BEFORE THE INDEPENDENT COMMISSIONERS

UNDER	the Resource Management Act 1991
IN THE MATTER OF	submissions and further submissions on the Proposed Canterbury Air Regional Plan

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STATEMENT OF EVIDENCE OF ROBERT BRUCE WILLIS ON BEHALF OF THE CANTERBURY AGGREGATE PRODUCERS GROUP (SUBMITTER ID: 62784; FURTHER SUBMITTER ID: 104102)

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INTRODUCTION

1 My full name is Robert Bruce Willis. I am the Regional Environmental Manager for Fulton Hogan Limited (**Fulton Hogan**) in the Central South Island area. My professional background is in the field of Resource Management Planning, and I hold the Degree of Bachelor of Resource Studies from Lincoln University (conferred in 1995) with a focus on air, land and water management. I am a Full Member of the New Zealand Planning Institute.

2 I have previously worked for the Canterbury Regional Council (**Environment Canterbury – ECan**), as a Senior Planner, for approximately seventeen years. That role principally revolved around the co-ordination of ECan's involvement in District Planning Liaison for the five southern district councils within the Canterbury Region, and promoting the integration and consistency of district and regional planning documents across the wider region.

3 In this earlier role, I also contributed to the development of the Natural Resources Regional Plan and the Canterbury Regional Policy Statement along with various other statutory documents.

4 I have also worked extensively with many of the various portfolios within ECan. Accordingly, I am very familiar with the resource management issues of significance to the Canterbury region generally, and the Proposed Canterbury Air Regional Plan (**pCARP**).

5 I have worked for Fulton Hogan for approximately four years. My current role involves ensuring that the company is compliant with the Resource Management Act and other environmental and statutory compliance requirements. It also includes obtaining resource consents and other regulatory approvals, and involvement in district and regional council policy and plan development, both directly on behalf of Fulton Hogan, or as part of the wider Canterbury Aggregate Producers Group (**CAPG**) - as in this case. Staff training and support and environmental auditing also form important elements of my work.

6 I have a level of expertise in the matters addressed in this evidence given my qualifications and past experience. I am not, however, providing this evidence as an independent expert, but rather in my capacity as Regional Environmental Manager for Fulton Hogan and on behalf of the CAPG.

Scope of Evidence

7 My evidence will:

7.1 provide a brief introduction to the CAPG and its interests and economic contribution in Canterbury;

7.2 address the nature of the operations undertaken by the broader CAPG in the context of the associated regulatory processes; and

7.3 outline the implications of aspects of the pCARP on operations undertaken by members of the CAPG in the Canterbury Region, including the management of effects from quarry operations.

8 In preparing my evidence, I have reviewed the statements of evidence prepared by the CAPG's expert witnesses, Mr Kevin Bligh (planning) and Mr Richard Chilton (air quality). I have also reviewed ECan's section 42A report.

Summary of Evidence

9 The CAPG is concerned that the pCARP fails to recognise and provide for aggregate production and cleanfilling. In particular, it is concerned that the pCARP fails to recognise that:

9.1 Aggregates are fundamental to the sustainable management of communities. This has been brought into stark relief in Canterbury, as a result of the Canterbury Earthquake Sequence, where the short term demand for aggregates for recovery activities has accelerated in tandem with the rate of rebuilding.

9.2 Cleanfilling also performs an important role for the community in both the recovery and new development processes by providing a sustainable and cost-effective (due to proximity) alternative to landfilling.

9.3 The expected demand for aggregates over the medium to long term in the Greater Christchurch area will be substantial. This is as a result of the post-earthquake rebuild, forecast infrastructure upgrades and urban growth. However, it is likely that the presently-available (consented) land-based supplies will be exhausted in the short to medium term.

9.4 The current demand for river-based gravel is high and is estimated to be more than three times the sustainable natural supply. ECan reports indicate that such river-based (fluvial) aggregates have, in general, been overallocated and more will progressively have to come from land-based sources.

9.5 The location of quarries is principally dictated by the availability of the aggregate resource.

10 Fundamentally, the CAPG is concerned that the pCARP fails to meet its intended objective of providing an integrated and enabling regime for air quality across the Canterbury Region. Not only are many of the provisions vague and uncertain, but the CAPG is concerned that in many cases they are also overly onerous and inflexible.

11 This creates significant uncertainty for both existing investment and the future of aggregate production in the Canterbury region. In doing so, the pCARP risks eroding the significant economic advantage enjoyed by the communities of Canterbury by unnecessarily constraining the nature and location of quarrying activity.

12 The CAPG considers that amendments are required to address these concerns. The specific amendments sought are set out in the evidence of the CAPG's planning consultant, Mr Kevin Bligh.

Introduction to the CAPG

13 Membership of the CAPG represents the majority of larger aggregate producers in the Canterbury region. Details of CAPG members are set out in the evidence in chief of Mr Kevin Bligh at paragraph 5. Likewise, the diverse portfolio of CAPG activities is also described generally at paragraph 6 of Mr Bligh's evidence in chief. I do not propose to reiterate that information here, suffice to note that this group is collectively responsible for the preponderance of aggregates[1] supply (in its many forms) to the domestic market in Canterbury.

14 The CAPG member companies collectively employ in excess of 2000 people directly in the Canterbury region, and numerous others indirectly either as sub-contractors or as service providers allied to components of the wider areas of endeavour. By way of example, Fulton Hogan directly employs 739[2] staff across its portfolio of activities within Canterbury. In addition, other sub-contractors contribute in excess of 120 further jobs across the region.

15 Members of the CAPG also undertake public and private infrastructure construction (motorways, land remediation, utilities, etc.) and directly support the wider civil construction industry engaged in the Greater Christchurch rebuild, following the Canterbury Earthquake sequence. This occurs principally through

[1] For the purposes of my evidence, unless otherwise described, the term "aggregates" refers to all course and fine materials (including gravels, sands, silts and clays) sourced from both land-based alluvial and river deposits in both its "raw" and processed forms.
[2] Employment figures as of 1st September 2015.

the provision of aggregates, concrete and aggregate based products (asphalt, emulsions, bitumen chip sealing, precast concrete, etc.). This diverse portfolio is solely reliant on the availability of a suitable aggregates supply.

16 I understand that, within Canterbury, in the order of 8 to 9 million tonnes of aggregates are produced per year, with a total annual gate value of approximately NZ $100 million. The bulk of this can be attributed to CAPG's extensive land and river-based operations, which are located throughout the Canterbury region, predominantly in rural areas. Many of the CAPG's land-based operations are located in the western Christchurch area. Other land-based quarries exist across the wider region, including the Leithfield, Rangitata and Timaru areas. Its river-based operations are located in or adjacent to local rivers such as the Waimakariri River, Hurunui and Ashley Rivers.

17 The CAPG's operations rely on a combination of fixed and portable processing plants, which range in processing throughput from approximately 80 (portable) to 400 (large fixed) tonnes per hour. The diversity of uses of aggregate product – as building blocks for housing, business and infrastructure – is fundamental to sustaining the needs and wellbeing of people and communities.

18 In addition to quarry operations and aggregate production, the majority of the CAPG's members also operate cleanfill sites. Cleanfilling performs an important role for the community in both the recovery and new development processes by providing a sustainable and cost-effective (due to proximity) alternative to landfilling.

19 It also provides a useful resource for the remediation or rehabilitation of worked-out land-based quarry areas. It is commonly accepted that cleanfilling is in the order of approximately 20% of the volume of extraction in the Christchurch area[3]. Given the substantial volumes of cleanfill material produced across Canterbury, cleanfilling is an important and sustainable land use activity. When managed properly, it provides a range of social and economic environmental benefits for the wider community.

20 It is against this background that the CAPG lodged a submission and further submissions on the pCARP.

[3] This figure varies from quarry to quarry, but is generally accepted as representing the average across the Greater Christchurch area.

Location of Quarries

21 The location of quarries is principally dictated by the availability of the aggregate resource. By way of example, the Fulton Hogan Coutts Island Quarry relies on a fluvial (river-based) aggregate supply and is situated adjacent to the extraction area in the Waimakariri River; it has operated from this site for approximately 60 years in a rural setting.

22 A cluster of land-based quarries exists in the vicinity of the Old West Coast Road/Miners Road area (Yaldhurst). From the CAPG, these include quarries operated by Fulton Hogan, Road Metals, Winstone Aggregates, KB Contracting and Quarries, Christchurch Readymix, and Taggarts Earthmoving. These quarries have established at this location for a number of reasons, but principally because of the ready availability of high quality aggregates. Alongside elements such as proximity to market, separation from other activities, availability of sufficient land, statutory approval, and the like, aggregate quality and the absence of significant overburden remains the key determining factor for location.

23 The western Christchurch area contains a substantial proportion of viable high quality aggregate resource for the Christchurch market. This area is one of a number that have been specifically recognised through a Rural Q (Quarry) zoning in the Operative Christchurch City Plan, which I understand has been retained in the notified proposals for the proposed Christchurch Replacement District Plan (**Replacement Plan**). This recognises not only the established land use, but also the substantial sunk investment in land and infrastructure for these quarries. Quarries have been established in an area that was, at that time, largely rural; recent urban encroachment has seen the expansion of sensitive land uses into this quarrying hinterland.

24 The ECan View Hill Quarry is located near Oxford. This is a hard rock quarry, from which basalt rock is obtained, principally for flood protection works; this material is not available across the alluvial Canterbury Plains. This quarry is the closest hard rock quarry of its type that can supply large rocks to the Christchurch area. Similar locational constraints apply to limestone quarries.

25 This serves to illustrate that aggregates can only be accessed from where they lie. The secondary issues as to viability, described previously, are relevant but contingent on the existence of the resource in the first instance. This is the physical reality of aggregate extraction, wherever it occurs, and is expanded on by Mr Bligh in his evidence at paragraphs 22 – 29.

26 For land-based quarries, the process of acquiring land and obtaining statutory approvals also bears some consideration. Aside from the obvious matter of land

price and constraints such as proximity to market, other sensitive uses and cultural areas, the myriad approvals required to establish a new quarry operation can impose cost/time delays and significant uncertainty on any proposal. The range of approvals that may be required include resource consents under the RMA, permits under bylaws, HSNO certification and (potentially) licences under the Crown Minerals Act 1991.

27 The suite of statutory approvals required from local authorities for a new land-based quarry would typically include the following:

- Land use consent from a territorial authority.
- Development contributions to territorial authority for buildings and traffic.
- Bylaw approval (e.g. for cleanfilling in CCC area).
- Land use consent from ECan (for aggregate extraction).
- Water take consent from ECan (subject to status of surface or groundwater availability).
- Discharge to land consent from ECan (for washwater).
- Discharge to air consent from ECan (for aggregate processing and storage).
- Discharge to land consent from ECan (for cleanfilling).
- Approvals for ancillary activities (such as fuel storage, including HSNO certification, and effluent discharge from ablutions facilities, etc.).

28 This proliferation of approvals creates a challenging regulatory setting for the establishment of new quarries, made more so where proposals are publicly notified. That, however, is only part of the picture. A multiplicity of consent conditions circumscribing the scale and nature of activities and requiring the creation of environmental plans, monitoring, metering, reporting and auditing are also a standard and ongoing feature of these consents.

29 These consents, once granted, become part of the “existing environment”.

30 Alongside the costs of land acquisition and statutory approvals is the cost of establishment of processing plant and ancillary plant and machinery. Typical medium to large land-based fixed quarry operations would employ jaw (primary), cone (secondary) and Barmac (shaper) crushers, along with assorted screens (grizzly, shaker and washer), and conveyors (feed-in, feed-out) in various configurations. Associated machinery and other plant and operational items (control building, weighbridge, pumps, ponds, loaders, trucks, etc.) are also standard features.

31 Groundwater bore establishment or alternative water supply may also be required. Formed and sealed roadways, site bunding and planting, and other pre-operational requirements of land use consent are further typical elements.

32 Indicative capital costs (excluding land and approvals costs) for the establishment of a new aggregate processing facility are considered to be in the order of $5 - $10 million, before the costs of production downtime are included, which could be of the order of a further $1 million[4]. The cost of land purchase and the statutory approvals process would add several further million dollars to establishment costs.

33 As the above illustrates, the process is highly uncertain, protracted, complex, and very expensive. In the absence of a coherent spatial planning framework (such as the present and proposed Rural Q zoning in the Christchurch City Plan and Replacement Plan), there is a further risk that, between conception and commissioning, a new proposal will be outflanked by a moving regulatory landscape.

34 My reference to spatial planning is to draw attention to the apparent absence of an integrated planning regime across Canterbury. This is particularly evident in the raft of recent regional planning documents, notably the Canterbury Land and Water Regional Plan and pCARP, where there has been no readily-discernible attempt to integrate provisions or acknowledge the interrelated issues for industries such as quarrying.

35 Regulatory uncertainty is one of the key risks to the establishment of new quarries (or replacement approvals). I will discuss this aspect further later in my evidence, suffice to note that vague planning regimes will act as a disincentive to the establishment of quarries, and will significantly increase product costs as industry participants seek to recover the additional outlay imposed on them.

36 It may also have unintended consequences because of existing sunk investment, where quarries will focus on the production of high value products and prolonging the life of existing quarries and cleanfill areas, rather than accept the costs and risks associated with establishing anew.

The Nature of Quarrying and Aggregate Processing

37 Having established the locational requirements for quarries, it is perhaps useful to reflect on the nature of the quarrying activity itself. Whilst the following overview describes the general nature of land-based aggregate quarrying and processing,

[4] Indicative costs from evidence of Richard Spencer English on behalf of CAPG for the Christchurch Replacement District Plan Independent Hearings Panel, dated 29th October 2015 (para.69).

many of these features are also typical (to a greater or lesser extent) of other quarry types – fluvial, hard rock, and lime. Similarly, hours of operation – usually 5 ½ days per week (7.00 am to 6.00 pm), Monday to Saturday – are standard.

38 Quarries typically have three distinct phases of operation. These are extraction, processing/stockpiling and transport. Each has its own effects. Where cleanfilling occurs, this may take place as a separate element, or be combined to backload aggregate from the quarry; in any event, transport and loading or unloading occurs.

39 Once the quarry has been established, extraction of aggregate generally occurs below ground level and from a working face. This raw material is generally damp. Extraction may occur using a tracked digger, but is more usually undertaken using a front end loader, loading in to a hopper. The average hourly rate of extraction may be in the order of 250 tonnes per hour. Very little dust is created in this operation.

40 The processing and stockpiling stage is where dust discharges are most likely to be generated. As aggregates are crushed or screened, dust is created. This is controlled using bar sprays, which dampen the aggregate as it passes along the various conveyors. Where washed aggregates (typically, sealing chip, etc.) is produced, larger volumes of water are used, which removes the fine particles (dust) to a settling pond. Cowlings and other covers are also employed to reduce the effects of wind on various parts of the process.

41 Mixing and stockpiling of materials can produce dust, particularly where stockpile faces dry out. This is generally managed by the use of fixed sprayers (in the form of K-line or similar configurations) and/or water carts. Most stockpiles will be held below natural ground level and within bunded quarries. Dust suppression and minimisation is recognised by the industry as a very important aspect of the operation.

42 Loading-out (or, in the case of cleanfill, loading-in) usually involves the use of a wheeled loader or hopper to load truck/trailer. Depending on the product being handled, this is an aspect that can create some dust. Residual dampness in the aggregate mitigates much of this issue, and speed controls are imposed to reduce dust created by machinery running on unsealed surfaces; where practicable, running surfaces are stabilised to minimise dust generation. There is also an increasing trend towards the use of retractable covers for aggregate transport off-site.

43 From my experience, cleanfilling creates very little dust, and no odour. Cleanfills do not accept putrescible wastes, and materials deposited are, essentially, inert.

Cleanfilling tends to occur in a controlled fashion in discrete areas within the quarry. The material is generally either pushed over a working face or spread to rehabilitate quarried areas. Where high quality topsoil is stored for later use, these stockpiles are grassed to stabilise the stockpile.

44 For Fulton Hogan quarries, regular dust fall and respirable dust monitoring is a standard feature of the operation. This provides confidence that the health effects from dust generation are being properly managed.

45 Having noted this, I would highlight that some dust generation is an inevitable and unavoidable by-product of the extraction, processing and handling operation to the same extent that exhaust discharges are an inevitable result of combustion. These effects cannot be removed by simply relocating the activity. The industry is very aware of this issue and, subject to the locational constraints described previously, designs and operates quarry activities with the express desire to minimise this effect.

46 The most significant threat to aggregate production is the post-hoc expansion of sensitive activities into the locale of quarries. This is perhaps exemplified by the encroachment of urban and quasi-urban development into the Yaldhurst area, and the more general expansion of the Christchurch urban fringe into the High Quality Gravel Resource Overlay area[5].

47 A regulatory planning framework that recognises both the essential nature of aggregate production and the locational constraints of aggregate availability would create a more stable and certain supply for the Greater Christchurch community.

Importance of Aggregates and Quarrying Activity in Canterbury

48 As described in my introductory comments, quarrying and the broader processed aggregates supply chain is essential to the sustainable management of people and communities. Without aggregates, we would have no buildings, roading and other essential infrastructure upon which society relies.

49 Aggregates are a vital, if under-recognised, component of everyday life and are fundamental to the sustainable management of communities. This has been brought into stark relief in Canterbury, as a result of the Canterbury Earthquake Sequence, where the short term demand for aggregates for recovery activities has accelerated in tandem with the rate of rebuilding.

[5] Contained in Appendix 17.9.1 High Quality Gravel Resource Overlay, Proposed Christchurch Replacement District Plan.

50 The expected demand for aggregates over the medium to long term in the Greater Christchurch area will be substantial. This is partly as a result of the post-earthquake rebuild, but also to accommodate forecast infrastructure upgrades (for example, the northern motorway extension) and urban growth. However, it is likely that the presently-available (consented) land-based supplies will be exhausted in the short to medium term.

51 From an industry perspective, the propitious nature of this "opportunity" is tempered by challenges in gaining access to new aggregate resources, as described previously and discussed further below.

52 By way of example, the Fulton Hogan Pound Road Quarry has a forecast remaining life of less than nine months at the current rate of aggregate extraction. The new (but yet to be commissioned) Roberts Road Quarry at Islington has a forecast (and consented) life of eight years; remediation of this site will occur in sequence with extraction over the short life of this quarry.

53 In the same vein, ECan has identified that river-based gravel extraction is an important means of controlling bed levels in many Canterbury rivers, while also supplying aggregate for roads and concrete. I would note, however, that fluvial gravel presently makes up a comparatively small percentage of aggregates supplied to the Christchurch market.

54 The current demand for gravel in Canterbury is high and is estimated to be more than three times the sustainable natural supply[6]. ECan reports also state that river-based (fluvial) aggregates have, in general, been over-allocated, and more will progressively have to come from land-based sources[7].

55 This will further compound the issues around cost, certainty and reliability of supply to the local domestic market. Accordingly, the industry is increasingly focussed on land-based quarries in response to the declining availability of fluvial aggregates and reduced reliability of supply.

56 Alongside the availability of aggregates, proximity to demand is a further key aspect. Transportation costs are often the biggest determinant of the end-price of aggregates. As a rule of thumb, it is generally accepted that the cost of aggregates doubles for every 20 kilometres of cartage required. As new quarries are forced to establish further from the source of demand, the cost of both raw and processed aggregates (in all its forms) will increase.

[6] *Gravel Bedload Supply Estimates: Canterbury Plains Rivers*, ECan Report R13/105, May 2013, page 6.
[7] *Regional Gravel Management Report*, ECan Report R06/1, December 2005 (Executive Summary).

57 Transportation costs are, consequently, a fundamental determinant of the economic costs and benefits that accrue to the wider economy[8]. Proximity to market is a critical factor for the establishment of aggregate quarries, as is evident from the existing pattern of quarry development on the northern and western fringes of the Greater Christchurch metropolitan area.

58 Locally, costs for aggregates (and related products) are therefore lower than other centres. This provides a substantial economic advantage over areas where aggregates supply and quality is constrained (for example, the Auckland and Wellington areas). Despite this, the crucial importance of aggregates to society is almost invariably under-recognised.

59 Given the indispensable nature of aggregates to modern society, these should be afforded the same priority as, for example, essential transport infrastructure (ports, airports, rail, roading); coincidentally, these rely fundamentally on the availability of processed aggregates for their existence. Provision for this aspect is traversed in detail in paragraphs 30 – 35 of Mr Bligh's evidence.

60 In summary, factors such as restrictions on availability, distance from demand, and barriers to establishment (uncertainty, delays, costs) will ultimately be passed onto individuals and the wider community in the form of increased prices for aggregates in all their various forms.

Policy Framework for Reverse Sensitivity

61 As I have noted previously, the existence of lawfully-established and consented quarries form part of the "existing environment". The effects of this activity, alongside many other industrial or rural activities, are generally well known. Quarries (with few exceptions) are usually situated within more extensive rural sites in recognition of their broader effects. Across the CAPG group, this represents a sunk investment of hundreds of millions of dollars. For the reasons provided earlier, the replacement value of this investment would be substantially greater.

62 My interpretation of policies 6.6 – 6.8 is that emphasis is placed on using regulatory mechanisms to induce either a change in behaviour (perhaps through reduced scale) or require the relocation of existing uses where sensitive receivers establish in close proximity to these sites.

63 The implications of this approach for the industry are ominous. Not only is there potential for existing quarries to be required to down-scale operations or to relocate (and this may occur more than once as urban development expands into

[8] Note, also, that other less-tangible environmental "costs" associated with greater haul distances include increased emissions, traffic congestion and roading safety impacts.

the rural hinterland), but there is an additional layer of uncertainty introduced by the loose expectation that quarries should "locate appropriately". For the many reasons provided earlier, I consider that quarries have established in appropriate locations in the Greater Christchurch area.

64 To adopt what I understand to be the approach proposed has potential to have a profound effect on aggregate supply, cost, and the repatriation of closed quarries through cleanfilling. These outcomes are undesirable from both an industry and community perspective.

Rule Framework for Quarrying, Aggregate Processing and Cleanfilling

65 Having set out the nature and significance of quarrying, I now comment briefly on the proposed regulatory regime as it affects this industry. Alongside the absence of any specific recognition of the importance of aggregates to society, a key concern of the CAPG is to avoid the introduction of vague and generic rules controlling discharges that would apply to quarrying.

Rules 7.17 and 7.18

66 Proposed Rules 7.17 and 7.18, for example, are triggered by a determination that guideline values are "likely" to be exceeded. In turn, this will lead to the restriction or prohibition of existing or new discharges, irrespective of the importance of that activity. In the case of quarrying and cleanfilling, these activities are elemental for the construction and maintenance of essential infrastructure; they are also crucial to the maintenance of the social and economic wellbeing of people and communities.

67 As discussed by Mr Bligh in his evidence from paragraph 49, the Policy approach to this matter is not in question, however the rule regime is inappropriate for several reasons. Key amongst these are the reliance on a thirteen-year old "guideline" to establish rule thresholds, and the inflexible regime that fails to acknowledge the potential effects or significance of the activity subject to control.

68 For the CAPG, these rules are so onerous and inflexible, and the guidelines so imprecise, as to significantly challenge the ability of industry to extract and process aggregates within the area that they are most readily available. The CAPG therefore seeks their deletion.

Permitted Activity Rules 7.37, 7.38 and 7.55

69 In a similar vein, the CAPG has requested the deletion of Rules 7.37 and 7.38 and their replacement with new rules dealing with mineral extraction activities. For the reasons set out previously, this would provide a far greater degree of

certainty, with reduced costs, to the industry through the incorporation of explicit rules and thresholds for quarrying.

70 I would defer to the expert evidence of Mr Bligh and Mr Chilton on this matter, suffice to note that the CAPG supports the replacement of the existing controls with a new and more certain permitted activity regime that provides for quarry activities.

71 The deletion of Rule 7.55 (cleanfilling) has also been sought by the CAPG. There is a range of crucial flaws in the notified rule that render it impossible to interpret with certainty. Putting aside the obvious mistake with a specified particle size threshold of 3.5 m, other elements relating to where the (undefined) boundary of a "sensitive activity" rests creates the opportunity for endless dispute and, as a consequence, potentially unnecessary consenting costs. This issue also arises in relation to Rules 7.37 and 7.38 already noted.

72 A further matter of concern relates to the reporting officer's recommendation to enlarge the definition of "sensitive activity" by the inclusion of reference to "*any non-target crop that will be actually or potentially adversely effected by a discharge*…". Such an addition would create various issues. For example, established quarries may be forced to cease operation if a "non-target crop" is established nearby, or if it is planted every second or third year. I understand that any adverse "potential effects" (irrespective of whether they materialise or not) would still be grounds to trigger the need for a consent under the pCARP if this proposed amendment was to remain. It is my view that the amendment is neither reasonable nor practical in a real world situation.

73 In addition, I note the use of the term "stored" in relation to cleanfill under clause 3 of Rule 7.55 suggests that this material is to be removed to another place; cleanfill sites tend to be a permanent repository for this material. In my view, this provides further support for Mr Bligh's recommendation[9] that, should the Panel be minded to retain Rule 7.55, clause (3) should be deleted.

Clean Air Zones

74 A further matter raised in the CAPG submission relates to the revised maps of the proposed Christchurch/Otautahi Clean Air Zone. The CAPG has requested that these are amended to exclude those area currently being used for mineral extraction and to redraw the zone boundary consistent with the current Clean Air Zone 1 from Chapter 3 of the NRRP.

[9] At para 74 of Mr Bligh's evidence in chief.

75 In my earlier evidence, I have gone to some lengths to describe the limiting factors for the siting of quarries, and the nature of existing quarries. I have also discussed the fact that the Christchurch City Plan and the Replacement Plan have included a Rural Q zone to recognise these existing quarries. Where the pCARP promises to support and enable innovation, a statutory planning framework that supports non-regulatory programmes, and integrated management across local government[10], the rules regime, which relies to a large extent on the clean air zone maps for the Greater Christchurch area, fundamentally contradicts these aspirations.

76 As discussed, the effect of this inflexible regime will see a rapid escalation in the costs of operating and establishing quarries. The associated downstream effects on the costs of aggregates in all its forms will be borne by the wider community.

Conclusions

77 In conclusion, the CAPG is concerned that, despite its progressive aspirations to provide an integrated and enabling regime for the management of air quality across the Canterbury Region, the pCARP misses this objective. Not only are many of the provisions vague and uncertain, but the CAPG considers they are also overly-onerous and inflexible in many cases.

78 The plan's failure to recognise and provide for the production of aggregates – a fundamental building block of civilised society and vital to the wellbeing of communities - means that the future of aggregate production is less certain but certainly more expensive. In its notified form, this document will risk eroding the significant economic advantage enjoyed by the communities of Canterbury by unnecessarily constraining the location and nature of this activity.

79 Given the acknowledged ongoing decline in availability of fluvial aggregates, the future of land-based quarrying attains far greater significance to the wider Canterbury economy.

R B Willis
11 November 2015

[10] Pages 1-3 and 1-4 of the pCARP (Chapter 1 – Introduction).