CON520: SUBMISSION ON RESOURCE CONSENT APPLICATION
(SECTION 96 RESOURCE MANAGEMENT ACT 1991)

TO: Consents Hearings
Environment Canterbury
P O Box 345
CHRISTCHURCH 8140

Email: hearings@ecan.govt.nz
Ph: (03) 353 9007 Fax: (03) 365 3194

OR: submit by completing an on-line form at:

Person(s)/Group/Organisation Making the Submission

Full Name of Submitter(s):

Postal Address For Service:

Contact Phone No(s):

Fax/Email: ________

☐ Please tick this box if you do not want to receive any communication via email

Contact Person: ____________________________

Name of applicant: Fulton Hogan Limited

Applications to Environment Canterbury

☐ All of the applications as listed below OR only those as ticked.

☐ CRC192408 Land use to excavate material
☐ CRC192409 Land use to deposit cleanfill
☐ CRC192410 Discharge contaminants into air
☐ CRC192411 Discharge contaminants into water from industrial processes
☐ CRC192412 Discharge stormwater into land
☐ CRC192413 Discharge contaminants into land associated with deposition of cleanfill
☐ CRC192414 Water permit

☐ I / We support the application ☑ I / We oppose the application ☐ I / We are neutral to the application (neither support or oppose)

I / We do wish to be heard in support of my/our submission*

(Note: this means you wish to speak in support of your submission at the hearing)

*If others make a similar submission, I will consider presenting a joint case with them at the hearing ☐ Yes ☐ No

OR:

☐ I / We do not wish to be heard in support of my/our submission

(Note: this means that you cannot speak at the hearing, however you will retain your right to appeal any decision to the Environment Court on any decision made by the Council.)
Application to Selwyn District Council

☐ RC185627 Land use for gravel extraction and processes

☐ I / We support the application  ☐ I / We oppose the application  ☐ I / We are neutral to the application (neither support or oppose)

☐ I / We do wish to be heard in support of my/our submission*
(Note: this means you wish to speak in support of your submission at the hearing)
*If others make a similar submission, I will consider presenting a joint case with them at the hearing  ☐ Yes  ☐ No

OR

☐ I / We do not wish to be heard in support of my/our submission
(Note: this means that you cannot speak at the hearing; however you will retain your right to appeal any decision to the Environment Court on any decision made by the Council.)

2. The reasons for making my submission are: (state in summary the nature of your submission, giving reasons)

Refer to attached

Please attach additional pages if required

3. I wish the consent authority to make the following decision: (give details, including the general nature of any conditions sought)

Refer to attached
5. **I am not** a trade competitor for the purposes of section 308B of the Resource Management Act 1991. I am not directly affected by an effect of the subject matter of the submission that (a) adversely affects the environment; and (b) does not relate to trade competition or the effects of trade competition.

Signature of submitter or duly authorised agent on behalf of submitter

Date 21/5/19

**Notes to the submitter:**
1. The person making this submission must send a copy to the applicant as soon as reasonably practicable after serving Environment Canterbury.
2. A list of all submissions received will be provided to the applicant.
3. Please be aware that third parties may request a copy of submissions received and that request is subject to the Local Government Official Information and Meetings Act 1987.

**The address for service of the applicant is:**
Fulton Hogan Limited
c/o Golder Associates
PO Box 2281
Christchurch 8041
Attn: Kevin Bligh / Geoff England

Email: submissions@golder.co.nz
Attachment for CON520 – Submission – Fulton Hogan Quarry Application

Jenny Anne Butt

Re: Applications to Environment Canterbury and Selwyn District Council for Resource Consent to use land situated on Jones, Curraghs and Dawsons Roads by Fulton Hogan Ltd

Resource Consent Application Points

2. The reason for making my submission is:

I personally have lived in the area for over 52 years. The property on the corner of Maddisons and Curraghs Roads is our family home/business. My late husband and I are 4th generation horse trainers from this 16-hectare property.

I continue to generate my income from this property by way of breeding and training standardbred horses and general cropping. One of my grandsons also trains from this property now as his main source of income. I have four adult children, two of which are horse trainers in their own rights and my third son, although not his main source of income does have horses which he prepares and races from my property. My daughter is married to a horse trainer and relies on the racing industry for their income.

I work daily at the property located on the corner of Maddisons and Curraghs Roads. This property is diagonally adjacent to the proposed new quarry site. I spend most of my day working here whether it is working with the horses or doing property maintenance. I am passionate about the industry that has given our family an income and enjoyment along the way.

Many of my friends (many of which live close by) are also involved in the racing industry or support my family’s interests and in turn support me.

I do not live at Maddisons Road (the home is rented out) but I live in the township of Templeton and although a little further away from the site is still very definitely affected by the proposed quarry application.

The proposed new quarry to be located so close to my property is of great concern to me on many levels. I would like to explain some of those in my submission.

ZONING

The local properties surrounding the proposed quarry are all farms of various sizes with the quarry site made up of two farming families, the late Sir Roy McKenzie and the Ward family. Other family farms were the Curraghs, Wilds, Gould’s and ourselves the Butts. Over time they have been broken down into smaller blocks of 5, 10, 20 and 40 acres, still ensuring the farming values of the area. The zoning in this area is Inner Plains, which provides predominately for rural activities and dwellings to be construction on lots of 10 acres or greater. Except for the subject blocks (proposed quarry land), all surrounding development is of high density rural (5 - 10 acres with dwellings) compared to the Outer Plains which is 50 acres. Therefore, neighbouring dwellings proximity to a heavy industrial
quarry use is not compatible in a predominately rural residential location. Therefore, this conflicts with the current zoning status.

Relevant Objectives in the District Plan as noted as follows:

**Objective B3.4.1** – The District’s townships are pleasant places to live and work in.

*I disagree* – Allowing a quarry will not make for a pleasant place to live.

According to the Planning Report – Intensive Farming - Baseline Assessment document produced by the Selwyn District Council these objectives should apply to this consent application.

**Objective B3.4.2** - A variety of activities are provided for in townships, while maintaining the character and amenity values of each zone.

*Rural not an industrial quarry*

**Objective B3.4.3** - “Reverse sensitivity” effects between activities are avoided.

*Surely these above objectives cannot be interpreted to support the proposed quarry land use application.*

**Policy B3.4.2** – To provide for any activity to locate in a zone provided it has effects which are compatible with the character, quality of the environment and amenity values of that zone.

*The character quality and amenity value will be severely damaged if the quarry proceeds.*

**Policy B3.4.10** – Ensure noise in all zones does not adversely affect the health or well-being of people.

*This will not be the case*

**Policy B3.4.12** – Avoid night lighting and, where practical, glare from reflections shining directly into adjoining sites, in all zones.

*This will not be the case*

**Policy B3.4.14** - Avoid nuisance effects caused by dust from stockpiled material or construction work in Living or Business zones.

*Surely the stockpiling of materials should apply to this application under the Intensive Farming and Sensitive Policy and therefore in one policy this proposal / application cannot proceed.*

**TRAFFIC**

The **traffic volumes** will increase on the roads and this is a huge issue for me. My property is bordering on the proposed quarry development - corner of Maddisons and Curraghs Roads immediately adjacent to the development.
My training track is on the corner of Curraghs and Maddisons Road (see Pictures 1 and 2). My training track has been on this site since we owned the property and currently, we don’t have any issues with the traffic passing by because it is infrequent and more than often just cars. With the proposed development we envisage a high volume of trucks passing down Curraghs and Maddisons Roads.

We have been training horses on this property for 50 plus years and to date haven’t had any accidents due to motor vehicles but given the rise in numbers this may not be the case. Our horses although well trained don’t respond well to loud noises, sudden movement, or large objects travelling close by. We do our best to educate the horses in the event of anything happening but at the end of the day they are still horses! Annually we have young horses that need to be “broken in” and they need to be educated and socialised with the surroundings. If the quarry goes ahead this will be difficult for us as they are more inclined to “shy” (move quickly) and this may have a disastrous outcome.

Picture 1 – Curraghs Road parallel with our training track. You can see there is very little room and a water race between the road and the training track.

Picture 2 – training track bordering Maddisons Road – also close in proximity.
Another issue is the history of accidents on the corner of Curraghs and Maddisons Road. Over the years we have had several accidents, some of which where the vehicles have ended up on my property. Also, over the time, several near misses have been recorded and seen. With the increase in volumes this will in no doubt be more common. The roads in the area have not been designed to carry the large trucks – the carriageways are narrower and there is no sealed area off to the side of the road. All the roads in the Templeton / Weedons area will need to be widened should the quarry go ahead. Currently these are just narrow country roads which not long ago were shingle themselves (I know because I have lived here that long).

It was noted back on the 2nd of December 2018 on a Facebook posting to the Templeton Residents that there was a detour put in place due to the road works on Kirk Road. While this detour was in place an issue arose at the “Curtin property” on Dawsons Road where a horse was “scared” and ran out onto the road creating a dangerous situation. The Curtin property also has a training track adjacent to the road frontage (same as my situation) and because of the incident the road speed was changed to 30 kilometres per hour. If they saw fit to reduce the speed because of this incident would it require the speed limit on Maddisons and Curraghs Road to be permanently reduced to 30 kilometres an hour to keep in line with this ruling due to my training establishment being the same if not more affected.

**Roadworks Update**

As most of you will have seen, the potholing last week on Kirk Rd was completed in two days allowing all traffic management to be packed up on the Thursday night shift and give the full extent back a day early.

We started this week, Wednesday 28th November, north of Maddisons Road. Please note the lane drop as per Notice 002 which was previously sent out. Due to several cars ignoring the road closed sign and driving the wrong way towards oncoming traffic, we opted to leave 1.8km of cones for the whole alignment at our cost. In the interest of health and safety, this is a minimum that I feel we can do to ensure that it is apparent that one lane is not in operation. Please be safe out there while drivers get used to the temporary road layout.

With 3 drivers today already driving through the lane closure, we will put additional cones and signage up to try and avoid this happening again.

With more vehicles utilising the detour, we have placed some speed restrictions on Dawson’s Road outside property 277 to 233 as the horse racing track runs directly along the roadside boundary. Please be aware of this as two horses have already been spooked and jumped the fence.

Please remember to adhere to any traffic management signage and ensure both your safety and ours. This will include a reduced speed of 30km/h past the worksite.

We appreciate your patience as we continue with the services upgrade. I will aim to ensure that you, the key holders, are kept informed of any future changes to the road layout and provide updates on progress.
WATER

I believe the waterways will be seriously compromised should the quarry go ahead. According to the application by Fulton and Hogan the quarry will require large amounts of water to be operational daily. This will significantly affect the water table and aquifers in our region.

Surely the amount of water required to run an operation like this will be detrimental to private wells in close proximity. We already have issues with wells drying up in the summer months. The quarry will not stop operation in those months and therefore the local property owners will feel the full effects of no water in their wells. This will impact seriously on people like myself who rely on the daily use of water for my horses. I also worry about the water levels in the surrounding water-races as I rely on these to supply water to my stock.

DUST

The proposed quarry will have a huge effect on our district air quality. This is currently evidenced by the dust storms created at the quarry sites on West Coast Road when the wind is blowing from any direction. These sites have been earmarked for quarry use and there is little if no housing in the surrounding area, unlike this proposed site where there is high density housing and lifestyle blocks close by. This proposed site is not zoned for quarry use. Air quality influences several areas of our society for instance health – eg those who suffer from respiratory conditions such as asthma, bronchitis, pneumonia, and emphysema to name just a few that will suffer from dust created by this quarry site. It also impacts on plant health (my crops – oats, which I grow for our horses), general plant health. Photosynthesis plays large part in the plant growth and if light is inhibited from dust particles on leaves then the chemical reaction will not take place and eventually the plants will die.

DUST AND HORSES

I have a huge concern for my horses and those in my care due to the dust and possible silicosis. I have reviewed many articles about the subject and am very concerned. Horses have been in my family’s life for many generations. I think our long-established interest and business activity may have to cease because of a short-sighted selfishness use of this block of land saddens me. Particularly when it includes blocks of land which I previously used to have mares visit to be served by highly respected stations owned by the late Sir John McKenzie and his late son Sir Roy McKenzie.

Young foals, (new born) will be/maybe severely affected by the dust particularly on a northwest day (common in spring when mares foal) which will cause dust storms and Fulton and Hogan cannot guarantee they will keep control of nature 24/7 all year.

Young horse lungs are exactly that and my family bred may never leave another winning horse because foals are affected by mine dust. I attach a veterinary article.
EXTRACT FROM SCHEME

I have been provided with a statement in the Selwyn District Council Plan and note -

The smaller allotment size and higher population density of the Rural (Inner Plains) Zone means that rural based industrial activities of a size and scale beyond that which is permitted by the District Plan are unlikely to be able to locate in this area without generating significant adverse amenity effects.

Surely this is saying this activity (quarry) is not permitted /expected in the “Inner Plains” zone.
APPENDIX A
Silicosis Document

Your Horse's Health
Veterinary Medicine with
Matt Durham, DVM
Published in Bay Area Equestrian Network February 2007

Silicosis in Horses

In the scenic foothills of the Central coast of California, there lurks a quiet problem that can lead to severe disease in our horses. Commonly known as 'chalk rock', this dusty rock form can cause an irreversible lung condition known as silicosis.

Silicosis is a well known occupational disease in humans, typically caused by inhaling rock dust created in mining, masonry work, sandblasting, and many other industries where rock is crushed into an easily-inhaled dust.

In horses, the disease was first diagnosed in the late 1970s in the Monterey-Carmel area. Before this time, area veterinarians had noted signs of respiratory disease, but had been unsure of its cause. For years, silicosis in horses was believed to be isolated to this small region. But as awareness of the disease increased, cases started to be diagnosed in other parts of the state.

What causes silicosis?

Briefly, silicosis is caused by inhaling silica dust small enough to travel all the way into the smallest airways and air sacs in the lung. Some sources incompletely describe silicosis as a lung disease caused by inhaling quartz dust. As will be discussed in the section titled Silicates, other crystal forms of silica can also cause silicosis. Once the dust particles become lodged in the lung, the body mounts a strong immune reaction. While bacteria or pollen can be broken down and removed from the lung, silicates can not. This causes an ongoing process which can lead to scarring of the lung, and, in people, certain auto-immune disorders.

History

In humans, silicosis is a fairly well understood but frustrating disease. Even now, there is no cure. Occupational safety measures have dramatically decreased the incidence of the disease, but cases still occur.

The most notorious occupational incident occurred in the early 1930s when at least 700 workers died from silicosis. Workers came from all around to tunnel through a mountain in Gauley Bridge West Virginia, eager for any type of work during the Great Depression. The tunnel was to be used to carry water for a new hydroelectric plant. Although it was well understood at the time that silicosis was a risk if dry-drilling was used, the contractors chose this method over the much safer, but slower, wet-drilling technique.

As an occupational disease, silicosis may have been recognized by ancient Egyptians, and was described well by Agricola in 1556.
Silicates

Silicates are crystalline forms of the element silica. By far the most widespread crystal of silicate is quartz, which is present in most rock types. The form which causes silicosis in horses is cristobalite. Cristobalite causes a more severe reaction in the lung than quartz does. This crystal is present in abundance in the Monterey/Carmel Valley areas. Geologists refer to this particular deposit of rock as the Monterey Formation. Although this rock type is common in this region, it is present from Point Reyes to San Onofre in the coastal ranges, with outcroppings in the San Joaquin valley, and as far south as Baja California.

The Monterey Formation developed in shallow seabeds during the Miocene epoch (between 5 and 20 million years ago) from deposits of microorganisms known as diatoms. Diatoms have a non-crystalline form of silica in their structure which, over millions of years, becomes compressed into crystalline forms. Initially, the crystal formed is cristobalite, but with more time, quartz can be formed. Many of the soils of the Monterey Formation have high levels of cristobalite.

These soils are often referred to as ‘chalk rock’ locally, as they tend to be dusty and light. (True chalk is actually limestone, which contains no silica.) Geologists refer to some of the various subsets of the Monterey Formation as porcelainite, chert, siliceous mudstone, and siliceous shale. For the rest of this article, the term siliceous soils will be used.

Cristobalite can also be formed through volcanic activity. The Sonoma volcanic soils are a likely source of the cristobalite responsible for silicosis in horses from this region.

Roadcut exposing siliceous shale of the Monterey Formation.
Exposure

Areas with siliceous soils are typically in foothill areas. Often, cases are seen not long after recent construction has disrupted the soil, creating a dusty environment. The horses inhale the dust over days to months or even years. Depending on a variety of factors, affected horses may show no signs or could develop severe respiratory compromise. Rate of exposure and individual immune response probably play the biggest roles in terms of severity of signs.

Clinical Signs

Affected horses will sometimes develop a cough, an elevated respiratory rate (normal resting rate for a horse is typically around 8-16 breaths per minute), flared nostrils at rest, and/or exercise intolerance. It is very important to remember that these signs are typical of respiratory compromise in general, so are not specific for silicosis.

Diagnostics

Lung x-rays are the simplest test to perform to diagnose silicosis. Abnormal x-rays exhibit classical signs for silicosis in advanced cases. Early or mild cases may have subtle, non-specific lung x-ray findings.

Lung x-ray of a horse, showing severe lung fibrosis from silicosis
(Normal lung is nearly black on x-rays)
Samples of fluid and cells from the lungs can be obtained in two ways: a transtracheal wash, or a bronchoalveolar lavage (BAL). Affected horses may exhibit pink crystals within a type of white blood cell called a macrophage. The crystals are silicate crystals, and the macrophages are the cells that attempt to destroy or remove the particles. At Steinbeck Country Equine Clinic, we typically choose the BAL technique for this diagnosis.

Ultrasound is occasionally useful in imaging silicosis cases, particularly with advanced cases. Most silicosis changes are deep within the lung, and the ultrasound beam does not penetrate through the air present within the lung, so less advanced cases do not show up well.

**Treatment**

In horses, as in humans, there is no cure for silicosis. Treatment involves removing the horse from the silicate dust as well as from other types of dusty or moldy environments. In mild to moderate cases, short courses of steroids and bronchodilators can get a horse through a flare-up. Affected horses may not be able to regulate their temperature, so it is important during hot weather to provide shade, or other means to create a cool environment.

**Silicate Associated Osteoporosis**

In horses living on siliceous soils, certain bone deformities and fractures can develop. Horses with silicate associated osteoporosis can develop signs years after moving away from an area with siliceous soils. This disease typically occurs in horses with a longer-term exposure to silicate dust. The bones develop osteoporosis which, as in people, can predispose to fractures. Horses typically develop bowed shoulders, a swayed back, and often a stiff neck secondary to osteoporosis and secondary arthritis in the cervical spine, although early cases have no obvious outward signs.
Body soreness and exercise intolerance are common in horses with silicate associated osteoporosis, and some horses may develop neurologic signs. Fractures are most common in the spine, ribs, pelvis and shoulder blades. Affected horses may or may not have respiratory signs, but will typically have some degree of respiratory involvement.

Diagnosis of silicate associated osteoporosis is simple in advanced cases, where outward signs alone are diagnostic. In mildly affected horses, diagnosis is challenging, because vague lameness or stiffness may be the only signs (as can be seen in countless other disease processes). In these cases, nuclear scintigraphy (bone scan) is very sensitive at detecting the disease. Ultrasound of the shoulder blades and x-ray images of the neck can help define the disease as signs progress, but will often be normal in early cases.

Treatment for silicate associated osteoporosis with typical anti-inflammatory drugs such as phenylbutazone is often minimally effective. Sometimes steroids will improve the comfort level, but not always. Intravenous Legend® can help with the arthritis pain in the neck that commonly develops, but does not help with bone pain. Tildren® may help decrease bone pain and possibly stop the progression of osteoporosis. Tildren® is in the same family of drugs as Actonel®, Fosamax®, and Boniva®, which are used to treat osteoporosis in people. Recently, zoledronate (Zometa® or Reclast®) has been used experimentally at UC Davis, with promising results.

Prevention of Silicosis

Prevention of silicosis requires limiting the amount of inhaled silicate dust. Areas of new construction should be avoided. Dry lot situations should be altered as much as is possible. The ideal solution is to plant grass over the area and irrigate throughout the summer months, but this is often very impractical. Incorporating organic material into the soil can help to retain moisture and minimize dustiness. Wood chips or composted manure are fairly effective and inexpensive methods. Topsoil brought in from an unaffected area may also be effective.

Future Directions in Silicosis Study

Control of the excessive immune response is the primary direction of research in the human field. In horses, the primary areas of study involve silicate associated osteoporosis. We are currently working in conjunction with researchers at UC Davis on studies to determine the exact nature of the bone disease. Currently, Dr. Murray is studying two blood tests, which appear to be promising in detecting the disease process. With earlier detection and monitoring of bone density, we hope to be able to prevent the catastrophic fractures and other bone-related pain.

Matt Durham, DVM grew up in Reno, Nevada. During the summers growing up, Dr. Durham worked in the Sierra Nevadas as a backcountry guide at McGee Creek and Mammoth Lakes Pack Outfits, where he met his wife, Tiffany. He attended Cal Poly, San Luis Obispo, and obtained a degree in Animal Science. After graduating from veterinary school at UC Davis, he performed a one year internship at Alamo Pintado Equine Medical Center in Los Olivos, California. After four years in practice, he performed a one year fellowship in large animal cardiology and ultrasound at the University of Pennsylvania’s New Bolton Center. Dr. Durham has been at Steinbeck Country Equine Clinic since 2001.
3. I wish the consent authority to make the following conditions should the application be approved:

I strongly believe the Fulton and Hogan application should be declined, but if you consider it has some merit, I wish the authority to make the following conditions should the application be approved as follows:

1. **NOISE**
   1.1. We require the site to have noise test levels done, both at the plant site and on the boundaries. These tests must be done regularly (two weekly) and results published for the public viewing. These tests to be carried out by an independent operator with no affiliation to Fulton and Hogan. Should the test results exceed the agreed level the site to be shut down until Fulton Hogan have addressed the problem. If they breach this noise level on more than three occasions in a calendar year then the Consent should be immediately cancelled.

   1.2. The site will only operate between the hours of 7:30am and 6:00pm Monday to Friday and Saturday 8:00am to 12:30pm.

2. **DUST**
   2.1. The area must have water sprayed onto the entire site 24/7 to stop any dust particles becoming airborne. This should be a fully automated system that is permanently erected and visible for all to see at any given time.

   2.2. Should the wind be to a certain level there should be work restrictions put in place allowing the watering system to manage the situation fully.

   2.3. All roads within the site should be paved, this will eliminate the dust when traffic is moving over the site.

3. **INCREASED TRAFFIC VOLUMES**
   3.1. We wish that all trucks have covers - this will reduce the amount of shingle dropped on the roadways.

   3.2. We require all trucks to enter and exit via State Highway 1 at the new Dawsons Road roundabout onto State Highway 1, whatever direction their destination is or traveling from - this is mandatory.

4. **SET BACK**
   4.1. Excavation cannot be undertaken within 300 metres from the road frontages and 500 metres from the north boundary due to the dwelling being within 20 metres of the boundary.

   This is a sensitivity buffer in the Selwyn District Council Scheme as set down for intensive farming (pigs, poultry etc) which we consider is far more in keeping with rural “Inner Plains” zoning that the proposed heavy industrial use (quarry) which if you were to consider this should only be in the “Outer Plains”.

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5. HORSE WELFARE
   5.1. Provide full undertaking that if any autopsy undertaken on a horse, which is cared for within a 5 kilometre radius of the quarry by Massey University (veterinary school) concludes presences of silicosis or similar the quarry will be closed immediately forever.

6. VEHICLE TYPE
   6.1. As per recent advancements in technology all trucks entering and leaving the site to be "electric heavy vehicles" to minimalize vehicle noise and concerns regarding aggregate cost of travel costs.