

## **CENTRAL OTAGO DISTRICT COUNCIL**

### **FULTON HOGAN LIMITED, PARKBURN QUARRY, STATE HIGHWAY 6 – RC 070216**

Fulton Hogan Limited has made application for land use consent to extract and convey sand and aggregate from the area referred to in the application as the “Upper Terrace”, to be transported by conveyor to the processing plant at the Parkburn Quarry. The site subject to the application is located to the north of the Pisa Village subdivision near Cromwell and is described as Sections 62 and 63 Block IV Wakefield Survey District and Sections 64 and 65 Block IV Wakefield Survey District, as contained in Certificates of Title OT10B/738 and OT10B/1452, at the Otago Land Registry. The application also relates to unformed legal road vested in the Council.

The Council has given consideration to the information presented in support of the application and to the submissions and evidence presented by Messrs Page, Peacock, Andrews, Green and King who appeared with Carmen Taylor in support of the application at the hearing. Consideration has also been given to facsimile correspondence from Transit New Zealand dated 25 September 2007 and to a written statement prepared by Mr H Christian dated 25 September 2007. The Council has also given consideration to the contents of all submissions lodged in response to the application, except that of Downer EDI Works Limited that was withdrawn prior to the hearing. A summary of the submissions is presented at Annex 1 to this decision.

The applicant has provided written approval to the application from B Christensen & N MacTaggart and W & J Hawker. The Christensen & MacTaggart approval contains suggestions with respect to the type of plantings in the landscape strip adjacent to State highway 6. The Council also notes that correspondence has been received from Lakes Property Services Ltd for Land Information New Zealand (LINZ). LINZ requires confirmation that the existing operation of Parkburn Quarry does not involve the use of Crown Land-water race. The Council observes that current proposal does not involve the use of such land.

The site is zoned Rural 1 in the Vincent Section of the Central Otago Transitional District Plan. Rule 4.3.1.2 xix provides for the quarrying, mining and processing of material occurring naturally in the vicinity and not covered under the provisions of the Mining Act 1971 as a discretionary activity. The site is located within the Rural Resource Area in the Proposed Central Otago District Plan (as amended by Council decisions) and part of the site is subject to a Scheduled Activity notation being SA 25A “Gravel Pit - Parkburn” as identified on Schedule 19.3 of the amended Proposed District Plan. The proposal relates to that part of the site that is not identified as being subject to SA 25A on Planning Maps 28 and 48 and accordingly the Council does not consider that the proposal has status as a controlled activity in terms of Rule 4.7.2(iv) as suggested in the application. The excavation or displacement of material exceeds the limits specified in Rule 4.7.6J(b) and such a breach is a discretionary activity in terms of Rule 4.7.4(i). It is also anticipated that the proposed activity will involve more than 3 persons in a commercial or industrial activity. This breach of Rule 4.7.6B is also a discretionary activity in terms of Rule 4.7.4(i). The proposal has been considered as an application for land use consent to a discretionary activity pursuant to sections 104 and 104B of the Resource Management Act 1991.

Information submitted in support of the application confirms that the applicant proposes to extend the area of gravel extraction at the site of the Parkburn Quarry into the area referred to in the application as the Upper Terrace. In essence the proposed activity is to involve the removal of topsoil and overburden; and the extraction of sand and aggregate using a hydraulic front-end loader to load the excavated material directly into a hopper; and transporting the excavated material by conveyor to the processing plant that is to remain in its current location on land subject to SA 25A. The applicant also proposes to undertake site rehabilitation on a progressive basis.

The applicant owns and operates the Parkburn Quarry which was developed in the 1980s and that has been in operation since that time. The applicant advises that the Parkburn Quarry site is

underlain by quaternary glacial gravels which are suitable for roading and asphalt aggregates, sealing chips and for use in concrete manufacture. The applicant has emphasised that the Parkburn Quarry underpins a significant proportion of roading and building related activities carried out within the Central Otago and Queenstown Districts and Mr Peacock advised that 12.5 tonnes of material is quarried per annum per resident of these districts.

The applicant holds Mining Permit 41783 which allows for the extraction of sand and aggregate resources from the site. Mr Page confirmed that this mining permit expires in 2044. Only the eastern two thirds of the site is identified as being subject to the Scheduled Activity (SA 25A) notation under the amended Proposed District Plan. The balance (western) portion of the site has an area of approximately 43.55 hectares and is referred to in the application as the Upper Terrace. The applicant seeks land use consent to extend the extraction and conveyance activities into this area and anticipates that sand and gravel will be extracted in stages (as shown in Appendix 3 to the Assessment of Effects (AEE) at Figure 4), over a period of 65 years depending on demand for the excavated material.

The property is located east of State highway 6 approximately 10 kilometres north of Cromwell. State highway 6 forms the western boundary of the site and Lake Dunstan forms the eastern boundary. The Parkburn Quarry site covers an approximate area of 120 hectares that is by Mining Permit 41783. The applicant owns and occupies the land associated with the Quarry and Oamaru Shingle Supplies Limited leases land in the northern part of the site for a concrete block manufacturing plant. Plans submitted with the application confirm that an unformed legal road bisects the property from State highway 6 to the edge of Lake Dunstan and that an unformed legal road crosses the property at the north-west corner. A Crown Land water race strip bisects the site at the north-east corner, being outside the area subject to the application.

The resource located within the Parkburn Quarry consists of quaternary glacial gravel of the Dunstan Formation, which is overlain by approximately 200mm of topsoil and overburden. The applicant estimates that there is approximately 10 million m<sup>3</sup> of material which is suitable for extraction remaining within the site. This is the material which is located in the Upper Terrace area.

Gravel extraction is presently occurring along the southern margin of the Parkburn Quarry. The quarry currently extracts between 240,000 to 300,000 tonnes of material per year. The applicant advises that current quarrying operations consist of the following 5 stages:

**Site preparation:** *Overlying topsoil and overburden is first removed from the areas where material is to be extracted. This material is stored and / or used to rehabilitate areas within the Quarry where operations have been completed. Motorscapers and / or truck and digger combinations undertake this activity.*

**Material extraction:** *Hydraulic loaders then extract the sand and aggregate from a working pit face, as governed by the Mining Permit.*

**Material processing:** *Conveyor belts are used to transport aggregate from the excavation face to the crushing plant. This plant screens the raw material before it passes through a jaw and hammer mill crusher system. The crushing plant is powered by onsite electricity and uses water drawn from a nearby consented well. The crushed and screened material is stockpiled within relatively close proximity to the plant.*

**Material dispatch:** *Material is dispatched, in trucks, from the graded and sorted stockpiles. All dispatched material passes over an electronic weighbridge before leaving the site.*

**Site rehabilitation:** *In areas of the Quarry where site operations have ceased the applicant has an ongoing commitment to site rehabilitation. This principally involves some site recontouring, placement of stored overburden and topsoil. The restored area is then sown with grass.*

Processing, stockpiling and dispatch areas of the Parkburn Quarry operations are located in the southern part of the site. Access to the Parkburn Quarry is via an existing entrance from State highway 6 situated towards the northern boundary of the site, and such entrance is currently being upgraded to provide additional slip lanes (tapers). The applicant advises that the access road is sealed up to the operational area of the site. The applicant considers there to be sufficient area within the site for all vehicle loading, manoeuvring and parking requirements.

The Parkburn Quarry operates from Monday to Friday, and on Saturday mornings. The site is closed on Sundays and statutory holidays. The applicant advises that there are occasions when parts of the quarry operation (but not the crushing plant) are required to operate on a 24 hour per day basis in order to meet demand. The Boffa Miskell report that is attached to the application (at page 7) advises that the quarry typically operates during normal business hours.

The applicant advises that a number of controls have been put in place at the existing quarry to avoid potential adverse effects which may otherwise result from the quarrying operations. These include not excavating the river terrace alongside Lake Dunstan, and undertaking all site activities within the established, or to be established, protective bund located alongside the southern boundary and by establishing landscaped setbacks along all but the northern site boundary as described by Mr Andrews at the hearing.

In essence the proposal is to extend extraction activities at the Parkburn Quarry into the Upper Terrace area of the site as shown on the plans submitted with the application. The Upper Terrace has an approximate area of 43.55 hectares. The applicant advises that the nature of the site preparation, material extraction and subsequent rehabilitation activities on the proposed Upper Terrace are to be the same as those currently undertaken at the existing quarry that are described above.

The applicant advises that once material has been extracted from the Upper Terrace area it is to be conveyed to the current processing area (situated to the east of the Upper Terrace within the area subject to SA 25A) for screening, crushing, sorting, stockpiling and subsequent dispatch. It is proposed that current vehicle access, loading, manoeuvring and parking requirements will not change as a result of the proposed extraction activity. It is also proposed that other aspects of the quarry operation including operating hours, site controls and hazardous substance management will remain unchanged. The Council notes in this context that several submitters raised issues with respect to operating hours at the existing quarry (and the proposed extension). The applicants position is that it is prepared to accept a condition with respect to the maximum hours of gravel extraction activity at the Upper Terrace, but is not willing to accept any constraints with respect to the hours of operation of the primary crushing plant on the site (that is located within the area used at present).

The AEE confirms that the applicant proposes to mitigate visual effects of the proposed extension by establishing a planted landscape buffer adjacent to State highway 6, and to extend and plant the existing bund on the southern boundary (with Central Cherries Ltd) as follows:

- The applicant proposes a 20 metre setback on the western boundary of the site adjacent to State highway 6. The setback is to be planted in screen plantings made up of three sequential rows. The first, commencing approximately 8 metres from the edge of State highway 6, will consist of native shrubs approximately 1 metre to 3 metres in height, which will be followed by *Hoheria angustifolia* and *Pittosporum tenuifolium* approximately 4 metre to 5 metres in height. The final row is to consist of either Lombardy poplars or *Cupressocyparis leylandii* which can be pruned to a desired height. A permanent watering system is to be installed and fertiliser applied, in order to ensure plant growth. The applicant anticipates that the screen plantings will obscure potential views of the site from neighbouring properties to the west of State highway 6.

- A 20 metre setback is also proposed to the southern boundary. The setback is to incorporate an extension of the current 3.5 metre high bund located on the eastern part of the southern boundary. The bund extension is to be planted in *Pittosporum*. Shrub planting is to be incorporated along the entire length of the bund, including amongst the existing *Pittosporum* plantings on the existing bund. Additional screen planting being two staggered rows of Lombardy Poplars or *Cupressocyparis leylandii* is proposed along the base of the bund. It is anticipated that this will act as a successional initiative in support of the existing shelterbelt. In essence the new plantings are to provide screening in future, to replace the existing shelter belt trees if lost through age or illness.

The applicant's representatives advised at the hearing that it is the applicant's intention not to extend the 3.5 metre high bund to the State highway 6 boundary of the site, following consultation with Mr Peszynski which occurred prior to the notification of the application. The Council notes however that Mr Peszynski has not lodged a submission in response to the application, and that the AEE attached to the application confirm that such a bund was to be constructed. The Council considers that such a bund should be required, unless Mr Peszynski agrees in writing to the waiving of the need for such a bund. Mr King also advised that the applicant had given further consideration to the species to be planted. He favoured *Pittosporum ralphii* rather than *Pittosporum tenuifolium*; and Mr King advised that the applicant preferred to plant *Lombardy Poplars*, rather than *Cupressocyparis leylandii*.

Carmen Taylor responded to the suggestion that a greater buffer area be provided for ecological and visual reasons (as promoted in the Lawrence submission in particular). Carmen Taylor presented correspondence from Dr Allibone of Golder & Associates dated 11 September 2007 which responded to a report from Mr BH Patrick dated August 2007 which was attached to the Lawrence submission. Dr Allibone has observed that indigenous biodiversity values are low in the area concerned and he concluded that the removal or loss of native vegetation and associated invertebrates would have a minor or less than minor effect. Dr Allibone also considered that the proposed 140 metre wide buffer area was not justified.

The applicant has commissioned Boffa Miskell Limited to undertake an assessment of landscape effects associated with the proposed activity. In a report dated July 2007 that is attached as Appendix 3 to the AEE Boffa Miskell Limited advise as follows:

*Parkburn is only visible within a very narrow view shaft running east – west across the site. The site is situated on a low-lying terrace. The combination of existing vegetation, low lying location of public viewpoints, and extensive viewing distances from elevated viewpoints, limits visibility of the proposed extension area. Where visibility of the upper terrace area is greatest, particularly from elevated private dwellings and sites to the west of the site it is considered that the proposed planting along the western boundary of the site will screen potential views of the excavation area. The proposed native plantings along the western and southern boundary of the site will also have positive ecological and visual effects.*

*The combination of these site attributes means that the site has the potential to accommodate the proposed activity of sand and aggregate extraction and subsequent conveying with only minor visual effects on the surrounding landscape. The site will retain its existing landscape character within a modified environment and plantings will enable the proposed extension to be screened from the majority of public viewpoints.*

*Therefore it can be concluded that the nature and scale of visual effects of the proposed extension to the Scheduled Activity area at Parkburn will be no more than minor."*

Boffa Miskell Limited have made several recommendations in clause 9.2 of their report as follows:

- *Establishment of all screen planting as soon as practicable, during the next appropriate planting season, coupled with the installation of a permanent watering*

*system and fertiliser applications for the first 3 – 5 years following planting, to ensure effective establishment and maturity prior to the commencement of excavation of the extension area.*

- *Grading and revegetation of extraction area slopes to ensure that the excavated terrace blends in with the surrounding topography. This will potentially also enhance stability and provide erosion protection for the slopes.*
- *Development of planting and maintenance specifications / standards as per nominal horticultural practice to ensure plant survival.*
- *Further sealing of the haul road as soon as practicable to reduce visual dust effects.*
- *Minimising the size of the operational footprint by re-grassing excavated areas where practicably possible, and retaining the processing and stockpiling activities within their current location.”*

As noted above excavation is to occur on the Upper Terrace in a staged manner as shown on Appendix 3 to the AEE – Figure 4. This indicates that excavation will occur initially adjacent to the southern boundary of the site, working towards State highway 6. Excavation will not occur within 100 metres of State highway 6 until years 10 – 15; and it appears that landscape plantings in the buffer area are likely to provide effective screening by that time. The Council also acknowledges that the existing bund between the southern boundary of SA 25A and the adjacent Residential Resource Area (3) (at Pisa Village) appears to provide effective screening of the activities when viewed from the south.

The applicant has commissioned Marshall Day Acoustics Limited to undertake an assessment of potential noise effects associated with the proposal. In a report dated 9 March 2007 that is presented as Appendix 4 to the AEE, Marshall Day Acoustics advise that noise levels were measured at the southern boundary immediately adjacent to the Pisa Moorings (sic) subdivision. Mr Green confirmed that calm and fine conditions were present at the time that the noise levels were measured.

The Marshall Day noise measurements indicated a noise level of 50 dBA on top of the existing bund. This is less than the 55 dBA L<sub>10</sub> (between 7 am and 10 pm) required at any point in the Residential Resource Area in terms of Rule 4.7.6E. The 50 dBA measurement would exceed the 40 dBA L<sub>10</sub> limit that is imposed during the hours of 10 pm and 7 am. In this context the Council notes that while the quarry operates generally during normal working hours the applicant seeks the ability to operate on a 24 hour basis at certain times. The Marshall Day Acoustics report concludes as follows:

***“Existing & Future Noise Control***

*“We believe from previous measurements and site observations that compliance with the noise rules can be achieved. This can be achieved in the following way:*

- *Continued extraction in the same manner as currently.*
- *Leave all processing equipment in the current position.*
- *Continue to move material from quarry face to processing area using conveyor belt system.*
- *Investigate potential additional noise control – this would be best left until after operation occurs so it can be optimised for the local terrain.*

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*In order to ensure noise is controlled it is recommended commissioning noise measurements be completed within six months of operation, should consent be granted. At the time of commissioning tests, any additional work required to satisfy s.16 and 17 of the Act can be considered.”*

Sections 16 and 17 relate to the general duty persons have to avoid unreasonable noise and to avoid, remedy or mitigate the adverse effects of activities.

Several submitters have expressed concern at the noise associated with existing activity at the site, including the crusher. Mr Peacock confirmed that the applicant proposes to replace the existing jaw crusher with a cone crusher, and the application anticipates that the new crusher will be “noticeably quieter”. Mr Peacock advised that the applicant is agreeable to a condition which would require that the existing primary crushing plant be replaced with a cone crusher within 24 months of the commencement of the consent. The applicant’s representatives confirmed that it is not practical to relocate the existing crushing plant further to the north, due to the significant cost that would be involved in the relocation of this permanent facility.

The Council’s conclusion is that any adverse effects of the proposed activity on the environment can be mitigated through adherence to appropriate conditions of consent. The Council acknowledges that the applicant has offered a condition which will result in the replacement of the existing primary crushing plant with a cone crusher within 24 months of the commencement of the consent, and considers that this will serve to mitigate adverse effects associated with the existing operations at the site, for the benefit of nearby residents.

The relevant objectives and policies of the amended Proposed District Plan have passed the stage where they can be affected by submissions and references (appeals). In these circumstances particular emphasis should be placed on the objectives and policies of the amended Proposed District Plan. Relevant objectives include Objectives 4.3.1, 4.3.2, 4.3.5 and 4.3.7 and relevant policies include Policies 4.4.1, 4.4.2, 4.4.5, 4.4.8, 4.4.9 and 4.4.10. The Council considers that the proposed activity, subject to appropriate conditions of consent which serve to avoid or mitigate adverse effects, will not be contrary to these objectives and policies. It is reasonable to acknowledge that the gravel resource is found in the Rural Resource Area, and that the amended Proposed District Plan provides for extraction activity (over threshold limits) as a discretionary activity. Some adverse effects can be anticipated in association with such activity which are able to be mitigated through adherence to appropriate conditions of consent. The Council also considers that the proposal is not contrary to the objectives and policies of the Transitional District Plan.

The Council notes that Issue 4.2.4 of the amended Proposed District Plan (which relates to the objectives stated above and associated policies) states as follows:

**“4.2.4 Development of Mineral Resources**

***The Central Otago District contains mineral deposits that may be of considerable social and economic importance to the district and the nation generally. Mineral development and associated land restoration can provide an opportunity to enhance the land resource and landscape values and has done so in the past. However, the development of these resources has the potential to have significant adverse effects upon soil, water and air resources of the District, and landscape and heritage values if not appropriately controlled. The ability to extract mineral resources can adversely affect or be adversely affected by land use, including development of other resources above or in close proximity to mineral deposits.”***

It is appropriate to recognise that the quaternary glacial gravels that underlie the site are a resource which is suitable for roading and asphalt aggregates, sealing chips and for use in concrete manufacture, and that such materials are important for the development of the District

and the wider Otago Region. The extraction of the resource elsewhere on the site (which is now close to exhaustion) is recognised by the SA 25A notation in the amended Proposed District Plan. The Council notes that subdivision and development has occurred in the adjacent Residential Resource Area (3) in the knowledge that the applicant's gravel extraction activities were occurring on land to the north. The Council considers that the established nature of the gravel extraction activity on the subject site is a relevant matter in the context of section 104(1)(c) of the Act.

The Council considers that the proposal is consistent with the Regional Policy Statement for Otago including Objective 5.4.5 and Policies 5.5.7 and 5.5.8 in particular, which refer to the recognition of and promotion of access to Otago's mineral resources.

The application does not conflict with any national or regional planning document nor with the purpose of the Act which is to promote the sustainable management of natural and physical resources of the District or to any other matter referred to in Part II of the Act. The proposal is consistent with sections 7(b) and (g) that require that particular regard be had to the efficient use and development of natural and physical resources; and to the finite characteristics of natural and physical resources (including minerals).

Having regard to the reasons detailed above, the Council has resolved pursuant to sections 104 and 104B of the Resource Management Act 1991 to grant consent to the application, subject to the following conditions:

1. This consent authorises the extraction of sand and aggregate resources from that part of the site that is not subject to SA 25A as shown on Maps 28 and 48 of the amended proposed Central Otago District Plan, and the transportation of sand and aggregate resources by use of a conveyer belt system at all times except for an emergency breakdown situation.
2. The crushing of aggregate resources and the transportation of sand and aggregate using trucks is not permitted on land not subject to SA 25 in terms of this consent, except for the existing vehicular access to State highway 6 and for the use of trucks in an emergency breakdown situation. Trucks are also permitted to be used during site preparation when topsoil and overburden is removed.
3. The land within 20 metres of the State highway 6 road reserve boundary shall be established and maintained as a landscape buffer area.
4. Within the landscape buffer area required in terms of condition 3 three segmented rows of plantings shall occur as follows –
  - (i) Row 1 shall be eight metres back from State highway 6 and shall include a row of native shrubs 1 metre to 3 metres in height.
  - (ii) Row 2 shall be *Hoheria angustifolia* and *Pittosporum* species approximately 4 – 5 metres in height.
  - (iii) Row 3 shall be Lombardy poplars or *Cupressocyparis leylandii* that may be pruned to a minimum height of 6 metres.
5. The land within 20 metres of the southern boundary of the site shall also be retained as a landscape buffer area that shall include a 3.5 metre high grassed bund that shall be tied into the existing bund which exists adjacent to the eastern portion of the southern boundary. Such bund shall extend to the western (State highway 6) boundary of the site unless Mr Peszynski of Central Cherries Ltd confirms in writing that such bund extension is not required, and such written confirmation is lodged with the Chief Executive.
6. The bund extension required in terms of condition 5 is to be planted in *Pittosporum* species. Shrub planting is also to be undertaken along the entire length of the bund,

including the existing bund. In addition two rows of Lombardy poplars or *Cupressocyparis leyandii* are to be planted along the base of the bund, on the north side of the bund. If the bund extension is not constructed a landscape buffer and plantings as prescribed in conditions 3 and 4 shall be provided adjacent to that part of the southern boundary where no bund is present.

7. The plantings required in terms of conditions 4 and 6 shall be established within 12 months of the commencement of this consent.
8. The consent holder shall install a permanent watering system for the plantings required in terms of conditions 4 and 6 and shall undertake appropriate fertiliser application for the first 5 years following the commencement of this consent.
9. The extraction of sand and aggregate resources shall occur in a staged manner as shown on Appendix 3 – Figure 4 being a plan attached to the Assessment of Environmental Effects lodged with the application.
10. The consent holder shall carry out progressive land restoration to achieve a gradual contour down from the landscape buffer areas required in terms of conditions 3 and 5 and to achieve vegetative cover that is consistent with that found on adjacent dry farmland. Such restoration to pasture shall occur as follows:
  - (a) Restoration shall occur no later than when the area of land exposed by gravel extraction activity reaches 20 hectares.
  - (b) Restoration shall include recontouring, spreading of topsoil and the sowing of an appropriate grass mix and any necessary fertilisers.
11. Any topsoil present shall be removed and stockpiled separate from overburden such that topsoil is not lost to wind blow or runoff.
12. The post land use objective shall be to return the land to a condition at least as productive as exists prior to quarrying.
13. The maximum hours of operation of the gravel extraction activity are to be 8.00 am to 6.00 pm, Monday to Friday and 8.00 am – Noon on Saturdays, except for public holidays provided that the consent holder is permitted to operate outside the hours stated in this condition on a maximum of 10 days per year.
14. The consent holder shall maintain a log of when the quarry operates outside the hours specified in condition 13 and such log is to be provided to the Chief Executive on request.
15. Access to the quarry shall be obtained from the existing access from State highway 6.
16. In the event that public access is to be provided through the site (via the landscape buffer area) to Lake Dunstan the consent holder shall establish and maintain a public parking area for no less than 5 vehicles located within the buffer zone adjacent to the State highway (that shall be adjusted in width to accommodate the plantings required in terms of condition 4). The parking area will have direct access onto the State highway and operate in a manner similar to a rest area. The parking area shall be located as far away as is practicable from CP 34 and as close as practicable to the pedestrian access to the foreshore of Lake Dunstan. The exact final location and treatment of the access to the public parking area shall be decided in consultation with Transit New Zealand's network management consultant.
17. The consent holder shall, during gravel extraction operations and upon completion of quarrying, leave the area to which the resource consent relates in a clean and tidy state.



18. Any discharge of a hazardous substance must be immediately reported to the Otago Regional Council. Hazardous substances include but are not limited to diesel, petrol, flammable liquids and solids.
19. The consent holder shall be responsible for minimising the generation of dust by regularly spraying water over the extraction area.
20. The consent holder shall at all times adopt the best practicable method to mitigate any adverse dust effects.
21. The consent holder shall ensure that the exhaust systems of all heavy machinery and vehicles owned and operated by the consent holder on-site including those using reverse beepers are muffled by directional control or silenced in accordance with the manufacturer's standards (and OSH requirements) in order to mitigate the effect of noise generation.

*Note: It is acknowledged that vehicles may visit the site that are not owned and operated by the consent holder, and that the consent holder does not have control with respect to these vehicles at the site.*

22. The gravel extraction activities shall comply with Rule 4.7.6E(a) of the amended Proposed District Plan which relates to noise.
23. If koiwi (human skeletal remains) taoko or artefact material is discovered at the gravel extraction site, work will immediately cease and Kai Tahu and the New Zealand Archaeological Association shall be advised. In the event of such a discovery the consent holder shall arrange for a site inspection by the appropriate Tangata Whenua and their advisers, who will determine whether the discovery is likely to be extensive and whether a thorough site investigation is required. Materials discovered will be handled and removed by Iwi responsible for the tikanga appropriate to their removal or preservation.
24. In accordance with section 128 of the Resource Management Act 1991, the conditions of this consent may be reviewed on and in the period within six (6) months upon each anniversary of the date of this consent, if on reasonable grounds, the consent authority finds that:
  - (a) There is or is likely to be an adverse environmental effect as a result of the exercise of this consent which was unforeseen when the consent was granted.
  - (b) Monitoring of the exercise of the consent has revealed there is, or is likely to be an adverse effect on the environment.
  - (c) There has been a change in circumstances such that the conditions of consent are no longer appropriate in terms of the purpose of the Act.
25. Within six months of the commencement of the sand and aggregate extraction activity the consent holder shall provide a noise measurement report to the Chief Executive that measures the noise at the boundaries of the site during quarry operations; and this report may be peer reviewed at the discretion of the Chief Executive and at the cost of the consent holder.
26. The existing primary crushing plant on the site (within the area subject to SA 25A) shall be replaced with a cone crusher within 24 months of the commencement of this consent.
27. Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent shall be at the consent holder's expense.
28. The consent holder shall pay to the Council all required administration charges fixed by the Council pursuant to section 36 of the Act in relation to:

- a) Administration, monitoring and inspection relating to this consent; and
  - b) Charges authorised by regulations.
29. Upon commencement of the sand and aggregate extraction activity on the land subject to consent, the consent holder shall advise the Chief Executive in writing (quoting RC070216) that all conditions of this consent have been adhered to.

*Note: The consent holder shall be responsible for obtaining any necessary archaeological authority which is required in terms of the Historic Places Act 1993.*

Certified to be a correct copy of the decision of the Central Otago District Council.

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L A VAN DER VOORT  
MANAGER, PLANNING AND ENVIRONMENT

10 October 2007

## Annex 1

SUBMITTER/S	SUMMARY OF SUBMISSION	DECISION REQUEST
A & K Barrett	<p><b><u>Oppose</u></b>            The specific parts of the application that the submission relates to are:</p> <ul style="list-style-type: none"> <li>• Noise – too close to residential properties</li> <li>• Dust – extreme dust clouds during windy weather.</li> </ul> <p>The submitters wish to oppose this application as it would cause too much dust and noise to the surrounding subdivision and homes closest to the quarry.</p>	<p><b>Refuse consent</b></p>
R & H Christian	<p><b><u>Support conditionally</u></b>            The application by Fulton Hogan Limited for consent to extract and convey material from the Upper Terrace of Parkburn Quarry requires appropriate consideration of the existing impact of the quarry’s operations on Pisa Moorings residents, as well as likely future impacts. Although the applicant has expressed the opinion that consultation with landowners in Pisa Moorings is unnecessary, the quarry’s operations have ongoing effects on noise, dust and landscape that are more than minor.</p> <p>The primary concern of residents in the Pisa Moorings area is noise originating from the quarry. There are three distinctive sounds that are audible at least 800 metres away on “still air” days: the operation of the primary (jaw) crusher, load emptying, and the reversing safety “beeps” of the trucks. Marshall Day Acoustics were contracted by the applicant to measure noise levels, with testing carried out on 21 March 2005 at the southern boundary of the quarry and immediately adjacent to the Pisa Moorings subdivision. In a summary of their findings in a letter to Fulton Hogan Limited dated 9 March 2007, Marshall Day Acoustics made no representation of the weather conditions at the time of testing or whether the primary crusher was in operation. The absence of noise effect within the subdivision was assumed.</p> <p>It is submitted that the Council needs to undertake its own independent acoustic tests at various locations within the Pisa Moorings subdivision on still-air days to adequately determine the noise effects of the quarry’s operations.</p> <p>The submitters understand that the conveyor and stockpile will not be relocated with the proposed Upper Terrace. Dust from the quarry does enter the Pisa Moorings subdivision during northerly winds. The impact of this dust is most likely to be greatest for those landowners immediately adjacent to the quarry’s southern boundary. In addition, the quarry’s conveyor and raw feed stockpile are visible from certain locations</p>	<p>Grant consent to the application only if conditions can be met. In particular, tree plantings along the quarry’s southern boundary should be mandatory, as well as consideration given to:</p> <ul style="list-style-type: none"> <li>• the primary crusher’s hours of operation,</li> <li>• replacement of jaw crusher with cone crusher,</li> <li>• removal of reversal “beeps” from trucks,</li> <li>• relocation of primary crusher</li> </ul>

within the Pisa Moorings subdivision. It is relevant that the closest dwelling to the quarry is not 100 metres from the southern boundary as the applicant suggests, but more likely less than 50 metres. The Council would have been aware of this when they issued consent to Pisa Village Limited to develop land for rural residential use at the northern boundary of the subdivision.

The submitters acknowledge the important service that Fulton Hogan Limited provides to local development and infrastructure. However, there is also a need to accommodate the interests of residents of Pisa Moorings, many of whom would have purchased sections without knowledge of the quarry's noise effects in particular. The submitters ask the Council to carefully consider the following measures that are intended to mitigate the concerns of Pisa Moorings residents whilst causing the least possible interference to the activities of Parkburn Quarry. In order of priority:

1. Dense, naturalised tree plantings for the entire 20 metre setback of the quarry's southern boundary (Pisa Moorings' northern boundary). Over time, this planting would act as a noise and dust suppressant while also removing the visual impact of the quarry from local residents. The plantings should incorporate similar trees to those proposed for the west/highway boundary (ie native shrubs of 1-3 metres in height, *Hoheria augustifolia*/*Pittosporum tenuifolium* of 4-5 metres in height and tall trees of 6-7 metres in height. Tree plantings should continue to the top of the bund. It should be noted that the existing *Pinus radiata* trees on the quarry's southern boundary are sparsely planted and nearing the end of their life.
2. Operating hours of the primary crusher should be restricted to 8 am – 5.30 pm on weekdays, with no use of the crusher during the weekend or on statutory holidays. This measure would not interfere with other existing operating times involving equipment other than the primary crusher.
3. Replacement of the jaw crusher with a cone crusher within 12 months, provided that it can be demonstrated that the noise effects of the new crusher would be less than the existing crusher. Alternatively, cover the existing jaw crusher to reduce noise.
4. Remove reversal “beeps” from trucks if not legally mandated as a safety measure.
5. Naturalised tree plantings along the quarry's eastern boundary with the lake to remove the visual impact of the quarry, as viewed from the lake and highway

	<p>6. Relocate the primary crusher further north if this would not have any detrimental impacts on residents to the north of the quarry.</p>	
<p>JM &amp; AG Lawrence</p>	<p><b><u>Oppose</u></b></p> <p><b><u>Background</u></b></p> <p>The submitters own the property at Rapid 827 on State highway 6 as well as Rapid 140 State Highway 6, Cromwell. On these two properties they grow grapes and on the latter make and sell wine under the Aurum brand.</p> <p>The property 827, State Highway 6 is on the opposite side of the road to Parkburn quarry at its south western corner and by nature of boundary lines becomes opposite the quarry progressively back from the road (fig 1 [attached to the submission as are other figures referred to below]).</p> <p>The submitters are life members of the Queen Elizabeth National Trust. The submitters are also longstanding members of the New Zealand Royal Forest and Bird Society, the New Zealand Historic Places Trust, the New Zealand Archaeological Association and the New Zealand Gardens Trust.</p> <p>Whilst the submitters have economic interests in the vineyards they have tried to balance this with conservation realising the importance of the ecology of the Cromwell valley floor. The submitters are currently in the process of protecting about 1/3 of the property opposite the Parkburn quarry by means of a covenant through the Queen Elizabeth National Trust.</p> <p><b>Analysis and Comment on the Report by Kingett Mitchell Ltd “Parkburn Quarry Upper Terrace Land Use Consent Application and Assessment of Effects on the Environment July 2007”.</b></p> <p><b><u>Rehabilitation</u></b></p> <p>While the submitters appreciate that the current quarry is a permitted activity and this is beyond the scope of the application, nevertheless creation of a quarry in the upper terrace does require consent and if it is to be allowed should be subject to some controls, which Fulton Hogan acknowledges. The submitters are very concerned that “The nature of the site preparation, material extraction and subsequent rehabilitation activities on the upper terrace will be the same as those currently undertaken at the quarry ...” [p 10].</p> <p>Any rehabilitation of the site appears to be minimal, at best. Indeed the disused pits remain as eyesores, an industrial complex has been built on part of the site and from the extraction method which can be observed at the southern edge in the current southern pit no allowance has been made for recontouring of the</p>	<p>The submitters would first recommend that unless current activities are brought into line with good practice that no extension of the quarry be allowed.</p> <p>If good practice including better dust control, resiting of the grading and crushing plant to a lower level to reduce noise and visual effects and a plan to rehabilitate the existing and proposed quarries once extraction of gravels was complete is made, then extraction of gravels should be allowed in the upper terrace under the following conditions.</p> <ul style="list-style-type: none"> <li>• That a buffer zone of 140 metres from State Highway 6 be set aside as a reserve.</li> <li>• That this reserve be protected through an appropriate agency such as the Queen Elizabeth Trust.</li> <li>• That the concept of an irrigated planting strip on the southern and western sides of the upper terrace be abandoned.</li> <li>• That on completion of all quarrying activities including rehabilitation the whole site be vested in a conservation trust such as the Queen Elizabeth Trust.</li> </ul> <p>Benefit /costs if these recommendations are accepted:</p> <p><u>To Fulton Hogan</u> Fulton Hogan will have less gravel to extract than</p>

<p>extraction faces with an extraction face right to the bund on the southern boundary. This is quite inconsistent with “that recontouring is undertaken to ensure that the ‘edges’ of the quarry are visually integrated into the terrace landscape. This will be undertaken by FHL on a progressive basis as part of ongoing site rehabilitation.” [p 12, 13]</p> <p><b><u>Air Discharge</u></b>  Fulton Hogan currently have an air discharge permit. [p 12]. The submitters believe that the current permit is consistently abused and there appears to be no system in place to deal with dust created by the extreme winds and habitually extremely dry conditions that this valley experiences. Dust is largely generated from the quarry pits and their faces and the storage heaps. The submitters understand there is a watering truck for the roads but these roads are only marginally responsible for the dust.</p> <p>Figures 2 and 3 show the dust generated by the quarry on a moderately windy day (note the effect of the wind on the shelter belt). On an extremely windy day dust from the quarry completely obliterates the submitters view of the Dunstan Mountain Range shown in these figures.</p> <p>Quarrying the upper terrace would markedly increase this dust discharge on windy days. Furthermore quarrying near the road will likely create visibility problems on State Highway 6, only 20 metres away from the proposed new quarry site as proposed. [p 13].</p> <p><b><u>Visual and Sound Effects</u></b>  Fulton Hogan propose planting a 20m strip adjacent to State Highway 6 and along an extended southern bund to mitigate the visual effects of the proposed new upper terrace quarry to neighbours and the travelling public. [p 13].</p> <p>From discussions with Jonathon Green the submitters understand that these proposed plantings are to mitigate the visual effects of the proposed upper terrace quarrying from neighbouring properties such as the submitters.</p> <p>The submitters believe there is a better option, also discussed but not mentioned in the report, of lowering the sorting and crushing plant into the current south pit once extraction is completed here. This should markedly reduce noise and reduce the visual impact of the quarry from State Highway 8 (figure 4).</p> <p>Stopping quarrying activities further back from the road at the current fence (approximately 140 metres) would also mitigate much of the visual impact both from the road and neighbouring properties.</p>	<p>in their proposal but considerably more than from the existing quarry. Shortfall will be able to be obtained from their Luggate quarry.</p> <p>Fulton Hogan will gain immense kudos as an ecologically sensitive quarry operator making a profit from the short term activity of gravel extraction but being prepared to give something back to the community by creation of a “Fulton Hogan” reserve and by mitigating the adverse short and long term effects of quarrying to the best of their ability.</p> <p><b><u>To the Community</u></b>  The community will gain from better control of noise, dust and visual pollution in the short term and the rehabilitation as best possible of a landscape scar and the creation of a reserve in the long term.</p>
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Whilst the submitters would prefer the working quarry to not be visible from their house they would sooner see some quarry activities than see plantings of trees adjoining any boundary (see also Brian Patrick's report).

#### **Ecology of the Upper Terrace**

Whilst the District Plan does not identify areas of significance on the site [p 12] it is an invalid assumption to make that the upper terrace does indeed not hold significant ecological features. It is simply that no official survey has yet been undertaken. It is, however, known that the Cromwell Valley floor is, even where modified but only lightly grazed, such as the upper terrace, a rich area of indigenous biodiversity (figures 5 and 6).

Such is the recognised importance of the fauna and flora of the Cromwell valley floor in the Upper Clutha that there are a number of DoC reserves in this valley. As examples the Mahaka Katia reserve lies to the north of the site (figure 7). On the same flats and the Cromwell Chaffer Beetle Nature Reserve lies to the south (figure 8).

On 26<sup>th</sup> August 2007 a brief biological survey was made of the upper terrace. This report and its recommendations by Brian Patrick, the foremost expert in the biodiversity of this region is included as Appendix 1 to the submission and Annex 2 attached. The submitters found that the most interesting and biologically important part of the upper terrace was in the paddock adjacent to the road, the width of this paddock being about 140 metres.

#### **Submission**

The submitters believe that the granting of a zoning to allow quarrying of the lower terrace in the 1980's was the correct decision at the time. At that time the importance of the ecology and indigenous biodiversity of the Upper Clutha Valley was not appreciated. Also the quarry was in a relatively isolated area and of a scale where its impact of site, noise, and dust was only small.

The submitters understanding is that the District Council did not change the zoning of the upper terrace from rural due to the proximity to State Highway 6 where its effects would be more noticeable.

Circumstances have changed substantially in the valley since then. There has been a huge increase in rural and urban activity in the valley and particularly around the quarry. This area is renowned for its winds and fruits. The economic value of this valley's activity has grown rapidly and give every indication of continuing.

	<p>The quarry is becoming a more and more inappropriate land use in this region and has a finite life. The report is very vague about how the effects of the extraction can be mitigated once quarrying is complete. There is little or no indications on the present site that any serious attempt has been made to rehabilitate the area, despite claims in the report. [p 16].</p> <p>The sourcing of material from alternative sites is not addressed in the report. It is well known that Fulton Hogan have recently gained Resource Consent for a quarry in Luggate. This gives them a ready source of gravels to utilise in Central Otago and the Lakes District as well as the Parkburn site.</p>	
L Grau & M Mohr	<p><b><u>Neither Support nor Oppose</u></b> The specific parts of the application that the submission relates to are:</p> <ul style="list-style-type: none"> <li>• Noise level of operating the quarry</li> <li>• Impact of dust with northerly winds (which are very strong in this area all through spring and summer!)</li> </ul> <p>Restriction of operating hours from 8 am – 5 pm during week days. Even in 7 Ferry Lane the noise of the crusher can be heard <u>inside the house</u> on still days or with northerly winds. More dense planting of shrubbery and trees at the border to the subdivision.</p>	To help suppress dust and noise the submitters would like Council to seriously consider their amendments and how strongly it affects their quality of life.
Public Health South	<p><b><u>Neither support not oppose</u></b> Public health South has studied the documents sent in to support the application and found no issue of public health significance. Public Health South has no objection to the consent applied for.</p>	
CR and SN Thompson	<p>The submitters as representatives of the Thompson Family Trust and Thompson Vineyards Ltd and as individuals concerned for the environmental effects of the proposed mining extension.</p> <p>The Thompson Family Trust owns two blocks of land on the opposite side of State highway 6 and directly west of the Upper Terrace area proposed for the extension of the Parkburn Quarry.</p> <p>Lot 1 DP 24987 is at the same elevation as the Parkburn Quarry Upper Terrace and immediately adjacent on the opposite side of State Highway 6. Lot 2 DP 25665 is on the first step of the terraces directly to the west, with extensive views over the proposed site.</p> <p>The submitters anticipate erecting a dwelling in the near or medium term on one or both of these sites.</p> <p>Thompson Vineyards Limited owns and operates vineyards on both these properties.</p>	<p>That the application for land use consent to extract gravels at the Parkburn Quarry from the area referred to as the Upper Terrace be declined unless the following conditions are met:-</p> <ol style="list-style-type: none"> <li>a) That the setback area from the State Highway 6 boundary is increased significantly from the proposed 20 m in order to safeguard this important visual corridor.</li> <li>b) That a 5-6 metre strip is created along the western and southern</li> </ol>



	<p><b><i>The areas of concern in the application to which the submission relates are:-</i></b></p> <p>i) The assumption in the application that, because the existing quarry operates to certain standards within the terms of its consent, the new mining area can operate under these same conditions.</p> <p>ii) That the timeframe for the relocation of the crushing plant is unspecified and loosely indicated at ‘medium term’. Given the lifespan of the mine put as 65 years, if extended as proposed, it could mean this would not be achieved for 30 or more years.</p> <p>iii) The visual effects. These will be of a very long term and lasting nature. Stockpiles, elevator and associated activity are currently visible from the western terraces (contrary to the assertion in 6 “Visibility Analysis of Proposed Site, Assessment of Landscape Effects”). They will be able to be viewed by dwellers and users of land on the terraces overlooking the quarry, by lake users, and by anyone travelling, living or working on land on the opposite side of Lake Dunstan. The larger the quarry is allowed to become, the greater the potential visual eyesore.</p> <p>iv) Lack of any obvious systematic restoration of the land currently quarried and therefore the reality of the proposed re-grading and revegetation of future extraction areas if allowed.</p> <p>In discussions with Jonathan Green and the Fulton Hogan representative, it was admitted that once gravel is extracted, it is unrealistic, impracticable and uneconomic to imagine that the fill can be put back in any meaningful way. Therefore, very serious consideration needs to be given to the area actually given land use consent for mining, in order to allow for adequate re-contouring so that as natural an integration is achieved as possible of the disturbance into the landscape.</p> <p><b><i>The submission:</i></b></p> <p>The importance of adequate supplies of gravels for the maintenance and growth of the district, together with the practicality of allowing an extension to the current operations, is acknowledged.</p> <p>However, it is submitted that, if this proposed extension is granted, every effort is made to mitigate negative effects of the quarry, given the 65 year life of the mine if the new area is allowed, and the large size of the disturbance in the permanent landscape.</p>	<p>boundaries to allow for safe walking and access to the Lake Dunstan foreshore and formalized or given some form of covenant for protections.</p> <p>c) That relocation of stockpiles, and of the sorting and crushing plant to the lower terrace is carried out before commencement of any mining of the Upper Terrace in order to mitigate the noise and visual impact of mining operations, given that allowing for the proposed extraction will extend the life of the quarry for 65 years.</p> <p>d) That a specified width along southern, western and northern boundaries is withheld a land use consent for mining, or if allowed, that the depth of extraction is restricted, in order to ensure adequate graduation for long-term integration of the quarry faces into the natural landscape.</p> <p>e) That the recontouring and regrassing of excavated areas is monitored to ensure that it is carried out in the timeframe and manner agreed on.</p>
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	<p><b><i>The reasons for these views:</i></b></p> <p>The area surrounding the Parkburn Quarry has developed significantly since the 1980's when consents were granted and mining commenced at the site. Not only is there now intensive agriculture in the form of vineyards and orchards in the immediate vicinity which also contribute to the economy of the region, but there is also significant and steadily increasing residential development on the southern boundary and on land that overlooks the site.</p> <p>State Highway 6 carries steadily increasing volumes of traffic as the whole region develops and is a very significant visual corridor.</p>	
Transit New Zealand	<p><b><u>Support conditionally</u></b></p> <p>Pursuant to Section 96 of the Resource Management Act 1991, Transit New Zealand hereby makes this submission <b>partially supporting</b> the application by Fulton Hogan Ltd to extend the area of the Parkburn Quarry into an area referred to as the "Upper Terrace".</p> <p><b>Transit New Zealand's submission is:</b></p> <p>The applicant proposes that a 20m buffer strip extending along the western boundary of the subject site. The buffer will extend from the edge of the road reserve and into the subject site as far as the first row of screening vegetation. The buffer will also include a 5-6m wide strip that will act as a pedestrian walkway. It is envisaged that this walkway will join with a similar strip along the southern boundary to provide public pedestrian access to the Lake Dunstan foreshore.</p> <p>There is no mention in the application as to where cars will park if the public wish to use this walkway. Transit does not wish to have vehicles parking on the State highway road reserve, which would compromise the safety of both the pedestrians and motorists travelling along the State highway. If the applicant is prepared to provide public access to the lake, they should make it accessible by providing a parking area. Consequently, Transit requests the applicants provide car parking for up to 5 vehicles located within the buffer zone towards the southern end of the subject site and as close as practicable to the pedestrian access leading to the foreshore of Lake Dunstan.</p> <p><b>The reasons for this submission are:</b></p> <p>The objective of Transit New Zealand is to operate the State highway system in a way that contributes to an integrated, safe and sustainable land transport system. The Land Transport Management Act 2003 requires Transit New Zealand to not only build roads in response to traffic pressures, but to actively manage the present State highway resource as a key component of the land transport system.</p>	<p><b>Transit New Zealand wishes the consent authority to grant resource consent to the proposed activity and attach the following condition:</b></p> <p><i>The applicant shall establish and maintain a public parking area for no less than 5 vehicles located within the buffer zone adjacent to the State highway. The parking area will have direct access onto the State highway and operate in a manner similar to a rest area. The parking area shall be located as far away as practicable from CP 34 as [is] possible, and as close as practicable to the pedestrian access to the foreshore of Lake Dunstan. The exact final location and treatment of the access shall be decided in consultation with Transit New Zealand's network management consultant.</i></p>

	<p>Transit New Zealand is concerned that the proposed activity will not achieve this objective in the vicinity of the subject site. In particular, vehicles parking on the State highway road reserve could have an adverse effect on the safety and functionality of the State highway and the access to the Parkburn Quarry (being CP 34). Providing car parking for the public who wish to use the walkway could prevent and/or mitigate this potential effect.</p>	
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