

Please attach additional sheets if there is not enough space for your submissions. If you do not wish to use this form, please ensure that the same information required by this form is covered in your submission.

2 This is a submission on an application from (name, address & activity) –

ResourceCo Ltd., 3831 Cambridge Road, Cambridge, Class 3 Managed Fill

3 Trade competition

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

4 Attendance at Council hearing

Select one	☒	I do	wish to be heard (attend and speak at the Council hearing) in support of my submission
	☐	I do not	

If others make a similar submission, I will consider presenting a joint case with them at the hearing.

☒ Yes
☐ No

5 The specific parts of the application that my submission relates to are:

All Parts of the Application.

6 My submission is either in part or all: ☐ In support ☒ Opposed ☐ Neutral

The reasons for my submission are:

Attached in full.

7	I seek the following decision from the consent authority: <i>(Give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought)</i>
Decline the Consent in Full.	

8 Hearings Commissioners			
Select one	☐	I request	that you delegate your functions, powers, and duties to hear and decide the application to one or more hearings commissioners who are not members of the local authority.
	☒	I do not request	

9 Signature of submitter <i>(note: a signature is not required if you make your submission by electronic means, however please type your name below)</i>	
Name and Signature of submitter: <i>(or person authorised to sign on behalf of submitter)</i>	 Karin Watson Dated 28.06.2026

Notes to submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons.

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991.

You must serve a copy of your submission on the applicant as soon as reasonably practicable after you have served your submission on the consent authority.

If you make a request under section 100A of the Resource Management Act 1991, you must do so in writing no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

SUBMISSION ON AN APPLICATION FOR RESOURCE CONSENT

To: Waipā District Council

Application Number: LU/0231/25

Applicant: ResourceCo Ltd

Site Address: 3831 Cambridge Road, RD 3, Cambridge

Proposed Activity: Establishment and operation of a Class 3 Managed Fill within a quarry void.

Submitter: Karin Watson

Address: [REDACTED]

Submission against the ResourceCo Application for a Class 3 Managed Fill at 3831 Cambridge Road (application LU/0231/25)

The actions of ResourceCo, stock piling demolition waste over the past twelve months, has already provided clear evidence that the environmental effects of the waste recycling on the neighbours have been materially greater than predicted when a non-notified consent was issued for this activity. In granting consent for waste recycling activities, the adverse effects on the neighbours were said to be “less than minor”, whilst in reality, neighbours have found them clearly quite severely noticeable. Therefore, the applicant's assessment of effects for the proposed Managed Fill expansion should be treated with caution. The assessment by Jacobs for the new application for Managed Fill has now changed the prediction grading to “no more than minor”. Extrapolating that upgrade in prediction of effects to the real effects on the neighbourhood is certainly not re-assuring.

Managed Fill, compared to Clean Fill, substantially changes the whole risk profile, due to the larger amounts of contaminants permitted in the waste materials, such as increased contents of asbestos, heavy metals and organic materials. In this context, it is very important to note that the application specifically mentions the applicant's plans to also allow PFAS contaminated fill to be accepted (Saddleback, Table 3 – Summary of proposed Waste acceptance criteria). In addition, the mere increase in the planned volume of fill taken in, increases all the effects on the neighbours, the whole town and the environment accordingly.

Furthermore, a change from Clean Fill to the proposed Class 3 Managed Fill operation is planned to attract and will result in Managed Fill from a large part of the North Island being trucked to Cambridge, instead of just servicing the Waikato. The operator has previously voiced clearly that ResourceCo will be taking in the fill from as far as Taranaki, Bay of Plenty

and South Auckland. High transport costs make long distance transport for Clean Fill non-viable, with plenty of closer Clean Fill accepting operations available in all three areas. However, the lack of Operators licensed to accept Class 3 Managed Fill, (none in Taranaki, and none in the BOP), means that small town Cambridge will be inundated with problematic C3 Managed Fill materials from large cities and small towns far away, instead of servicing just the local needs.

At a recent meeting of affected notified neighbours with ResourceCo Management on 21.06.26 at the Cambridge Chambers of Commerce Rooms, it also became apparent, and was admitted, that they are new to this business, are learning on the job, and are bound to make mistakes. Mistakes in that line of business can be very costly for affected neighbours, the whole town and the environment.

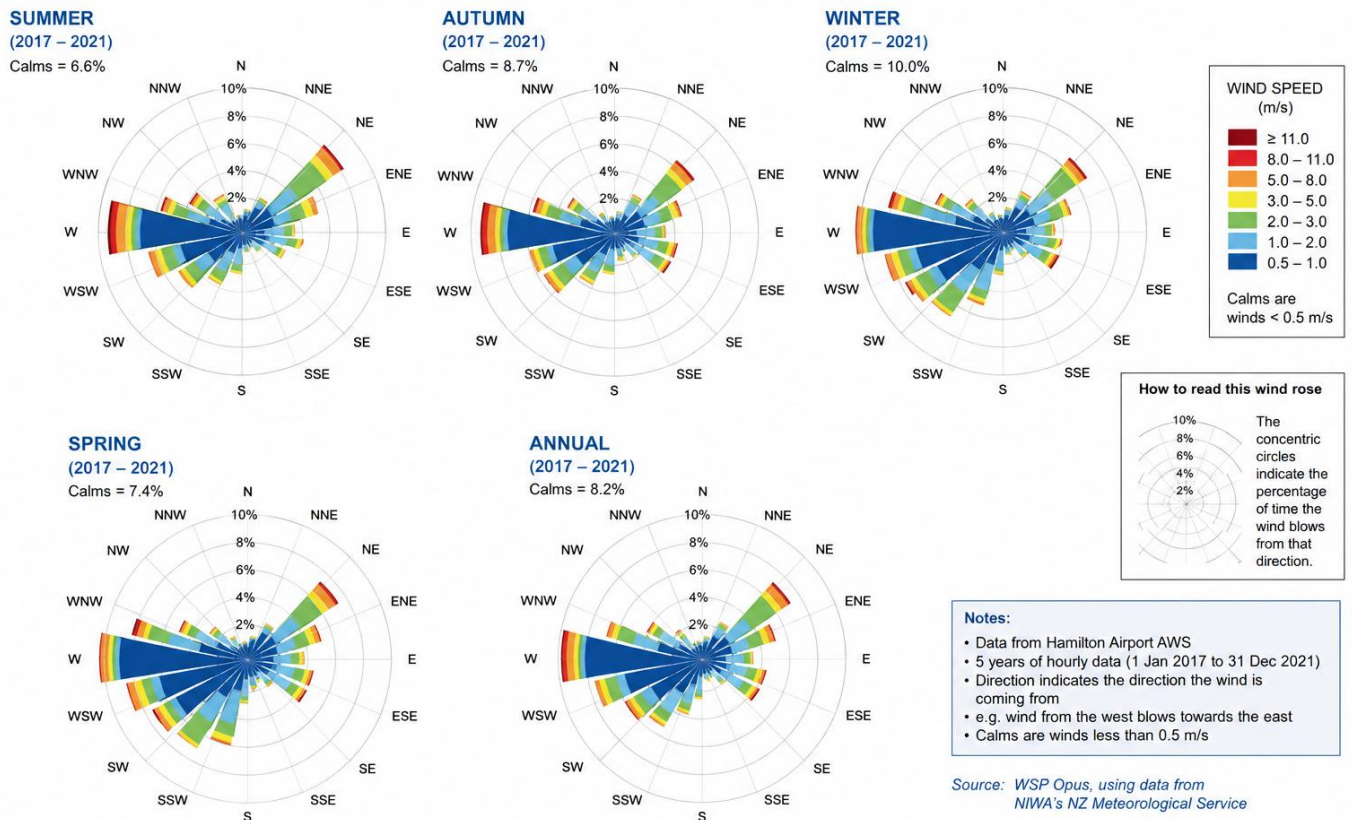
In the following, I will first touch on the much greater than predicted effects from the demolition waste recycling consent related site preparations experienced in the direct neighbourhood, and then I will also go into some of the not yet experienced, but predictable risks of the proposed Class 3 Managed Fill activity.

1. Air Pollution - Dust:

In comparison to the former sand quarrying activities, the close neighbours (to the West) have already with the so far not yet full-scale demolition waste recycling activities, just stock piling demolition waste, experienced a much-increased degree of dust. The dust is blown up from the old quarry bowl with the waste stockpiles, in visible gusts onto the neighbouring properties and ends up covering buildings and roofs on the outside, as well as gardens, pastures and pools. It is also noticed in form of much higher dust levels than in previous years inside the houses, on windowsills, floors, etc., already requiring a regular much-increased cleaning effort inside.

At this point I would like to point out that the assumption made by the applicant and his advisers, that our area has only rarely measurable winds from the East (Only 1.7% of the time for winds above measuring threshold of 5m/s, as quoted by Jacobs), is not quite correct. The graph below pictures the measured winds at Hamilton Airport over a 5 year period from 2017 – 2021: The graph shows very clearly that – although the very light winds (blue colours) were predominantly Westerlies, the stronger winds measured (green, yellow, orange, red and dark red colours) were year round measured from both main directions, Westerlies and Easterlies. This graph might well have been the source of the 1.7% Easterly claim, but this was then very selective reporting of only the direct Easterly wind, instead of looking at all Easterly winds (E, ENE, NE, NNE, ESE, SE, SSE) that are relevant to the dust effects being experienced by site neighbours.

Figure 4-2 Hamilton Airport seasonal and annual wind roses (5 years of hourly observations 2017 – 2021)



With the true balance between the Easterly and Westerly wind directions now set straight, I would also like to note that over the past few years, with the ongoing climate change effects, winds have overall become more erratic and stronger. It is anticipated that, in future years, this will become worse. Furthermore, the exit of wind swirling up in a quarry bowl and exiting over the top is random year-round.

Besides potentially triggering or developing asthma when inhaled, the increased dust on roofs is also a big concern for those families who depend on roof water for their drinking water requirements. The dust also lands on home grown vegetables and on the commercially grown vegetables and strawberries of the neighbouring business, on wash hung up outside to dry, on pools, on cars, as well as on pastures and troughs that are grazed and used by stock. Most of the animals grazing in our close neighbourhood are high value horses, whose respiratory systems are highly sensitive to the inhalation of unhealthy dust and whose nervous systems are highly sensitive to grazing unhealthy pastures. Other stock is often used for home kill, with consumption of their meat further escalating the potential exposure for the close neighbours.

The danger of the dust causing direct negative effects on human and stock health via inhalation and/or ingestion will no doubt further increase with a change from Clean Fill to Class 3 Managed Fill, due to the permitted larger content of dangerous contaminants, such as asbestos, arsenic and heavy metals for Class 3 Managed Fill.

Dust issues were originally predicted as “less than minor”, which has already been clearly proven a strong under-assessment through the early stages of carrying out just limited amounts of the demolition recycling activities. It is extremely likely that the increase of scale in waste processing and working area, as well as the requested upgrade from Clean Fill to Class 3 Managed Fill, will further increase the amount and the toxicity levels of the inevitable dust. No amount of spraying water to dampen the dust during the day will prevent dust spread by wind 24 hours a day.

I therefore strongly oppose the application.

2. Vibrations:

Given that the demolition waste recycling consent was non-notified, the neighbours first became aware of what was going on when strong vibrations were felt, which were emitted during ground preparations for the demolition waste recycling pad. The vibrations, felt quite a long distance away, were from the compacting machinery used in this work. The result was high levels of physical discomfort for those neighbours closest to the source.

The new application describes regular use of strong compaction for the managed fill, and it is therefore to be expected that neighbours will experience and suffer from those vibrations, too.

I strongly oppose the application.

3. Noise:

Typical noises that have been heard from the site over the past twelve months, and that are expected to continue and increase in the future, are things like the screeching of machinery, the noise from crushers, the rattling of tracked vehicles, trucks going in and out, heavy loads dumped on the ground, reverse beepers, etc. Again, those neighbours closest to the site are extremely exposed to this, and the effects become lesser with increasing distance. These noises were again predicted to be “less than minor”, whilst reality has already shown that prediction wrong. An increased scale of operation would increase the noise level. So far, the applicant has clearly not demonstrated, with evidence, that the noise will be acceptably low.

I therefore strongly oppose the application.

4. Traffic:

An increase in heavy traffic going through Cambridge town due to the various quarries, and now the consented demolition waste business (recently – demolition waste stockpiling), as well as logging trucks, has been very noticeable recently. For each single consented business, the impact on traffic and road degradation has been assessed as “less than minor”. Also, the predicted increase of heavy traffic through town due to the increasing number of activities taking place on the applicant’s site, have been deemed “less than minor” for each business in isolation. The increase of scale in the new consent application for Managed Fill also suggests that even more trucks will be added on the existing routes, and that road safety down the hill and at the entrance to the business on 3831 Cambridge Road will be further at risk. The Resource Management framework has long recognised cumulative effects. The Managed Fill proposal is proposed on top of an already operating demolition waste recycling activity, plus the still working quarry and the composting business. The assessment should consider the cumulative effects of all activities together, not each in isolation. The build-up of heavy traffic around Cambridge has become too much already.

I therefore strongly oppose the application.

5. Contamination of the Groundwater and the Waikato River.

Class 3 Managed Fill allows for some degree of contamination of the fill materials and soils. Managed Fill systems are designed under the assumption that they will only accept materials and soils with low-level, largely immobile contaminants. However, accepted contaminations in today’s world also include limited amounts of highly water-soluble materials such as arsenic, heavy metals, and organic waste. ResourceCo has also explicitly requested the addition of PFAS under the proposed WAC. Materials containing PFAS are normally not permitted within standard Class 3 Managed Fill in New Zealand.

PFAS are of special concern. They are compounds that are highly water-soluble, highly mobile, and do not break down naturally, also called “forever chemicals”. PFAS bind to proteins and hence accumulate in the human body. They are considered a Class 1 carcinogenic (“carcinogenic to humans”), exposure being linked to kidney cancer, testicular cancer, breast cancer, prostate cancer, thyroid cancer, lung cancer. Building materials that can contain PFAS are concrete and demolition debris such as lightweight concrete blocks and impacted building rubble. Also, soils can be contaminated with PFAS, arsenic and heavy metals. Depositing these materials into an unlined pit means that PFAS, arsenic and heavy metals will almost inevitably leach out during rainfall events and migrate directly into the groundwater or nearby surface water systems, including the Waikato River. Crucially, PFAS are normally not included in Class 3 Managed Waste, but the applicant has specifically applied for a WAC for these to be part of the consent.

PFAS accumulate in the food chain through protein binding, bioconcentration, and biomagnification. PFAS bind to proteins, in animals and in plants.

Once in the water, PFAS entry into aquatic ecosystems is very fast:

- Phytoplankton, algae, and small aquatic plants absorb PFAS directly from the contaminated water.
- Bottom-Feeders: Small invertebrates, worms, and shellfish ingest PFAS directly through contaminated water and bottom sediments.
- Direct Fish Uptake: Fish draw PFAS into their bodies continuously just by breathing through their gills and swallowing water.
- Small fish eat contaminated plankton and insect larvae.
- Larger predatory fish eat smaller fish.
- **The Multiplier Effect:** Every time a predator eats prey, it absorbs nearly 100% of the PFAS bound to that prey's proteins. Because of this, chemical concentrations in top-tier predators can end up **more than 5,000 times higher** than the concentration found in the surrounding water.

Also on land: Growers and farmers who use PFAS-contaminated groundwater for irrigation will introduce the chemical into the soil and onto crops.

- **Plant Distribution:** Crops absorb the toxins.
- **Livestock Consumption:** Farm animals drink contaminated water and eat contaminated green crops. The PFAS binds to their internal proteins, directly contaminating commercial meat, dairy products, and eggs.

Humans are at the top of the food chain.

ResourceCo propose to always keep PFAS in leachate below the maximum allowed levels in drinking water in NZ. That sounds quite benign. However, NZ drinking water limits for PFAS are very high at 560 ppt for PFOA and 70 ppt for PFOS/PFHxS. In comparison, the USA only permits 4 ppt each, which is 140 times and 18 times lower than the current NZ limits. Australia has 8ppt for PFOS and 200 for PFOA. Europe is fragmented, but generally lower than NZ, led by e.g. Denmark (2 ppt), Sweden (4 ppt), Germany 20 ppt, UK (100 ppt sum across all types of PFAS). In New Zealand, the water treatment plant in Onehunga, Auckland, has been shut down since November 2022, due to high PFAS found in the water. The plant is now expected to re-open in 2029, after being fully overhauled and fitted with granular-activated carbon filters to remove PFAS.

How can we prevent PFAS from **entering** the groundwater at a Waste Management site?

Using a **Primary Membrane Liner** (a fully welded, continuous polymeric liner, predominantly **1.5 mm thick HDPE**). In NZ, this is not mandatory for a Class 3 Managed fill operation, but it is typically recommended/required for Managed Fill, if PFAS are to be accepted. For example, in the case of the 2 currently licensed Waikato operators accepting Class 3 Managed Fill, Gleeson in Huntly lacks a synthetic composite membrane. Therefore, **Gleeson does not accept soils**

or other materials containing mobile, leachable hazardous contaminants like PFAS. The second Operator, **Hampton Downs Regional Landfill**, has a **synthetic geomembrane liner, supported by a geosynthetic clay liner (GCL), and a compacted clay sub-base.** To avoid the “bathtub effect” they also use an **active leachate collection system that pumps fluids away for external treatment.** They can handle managed fill beyond Class 3, containing leachable chemical loads like PFAS because they have **a membrane liner, the correct clay base, and a leachate treatment pipeline.**

Quite in contrast to the above, as proposed on page 20 of their updated Application, ResourceCo plans that their Managed Fill area will be “buffered” by a 2 m layer of clean fill on the bottom and on the sides of the pit. And instead of a solid clay base, the location is on a highly permeable sand base, surrounded by instable soils with strong natural underground springs. They fully recognise that this is not an effective barrier, admitting in the next paragraph: “The cleanfill buffer will be permeable, therefore precipitation may pass through the fill material to the groundwater, eventually migrating to surface water.” The definition of a buffer in this context is “something that serves as a protective barrier”. Clean Fill is NOT a protective barrier for the highly water-soluble contaminants in Class 3 Managed Fill, or PFAS. The rainwater will first pass through the Managed Fill and wash out water-soluble contaminants (PFAS, Arsenic, heavy metals, etc.) and then take this straight through the Clean Fill “buffer” into the groundwater, and into the surrounding stream, and from there straight into the Waikato River. At best, a 2-meter layer of Clean Fill might delay the flow of the contaminated water towards the groundwater by a short period of time. But for molecules that don’t break down, this makes no difference. **PFAS should simply not be an extra permitted substance in Class 3 Managed Fill, without an appropriate non- permeable liner and a solid clay base.**

All the Class 3 activity, whether run with or without a non-permeable liner, requires experienced, highly professional staff at all levels, up to monitoring and regular sampling and testing of leachate. ResourceCo is new in this business, and has clearly not demonstrated, with sufficient evidence, that the risk is acceptably low, or that they fully understand the risks of this location. For example, the strong groundwater flows currently emerging from the Southern walls (as pointed out by ResourceCo in the June 21st meeting) are not just a welcome and reliable source of year-round water for dust mitigation purposes, they are also a source of year-round strong washing out of the water-soluble contaminants through the unlined pits in future, as well as a source of ground instability. ResourceCo appear to be underestimating the specific challenges of this location.

ResourceCo proposes a roughly 20-year plan of filling the former quarry grounds with a large amount of problematic waste. When they want to walk away from the finished project, the toxic waste will remain and will continue leaching into the groundwater. Leaving the community for decades with the responsibility to keep monitoring the leachate, the groundwater, the surrounding bore waters and the Waikato River itself.

Therefore, I utterly oppose the application for Class 3 Managed Fill as a whole, and an acceptance of materials containing PFAS in particular.

6. Inability/Failure to Screen and Determine the Nature of the Fill for Each Truck Load Prior to being Tipped out:

Looking at how ResourceCo will attempt to always stay within its WAC:

In our meeting on 21.06.26 at the Chambers of Commerce Rooms, ResourceCo professed to train their staff well to recognise non permitted materials visually, yet at the same time admitted that this is very difficult and certain contamination levels cannot be spotted visually. Paperwork from laboratory testing for contamination levels will be carefully screened. However, a load that simply claims to be free of contaminants (whether maliciously or innocently), and yet contains unacceptable contaminants, either by type or by concentration, will inevitably be passed.

Given human nature, everyone in charge of screening the truck loads at the gate, before being tipped out on site, will within a short period of time become less and less thorough in this task. It is much easier to just ask “nothing in your load that’s not permitted?” and wave the driver on, than checking paperwork and climbing up onto the truck to physically check what’s in the load. And even if that is done, only the top layer of a load can be screened with the eye, whilst checking deeper down is not possible. Recognizing and identifying levels of Asbestos or PFAS, etc. by sight is therefore impossible.

At the Chamber of Commerce Rooms meeting, ResourceCo claimed there would be a process of first dumping the load on the ground and visually inspecting it before it was added to the “good” pile. However, this is work intensive double handling, and under high work pressure this step might easily get skipped or at least delayed, and the offending truck has gone. Add bad weather and lack of daylight during the winter months into the mix.... Hence, the scrutiny in knowing what’s going into the fill is only limited, and therefore such a risky business simply should not be located so close to the town and to the river. The suggestion in the proposal that the applicant shall only accept materials according to HAIL Environmental Waste Acceptance Criteria on page 20 of the proposal is extremely hollow. There is a clear inability to truly ensure what comes in with each and every truck load. Again, the applicant has clearly not demonstrated, with evidence, that the risk is acceptably low.

I therefore strongly oppose the application.

7. Fire Risk:

At the demolition waste recycling facility, in April this year, a fire occurred that took a considerable time to extinguish. It involved two visits by FENZ, as well as a lot of effort from ResourceCo employees over a 24-hour period. The applicant appears to have lacked preparedness for this risk. Apparently, FENZ were initially unable to access the site, and there was no system in place to notify close-by neighbours about the potentially hazardous smoke. An increase in scale and the inclusion of more contaminated materials under a Class 3 Managed Fill consent, could potentially increase the risk of adverse fire effects when this fill is deposited near combustible stockpiled demolition waste.

I therefore strongly oppose the application.

8. Business Hours Applied for:

The demolition waste recycling consent specifies operating hours of weekdays, 7am to 5pm and Saturday 7am to midday. I notice that the application for a Managed Fill consent seeks operating hours of 7am to 6pm six days per week. I believe that this is excessive and will unnecessarily reduce amenity for site neighbours. If the consent is approved, I believe that the managed fill operating hours should be limited to those currently approved for the demolition waste recycling activity.

I therefore strongly oppose the application.

9. Mitigation Efforts and Monitoring and Policing of the Proposed Activities and Upkeep of Mitigation:

Some of the above points can possibly be mitigated in certain ways to be less of an impact on neighbours and the environment. However, this requires a huge dedication to doing everything right, which rarely is a main trait in the waste recycling business, from both sides – clients (who cheat) and waste dump providers (who don't care). Furthermore, mitigation efforts are always costly and time consuming for the business owner, and continuous monitoring and policing by Council staff is also costly and time consuming. There are lots of incentives to get slack at all levels involved, and standards are quickly eroded.

It also needs to be clearly taken notice that any detection of a breach of the permitted amounts of anything via leachate testing is, by definition, too late. When the issue gets detected, the horses have already bolted – the contaminated water is already in the groundwater – unstoppable.

Given our experiences so far with ResourceCo operating with its existing consents - based on the true effects on neighbours: dust; vibration effects; a fire; a load with asbestos already

accepted and, apparently, further ongoing investigations currently underway, combined with the lack of experience of the operators in this business - my expectations here are not high. Neither should Council expect that this could ever be a safe consent to issue. The ongoing requirement for them to carry out compliance activity on this site is likely to be substantial.

I therefore strongly oppose the application.

What I seek from the Council Decision:

I seek that the consent for Class 3 Managed Fill is declined in its entirety, as I strongly believe that a business of this type and magnitude with all the effects on neighbours and enormous risks for the environment and for the health of all Cambridge residents should not be located so close to town. Furthermore, the lack of experience of the Applicant in this highly risky business needs to be considered, too.

If, however consent is to be given, against all input by the neighbours, I seek:

1. That waste containing PFAS is excluded from the consent. Also wastes that contain other water-soluble poisons, such as high grade treated timber or soils contaminated with farm chemicals, etc...
2. If waste containing PFAS, etc. is not excluded from the consent: That a primary membrane liner 1.5 mm thick HDPE should be installed in each pit to prevent leaching of water-soluble poisonous substances into the groundwater and Waikato River. That the liners are paired with a flexible Geosynthetic Clay Liner (GCL) and thick soil buffers. This composite system can shift and self-heal minor stress cracks during an earthquake without losing containment.
To avoid the bathtub effect, this system then needs to be combined with a well serviced, reliable pipe and pump system to continuously pump leachate out from the bottom.
Rigorous testing and monitoring of leachate from various areas on site to be overseen by the WDC and Regional Council for many decades ahead, at the cost of the applicant.

However, such a barrier via an impenetrable membrane over clay is costly. At the June 21st meeting, ResourceCo blatantly threatened that – if they were forced to provide such a barrier - they would then apply for Class 1 Fill instead of Class 3. This is a preposterous comment and only demonstrates again the utter disregard of the Operators for the challenges of the business

and the location, and for the neighbours, town and environment. The barrier system must be strictly treated as a protective measure for safeguarding at Class 3 Managed Fill and must not be used as a loophole or justification to upgrade the site to accept even higher-grade contaminated materials.

3. Also, the pre-acceptance, off-loading and any stock piling of Class 3 Managed Fill shall only be permitted on an appropriately sealed surface.
4. That a reliable system of deep-down-into-each-load screening of all truck loads prior to waste acceptance is developed. Followed by a clear process of how to safely and rapidly remove from the site all materials that don't pass the visual screening.
5. That all effects on neighbours and their properties are thoroughly mitigated and that Council develops a system of frequent unannounced in-depth monitoring and policing of all the effects and mitigations, as well as of full adherence to strict conditions for ResourceCo to maintain complete oversight over the accepted and rejected materials and to conduct their business in an outmost safe manner for the residents, the whole town, the groundwater and the Waikato River. Failure to comply with strict conditions needs to be promptly policed and penalised.
6. That weekday operating hours are limited to 7am to 5pm and Saturday hours limited to 7am to 12pm.
7. That the applicant must pay a considerable bond to ensure that the costs of long-term (potentially very long-term) management, remedial work and monitoring of this site do not fall upon ratepayers if ResourceCo experiences problems or no longer exists.