauatahanui site and, based on their own observations, considered the terrain would significantly affect the local wind direction and funnelling differently from Mr Curtis' predictions.

15.3 Mr Curtis explained that potential air emissions from the cleanfill would be particulate dust and combustion emissions from machinery and trucks on site. Mr Curtis explained that the particulate dust likely to be generated by earthworks, placement and compaction of fill, vehicle and machinery movement and wind erosion of fill areas would generally be larger than 50 micrometres in size and would rapidly fall to the ground once disturbed. Mr Curtis stated that the distance that dust will travel before settling will depend on three factors: (1) wind strength; (2) dust particle size; and (3) dust particle density. Adopting worst-case inputs of wind strength, dust particle size and density, he predicted that the dust could travel a maximum of 360 metres before settling. For this purpose, Mr Curtis considered wind strengths of 5 m/s (18 kph) and 10 m/s (36 kph). He also adopted a particle diameter of 50 micrometres which he said is the smallest diameter that could be expected from dust generated by cleanfilling activities. However, Mr Curtis estimated that the furthest any dust would travel would be 50 metres from the site if all of the on-site mitigation measures he recommended were implemented (minimising exposed areas, re-vegetating finished areas and stockpiles, and use of water cart(s)).

15.4 The nearest property to the site is the Schofield property (where the dwelling is 260 metres from the site boundary[16]). Mr Curtis identified four properties that are less than 360 metres from the site boundary. Two of these properties are located to the southeast (directly downwind of the prevailing wind direction – at numbers 2 and 8 Mt Cecil Road). One of the four properties is to the north (owned by the landowner who has given written approval and we are unable to have regard to effects on that person). The fourth property is to the east (the Schofield property at number 9 Mt Cecil Road). Mr Curtis considered that, of the nearby residences, the dwelling at number 8 Mt Cecil Road (the Morgan property) has the greatest potential to be affected by dust discharges because it is the closest downwind property. Although the Schofield property is closer, it is not strictly downwind as Mr Curtis saw things.

15.5 Mr and Mrs Schofield and other submitters described how the wind can funnel in all directions, not just northwest and southeast as Mr Curtis predicted. They also considered that Mr Curtis' wind strength assumption under-stated the actual wind strength that they experience. Mr Curtis acknowledged that stronger wind conditions occur however, based on his modelled meteorological data, he expected that these conditions would be rare (less than 1.4% of the time and approximately 0.95% of the time actually blowing towards the nearest dwellings). Even with stronger winds blowing directly at nearby dwellings, Mr Curtis expected that the potential for dust nuisance is low because most dwellings are either too far from the site or are not directly downwind. He considered that there is some potential for dust nuisance at the Wright and Morgan dwellings if no mitigation were put in place. However, with successful on-site mitigation, Mr Curtis considered there would be limited potential for dust nuisance at these properties. Winstone proposes to address the detailed on-site dust management in a proposed cleanfill management plan and the proposed annual management plan process.

15.6 Mr Curtis considered that any vehicle emissions would be at such low levels, relative to the open nature of the site and the proximity of SH58 that they would not be detectable beyond the site.

15.7 On behalf of the submitters who live in Mt Cecil Road, Mrs McCready stated in supplementary evidence, drawing on information presented by Mr Fern, that a Belmont meteorological station recorded wind speeds between 18 kph and 72 kph (5 m/s to 20 m/s) for 71% of the time. Mrs McCready and the Mt Cecil Road submitters

[16] Paragraph 7.10 Andrew Curtis statement of evidence

considered that Mr Curtis' assessment had underestimated the frequency and strength of the high winds that characterise this area. Mrs McCready highlighted an example (Winstone's own Belmont overburden cleanfill) where GWRC's consent condition requires that on-site activities cease when the wind is blowing in the direction of nearby dwellings at speeds exceeding 5 m/s. That is, in our view, an appropriate restriction that should be included in any cleanfill management plan for dust-generating activities that are particularly close to nearby dwellings (the Schofield and Wright properties for example).

15.8 Mr Curtis considered that, even if a greater frequency of stronger winds from the northwest are experienced, that would simply mean that water carts need to be operated more frequently. It did not alter his confidence that on-site management measures would be sufficient to control nuisance dust. We asked Mr Curtis what the effects might be at times of high wind when the cleanfill is closed and not staffed (such as at night). Mr Curtis explained that applying water using the water cart at the end of the day is commonly used to form a crust on the surface to hold particles in place overnight. He also suggested that the on-site meteorological station could be used to trigger actions, including at night, if nuisance dust is detected.

15.9 Mr McGregor stated that Winstone has received very few complaints relating to the Dry Creek cleanfill. He explained that all non-worked areas are planted to prevent erosion. Water carts are used whenever necessary to prevent any adverse dust effects. We note that the exposed area at Dry Creek is substantially less than the 5 hectares proposed for the Pauatahanui site[17] and that the topography at Dry Creek is enclosed by high hills whereas the Pauatahanui site is more open.

15.10 Winstone is confident that its proposed on-site measures would be sufficient to control any dust within the site. Notwithstanding its confidence, and acknowledging the *potential* for dust to affect some nearby properties (albeit of low probability as predicted by Mr Curtis), Winstone was prepared to accept a condition requiring the installation of dust deposition gauges around the boundary of its site facing the residential properties. In addition, Winstone was prepared to wash the Schofields' roof and clean their water tank up to two times over the construction period of the Stage 1 access development (if requested by the Schofields).

Finding: Dust

15.11 We are satisfied that, in general, the measures Winstone proposes should be sufficient to manage potential dust generation within the boundaries of the site. However, we acknowledge that there may be particular wind conditions or activities (such as construction earthworks near the Schofield property) that may give rise to dust discharges beyond the site. We are not persuaded that these will necessarily result in dust nuisance, however, for nearby properties. We consider that on-going monitoring of dust is appropriate, using continuously-monitoring in-situ gauges as proposed by Winstone. If monitoring detects dust discharges, this information will allow Winstone to adjust its on-site management to avoid dust nuisance for nearby properties. We agree with Mr Curtis that the detection of nuisance dust by the in-situ monitoring gauges should trigger the implementation of enhanced mitigation measures including after hours.

[17] Mr Michael Harris, Winstone's Engineering Geologist, stated that the Dry Creek cleanfill is currently operating an open area of approximately 2.5 – 3.5 hectares and that the open area at Dry Creek is constrained by topography and final batter slopes.

15.12 We agree that Winstone's offer to clean the roof and water tank of the Schofield property during and/or at completion of the earthworks nearest that property is an appropriate response to the potential for dust from those activities. However, we consider that response does not go far enough. If dust is found to have affected the Schofields' roof and water supply, Winstone should also be required to supply potable water until such time as the roof water supply is cleaned and the risk of further dust contamination has passed. Given that Mr Curtis acknowledged the potential (however remote in his opinion) to also affect the dwellings at numbers 2 and 8 Mt Cecil Road, our view is that this requirement should also be extended to these properties.

16 Noise

16.1 Submitters were concerned about the likely noise of machinery operating on the cleanfill site and trucks entering and exiting the site. They were also concerned about the potential for use of truck air brakes on the downhill approach from the Hutt Valley.

16.2 The relevant acoustic experts, Mr Stephen Arden for Winstone and Mr Nigel Lloyd for PCC, clarified that noise generated by vehicles on public roads is generally exempt from control by District Plan limits. Mr Arden considered that the use of engine brakes is unlikely to make any appreciable difference to the overall noise levels but that the character of the sound, when compared to general traffic noise, may result in it being noticeable to residents on occasion. Winstone proposes to include, within the cleanfill traffic management plan and driver's code of conduct, a prohibition on the use of engine brakes by trucks on the internal access road and when approaching the cleanfill entrance on SH58.

16.3 Mr Arden and Mr Lloyd agreed that it is appropriate to compare the predicted noise from the cleanfill operations with the District Plan permitted activity standard for this rural area. The District Plan standard permits a maximum of 55 dBA L_{10} during the day time (7am – 10pm) and 45 dBA L_{10} during the night (10pm – 7 am). The standard also limits single-event noise to 75 dBA L_{max} but only during the night (10pm – 7 am). There is no limit on single-event noise during the day time. Noise compliance is measured within 20 metres of any dwelling on any nearby property.

16.4 Mr Arden predicted the likely noise emission from the proposed activities using SoundPLAN environmental noise modelling software following the standard methodology. Mr Lloyd agreed that the methodology had been correctly applied and that all likely sources of noise had been appropriately accounted for. Mr Arden's modelling considered an average of 44 trucks per day with a maximum of 250 per day and 40 truck movements within any one hour. Mr Lloyd agreed that his approach was conservative. Mr Arden's modelling predicts that noise from all cleanfill activities would comfortably comply with the relevant District Plan standards.

16.5 The maximum predicted noise level is 47 dBA L_{10} at the nearest dwelling (616A Paremata-Haywards Road (SH58) which is owned by the landowner who has given written approval). For all other nearby dwellings, the maximum predicted L10 noise is 43 dBA (predicted for the Schofield property at 9 Mt Cecil Road).

16.6 Mr Arden undertook background noise monitoring at 588 Paremata-Haywards which demonstrated that the ambient noise in this locality is strongly influenced by traffic noise on SH58 and is higher than might otherwise occur in the rural area.

Interestingly, submitters who spoke about noise told us that they barely notice the highway traffic noise.

16.7 Mr Arden recorded ambient daytime levels of 75 dBA Leq and 95 dBA Lmax and night time ambient levels of between 45 dBA and 75 dBA Leq and 75 dBA – 85 dBA Lmax. Submitters were concerned that the position Mr Arden chose for measurement of ambient noise was not closer to the residential properties at Mt Cecil Road. Mr Arden presented, in a supplementary statement of evidence, the results of subsequent noise sampling he undertook at 9 Mt Cecil Road. The measured sound levels were in the range 47 – 50 dBA for the 3 hours of monitoring. The readings at 558 Paremata-Haywards Road showed a range of 39 – 56 dBA with an average of 46 dBA during the weekday daytime. Mr Lloyd considered that the background monitoring at 558 Paremata-Haywards Road is fairly representative of background sound levels in this area.

16.8 Mr Arden predicted that the increase in noise emissions from SH58 due to the increase in heavy vehicles using the road would be less than 0.5 dB which he and Mr Lloyd agreed would not be perceptible.

16.9 There is no District Plan construction noise standard. Mr Arden and Mr Lloyd agreed that incorporation of a condition referencing the NZ Standard 6803: 1999 would be an appropriate limit on construction noise and both agreed that the proposed construction activities should be able to comply with that standard.

16.10 Submitters were concerned that Mr Arden's noise assessment had not properly accounted for the frequent single-event noise likely to be generated by the banging of tail-gates on trucks as drivers shake vehicles to empty the last of a load and by the impact of loads of heavy materials being dumped. Mr Arden and Mr Lloyd agreed that this noise is a particular feature of cleanfills. They agreed that this contributes to the noise generated from such sites having 'special audible characteristics' which would attract a 5 dB noise 'penalty' under the relevant NZ Standard 6802: 1991. Mr Arden stated that cleanfill activities prior to 7am would have the potential to exceed the noise limits if the 5 dB penalty for special audible characteristic were applied. However, he noted that Winstone is proposing no activity before 7 am except for a limited number of after-hours periods associated with civil defence or other emergency work. For the general hours of operation, he predicts that the activities will comply with the District Plan standard even accounting for the special audible characteristic penalty.

16.11 Mr Arden and Mr Lloyd also made the point that loud single-event noise is a feature of this environment anyway – attributed to loud engine exhaust noise such as motorbikes and the banging of empty truck trailers and the accumulation of sound from many vehicles passing simultaneously on SH58. Mr Arden calculated that the worst case Lmax noise level would be at the properties closest to the cleanfill site than what is currently received from traffic on SH58. Mr Arden and Mr Lloyd considered that any loud single-event noise generated within the cleanfill site would be indiscernible from similar noises generated by vehicles on SH58.

16.12 Mr Arden also commented, in a supplementary statement of evidence, on the potential noise effects of the alternative entrance location. Mr Arden stated that the predicted noise level associated with the alternative entrance location is within 1 dB of his original predictions which would be imperceptible to residents.

16.13 Winstone proposes to undertake noise monitoring of cleanfill operations within 30 days of work commencing at each of the proposed four stages to demonstrate

compliance with the District Plan noise limits imposed as a volunteered condition of consent.

16.14 Mr Lloyd and Mr Arden agreed that some noise would be audible at nearby residences but this does not mean it would be intrusive or unacceptable by comparison with the usual Rural Zone noise standards.

Finding: Noise

16.15 We are satisfied that noise from the proposed cleanfill activities will not exceed the usual standards accepted as reasonable for this rural environment and that any noise generated will be largely masked by, or indiscernible from, the SH58 noise which currently dominates this environment. We are also satisfied that the proposed conditions of consent are appropriate for ensuring the usual District Plan standards are met.

17 Vegetation Clearance and Terrestrial Ecology

17.1 Mr Park prepared the assessment of terrestrial ecological effects that accompanied the application. Section 2.2 of that assessment describes the process of 'project shaping' that was undertaken, that Mr Park contributed to, whereby refinements to the proposed cleanfill footprint were made to minimise the removal of indigenous vegetation from the main tributary stream gully. In addition to vegetation mapping, the assessment process involved manual searches for lizards (focused on terrestrial refugia available within the site) in February and June 2012. In addition, Boffa Miskell distributed 4 groups of 10 artificial refugia across the site in an effort to determine the probable distribution of herpetofauna communities within and surrounding the site. The Boffa Miskell assessment report states that the only herpetofauna species found through this process was a solitary common skink.

17.2 Stage 4 of the proposed cleanfill would necessitate the removal of approximately 7,000 square metres of indigenous vegetation from the upper gully of the main tributary. This vegetation is not listed in the District Plan or in any regional plan as being ecologically significant. As earlier noted, the removal of the vegetation would (separately) require consent as a discretionary activity under the District Plan.

17.3 Some of the submitters opposed the removal of indigenous forest remnants generally from the site. The submission from GWRC's Parks Planner opposed the removal of this main tributary gully vegetation because of its proximity to the Belmont Regional Park, and the loss of continuity of regenerating vegetation, and the potential adverse impacts on the habitat of four lizard species (Southern North Island forest gecko, Wellington green gecko, common gecko and common skink). The GWRC Parks submission also commented on the important value of indigenous vegetation in providing ecological corridors between the Akatarawa Forest (to the north) and the Western Hutt Hills. This submission also raised concerns about the potential adverse effects of noise and dust on native fauna within Belmont Regional Park and about the potential for weeds to invade the Park from the cleanfill site if not managed properly. The submission references the *Greater Wellington Parks Network Plan* in requesting further surveys to target arboreal lizard species prior to commencing cleanfilling and a condition of consent addressing pest and weed control.

17.4 Mr Park explained in evidence that, in response to the GWRC submission, a further herpetofauna survey was undertaken in which a second common skink was found.

He recommended the use of artificial refugia to capture any lizards and translocate them to appropriate habitat prior to vegetation clearance in the main gully.

17.5 The Boffa Miskell assessment report described the vegetation within the site as being mostly pasture or exotic trees (70.4% of the site), rank pasture with a mosaic of early regeneration species dominated by tauhinu, gorse, manuka hangehange and rangiora (10.5%), small areas of wet pasture or puggy seepage wetlands (4.8%), manuka scrub and shrubland (9.3%) and regenerating gully forest dominated by older manuka and emergent putaputaweta and mahoe with some emergent mamaku and kanuka (1.5%). Mr Park stated that the only notable tree species are a single older tawa tree and an established totara tree.

17.6 It was Mr Park's opinion that the loss of the more mature regenerating vegetation from the main gully and the removal of the single tawa and totara trees represented a minor effect. It was his opinion that this loss is sufficiently compensated for by the extent of proposed mitigation and landscape planting proposed within the site and across SH58 within the area proposed for offset riparian planting. Mr Park also stated in evidence that animal and plant pest control is to be addressed through a management plan for the cleanfill. Provided that is properly set out in a consent condition and implemented, Mr Park was satisfied that this would be sufficient to address any pest potential. Mr Park also concluded that there are unlikely to be any adverse effects on lizards or avi-fauna within the Belmont Regional Park arising from the proposed cleanfill activities on the proposed site.

17.7 Mr Andrew Gray, PCC's Landscape Architect, observed that the ecological values of the 7,000 square metres of regenerating vegetation will continue to improve over the period between now and whenever Stage 4 is implemented. It was his preference that this area of vegetation be retained. The practicability of retaining this vegetation had, according to Mr Gray, been the subject of discussion prior to the hearing. Winstone's position, confirmed by Mr Matheson in closing legal submissions, was that retention of this vegetation would necessitate a substantial re-design of Stage 4 (and preceding Stages) of the cleanfill and would reduce the potential volume of the cleanfill from 1.75 million cubic metres to 1,388,780 cubic metres (a loss of over 360,000m³ cleanfill capacity). Mr Gray's view was that the overriding principle should be in favour of ecological protection and he advocated retention of as much as possible of this 7,000m² area. However, at the hearing, he acknowledged the impact this would have on the cleanfill capacity.

17.8 In the event, in his closing legal submissions Mr Matheson proposed that Winstone would add 7,000m² to the area proposed for offset mitigation planting on the land opposite SH58. The area would be included in the protective covenant proposed for that area and be fenced and managed to protect its habitat values.

Finding: Vegetation Clearance and Terrestrial Ecology

17.9 Although the 7,000m² area of indigenous vegetation to be cleared is not identified in any statutory document as having ecological significance, section 6 (c) of the RMA requires us to recognise and provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. We also acknowledge PCC District Plan Policy C9.1.6 which is to '*encourage the protection and preservation of areas of significant native vegetation*.

17.10 We are satisfied that the area of indigenous vegetation, whilst notable locally, is not significant in a district, regional or national context. We acknowledge that its removal will contribute to cumulative loss of vegetation in the region. However, we are

satisfied that its loss can be mitigated in the longer term by the setting aside and planting an equivalent area with similar species nearby provided that replacement area is set aside within a covenant and is managed so as to optimise plant growth and to prevent weed invasion until the plants and trees reach maturity. Given the proposed long life of the cleanfill, this should be the responsibility of Winstone (or its successor) for the life of the cleanfill. In the short term, until that replacement vegetation matures, we acknowledge that the catchment would experience net loss of the finite natural resource of regenerating indigenous vegetation.

17.11 We also note that the proposed alternative entrance to the site and the internal access road leading from it would cut through a large part of the area proposed by Winstone for landscape planting. This would reduce the area that Mr Park relied on as mitigating for the loss of the 7,000m² indigenous vegetation from the main tributary gully. We do not share Mr Park's view that the combined areas of planting would have mitigated the vegetation loss. These other planting mitigation areas serve separate and different purposes. The reduction in the landscape planting area on the cut face above the alternative access road would further erode the rationale for Mr Park's conclusion in this respect. We also note the potential for the clearance of the 7,000m² of indigenous vegetation to disrupt the ecological corridors within and associated with the Belmont Regional Park. However, given the location of the vegetation at the margin of the Park, we do not expect that effect will be significantly adverse. We also accept that the total proposed offset planting area will, in the long term, provide new opportunities for ecological corridors within the catchment.

17.12 We are satisfied that the proposed provisions of the cleanfill management plan and annual plans, detailed in proposed conditions, should be sufficient to prevent pests and weeds invading and compromising the terrestrial ecological values of the Belmont Regional Park. We do not anticipate that noise and dust will have significant adverse effects on the habitat values, terrestrial ecology, or recreational values of the Park. We also note that Winstone proposes to undertake further lizard surveys and to translocate any captured lizards to replacement habitat locally. This proposal is appropriately detailed in the draft conditions.

18 Landscape, Rural Character and Visual Amenity Values

18.1 Stages 1 and 2 will involve cut and fill to create the flat contour for the on-site office and staff facilities. The result will be a large fill batter (and a large cut batter if the alternative entry point is adopted). Stages 3 and 4 will fill the smaller and the main gullies and raise the land above the natural contour. The outer extent of the filled area, above the toe buttress, will rise as a series of benched batter faces at a slope of 1 vertical to 2 horizontal, a maximum of 8 metres each in height with 4-metre-wide benches.

18.2 Winstone's proposal, to meet the landowner's requirements, is that the finished surface at the end of Stage 4 will be contoured and covered with a layer of topsoil and planted in pastoral grass suitable for stock grazing. However, for the intervening 35-57 year period or longer, the cleanfill surface will be an exposed earthworked area up to 5 hectares featuring large earthworking machinery, stockpiles of demolition material, broken concrete, topsoil and other materials. There will be trucks and other vehicles moving to and fro over the site with dust rising from vehicle movements and at the tipping face. Submitters described this kind of activity as being more akin to industrial activity in a rural setting.

18.3 The site will be clearly visible from the front yard of the Schofield property (9 Mt Cecil Road), standing at the edge of the property's driveway. It is important that we acknowledge that the site will not be clearly visible from the front living rooms of the house (because a hedge of plants along the edge of the driveway will obscure much of that view) or from the north-facing outdoor living court (which is surrounded by a high fence to protect the area from the prevailing wind). However, the proposed cleanfill site will be clearly visible from most parts of the Schofield's farm property which is directly opposite and elevated above the site. Mr and Mrs Schofield addressed the adverse visual impact of the proposed exposed area and the proposed cleanfilling activities in their statements of evidence.

18.4 The proposed cleanfill will also be clearly visible from the dwelling at 8 Mt Cecil Road (the Morgan property).

18.5 Views from the dwellings on other Mt Cecil Road properties are largely or fully obscured by topography and by trees. However, the proposed cleanfill will also be visible from farm paddocks on other Mt Cecil Road properties (for example, the Sinke, McCready and Nash properties).

18.6 The site will also be clearly visible from sections of Mt Cecil Road (most prominently for downhill movements). It was generally accepted in evidence that, other than the cut and fill batters of the proposed access driveway and the toe buttress, most parts of the cleanfill will not be visible to motorists on SH58.

18.7 Mr Rhys Girvan, a consultant Landscape Architect employed by Boffa Miskell Limited, prepared the assessment of landscape and visual effects that accompanied the applications. Mr Girvan's assessment describes the site as forming part of a larger, moderately steep, valley landform that rises to the west in the vicinity of the site to a high point at 380 metres above mean sea level. He assessed the site as being a small component of the larger Belmont hills landscape and not itself visually prominent. The site is not a significant landform and is not part of any outstanding or significant landscape identified in either the HCC or PCC district plan or in any regional plan. Mr Girvan's assessment report referred to the following relevant objectives and policies of the PCC District Plan relating to the protection of rural character and the quality of the rural environment:

Objective C.4.2 (*To avoid or reduce the adverse effects of activities on ecosystems and the character of the rural zone*);

Policy C4.2.4 (*To encourage the maintenance and enhancement of the ecological integrity and natural character of the Rural Zone*);

Objective C9.1 (*To maintain in a sustainable manner the landscape and ecological systems within Porirua City*);

Policy C9.1.5 (*To protect the visual and ecological character of the Rural Zone*); and

Policy C9.1.6 referred to above (*To encourage the protection and preservation of areas of significant native vegetation*).

18.8 Mr Girvan identified the key landscape and visual considerations as:

(a) The presence of Belmont Regional Park;

(b) Potential effects on rural character and the quality of the environment;

(c) Potential effects on the natural, visual and ecological character of the Rural Zone; and

(d) The potential for significant visual effects on the identified viewing audience (i.e. nearby residents).

18.9 Mr Girvan's assessment of effects considered the potential for landscape and visual effects in the context of the wider landscape together with potential visual effects likely for rural residential properties close to the site. His visual assessment focused on views from nearby public locations and from private properties including several Mt Cecil Road dwellings. Mr Girvan generated, by computer modelling of terrain, a zone of theoretical visibility based solely on topography and not accounting for visibility obstacles such as trees and buildings. This provided a basis for determining the locations from which the cleanfill site would be visible. Then, Mr Girvan generated a set of seven visual simulations showing the extent of the proposed cleanfill that would be visible from some example viewing points based on photographs taken from those locations. These included viewing points at the intersection of SH58 and Mt Cecil Road, an elevated position along Mt Cecil Road, the driveway at the front of the Schofield property, the veranda of the Morgan dwelling, the upper floor decks of the dwelling on the Sinke and McCready properties (in upper Mt Cecil Road). Ms Linda Kerkmeester, a consultant Landscape Architect called by submitters living in Mt Cecil Road, agreed that the method used by Mr Girvan in assessing visibility was technically robust and accurate.

18.10 Submitters, including JoAnn and Paul McCready, Peter and Linda Sinke, Anne and John Schofield, Kevin Wright, Karen Nash and Margaret Morgan, described in their evidence to the hearing (at times in quite emotional terms) the special qualities and character of the Mt Cecil Road area that attracted them to live there and the amenity values that they and their families continue to enjoy. The area is, apart from the acknowledged SH58 traffic noise, a peaceful and attractive rural setting with expansive views from some properties to the north over the Pauatahanui basin and even, from higher properties, as far as Mana Island beyond Pauatahanui Inlet. Submitters described particularly enjoying the views of sunsets in this direction. Some of the submitters have lived in Mt Cecil Road for a long time. For example, Mr and Mrs McCready have lived at their property since 1978. They and some of their neighbours have fenced off and been encouraging the regeneration of large areas of native vegetation. The submitters emphasised the point that they do not sit inside their houses – they are out and about on their properties throughout the day.

18.11 Mr and Mrs Sinke explained that they operate a farmstay and farm experience visitor attraction at their Mt Cecil Road property ('*Woodhigh*'). They host visitors from New Zealand as well as international visitors. They also host vulnerable children referred by CYPFS for short stay respite. They described the ways in which they expect the proposed cleanfill, and people's perceptions about the presence of a cleanfill, would adversely affect the attractiveness of their property to visitors and the outdoor farm experience for visitors. Although there are no direct views to the cleanfill site from their dwelling, the site is visible from upper parts of the property where they have four-wheel motorbike tracks developed for visitors' use. Mr Sinke presented photographs of Winstone's Belmont Quarry overburden cleanfill as the basis for his assessment of likely effects. He considered that facility to be a visual eyesore within its rural setting and expects the same for the Pauatahanui site.

18.12 Referring to the RMA definition of 'amenity values', Mrs McCready stated that the area has a high level of rural amenity values. The submitters were clear that the proposal would not maintain or enhance the amenity values of this locality. Mrs

McCready acknowledged that there would be no direct views to the cleanfill site from her house but noted that the family had planned to build a cottage elsewhere on the property, for rental, and that its outlook would be compromised. As we understand it, there is no resource consent or building consent yet for that dwelling. Mr and Mrs Schofield spoke of the impact the proximity of the cleanfill would have on the real estate value of their property – their primary capital asset – and the impact that could have for their planning for their retirement.

18.13 Submitters were critical of the absence of visual simulations depicting the effects on their wider properties, beyond the dwellings. However, we have carefully considered the potential for visibility from and visual effects on the wider landholdings.

18.14 Mr Girvan's assessment, reiterated in his statement of evidence to the hearing, was that there are open views to the site from the Schofield and Morgan properties and that these have high visual sensitivity. Mr Girvan assessed the potential for visibility from all other properties as nil or glimpses only with low or negligible sensitivity. The submitters who live in Mt Cecil Road told us otherwise. Mr and Mrs Sinke, Mr and Mrs McCready and Mrs Nash described clearly in their statements of evidence the reasons why they had purchased the rural residential properties they now own in Mt Cecil Road and the landscape and views that they particularly enjoy living there. Views from their properties open up to the west, taking in the wider Pauatahanui valley and surrounding hills and sunsets beyond (over Cook Strait). None of these submitters wants to live with a cleanfill nearby. Submitters also expressed concern that the presence of such an activity could compromise the value of their rural lifestyle properties. They are particularly concerned about the scale of the proposal, involving the building up of contour and not just the filling of gullies, which means that the exposed areas and activities will be present for all of the rest of their lives.

18.15 Mr Girvan acknowledged the long construction period proposed – which he noted distinguishes this proposal from many other projects. His detailed assessment is set out in section 6.2 of his 2012 assessment report. To mitigate the progressive visual effects of the cleanfill as it expands over the site, Mr Girvan recommended:

Stage 1: top-soiling and planting with native vegetation all permanent cut and batter slopes associated with formation of the access driveway;

Stages 2 to 4: top-soiling, stabilising and grassing the shear key face; storing machinery away from view when not required; adopting a staged programme of planting to facilitate the establishment of vegetation following completion of each stage; ensuring that no more than 5 hectares is exposed at any one time; and establishment of shelter-belt tree planting extending along the top of the native planting on the cut and batter slopes in Stage 1 and along the intervening ridgeline to reduce visibility from elevated properties along Mt Cecil Road; and rehabilitation and contouring of the final cleanfill surface at the end of Stage 4.

18.16 Mr Girvan acknowledged that there would be visual effects during construction which would particularly affect closest residents and that these would be more than minor during some phases of the project. Notwithstanding the long duration of the project, and assuming the success of the planting he recommended, Mr Girvan assessed the long term visual and landscape effects of the changed landscape as less than minor. He explained that, as the landform would be reinstated in pasture and there would be new and retired areas of native vegetation, the changed landform would become integrated into the rural landscape. His key findings were that:

(a) The site is not prominent and large areas of the site are not visible from locations beyond the immediate locality;

(b) The local viewing audience is relatively small, consisting of 6 rural lifestyle dwellings – four of which have limited, partial or glimpsed views only;

(c) Views from more distant viewing points would see the changes to the landform as insignificant in relation to the scale of the surrounding landscape;

(d) The proposed mitigation and shelter belt planting would ensure that the adverse visual effects from numbers 8 and 9 Mt Cecil Road are reduced (he was careful to acknowledge that these mitigation measures would not eliminate the effect – but would reduce it over time); and

(e) Although the disturbed areas of the site during construction and cleanfilling will appear more prominent, contrasted against the largely green pastoral landscape surrounding the site, these areas can be incrementally rehabilitated and planted which will allow them to visually integrate with the wider landscape over time;

(f) Visual effects associated with construction and filling activities (including the movement of vehicles, dust) would be noticeable and, at times, prominently visible from nearby locations. However, the incremental nature of both the clean-filling activity and the reinstatement processes would mean that only a portion of the site would be bare ground and the focus of cleanfilling activity at any one time.

18.17 Ms Kerkmeester agreed that the visual effects as seen from the dwellings at numbers 8 and 9 Mt Cecil Road would be the most significantly adverse and that other views from dwellings would be largely screened from view by existing vegetation or landform.

18.18 Mr Girvan acknowledged that, at completion, the final landform would have less complex topography than existing, with the existing basin landform filled and raised to form a broader and flatter ridge top. However, Mr Girvan's view was that this changed landform would appear sympathetic with that of the surrounding hills and not constitute an adverse visual effect. He concluded that, once all works and mitigation measures are complete, the form and scale of the landform and vegetation would result in a rural landscape very similar to the existing rural landscape. Mr Girvan's assessment was that, on completion, the proposal would not adversely affect the natural character of the site or the wider landscape. He considered the finished landform would be compatible in character with that of the wider basin and that the land cover would integrate with the surrounding landscape. Mr Girvan's conclusion was that, beyond the time taken for mitigation planting and shelter belt planting to establish, he did not consider the duration of the project has any potential to increase the significance of landscape or visual effects.

18.19 Mr Gray largely agreed with Mr Girvan's assessment. He further noted that this part of the Pauatahanui basin has been progressively subdivided and developed and changed over time. For example, he referred to the cut batters of SH58 which he said were bare and visually harsh when first constructed but have softened over time and become part of the wider landscape. Mr Gray presented an historical oblique photograph to demonstrate this point. He, like Mr Girvan, considered that it was important to not just focus on the short-term adverse visual effects of the activity, but

to consider the longer-term result once the mitigation planting is in place. Mr Gray supported the proposed mitigation planting, including the proposed shelter belts, and recommended that the planting be commenced as soon as practicable.

18.20 Mr Girvan also presented a supplementary statement commenting on the visual effects of the proposed alternative entrance from SH58 and including amended visual simulations showing its effect. He described the changes in visual effects as being localised. He acknowledged that the proposed cut batter would be directly opposite and therefore more visible from the Schofield property but he highlighted the existing planting along the edge of the Schofield driveway as providing some screening of the view. He considered that the visual effects of the proposed alternative access would be limited.

18.21 Ms Kerkmeester's assessment differed from Mr Girvan's and Mr Gray's in terms of the character and the importance of the character of the landscape within which the site sits and in her assessment of effects on individual neighbouring properties. Ms Kerkmeester agreed that the site is not part of any outstanding natural landscape or any significant amenity landscape identified in any statutory RMA plan. However, she stated that the site has a high degree of rural amenity deriving from its open pasture in the lower reaches and intact natural landforms and waterways which are relatively unmodified by earthworks. Ms Kerkmeester stated that this locality is part of a significant amenity landscape identified in the *Porirua Landscape Management Strategy for Rural and Open Space Areas.* Ms Kerkmeester also stated that this area, at the saddle of the hills surrounding the Pauatahanui basin, forms part of a visual threshold which acts as a 'gateway' to Porirua City.

18.22 According to Mr Girvan, this Strategy has been adopted by PCC but its findings have not been progressed in the District Plan. Mr Girvan also clarified that the significant amenity landscape values referred to by Ms Kerkmeester are associated with part of the outer ridge tops which visually define the Pauatahanui basin. Mr Girvan stated that such ridge tops reach approximately 380 metres above sea level to the west of the site and rise substantially above the highest point of the development (at up to 200 metres above sea level). Ms Kerkmeester's point was that the proposed cleanfill would be visible against this backdrop which has been identified in the Strategy as having significant amenity values and that its presence would compromise the visual experience of looking at the ridge tops which define the Pauatahanui basin.

18.23 Mr Watkins clarified that the Strategy has been adopted by PCC following a public submissions process and that it will inform the District Plan review of rural area provisions scheduled for 2015/2016. His opinion was that this strategy has no legal status under section 104 (1) (b) because it has not been tested through the formal RMA process although he agreed that it is a potentially relevant other matter under section 104 (1) (c).

18.24 Ms Kerkmeester's opinion was that the scale of the earthworks and exposed areas, the movement of large machinery, the frequency of truck movements, the routine generation of dust and the noise of the activity would be atypical of usual day-to-day farming and therefore at odds with the character of this rural location. Ms Kerkmeester considered that these very obvious aspects of the proposal, and the fact that 5 hectares is a very large area of exposed ground, would have profoundly adverse effects on the visual amenity values of the properties from which they would be seen and that this would be compounded by the very long duration of the project.

18.25 Ms Kerkmeester also doubted that the rates of growth of the mitigation planting, and particularly of the proposed shelter belts, would be achieved in this harsh

environment based on her own experience of large projects in the Wellington region including within Porirua City. However, we note that Mr Girvan agreed with Ms Kerkmeester that exotic shelter belt planting may take as much as 7 years to reach heights of 4 to 5 metres. Mr Girvan recommended the planting of wind-resistant species (such as macrocarpa) on the windward side of the shelter belt with faster-growing species (such as Leyland cypress) on the leeward side. His visual simulations had assumed a growth rate between 700mm and 750mm per year. Ms Kerkmeester considered growth rates could be as low as 500mm to 600mm per year.

18.26 Ms Kerkmeester and Mr Girvan agreed, in witness conferencing prior to the hearing, that the proposed tree screening below the shear key face will not keep pace with the filling operations. They agreed that the result would be that up to 50% of the shear key face may be visible (from SH58 travelling towards the Hutt Valley) above the trees. However, they disagreed as to whether this was a significant adverse visual effect. Mr Girvan assessed it as fleeting and minor.

18.27 Ms Kerkmeester also raised concerns, based on her experience of similar projects elsewhere in the region, that there is an increased risk of plant failure and exposure to weed infestation on the batter faces if the faces are bare rock and not properly finished with suitable topsoil and if they are not regularly maintained to suppress weeds.

18.28 Dr Stewart recommended that, if consent were granted, a condition should be imposed preventing the progress of the cleanfill to the next stage until the planting heights depicted by Mr Girvan have been achieved. Winstone opposed such a restriction because of the potential for extreme weather events to fell trees and because of the difficulty of achieving the growth rate consistently across all trees. Mr Girvan's view was that, provided the planting is established as early as possible starting with Stage 1, then it will be capable of achieving an effective height within a reasonable time period and will thereby moderate the visual effects for nearby properties relatively soon. Mr Stewart's point was that, if effective planted screening height is not achieved as Mr Girvan predicts, nearby residents will have to endure adverse effects for longer.

18.29 In her supplementary statement of evidence, Mrs Schofield raised concerns about the greater adverse visual effects she expects to result from the alternative site access, including direct visibility of any intersection light, construction dust and noise, and the sweep of vehicle headlights down the access road as they exit the site.

18.30 In his closing legal submissions, Mr Matheson reminded us that there is no absolute right to the preservation of a particular private view over any landscape either at common law or under the RMA. He referred us to the 1981 decision *Anderson v East Coast Bays City Council* (8 NZTPA 35) in support of this submission point. He accepted that detraction from a private view does, however, constitute a relevant amenity value consideration under the RMA.

18.31 In addition to the policies referred to by Mr Girvan, Mr Watkins identified Policy C4.1.3 which is '*To ensure that activities within the Rural Zone do not detract from the character or quality of the rural environment'.*

18.32 Mrs McCready advanced the argument that this area has been identified for closer rural residential type subdivision and development in the *Pauatahanui-Judgeford Structure Plan.* Her point was that, at some time in the foreseeable future, there may be more rural residential properties in the near vicinity of the cleanfill site and more

residents and therefore more potential conflict in the area of visual quality and amenity values.

Findings: Landscape, Rural Character and Visual Amenity Values

18.33 We accept that the site is not highly prominent and that the potential viewing audience is limited to a small number of Mt Cecil Road properties and glimpsed views by motorists on SH58. We also accept that the site is not identified as being part of any outstanding natural landscape or significant amenity landscape in any RMA statutory planning document. We agree with Mr Girvan and Mr Watkins that the significant amenity landscape identified in the *Porirua Landscape Management Strategy for Rural and Open Space Areas* does not elevate the RMA significance of this site or the sensitivity of the surrounding area to visual effects.

18.34 We agree that, once the mitigation planting of the cut and filled batters and the shelter belts become established and mature, the visibility of the site from many locations will diminish. However, there is no doubt that there will be significant adverse visual effects for the Morgan and Schofield properties for an extended period of time. These effects include the adverse contrast of large areas of open and earthworked ground and cleanfilling machinery and activities contrasting with the pastoral and vegetated surrounding rural landscape. For the Schofield property, the effects will also include the adverse visual effects associated with the cutting and filling of the batters for the site access (and particularly the alternative entrance if that is progressed).

18.35 We agree that, to many people, the distinction between a 'cleanfill' and a 'landfill' (or a 'tip' as the submitters called it) in terms of the operational machinery and the general appearance of the site would be difficult to see. We agree that, particularly for the period when the construction and operational activities at the cleanfill site are highly visible from any property, the presence of the cleanfill could be seen to detract from the attractiveness and quality of the visual setting and amenity values of that property. That may result in those individual properties being perceived as less attractive.

18.36 These effects will not be minor in the short term for the Schofield and Morgan properties but we accept that they would be moderated over time when the mitigation planting has matured. However, even in the longer term, the visual effects experienced from throughout the Schofield property will persist because of the visual proximity of the site to this property. Unlike Mr Girvan, we consider that the proposed alternative site access would create additional adverse visual effects in both the immediate term (the construction phase) and the longer term by virtue of the close proximity of the entrance to the Schofields' house. For the construction phase, that includes substantial landform change by cutting and the formation of batters closer than proposed in the original application. These effects are not confined to the SH58 and are greater, in our view, than the range of effects that might be associated with gradual improvement of SH58 within the highway's boundaries. For the longer term, we recognise that a vehicle entrance located closer to (directly opposite) the Schofields' house will bring the presence of the cleanfill that much closer to that house on a daily basis. We acknowledge that shifting the site's access to the alternative, northern, location would also shift its visual effects further away from other properties.

18.37 However, we cannot agree that these adverse visual effects are sufficient grounds alone to refuse consent to the proposal.

18.38 It is our conclusion, based on the evidence heard, that consent for the cleanfill should not be granted without conditions addressing the following matters:

(a) All mitigation planting should be commenced as soon as reasonably practicable after the commencement of the consent and the earliest components (the planting of the cut and fill batters of the access driveway with native species) should occur as soon as practicable after completion of that work. Progressive implementation of the landscape planting and planting of the shelter belts should closely follow completion of the finished level of the outer edge of each stage;

(b) There should be a clear incentive in the conditions to ensure that the growth heights of landscape planting that has a visual screening purpose is achieved in the manner relied on by Mr Girvan. That would be in the form of a condition similar to one suggested by Dr Stewart, preventing progression to the Stages 3 and 4 cleanfilling until certain identified areas of landscape planting have achieved an overall screen height. We do not share Mr Matheson's fear that such a condition would create commercial uncertainty for Winstone or be difficult to enforce. Stages 3 and 4 will, according to Winstone, be approximately 20 years away. That is ample time for the trees to achieve a mature screening height as described by Mr Girvan. Our view is that a reasonable prescription for the required height over an agreed percentage of the respective areas could be formulated for the purposes of a condition. Mr Girvan's and Mr Gray's assessments of long term visual effects relied on the estimates of growth that Mr Girvan confidently asserted. It is reasonable and appropriate, in our view, that implementation of that assumption is assured. A condition to that effect is, in our view, necessary and appropriate;

(c) All areas to be planted for landscape screening or landscape mitigation purposes need to be fenced off and set aside from future farming use and must be managed in perpetuity for their stated purpose and in a manner that avoids weed infestation. Dead and dying plants must be replaced with viable specimens to ensure the landscape and visual screening outcome is achieved;

(d) The batters of the outer edge of the filled area that is exposed to view from the surrounding area should have a finished slope that, to the best extent practicable, reflects the slopes of surrounding hills. Mr Michael Harris, Winstone's Engineering Geologist, confirmed in evidence that the final contour of the cleanfill landform can be finished to reflect the broader landscape and be sympathetic with the surrounding hills. In our view, for example, the batter profiles shown in the Tonkin & Taylor geotechnical report (Figure 3) do not achieve this. These batter slopes should be finished with a surface of topsoil suitable as a growing medium (and in our view the slope will also have an impact on the success of planting there) and should be planted with native species in a similar style as for the other cut and batter faces adjacent to the entrance and access driveway. The benches between outer batter faces should be used to the optimum extent for the establishment of viable tree species that can successfully soften the appearance of or screen the batter faces over as short a time as practicable.

18.39 We are confident that conditions could be drafted to satisfactorily address all of the above matters.

18.40 With conditions addressing these points, we are satisfied that the adverse effects of the proposed cleanfill on visual and amenity values and on rural character would be confined to a small viewing audience within the wider Pauatahanui basin. We are also satisfied that the visual effects would be at the low end of the scale of significance in the immediate and longer terms. On that basis, we find that the proposal will not be contrary to the relevant provisions of the PCC District Plan. No issues were raised in terms of the potential visual effects of the access and the HCC District Plan.

18.41 Whilst we have been careful not to rely on the presence of vegetation on third parties' land to provide screening, we have to observe that there is now an emerging row of trees and shrubs along the boundary of the Schofields' driveway that could largely obscure views to the site once it matures. We also observe that the land immediately adjoining the Schofield dwelling is land within which Winstone has secured permission to fence off areas and to undertake riparian planting. We wondered whether there is scope for establishing a more effective screen on this land near the Schofield dwelling, without creating undesirable shading or blocking off all views to the hills beyond. It is a suggestion that wasn't fully explored at the hearing but may be an idea that has merit and may be worth further discussion between the Schofields and Winstone if the cleanfill is implemented.

18.42 Mrs McCready stated her belief in her written evidence that it is incumbent on an applicant to demonstrate that there are *no* adverse effects of an activity proposed in an application. That is not the approach required by the RMA. It does not demand nil effects. Rather, the RMA requires us to come to an overall judgment, taking into account all relevant factors, and visual and amenity effects are just one set of considerations alongside the positive benefits and other potential effects of the proposal.

18.43 We repeat our conclusion made earlier that that the recommendations of the *Pauatahanui-Judgeford Structure Plan* have not yet emerged in a policy sense in any operative (or even proposed) RMA plan. We note the recommendations but have given them no weight.

19 Hours of Operation

19.1 Submitters, and particularly Mr and Mrs Schofield and Mrs McCready, expressed concerns about the impact that the proposed hours of operation would have in compounding the adverse effects experienced by the closest residents. They also expect that the lights of vehicles and machinery working on the cleanfill after dark will draw attention to the presence of the cleanfill. For example, in the winter (when it is still dark at the proposed 7am start time and by the 5 pm end time).

19.2 Mrs Schofield raised particular concerns about the intrusive effect of truck headlights as they drive down the access road and the sweep of their headlights as they exit the site. Winstone's witnesses confirmed that, for safety and health reasons, Winstone's vehicles are required to display flashing lights on site. Submitters also had concerns about how much more activity would occur at weekends and after hours if the proposed condition permitting emergency work were implemented (or abused).

19.3 The noise experts agreed that the noise effects arising from the proposed operations on up to four Sundays a year would comply with the relevant District Plan limits. They therefore considered the limited Sunday operation to be reasonable.

Finding: Hours of Operation.

19.4 We are satisfied that the hours of operation proposed in amended draft conditions are reasonable for this rural site. That is: in general 7am to 5pm Monday to Friday and 7am to 12 noon on Saturdays. This limit applies to all operation and warming-up of machinery. We also consider that it is reasonable, and would be essential, to allow Winstone to undertake machine maintenance and dust suppression activities as well as maintenance of sediment control structures and on-site security activities outside these times. We are satisfied that the intention and the wording of the proposed exemption allowing Winstone to operate outside these times at any time in order to receive cleanfill generated by emergency works and civil emergencies is reasonable. Our conclusion is also that the exception Winstone seeks to allow cleanfilling activities on up to four Sundays in any calendar year (between the hours of 7am and 5 pm) is not excessive.

19.5 We expect that the sweep of vehicle headlights moving down the internal access road and through the proposed alternative site access will be visible from parts of the Schofield property, including from the front rooms of the dwelling. However, we do not expect the headlights to sweep directly into the windows of the dwelling because the dwelling is elevated above the site. Whilst the headlights and lights of vehicles moving may be visible from parts of this property, we do not consider this would be a significant adverse effect.

20 Geotechnical Stability and Risk of Slope Failure

20.1 One submission raised a concern about the potential for this large filled structure to fail and compromise the safety or integrity of SH58. Other submitters also raised this concern in their evidence to the hearing and Mr Schofield addressed the potential for landslip to compromise the emergency 'life-line' access route via SH58.

20.2 PCC did not commission a specialist review of the geotechnical assessment that accompanied the applications. However, that is not irregular. The process that flows from the grant of consent in-principle for a structure such as the shear key and buttressed cleanfill typically involves the submission of design drawings prepared by appropriately qualified and experienced engineering specialists and review of those drawings by appropriately qualified and experienced engineering specialists before the issue of any consents under the Building Act.

20.3 The geotechnical assessment, prepared by Tonkin & Taylor, that accompanied the applications concluded that the site shows little evidence of slope instability and is suitable for the proposed cleanfill activity subject to appropriate foundation treatment and seismic design. No expert evidence was presented that contradicted that conclusion. The conditions of consent adopt all of the relevant recommendations of that assessment report.

Finding: Geotechnical Stability

20.4 We are satisfied that Winstone has followed, and intends to follow, appropriate design process in settling on an appropriate design to respond to the geotechnical characteristics of this site. We consider that this matter is satisfactorily addressed by the proposed conditions of consent. The ultimate authorisation of the geotechnical

design for the shear key and buttressed batter fill slope will, anyway, be subject to the usual requirements under the Building Act.

20.5 We also note that NZTA has signed a written approval and has not raised any issues relating to instability or risk to SH58. Pursuant to section 104 (3), we have not had regard to any potential instability effects on NZTA. We acknowledge that there are other road users to consider but are satisfied that there are sufficient safeguards in place in the intended design process to protect those road users.

21 Consent Duration

21.1 Winstone seeks 35-year duration for all water and discharge permits and unlimited duration for all land use consents. Submitters oppose the durations sought. Their grounds are that the duration compounds the adverse effects, and particularly operational effects such as noise, dust and traffic. Winstone seeks the commercial certainty that the maximum duration permissible under the RMA would allow.

21.2 Mr Fern recommended durations of 27 years and 6 months for the discharge and water permits. Mr Fern had recommended, in his section 42A report, that consent for the cleanfill be restricted to Stages 1 to 3 only and his recommendation on duration matched the time estimate given by Winstone in the application for completion of those stages. However, Mr Fern altered his view – and supported the 35-year duration sought – after further discussion with and acceptance by Winstone of additional mitigation. In particular, Mr Fern noted:

(a) The likely shorter timeframe for the completion of the cleanfill discussed in the evidence of Winstone's witnesses (not the 57 years plus described in the applications);
(b) The additional mitigation of the replacement stream channel in 'naturalised' form;
(c) The proposed 'adaptive management' approach incorporated into conditions which would be further refined and approved through a future process with GWRC;
(d) The acceptance of the use of flocculant for stages 1 and 2[18];
(e) The proposed monitoring conditions which he considered were robust;
(f) Ecological function and fish passage restoration in the artificially reinstated main tributary stream.

Finding: Duration

21.3 We accept the commercial rationale for Winstone seeking consents for the maximum duration permissible under the RMA. Our view is that, provided appropriately stringent conditions of consent can be agreed upon and provided there is adequate opportunity for review and amendment of those conditions in the light of actual monitoring results, a 35-year duration for the GWRC consents for all four stages can be justified. However, our conclusion is that the proposed conditions lack real rigour currently, in terms of meaningful compliance standards to prevent sediment transfer in the discharge to water and a meaningful adaptive management process involving specified actions to be taken in response to adverse monitoring results. Our view is, also, that any land use consent granted should be limited to the duration of any water and discharge permits. The consents sought are all critically integrated and, in our

[18] Proposed Condition 39 of WGN130115 [32018]

view, not severable. They should not be considered on a severed basis at the time of any future consent renewal.

22 Alignment with Relevant Resource Management Policy

22.1 We have discussed many of the particularly relevant policy provisions in our preceding discussion of the principal issues that were in dispute at the hearing. We summarise our finding in relation to the separate plan jurisdictions here in the following way:

NPS for Freshwater Management and Regional Freshwater Plan

22.2 We re-state here our conclusion reached in Part 8 of this decision that the proposal, including the conditions proposed by Winstone and GWRC, does not go far enough in setting appropriate limits for water quality. For this reason, we are not satisfied that the proposal will be completely consistent with the relevant objectives and policies of the RPS or the RFP or the NPS for Freshwater that were referred to in the evidence of Mr Geange and Mr Fern. We are satisfied, for the purposes of section 105, that there are no practicable alternatives available to Winstone other than discharge into the receiving environment proposed. However, we are not satisfied that the suite of proposed on-site erosion and sediment control measures and the proposed conditions of consent collectively represent the best practicable means of avoiding, remedying or mitigating potential adverse water quality effects in the manner intended by the relevant policy framework. We are satisfied that none of the adverse effects listed in section 107 should result from the construction or operation of the proposed cleanfill.

NZ Coastal Policy Statement and Regional Coastal Plan

22.3 There was no attention given to the objectives and policies of the *Regional Coastal Plan* in the section 42A reports. The downstream Pauatahanui Inlet, including the estuary, is a significant natural resource identified in the Plan. Unless appropriately rigorous conditions are implemented to avoid or minimise sediment runoff from the site, we conclude that the proposal has the potential to contribute adversely to the accumulation of sediments in the estuary and Inlet over the extended period of consent sought. That outcome would be contrary to the relevant objectives and policies of the Plan – including Objectives 4.1.1, 4.1.4, 4.1.6 and Policy 4.2.10.

22.4 Similarly, whilst the proposal does not involve any activity within the coastal environment, the potential consequences of inadequate on-site erosion and sediment control are relevant in terms of the objectives and policies of the NZCPS relating to integrated management of land use. In the absence of rigorous conditions controlling the potential for sediment mobilisation in surface water runoff, the proposal is potentially inconsistent with Objective 1 and Policies 4 and 22.

National Standards for Air Quality and Regional Air Quality Management Plan

22.5 Mr Fern identified and discussed in his section 42A report the relevant standards, objectives and policies. We have given particular consideration to the matters listed in Policies 4.2.9, 4.2.10 and 4.2.11 and the adoption of a best practicable option approach. We are satisfied that the proposed discharge to air, moderated by the conditions that were agreed between Winstone and GWRC, would be consistent with the relevant provisions.

Regional Policy Statement

22.6 We accept Mr Fern's analysis of the relevant provisions, set out in section 12.2.1 of his report, except in respect of the following: The relevant experts have agreed that the proposed package of ecological offset land retirement and riparian planting is sufficient. The proposed stream piping and stream bed reclamation can therefore be seen as consistent with Policies 40 and 43. We agree with Mr Fern that greater attention to on-site sediment control would be required before we could conclude that the proposed earthworks activities are consistent with Policies 40 and 43.

22.7 We also largely agree with the analysis of relevant RPS provisions included in Mr Geange's evidence except in relation to his conclusion about RPS Policy 41 that the proposed cleanfill and proposed consent conditions will minimise the effects of the cleanfill earthworks to the extent reasonably achievable. It is our view that the conditions need to be tightened to more completely minimise potential sedimentation effects. We also disagree with his conclusion about Policies 57 and 58 in relation to the safety of the transport network for the reasons earlier discussed.

Regional Plan for Discharges to Land

22.8 Mr Fern's section 42A report and Mr Geange's evidence identified and discussed the provisions that are relevant to our consideration of the proposed cleanfill. We are satisfied that, subject to the implementation of appropriately rigorous conditions controlling the acceptance of material at the cleanfill, the proposal would be consistent with or not inconsistent with the relevant objectives and policies for discharges to land.

Regional Soil Plan

22.9 Mr Geange's evidence highlighted the relevant policy provisions and we have reviewed the Soil Plan. Our conclusion is that the proposed earthworks, access road construction and cleanfilling activities have the potential to generate unacceptable soil erosion and sediment mobilisation unless the inadequacies we discussed in Part 8 of this decision are addressed. In the absence of appropriately rigorous conditions to address those inadequacies, our conclusion is that the proposed earthworks and cleanfilling activities will potentially be contrary to, or inconsistent with, Objective 4.1 and Policies 4.1.8, 4.1.9, 4.1.10, 4.1.11, 4.2.4, 4.2.5 and 4.2.15.

Porirua City Council District Plan

22.10 We are satisfied that the proposed cleanfill is consistent with or not contrary to the relevant objectives and policies of the PCC District Plan with one exception. We find that the proposed site access and the proposed interaction of cleanfill truck traffic with SH58 traffic would be contrary to the District Plan's Chapter C7 objectives and policies relating to transport. In particular, we consider that this aspect of the proposal is directly contrary to the C7.1 objective of achieving a safe and efficient transportation network and Policy C7.1.2 of ensuring that intersection conflicts associated with land use and development are avoided or minimised or remedied as appropriate. Our view is that the proposed access will create the very conditions the objective and policy explicitly seek to avoid and the mitigation conditions proposed by Winstone do not address the actual and potential risks to the safety of users of SH58.

22.11 In other respects, and taking a longer term view rather than focusing on immediate-term adverse effects, we conclude that the proposed cleanfill activity is not

inconsistent with the District Plan's objectives and policies relating to the quality of the environment, the protection of rural character and rural amenity values.

City of Lower Hutt District Plan

22.12 Ms Clarke's evidence was that the proposal aligns positively with the relevant District Plan objectives and policies and no party disputed that conclusion.

23 Alternatives Considered

23.1 The assessment of environmental effects (*AEE*) accompanying the applications explains that Winstone had been investigating possible sites for a replacement for the Dry Creek cleanfill for approximately 3 years (and longer now since the AEE is dated November 2012). The specific requirements Winstone seeks are difficult to achieve close to the source of cleanfill material – that is, close to urban areas – and include:

(a) Reasonable proximity to areas of demand (in this case being northern urban Wellington);

(b) Adequate access (ideally from a main road);

(c) Reasonable separation distance from residential or other sensitive neighbours;

(d) Adequate fill capacity;

(e) Geotechnical suitability;

(f) Landowner agreement or the ability to purchase sufficient land;

(g) A site that is able to be managed in terms of potential adverse effects on natural and physical resources and people;

(h) Avoidance of sites of cultural significance; and

(i) A site reasonably close to the Dry Creek site for ease of transition and to retain the patterns of established clients of the Dry Creek facility.

23.2 Winstone identified and investigated a number of sites in the vicinity. Most sites to the north accessed from SH2 were either protected reserve land or in areas unable to be accessed. In addition, proximity to residential neighbours also limited possibilities in the Hutt Valley to the south. Other sites accessed from SH58 or Moonshine Road were constrained by access, site size and suitability or the proximity of residential neighbours. Winstone narrowed the options to three sites: the proposed site, a Harris Road site owned by the same landowner and a Mt Cecil Road site. NZTA had concerns (documented and included with the application) about the suitability of the intersection of Harris Road and SH58 and a stated preference for the proposed site. The Mt Cecil Road site was eliminated because of the unsuitability of the intersection with SH58.

23.3 Some submitters considered that Winstone should consider sites further afield in the region or consider achieving the same fill capacity by filling multiple gullies rather than filling and building up the landform on the proposed site.

23.4 Section 105 requires consideration of any alternative methods of discharge, including discharge into any other receiving environment. This consideration applies to the applications for discharge to water (the surface water runoff from the site) and to air. Winstone's applications and witnesses to the hearing made the point that, for an activity such as a cleanfill, there are no alternative receiving environments than the air and the water systems of the site. There are, however, potentially alternative methods of discharge (for example, alternative methods of managing surface water so as to avoid sediment transportation from the site) and we canvassed those in our questions to witnesses at the hearing.

23.5 Mr Matheson addressed in his legal submissions the relevant RMA provisions and some useful Court decisions relating to alternatives.

Finding: Alternatives

23.6 We adopt Mr Matheson's submissions on this matter. With the exception of section 105, the RMA does not require an applicant or a consent authority to consider alternative sites or methods or to determine that the proposed site or method is the only or the most appropriate of a selection of alternatives. The Fourth Schedule to the RMA, which sets out the required contents of an assessment of environmental effects, requires an applicant to *describe* any possible alternative locations or methods where it is likely that an activity will result in any significant adverse effect on the environment. Winstone's applications did that. The RMA requires nothing more for applications for land use. We acknowledge the difficulty of securing a site for a cleanfill that meets all of the particular requirements for such a use. We have no reason to doubt that Winstone approached the identification of options and the selection process with appropriate diligence.

23.7 Our findings in relation to alternative methods of discharge to water is set out in Parts 8 and 9 of this decision. We accept that there are no alternative receiving environments available for the discharges to air from the site and are satisfied that the conditions of consent adopt the best practicable alternatives available for managing dust emissions.

24 Proposed Conditions

24.1 We appreciate that Winstone, Council officers and some submitters put energy and time into devising draft conditions that they hoped would address all potential adverse effects. Regrettably, we have come to the view that the final draft set presented to us will not achieve that outcome. We have commented, throughout this decision, on the material deficiencies we identify in those draft conditions. We will not repeat that discussion here. The final draft conditions demonstrate, in our opinion, that Winstone and GWRC are unwilling to devise more stringent conditions to address the deficiencies in the proposed 'adaptive management' approach that we highlighted during the hearing. Our assessment is that more stringent conditions could readily be devised for this proposal that would address our concerns. However, that would require further work by both Winstone and GWRC. We consider that more stringent conditions are warranted by the sensitivity of the receiving environment and downstream coastal environment and its acknowledged regional significance recognised in the RPS, RFP and Regional Coastal Plan.

24.2 There was discussion at the hearing about the merits of imposing a bond or stage-by-stage bonds to ensure the implementation of some conditions. Mr Matheson stated, in his closing legal submissions, that Winstone does not see the need for any

bond(s) but that, if imposed, they should relate to specified works of concern only. Our conclusion is that a bond would be appropriate to secure the implementation of works that are likely to take a long time to achieve or that will be deferred until completion of Stage 4. Completion of the fencing and planting of the proposed offset areas, construction and establishment of the replacement stream in a 'naturalised' form and full rehabilitation of the finished cleanfill surface are examples of works that we consider should attract bonds.

24.3 There was a suggestion of including a requirement for a 'community liaison group' involving members of the community. Mr Matheson discussed the possible purpose of such a group in his closing legal submissions. We asked the Mt Cecil Road submitters whether they felt there would be any merit in such a group and they were sceptical. Mr McGregor stated that such groups have been constructive at Winstone's other facilities. We agree that such a group may provide a useful forum for the constructive discussion of monitoring results and on-going challenges. With appropriate specification of its purpose, we agree it could be included in conditions.

25 Other Issues Raised at the Hearing

The Need for the Cleanfill

25.1 Some submitters challenged the proposal on the basis that there is no need for it. Their evidence was largely anecdotal and involved suggesting that there remains sufficient capacity in cleanfills elsewhere in the region. In response to this issue, Mr Fern advised that not all cleanfills in the region require consents and, for those that hold current GWRC consents, there is only patchy information on remaining fill capacity.

25.2 The information supplied neither supported nor refuted the submitters' assertion. However, there is no requirement under the RMA for an applicant for consent to demonstrate a need for any activity. It is often said that the RMA is not a licensing statute. The efficient use and development of natural and physical resources is a consideration, under section 7(b) of the RMA. Necessity for an activity is not an explicit consideration anywhere in the RMA. Accordingly, there is no need for us to make a finding on this point.

25.3 Dr Stewart drew our attention to the Principal Reasons explaining Policy C4.1.3 which include the following statement about activities other than primary production activities:

'*the Council will require proof that a particular activity requires a rural location. The Council will need to be satisfied that an alternative urban site is not available or suitable, and that the activity is more appropriately located in the Rural Zone. Only those that serve a legitimate rural purpose or cannot readily be accommodated in the urban zones will be permitted'*.

25.4 We adopt Mr Matheson's opening legal submissions on this matter. We do not consider that this policy requires the level of 'proof' that Dr Stewart suggested in his evidence. We are satisfied that a cleanfill is, in principle, an appropriate activity in a rural location and is more appropriately located in the rural environment than in a built-up urban area. We also accept Winstone's evidence about the difficulty of securing an appropriate location for a cleanfill anywhere including in the rural environment. We heard no evidence that contradicted Winstone's evidence that the cleanfill proposed cannot readily be accommodated in Porirua City's urban zones.

Provision for Climate Change in Stormwater Design

25.5 The submission by Pauatahanui Inlet Community Trust and Guardians of Pauatahanui Inlet questioned whether the proposed stormwater design adequately provided for climate change. Mr Alan Blyde, a consultant Environmental Scientist specialising in stormwater management called by Winstone, clarified that the 16% allowance made in the stormwater facilities design is in accordance with standard engineering practice as outlined in the Ministry for the Environment guideline *Climate Change Effects and Impact Assessment: A Guidance Manual for Local government in New Zealand* (May 2008).

Public Access

25.6 The submission by the GWRC Parks Planner noted the possibility that consideration may be given, over the next 10 years, to the development of walking tracks into the northern Dry Creek area of the Park immediately adjacent to the proposed cleanfill site. The submission requested that the option be retained for access via the cleanfill access for pedestrians and vehicles accessing such future walking tracks.

25.7 We acknowledge that future changes may be made which open up new walking paths through the Park, including walking paths that take people near the cleanfill site. However, our expectation is that much of the use made of these paths would be at weekends and that noise effects are unlikely to be a significant adverse effect.

25.8 In answer to our questions, Winstone clarified that it is not attracted to providing for public access via the cleanfill access. The future plans for walking tracks through the nearby Belmont Regional Park are, for now, simply possibilities that have not been fleshed out in the Parks Network Plan or defined as a project for funding purposes. Accordingly, we have considered the values and use made of the Park in its current and reasonably foreseeable state. It remains for GWRC to enter into separate discussion with Winstone and/or the relevant landowner if it wishes to pursue new entry points into the Park. We have no jurisdiction to impose such a requirement.

Future Changes to SH58

25.9 Some submitters referred to published NZTA documents and correspondence between NZTA and Winstone that discuss the possibility of the future installation of a median barrier along this length of SH58. The submitters considered that we should consider the proposal against this future possibility. The traffic experts agreed that the introduction of a median barrier is a prospect and expected that a holistic solution would be developed in due course by NZTA (including provision for appropriate turning opportunities at key intersections). Their advice was, though, that the actual form of such a change to the road environment has yet to be designed and has not been authorised or funded and that we should consider the SH58 environment as it is expected to be for the foreseeable future – that is, with the passing lane removed (as confirmed by NZTA) and without such a median barrier. They also agreed that NZTA's design process for highway improvements and the agreement between NZTA and Winstone can address any matters of detailed design necessary to accommodate Winstone's proposed site access. We have made our conclusions about effects on the transportation network on this basis.

Compliance with Conditions

25.10 A number of submitters commented in their written and oral statements to the hearing that they had doubts about Winstone's ability or willingness to comply with

conditions of consent long term (even where Winstone might volunteer those conditions). Mr Geange, Mr McGregor and Mr McSaveney all described Winstone's environmental policies and operational codes of practice. Mr Fern presented written confirmation from GWRC's resource consent compliance team that Winstone's Belmont Quarry overburden cleanfill is currently being operated in complete compliance with the current resource consents. We were not presented with any evidence to suggest that the proposed conditions of consent would not be enforceable. In any event, we do not consider that fears about possible future non-compliance constitute reasonable grounds for declining consent.

26 Overall Conclusion and Reasons

26.1 Cleanfills are necessary facilities supporting a thriving building sector and productive regional economy. This benefit was acknowledged by most submitters including Dr Stewart on behalf of the Mt Cecil Road submitters. There is no doubt that a grant of consent would contribute positively to the economic wellbeing of the Wellington regional community. The site is sufficiently large and, acknowledging its proximity to the Mt Cecil Road rural residential properties, is located distant from intensive residential settlement. The site is also well-positioned in terms of the regional strategic transportation network. Most of the potential adverse effects arising from construction and operational activities have been addressed by proposed mitigation measures or can be satisfactorily addressed by the implementation of robust mitigation conditions.

26.2 However, we have concluded that the proposed location and configuration of access to the site has the potential to cause unacceptable traffic safety risks for SH58 motorists. This risk and the consequences of traffic accidents at this location (serious injury and death) are, in our opinion, of such significance that it conflicts utterly with the sustainable management purpose of the RMA. For the reasons explained earlier, the deficiency results from the location of either of the proposed site access points within the SH58 network and the close proximity and difficult geometry of the Mt Cecil Road intersection. Despite having pursued this matter in great detail in our questions to witnesses at the hearing, none of the mitigation proposals presented by Winstone satisfactorily resolved this fundamental deficiency in the proposal. Notwithstanding the other merits of the proposed cleanfill – and we have acknowledged those throughout this decision – the cleanfill relies on what we consider would be an unsafe access from SH58. We consider that a grant of consent on that basis would be an outcome contrary to the RMA's purpose.

26.3 This is not a case where a deficiency of one aspect of a proposal can be reconciled in making a broad overall judgment. In this case, the safe operation of the site access is fundamental to the safety and success of the whole proposal. As proposed it is, in our view, fundamentally flawed. In coming to our overall conclusion, and having regard to all of the relevant considerations under the RMA, we conclude that a grant of consent on the basis proposed would fail to give effect to the sustainable management purpose of the RMA.

26.4 We also have serious qualms about the adequacy of the on-site provisions proposed for erosion and sediment control. We expect that those could be overcome by the prescription and implementation of more rigorous mitigation conditions. We have detailed the particular matters that we consider would need to be addressed.

26.5 Our conclusion is that all of the consents applied for are not severable from each other. Our decision is that land use consent to establish and operate the cleanfill is declined. It follows, therefore, that all consents should be declined.

26.6 For completeness, we record here our finding in relation to the non-complying activity GWRC consents applied for. We find that the potential adverse effects of the stream piping and reclamation activities and the potential adverse sedimentation effects are more than minor. Although the experts and some submitters agreed they would be completely mitigated in the long term by the proposed offset works, there will be significant adverse effects for the interim period until all works are complete. This point was accepted in paragraphs 4.1 and 4.2 of Mr Matheson's opening legal submissions. Full mitigation of potential effects, including the establishment of the proposed replacement stream (in a naturalised condition), will not be achieved until completion of Stage 4 and that is a long period of time. The proposed activities, in our view, therefore fail the first threshold test of section 104D.

26.7 Whilst we can reconcile the proposed stream piping and reclamation with the policy framework of the RFP (because of the adequacy of the proposed mitigation and ecological offset compensation), we find that the potential for other adverse sedimentation effects on the quality of the downstream Pauatahanui Stream ecosystem and coastal environment is contrary to important regional plan objectives and policies. In our view, the GWRC application also fails the second threshold test of section 104D. For these reasons, we consider that we are prevented from granting the suite of GWRC consents, on a bundled basis, in any event. Mr Fern and Mr Geange formed a different conclusion in this respect but that is because they were satisfied that the proposed mitigation measures addressing sedimentation and water quality were adequate. We are not.

26.8 However, if we were free to consider the GWRC application on its merits, our conclusion is that a grant of consent subject to the conditions proposed for controlling sediment generation would be contrary to the sustainable management purpose of the RMA. That is because there are, in the proposed conditions, insufficient measures to prevent sediment being discharged from the site (for example, via the proposed chimney drains) in a way that could compromise the intrinsic values, natural character and quality of the downstream Pauatahanui Stream and Pauatahanui Inlet environments. We anticipate that appropriate measures could be put in place to avoid or minimise these adverse effects but the proposed conditions agreed between Winstone and GWRC do not, in our view, achieve what is necessary to reconcile these activities with Part 2 of the RMA.

27 Consent is Refused

Porirua City Council Application for Land Use Consent

27.1 Pursuant to the authority delegated by the Porirua City Council, and pursuant to section 104B of the Resource Management Act 1991, consent to establish, operate and maintain a cleanfill at 616 Paremata-Haywards Road (SH58), Pauatahanui, is refused for the reasons summarised in Part 26 of this decision. This decision applies to Porirua City Council application number RC6425 – LU0186/12.

Decision Dated 31st January 2014

Signed by Independent Commissioners:

Kate McArthur | Andy Carr | Christine Foster (Chairperson)

Hutt City Council Application for Land Use Consent

27.2 Pursuant to the authority delegated by the Hutt City Council, and pursuant to sections 104B and 104C of the Resource Management Act 1991, consent to undertake earthworks on land at 616 Paremata-Haywards Road (SH58), Pauatahanui, including part of Felix Road (an unformed legal road) is refused for the reasons summarised in Part 26 of this decision. This decision applies to Hutt City Council application number RM120381.

Decision Dated 31st January 2014

Signed by Independent Commissioners:

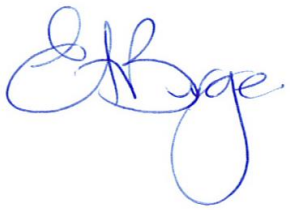
Kate McArthur | Andy Carr | Christine Foster (Chairperson)

Greater Welington Regional Council Application for Land Use Consents, Water and Discharge Permits

27.3 Pursuant to the authority delegated by the Wellington Regional Council, and pursuant to sections 104D, 105 and 107 of the Resource Management Act 1991, consents to undertake activities associated with the construction, operation and maintenance of a cleanfill located at 616 Paremata-Haywards Road (SH58), Pauatahanui, are refused for the reasons summarised in Part 26 of this decision. This decision applies to application number WGN130115 [32017], [32018], [32019], [32020] and [32021].

Decision Dated 31st January 2014

Signed by Independent Commissioners:



Elizabeth Burge

Kate McArthur

Andy Carr

Christine Foster (Chairperson)

ATTACHMENT 1

LIST OF PERSONS WHO ATTENDED AND/OR PRESENTED EVIDENCE OR SUBMISSIONS AT THE HEARING

For the Applicant:

- Mr Bal Matheson, Legal Counsel (Russell McVeagh)
- Mr Michael McSaveney, Winstone's National Operations Manager (Australia and New Zealand)
- Mr Dan McGregor, Winstone's Environmental Project Planner
- Mr Stephen Arden, an Acoustic Consultant, employed by Marshall Day Acoustics
- Mr Andrew Curtis, a consultant Chemical Engineer specialising in air quality assessment, and Principal of URS New Zealand Limited
- Mr Matiu Park, a consultant Ecologist, employed by Boffa Miskell Limited
- Mr Rhys Girvan, a consultant Landscape Architect employed by Boffa Miskell Limited as a Senior Landscape Planner
- Mr Mark Georgeson, consultant Chartered Professional Engineer specialising in traffic engineering, and Director of Traffic Design Group Ltd
- Mr Cameron Lines, a consultant Engineering Geologist specialising in slope stability, natural hazard assessment, cut slope design, overburden disposal design and geotechnical risk assessment, and Principal of Tonkin & Taylor Limited
- Mr Dean Miller, a consultant Environmental Scientist specialising in freshwater ecology employed by Tonkin & Taylor Limited
- Dr Graham Ussher, a consultant Ecologist specialising in restoration ecology and herpetology (the study of reptiles and amphibians) employed by Tonkin & Taylor Limited
- Dr Ian Boothroyd, a consultant Environmental Scientist specialising in aquatic ecology and resource management, employed by Golder Associates (NZ) Limited
- Mr Graeme Ridley, an Environmental Consultant specialising in erosion and sediment control, and Director of Ridley Dunphy Environmental Limited
- Mr Alan Blyde, a consultant Environmental Engineer specialising in stormwater management, employed by Harrison Grierson
- Mr Robert Burden, consultant Environmental Scientist specialising in the investigation, risk assessment and management of contaminated land and water including landfills and fill disposal facilities, and Director of Domain Environmental Limited and Riley Consultants Limited
- Mr Michael Harris, Geologist employed as Winstone's Engineering Geologist
- Mr Kerry Geange, a consultant Resource Management Planner, and Director of Geange Consulting

At the Hearing Panel's Request:

- Dr Fergus Tate (NZTA's National Road Safety Manager) and Mr Mike Seaborne (NZTA's Central Area Manager) discussing the background to NZTA's written approval

Submitters:

- Dr Ian Stewart, a a Resource Management Consultant with qualifications in zoology and botany who presented submissions and evidence on behalf of the following submitters who live in Mt Cecil Road:
    - JoAnn McCready (25A Mt Cecil Road)
    - Paul McCready (25A Mt Cecil Road)
    - Margaret Morgan (8 Mt Cecil Road)
    - Karen Nash (25B Mt Cecil Road)
    - Kevin Nash (25B Mt Cecil Road)
    - Ngaire Anne Schofield (9 Mt Cecil Road)

  - John Schofield (9 Mt Cecil Road)
  - Kevin Wright (2 Mt Cecil Road) also on behalf of Lisa Wright although we note that Mr Wright's submission is in the name of 'Kevin Roy Wright'
- Mrs Harriet Fraser, a consultant Chartered Professional Engineer specialising in traffic and transportation planning, called by the Mt Cecil Road submitters named above
- Ms Linda Kerkmeester, a consultant Landscape Architect, called by the Mt Cecil Road submitters named above
- Inspector Donna Laban and Senior Sergeant Richard Hocken on behalf of New Zealand Police
- Peter Sinke
- Linda Sinke
- Kevin Wright
- Margaret Morgan
- JoAnn McCready
- Paul McCready
- Anne Schofield
- John Schofield
- Karen Nash
- Bob Lendrum
- Diane Strugnell and Alan Gray on behalf of the Pauatahanui Residents' Association representing 120 residents and ratepayers in the Pauatahanui-Judgeford area
- Diane Strugnell (in support of her own submission)
- Lynly Selby-Neal on behalf of GWRC Parks
- Mr Geordie Cassin (Wellington District Vice-Chairman of the Automobile Association) and Mr Alex Gray (a Civil Engineer with 40 years' experience managing construction of roading projects in the Wellington region) on behalf of the Automobile Association

For Wellington Regional Council:

- Mr Chris Fern, Scientist employed by GWRC as Resource Advisor
- Mr Keith Hamill, consultant Water Quality Scientist and Director of River Lake Ltd
- Mr Gregor McLean, an Environmental Consultant specialising in erosion control and stormwater management, and Director of Southern Skies Environmental Limited

For Porirua City Council:

- Mr Richard Watkins, PCC's Resource Consents Planner and author of the PCC section 42A report
- Mr Andrew Gray, PCC's Landscape Architect
- Mr Tim Kelly, consultant Transportation Planner, and Director of Tim Kelly Transportation Planning Limited
- Mr Nigel Lloyd, Acoustical Consultant (Acousafe)
- Mr Phil Rhodes, Manager – Land Use and Subdivision Engineering

For Hutt City Council:

- Mrs Sarah Clarke, HCC's Senior Resource Consents Planner and author of the HCC section 42A report (and we note that Mrs Clarke was not required to attend the hearing because there were no issues in dispute within the HCC jurisdiction)