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Late

This is	a submiss	sion on:						
		<b>AME:</b> Global ( Racecourse F	_	g Solutions Limit wamutu	ed			
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My sub	omission i	s:						
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Applica	tion	should	be	rejected	at	its	current	location.
I wish (	I do v		d in support	ipport of my sul t of my submissio he hearing)				
✓				t of my submission of the h		l not speak at	the hearing)	
	If oth	ers make a sim	ilar submiss	sion I will conside	r presenting	g a joint cas	se with them at t	he hearing.

You must tick one of the boxes above, otherwise it will be deemed that you do not wish to be heard and we will not advise you of the date of the hearing.



I have served a copy of my submission on the applicant. (this is required by section 96(6) (b) of the Resource Management Act 1991)

I request pursuant to section 100A of the Act, 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.

Signature of submitter:

(or person authorised to sign on behalf of submitter) (A signature is not required if you make your submission by electronic means.)

Date: 13.10.2023 Contact person: Sonnie Leni

(name and designation, if applicant)

Postal address: 360 Young Street, Te Awamutu 3800

(or alternative method of service under section 352 of the Act):

#### Notes to submitter

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- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

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# Submission on a Notified Resource Consent Application Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

APPLICANT'S NAME: Global Contracting Solutions Limited

LOCATION: 401 Racecourse Road, Te Awamutu

I am not a trade competitor for the purposes of section 308B of the Resource Management Act 1991.

I am/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.

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

My submission is:

I oppose ALL of the application

The reasons for this are:

## **Untested Technology**

- At present Aotearoa New Zealand has no municipal solid waste (MSW) incinerators. The
  incinerators that were in operation around 2000 have all closed. Many of them were a
  significant source of dioxin contamination
- A similar, larger, proposal for a waste-to-energy incinerator in Waimate, South Canterbury
  has been "called in" by the Minister for the Environment in part because this is new
  technology with national implications.

#### **Cultural Impacts**

- Te Awamutu does not want to be a testing ground for this technology
- Global Contracting Solutions does not have any experience of operation in waste incineration. It is a scrap metal business. The company does, however, have a track record of violating resource consent conditions in their Hamilton operations.
- The application contains no formal Cultural Impact Assessment
- Fully informed consent from lwi and Hapū must be part of this proposal including clear disclosure of human health and environmental impacts
- Taiea te Taiao was created to promote an ecological corridor to link Maungatautari and Pirongia te aroaro o Kahu. This corridor will reconnect these maunga/mountains with biodiversity plantings which will enhance native species present, transform iwi connections to the Mangapiko stream, and ultimately improve water quality. An incinerator will undermine these efforts.

#### Air, Water and Land Pollution & Emissions

• The incinerator will produce dioxins that are cancer-causing even in extremely low levels. These will be emitted into the air, and will settle on the land and in the water. There is no safe level of

# **Submission on a Notified Resource Consent Application**



Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

Form 13

- dioxins, and these "bio-accumulate" meaning that over time they build up in human fat tissue and in animals.
- There is no assessment of land contamination included in the application. International research shows that the land surrounding incinerators can be extensively contaminated with heavy metals, microplastics and other toxic emissions including dioxin.
- Stormwater from the site will be discharged into the Mangapiko Stream. This water is likely to be contaminated with heavy metals and dioxin. Filtration systems and settlement ponds do not eliminate all of the toxic products meaning these will make their way into the waterways
- One of the emissions from burning tyres/tyre derived fuel is zinc oxide which has not been modelled and which is highly toxic to aquatic life.
- The huge earthworks over several years will impact the health and wellbeing of the Mangapiko River

## Inappropriate land use

- The site is totally unsuitable for a large scale waste incinerator. The current "Specialised Dairy Industrial Area" designation means that the land use is intended to ensure that any activity there was aligned with Fonterra's activities.
- It is not appropriate to have an incinerator burning millions of tyres next to a milk production facility
- This area is not identified as an area for industrial development in the District Plan. Two areas are identified for industrial growth: at Bond Road and Paterangi Road.
- The location of a heavy industrial operation immediately next to existing and planned residential
  housing, schools and food businesses, and operating 24-hrs/day, 7day/week is not appropriate
  and conflicts with the intentions of the Waipā District Plan and Growth Strategy for the
  community.
- The very large size of the building and stacks does not fit in with the area. It will dominate, have a significant impact on the landscape and turn the entire area into the feel of an industrial zone.

#### **Flooding**

- Entire site is a floodplain most of the site is designated a High Risk Flood Zone
- The river has been straightened and narrowed over time to enable development, this is now considered one of the major causes of flooding. Allowing rivers the ability to spread to accommodate severe rainfall events in future protects infrastructure, business and housing from inundation.
- The new incinerator buildings would increase flooding spread to the Fonterra factory and houses on Factory Road, numbers 331-467
- The company wants to build its building <u>lower</u> than existing requirements (because it will cost them a lot more money to build to the required levels). This will mean even greater risk to the community.
- Insurance companies are warning New Zealanders not to build on floodplains due to climate change. The incinerator may become uninsurable, and the community left with the clean up bill.

## Climate change

- The incinerator will use non-renewable feedstock (plastic waste, tyres, mixed solid waste & flock) to create energy: this is equivalent to a fossil fuel production plant, but much dirtier and riskier because of the different composition of the materials.
- The addition of non-renewable energy from waste works against efforts to decarbonise the energy sector.

# **Submission on a Notified Resource Consent Application**





Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

- The incinerator will be a massive contributor to climate change. It will directly add about 150 kilo tons per year of CO2.
- The facility would have a carbon footprint many times greater than the same amount of waste being sent to landfill

## Hazards, Risks, Toxic Ash and other toxic byproducts

- The incinerator would produce 23 tonnes/day of toxic ash which has to be landfilled. Incinerator ash contains heavy metals, microplastics and dioxins.
- The storage of highly contaminated wastewater and other hazardous substances on site risks spills and wider contamination.
- There is no risk assessment of the possibility of fire or explosion despite the storage of hazardous materials and highly flammable feedstock. The community only has a volunteer fire brigade.

# Feedstock, Waipā waste minimisation, zero waste alternatives:

- Te Awamutu will need to import almost all of the material for this facility from outside of the district. This is not a proposal for the benefit of the community.
- The company has no contracts for the delivery of the feedstock except from its own operations (as Global Metal Solutions). This means it is impossible to know what hazards, risks and emissions exist because only a small percentage of the feedstock is known. It also means that the company is more likely to burn recyclable materials and other things because it must always continue to operate. It will directly work against efforts to minimise waste.
- The inclusion of 35,058 tonnes of plastic (as well as a considerable portion of MSW that includes plastic) does not align with the recently released National Plastics Action Plan for Aotearoa New Zealand by the Ministry for the Environment
- Incineration does not replace the need for landfills instead it takes ordinary materials and concentrates them into more toxic ash.
- The Waipā District Council has a great waste minimisation plan and opportunities for more comprehensive zero waste strategies that would fit with the goals of minimise wastes, while meeting community aspirations for a healthy environment, job creation and mitigation of climate emissions.
- Investing hundreds of millions of dollars into an incinerator locks in the need for continued production of waste, meaning the community misses out on other waste uses further up the waste hierarchy (like reuse, repair and repurposing).

#### **Human Health**

- There is no human health assessment of this proposal
- The incineration plant is a hazardous facility with serious risks of harm to human health. The plant will emit cancer-causing dioxins and furans, sulphur dioxide, nitrogen oxide, mercury and particulate matter will be released into the air.
- Dioxins damage the human immune system and cause cancer. Studies have shown direct links to non-Hodgkins lymphoma, increases in risks of miscarriages and pre-term delivery of babies. There are links to reduced male fertility. Exposure to particulate matter impacts those with respiratory problems such as asthma, cardiovascular issues, the elderly and children.
- In the Netherlands, research conducted indicated that the high dioxin output from waste incinerators could be responsible for contamination of cow's milk and meat. As a result, the production and sales of dairy products from was prohibited for several years.
- In 2016, human-made (anthropogenic) air pollution in New Zealand resulted in an estimated 3,317 premature deaths (in people aged 30+ years). The largest causes were NO2 and PM2.5. There were 32 premature deaths due to air pollution (PM2.5 and NO2) in Waipā District (among

# Submission on a Notified Resource Consent Application Form 13



Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

- people aged 30+ years) in 2016. The incinerator will significantly add to these pollutants, and therefore, contribute to the premature death of Waipā residents.
- Under NZ's air quality standards, it is illegal to burn even one tyre because the health and
  environmental effects are so toxic yet, this project is proposing to burn 35,000 tonnes a
  year. Burning tyres emits cyanide, carbon monoxide, sulfur dioxide, and products of butadiene
  and styrene. And the smell of those tyres burning will fill the community with an unbelievable
  stench.
- The odour and dust have not been adequately assessed. There is no indication of how often the start up/maintenance will be done and levels exceeded.
- There will be significant additional traffic in a residential area, adding to air pollution and impacting those who are old, very young and immunocompromised. It will change the nature of the community from a quiet residential street to an unsafe and busy thoroughfare of trucks at all hours of the day and night.

# I seek the following decision from the consent authority:

give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought

I want the Waipā District Council to decline this application.

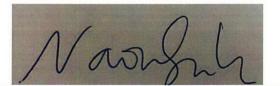
I wish (or do not wish) to be heard in support of my submission.

I **do** wish to be heard in support of my submission (this means that you will speak at the hearing)

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

You must tick one of the boxes above, otherwise it will be deemed that you do not wish to be heard and we will not advise you of the date of the hearing.

I have served a copy of my submission on the applicant. (this is required by section 96(6) (b) of the Resource Management Act 1991) I request/do not request\*, pursuant to section 100A of the Act, 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.



Signature of submitter:

(or person authorised to sign on behalf of submitter) (A signature is not required if you make your submission by electronic means.)

Date: 13 October 2023

Contact person: Naomi Smith (name and designation, if applicant)

#### Postal address:

(or alternative method of service under section 352 of the Act):

## Notes to submitter

If you are making a submission to the Environmental Protection Authority, you should use form 16B.

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LATE



# **Submission on a Notified Resource Consent Application**

Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

APPLICANT'S NAME: Global Contracting Solutions Limited LOCATION: 401 Racecourse Road, Te Awamutu  I am not* a trade competitor for the purposes of section 308B of the Resource Management Act 1991.			
The specific parts of the application that my submission relates to are:			
My submission is:			
Support parts or all of □ Oppose parts or all of X□ are neutral parts or all of □ include—  • the reasons for your views.			
I seek the following decision from the consent authority: give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought			

- the overall impact of heavy vehicles transporting waste and waste products caused by the combustion process will add unnecessary traffic congestion, increased wear, erosion to the surrounding roads to the facility.
- increased risk of harm to motorists, cyclist, pedestrians to the increase of heavy traffic volume throughout the township.
- additional cost of damage to roading, further traffic management to the local ratepayers.
- traffic congestion in the central business area of Te Awamutu, risks the disinvestment of businesses within Te Awamutu both short and long term that provide income and employment for local people, especially with expansion and growth of Te Awamutu
- increase of carcinogenic diesel particulates from the heavy vehicles
- increase of low frequency noise pollution from engines and tyres that has been established to cause addition stress both mental & physical to people young and old.

# **₩**aipa

# Submission on a Notified Resource Consent Application Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4),

		Resource Management Act 1	.9
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I wish (or do not wish) to be heard in support of my submission.

xI do wish to be heard in support of my submission (this means that you will speak at the hearing)

I do not wish to be heard in support of my submission (this means that you will not be advised of the date of the hearing and will not speak at the hearing)

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0	bmitter:Peter St d to sign on behalf of submitt		equired if you make you	ır submission by electronic mea	ns.)
Date: _06 Oct	2023	Contact	0278993230	person:	Peter
	(name an	d designation, if applica	int)		
Post	address:	93		Hillcrest	Ave
(or alternative meth	od of service under section 35	52 of the Act):			

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From:

"Sommer Gisborne"

Sent:

Sat, 14 Oct 2023 01:52:54 +1300

To:

"Submissions" <submissions@waipadc.govt.nz>;

"RCsubmissions@waikatoregion.govt.nz" <RCsubmissions@waikatoregion.govt.nz>; "Sommer Gisborne"

Subject:

External Sender: Re: LU/0323/21. APP143988

Categories:

CYBER SECURITY WARNING: This email is from an external source - be careful of attachments and links. Please follow the Cybersecurity Policy and report suspicious emails to Servicedesk

I ngana au kia tuku tēnei mō te wā roa! Whai whakaarotia tēnei hoki māku!!

> On 14/10/2023, at 1:51 AM, Sommer Gisborne <sommerg007@gmail.com> wrote:

- > SOMMER GISBORNE
- > 145 NORTH ST,
- > TE AWAMUTU

- > TĀPAE MŌ TE TONO KIA WHAKATŪ TE WHEKETERE PARAKINO
- > Kāore au i te whakaae. E hiahia ana au kia whakahē te kaunihera ā rohe o Waipa ME Waikato i tēnei tono.
- > Anei tāku hei tautoko i te whakahē mō tēnei tono;

- > Ka pēhea mātou ngā mātua e whakaako ā mātou tamariki kia whai i ngā tikanga o ōu mātou mātua tūpuna, arā kia tiaki i te taiao, ara ko Papatūānuku me Ranginui. E honohono ana mātou ngāi Māori ki a rāua, ahakoa ka whakapono kē ngāi pākehā he taiao kē, e hē nā rāua mātou i whakaira, i te wāhi tapu o Kurawaka, nā Tāne matua, Tāne te waiora, Tāne te wānanga i tārai. Ka kite tonu tēnei taunakitanga i te tae o ētehi paru, arā te kōkōwai, hei whakamaumaharatanga i taua ahuatanga, i taua whakaorangatanga o te wahine tuatahi.
- > Nāreira, kia whakatūkino i ōu mātou mātua tuatahi, e kore rawa i te tika. I noho ngātahi ōu mātou mātua tūpuna ki te ngahere, ki te moana, ki ngā awa. Kāore rawa ngā tangata whenua e tūkinotia ou rātou whenua, ou rātou pātaka kai, õu rātou taonga. Pērā ki ngā tangata taketake o te ao whānui, e taea ana e rātou kia noho ngātahi ki a Papatūānuku. Kua kitea whānuitia katoatia puta noa i te ao whānui i te anea o ngā whenua taurikura nā ngā tauiwi. Ka whai tātou i tēnā aneatanga o te whenua, o te rangi hei korekore mō tātou katoa?
- > I tīhorehoretia e koutou ōu mātou mātua tūpuna kia rawakore, kia pōhara, waihoa mā mātou ā mātou tamariki mokopuna e whakaako ngā pūkenga tiakitanga o ōu mātou taonga, arā ko Papa me Rangi. Kā pēwhea rawa mātou e whakatinanahia aua ahuatanga mehemea he wheketere i tō mātou hāpori, i tō mātou taone. Ko tō mātou tuakiritanga, tiakitanga ētehi o ā mātou taonga, tikanga e toe ana. Hika! E whawhai tonu ana mātou te hunga kōrero māori ana, kia whakamāoritia o mātou arero ki tō mātou Reo rangatira!

> Ko te whakataukī "Whatungarongaro te tāngata, toitū te whenua" e kōrerotia ana o te hirahiratanga o te whenua ka mahuetia e te tātou, nā runga i tēnā, he whakaaro rangatira mō ā tātou tamariki mokopuna? Ka mahuetia tātou i te aha? Ngā parakino, ngā mokopunā hauā nā ngā whakaputanga o te wheketere parakino? Ka pēhea tātou e tino mōhio te hua ka puta i tēnei wheketere? Ahakoa ngā whakamātautau o rātou mā i wāhi kē atu, i whanga rātou kia kite te hua i ngā reanga maha?? ngā mokopuna, ngā mokomokopuna ā, heke iho, heke iho? Kā pēwhea e mōhio? E hiahia ana tātou katoa kia whakatere taua tūraru mō ā tātou tamariki mokopuna, Māori mai, pākehā mai?

> Kamutu, kua rangona e au ngā uaratanga ā ohaoha kia whai turanga mahi mā ētehi o te hāpori, engāri he mea nui ake tēnā i te hauoratanga o tātou, o ā tātou uri whakaheke?? I kīa ai e te kamupene hoki, ka whai rātou i ngā tikanga o te kaunihera ā-rohe kia whakaputa i te parakino iti rawa atu, te mōkito o aua parakino ka whakaputangia ki a

Rangi engāri e hia kē ngā wā i rūpahu te kaunihera, aua momo manatū kia whaiwhai i ā rātou ake hiahia? Ka whakapono tātou i aua tikanga? Ka whakapono aua raraunga haumaru, kia whakahaumaru i a tātou?? E kāo.

- > Waihoki, ko wai atu ngā mana whenua i roto i tēnei rohe atu i a ngāti Apakura? Ko Raukawa, ko Maniapoto? Kua whai wā tēnei kamupene, te kaunihera ā-rohe kia kōrero, kia hui ki aua iwi? Anei tētehi o aua iwi e rua e whakahē ana i te tono tāpae kia hanga tēnei wheketere i tō tātou rohe nā te pāpātanga tuakiritanga, arā e korekore rawa e whaiwhai ana i ngā tikanga o ōku tūpuna kia tiaki i a Papatūānuku me Ranginui. Kātahi, karua, kāore tātou i te tino mōhio te hua ka pāngia ki ā tātou uri whakaheke, heke iho, heke iho. Waihoki, he pai ake te uaratanga ohaoha nei, te turanga mahi i te hauora o te tangata, otirā ka pēwhea tātou e whakapono i te pūnaha manatū, i ngā pūnaha tikanga o ngā kaunihera i rūpahu, i pēhitia tonutia tātou tae noa ki tēnei rangi tonu.
- > Kia kaha tātou, whai whakaarotia mō tō tātou whenua taurikura, mō tō tātou rangi tikitū, mō ā tātou tamariki mokopuna, mō ngā uri whakahere ā haere ake nei. Takitū tātou i mua i ngā pūnaha pēhitanga o rātou mā e hiahiatia ana kia rūpahu, kia kaiapo mō ā rātou ake wawata. Hei āwhea ngā whawhai e mutu ai mō mātou.

Māori	English
TĀPAE MŌ TE TONO KIA WHAKATŪ TE	SUBMISSION ABOUT THE ESTABLISHMENT
WHEKETERE PARAKINO	OF A POLLUTANT FACTORY
Kāore au i te whakaae. E hiahia ana au kia	I do not consent. I wish to disagree with the
whakahē te kaunihera ā rohe o	district councils of Waipā and Waikato
Waipa ME Waikato i tēnei tono.	regarding this application.
Anei tāku hei tautoko i te whakahē mō	Below are my comments supporting my
tēnei tono;	objections to this application;
Ka pēhea mātou ngā mātua e whakaako ā	How are we, as parents, supposed to teach
mātou tamariki kia whai i ngā tikanga o ōu	our children to follow the ways of our
mātou mātua tūpuna, arā kia tiaki i te taiao,	ancestors, that is, to protect the
ara ko Papatūānuku me Ranginui. E	environment, the earth mother and the sky
honohono ana mātou ngāi Māori ki a rāua,	father? We, the Māori people, are
ahakoa ka whakapono kē ngāi pākehā he	connected to them, even if the Pākehā
taiao kē, e hē nā rāua mātou i whakaira, i te	people think differently, and disagree that
wāhi tapu o Kurawaka, nā Tāne matua,	these two conceived us from the sacred
Tāne te waiora, Tāne te wānanga i tārai. Ka	place of Kurawaka, that it was Tāne
kite tonu tēnei taunakitanga i te tae o ētehi	[Mahuta], Tāne te Waiora, Tāne te
paru, arā te kōkōwai, hei	Wānanga who created us. You can still see
whakamaumaharatanga i taua ahuatanga, i	evidence of this in the colour of some kinds
taua whakaorangatanga o te wahine	of soil, such as kōkōwai, which serve as a
tuatahi.	reminder of this, of the life-giving
	properties of the first woman.
Nāreira, kia whakatūkino i ōu mātou mātua	Therefore, the degradation of our original
tuatahi, e kore rawa i te tika.	parents cannot be condoned. Our ancestors
I noho ngātahi ōu mātou mātua tūpuna ki	lived in harmony with the forest, the sea
te ngahere, ki te moana, ki ngā	and the rivers. Indigenous people simply do

awa. Kāore rawa ngā tangata whenua e tūkinotia ōu rātou whenua, ōu rātou pātaka kai, ōu rātou taonga. Pērā ki ngā tangata taketake o te ao whānui, e taea ana e rātou kia noho ngātahi ki a Papatūānuku. Kua kitea whānuitia katoatia puta noa i te ao whānui i te anea o ngā whenua taurikura nā ngā tauiwi. Ka whai tātou i tēnā aneatanga o te whenua, o te rangi hei korekore mō tātou katoa?

not harm their land, their food sources or their resources. This is the same for indigenous people all over the world, they are able to live in harmony with the earth, and this devastation of prosperous lands by non-indigenous people is also widely observable all over the world. Will we follow suit with this destruction of land and air quality, until we are all annihilated?

I tīhorehoretia e koutou ōu mātou mātua tūpuna kia rawakore, kia pōhara, waihoa mā mātou ā mātou tamariki mokopuna e whakaako ngā pūkenga tiakitanga o ōu mātou taonga, arā ko Papa me Rangi. Kā pēwhea rawa mātou e whakatinanahia aua ahuatanga mehemea he wheketere i tō mātou hāpori, i tō mātou taone. Ko tō mātou tuakiritanga, tiakitanga ētehi o ā mātou taonga, tikanga e toe ana. Hika! E whawhai tonu ana mātou te hunga kōrero māori ana, kia whakamāoritia o mātou arero ki tō mātou Reo rangatira!

You stripped our ancestors of their assets until they were destitute, please let us teach our children and grandchildren the skills needed to protect our resources, that is, the earth and the air quality. How can we possibly embody these things, our identities, our guardianship of our remaining assets and customs, when there is a factory in our community, in our town? My god! We, speakers of the Māori language, are still fighting to naturalise our tongues to our ancestral language!

Ko te whakataukī "Whatungarongaro te tāngata, toitū te whenua" e kōrerotia ana o te hirahiratanga o te whenua ka mahuetia e te tātou, nā runga i tēnā, he whakaaro rangatira mō ā tātou tamariki mokopuna? Ka mahuetia tātou i te aha?

The proverb 'man may disappear but the land will remain', speaks of the importance of the land that we leave behind, and in light of this I ask, is this [proposal] a good idea for our children and grandchildren? What will we leave behind when we are

Ngā parakino, ngā mokopunā hauā nā ngā whakaputanga o te wheketere parakino? Ka pēhea tātou e tino mōhio te hua ka puta i tēnei wheketere? Ahakoa ngā whakamātautau o rātou mā i wāhi kē atu, i whanga rātou kia kite te hua i ngā reanga maha?? ngā mokopuna, ngā mokomokopuna ā, heke iho, heke iho? Kā pēwhea e mōhio? E hiahia ana tātou katoa kia whakatere taua tūraru mō ā tātou tamariki mokopuna, Māori mai, pākehā mai?

gone? Pollution, young children with birth defects due to emissions from a pollutant factory? How can we really be sure about the impacts of this factory? Although people in other locations have done studies, did they wait to see the effects on multiple generations, on the grandchildren and great-grandchildren, and so on, and so on? How can one know? Do any of us, Māori and Pākehā alike, wish to navigate that risk to our children and grandchildren?

Kamutu, kua rangona e au ngā uaratanga ā ohaoha kia whai turanga mahi mā ētehi o te hāpori, engāri he mea nui ake tēnā i te hauoratanga o tātou, o ā tātou uri whakaheke?? I kīa ai e te kamupene hoki, ka whai rātou i ngā tikanga o te kaunihera ā-rohe kia whakaputa i te parakino iti rawa atu, te mōkito o aua parakino ka whakaputangia ki a Rangi engāri e hia kē ngā wā i rūpahu te kaunihera, aua momo manatū kia whaiwhai i ā rātou ake hiahia? Ka whakapono tātou i aua tikanga? Ka whakapono aua raraunga haumaru, kia whakahaumaru i a tātou?? E kāo.

Furthermore, I have heard about the economic value [of the proposal], that it will provide work to some of the community, but is this more important than our health, and the health of our descendants?? The company has also stated that they will comply with district council regulations to minimise emissions, with only a small portion of those emissions being released into the air, but how many times have the council, or other governing bodies of that nature, lied in service of their own desires? Do we trust their procedure, do we believe their data in regards to safety, will it really keep us safe? No.

Waihoki, ko wai atu ngā mana whenua i roto i tēnei rohe atu i a Ngāti Apakura? Ko Raukawa, ko Maniapoto? Kua Furthermore, who are the other local tribes in this area, apart from Ngāti Apakura?
Raukawa, Maniapoto? Have this company

whai wā tēnei kamupene, te kaunihera ā-rohe kia kōrero, kia hui ki aua iwi? Anei tētehi o aua iwi e rua e whakahē ana i te tono tāpae kia hanga tēnei wheketere i tō tātou rohe nā te pāpātanga tuakiritanga, arā e korekore rawa e whaiwhai ana i ngā tikanga o ōku tūpuna kia tiaki i a Papatūānuku me Ranginui. Kātahi, karua, kāore tātou i te tino mōhio te hua ka pāngia ki ā tātou uri whakaheke, heke iho, heke iho. Waihoki, he pai ake te uaratanga ohaoha nei, te turanga mahi i te hauora o te tangata, otirā ka pēwhea tātou e whakapono i te pūnaha manatū, i ngā pūnaha tikanga o ngā kaunihera i rūpahu, i pēhitia tonutia tātou tae noa ki tēnei rangi tonu.

and the district council taken the time to consult with these tribes? Here stands a descendant of two of those tribes objecting to the application to build this factory in our region, because of the effects that it will have on our identity, that is, it is not aligned with the principles by which my ancestors lived, which involved protecting the earth and the sky. Additionally, we don't know the potential effects on our descendants in generations to come. Furthermore, is the economic value gained from creating more jobs worth more than the health of the people, and how can we trust the systems of these governing bodies who have lied to and oppressed us, and continue to do so to this day?

Kia kaha tātou, whai whakaarotia mō tō tātou whenua taurikura, mō tō tātou rangi tikitū, mō ā tātou tamariki mokopuna, mō ngā uri whakahere ā haere ake nei.

Takitū tātou i mua i ngā pūnaha pēhitanga o rātou mā e hiahiatia ana kia rūpahu, kia kaiapo mō ā rātou ake wawata. Hei āwhea ngā whawhai e mutu ai mō mātou.

We must be strong, and consider our thriving land and pristine air quality, our children, our grandchildren and our future descendants. We must stand up in the face of the oppressive systems of those who wish to lie and grasp for their own ends. When will our battles cease?

Late





Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

APPLIC	CANT'S NAME: Global Contracting Solutions Limited
LOCAT	ION: 401 Racecourse Road, Te Awamutu
I am n	ot a trade competitor for the purposes of section 308B of the Resource Management Act 1991.
	rectly affected by an effect of the subject matter of the submission that—
(a) (b)	adversely affects the environment; and does not relate to trade competition or the effects of trade competition.
The sp	ecific parts of the application that my submission relates to are:
AII_	
My sul	omission is:
	rt parts or all of  Oppose all of  X are neutral parts or all of
See att	rached submission.
	the following decision from the consent authority: cise details, including the parts of the application you wish to have amended and the general nature of any conditions
Decline	e the resource consent application.
I wish	(or do not wish) to be heard in support of my submission.
X	I do wish to be heard in support of my submission (this means that you will speak at the hearing)
	I do not wish to be heard in support of my submission (this means that you will not be advised of the date of the hearing and will not speak at the hearing)
X	If others make a similar submission I will consider presenting a joint case with them at the hearing.
	ust tick one of the boxes above, otherwise it will be deemed that you do not wish to be heard
and we	e will <u>not</u> advise you of the date of the hearing.

I have served a copy of my submission on the applicant.

(this is required by section 96(6) (b) of the Resource Management Act 1991)

Document Set ID: 11115790

X

Submission to the Waipā District Council on Global Contracting Solutions application for resource consent to build a waste incinerator at 401 Racecourse Road, Te **Awamutu** 

Reference: LU/0323/21

Submission of Don't Burn Waipā

Contact details and submission process

Contact person: Komen Ellie

Contact details: dontburnwaipa2022@gmail.com

- Our submission relates to the whole application to Waipā District Council
- We oppose this application. We want the Waipā District Council to decline this application.
- We would like to be heard in support of our submission.

# Don't Burn Waipā: Who we are

We are a community of approximately 1,800 members (and increasing every day) who have grave concerns regarding the building of an incineration plant in Te Awamutu. In the absence of any public forum being held by Waipa District Council we held a public forum on 1 November 2022 which attracted approximately 40 participants. We also launched a petition on 11 July 2022 which to date has over 2,400 signatures (and growing every day). Once we received notification that the application was going to be publicly notified we held another public forum on 4 October 2023 with approximately 150 people in attendance. From this meeting the community have rallied together and undertaken a whole lot of activities over the past two weeks, such as (to name a few):

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- to find out more about the proposal
- hold stalls to inform members of the public about the proposal
- hold submission making stalls at local events
- assist members of the public (who do not have access to the internet) to complete submissions
- meeting with older members of the public to discuss the proposal
- demystifying the public submission process by informing and helping members of the public e.g. advising how and where to submit, website links to council websites, printing off Form 13 etc.

We liaise with groups in other communities who are campaigning against pyrolysis or incineration plants in their areas and are part of the 'Regeneration not Incineration' national group working on this issue. In addition to campaigning against this incineration plant we are campaigning for environmentally friendly zero-waste, circular economy strategies for waste minimisation and management.

# Significance of the Te Awamutu application

Aotearoa does not have any Municipal Solid Waste (MSW) incinerators nor any Waste-to-Energy facility of any type designed to process MSW. Aotearoa does, however, have a history of incineration. Community concerns over the impact of dioxin contamination resulted in the closure of all existing incinerators (processing medical and airline waste) and replacement with steam sterilisation.

We are concerned that the company, Global Contracting Solutions (GCS), has exaggerated the benefits and downplayed the risks of their proposal. We consider several of their central environmental claims to be inaccurate and misleading.

In particular, GCS uses terms that are associated with being environmentally friendly, which the specifics of their technology and application do not back up. These false claims include that:

- The facility will produce 'renewable' energy, despite the primary feedstocks being non-renewable fossil-based materials such as plastics
- The facility will result in net savings of tens of thousands of tonnes of greenhouse gas emissions
- That this facility is primarily a recycling facility
- That this is part of the development of a circular economy

This use of 'greenwashing' may have led representatives of Waipā District Council, Waikato Regional Council, local iwi, members of the public and other stakeholders to support this proposal where they may otherwise not have, had they been provided fuller information and analysis of the proposal.

The Te Awamutu proposal represents the first of its kind in the country. The consistent message from well-researched investigations and government policy into MSW waste-to-energy in Aotearoa, do not recommend its adoption. More pointedly, this particular proposal combines the worst combination of factors: its location in a residential neighbourhood, in a flood zone, surrounded by education institutions, early childhood centres, kura and food businesses, in a community with a voluntary fire fighting force, with the need to truck in almost all of the waste "feedstock" from outside of the community and truck

out the toxic byproducts, carcinogenic air emissions, massive CO2 emission and the list of major issues just goes on.

This application is not an independent risk of the costs and risks to the community.

This application must be declined.

#### Status of activity

A resource consent is required for this incinerator. It is considered a 'non-complying activity' under the Operative Waipā District Plan (WDP). Section 104 of the Resource Management Act 1991 (RMA) specifies how to approach this matter:

Section 104D - Particular restrictions for non-complying activities When dealing with non-complying activities, before granting an application a council must be satisfied that either the adverse effects of the activity on the environment will be minor (s104D(1)(a)), or the proposed activity will not be contrary to the objectives and policies of a proposed plan and/or plan (s104D(1)(b)).

The application fails on both accounts.

- 1. Onus is on the applicant to prove that the adverse effects of the activity on the environment will be minor. We submit that:
  - Adverse effects of the proposed activity are more than minor, or, in the alternative,
  - The applicant cannot satisfy the Council that they are minor.
- 2. Onus is on the applicant to prove that the proposed activity will not be contrary to the objectives and policies of the WDP. We submit that:
  - The proposed activity is contrary to the objectives and policies of the WDP, or, in the alternative,
  - The applicant cannot prove that the proposed activity will not be contrary to the objectives and policies of the WDP.

A number of other issues trigger the need for consent because they are Restricted Discretionary activities or Discretionary activities (p67-68, application lists these in full). Taken in isolation, one of these matters would be of concern; taken together, the totality of these clearly illustrates that this is the wrong place for this project including:

- Storage of hazardous substances and risk
- Excessive noise
- Activity not aligned with zoning of current land
- Furnace and stacks exceed height requirements
- Traffic loads and vehicle crossing
- Proximity to Mangapiko stream.

We note council can take into account other issues that it deems relevant.

The applicant has failed to adequately assess the quantity of hazardous substances, diesel fuel in particular, to be stored on site. An accurate assessment would trigger the need for an additional resource consent.

This application does not meet the test for completeness under section 88(2)(b) of the RMA (and consequently Schedule  $4 ext{ s1}$ , 86(1)(c) and 87(1)(f) but potentially also for adequacy under section 92 of the RMA. The documentation provided by the company offers inadequate and incomplete information upon which to make an informed decision about granting consent. This proposal has many unanswered questions and unsubstantiated assumptions about its operations that cannot be relied upon for decision making purposes.

#### Adverse effects on the environment

#### Water quality and health

The WDP (sec 7.2.20) specifically addresses the health and well-being of the Waikato and Waipā Rivers. Two crucial documents guide decision making:

- 1. The Waikato River Vision and Strategy (of which the Waipā and all its tributaries are a part of.) In particular, objectives (g) and (h):<sup>1</sup>
  - (g) The recognition and avoidance of adverse cumulative effects, and potential cumulative effects, of activities undertaken both on the Waikato River and within its catchments on the health and wellbeing of the Waikato River.
  - (h) The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities.
  - To note, section 12 of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 states that the Vision and Strategy prevails over any inconsistent provisions in a national policy statement (including the National Policy Statement for Freshwater Management 2020 (NPS-FM)), New Zealand Coastal Policy Statement, and national planning standard.
- 2. The National Policy Statement for Freshwater Management 2020 The fundamental concept of the NPSFM is Te Mana o Te Wai, which refers to the importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment.

The Mangapiko stream in this location is classed both as a Significant Trout Fisheries and Trout Habitat and a Significant Indigenous Fisheries and Fish Habitat." (p8, WRC notification decision). As such, an assessment against the National Policy Statement for Indigenous Biodiversity 2023 is necessary.

The industrial component of the activity will not be connected to reticulated wastewater. As such, the proposal poses a real risk of dioxin and heavy metal contamination to the Mangapiko stream due to potential leakage, spills and flooding.

The applicant proposes to store wastewater from the washdown process (120m3/day) pumped to onsite storage tanks that provide a maximum of five days of backup storage before being removed to a managed waste facility. The estimated days of backup storage are based on an allowance of 5mm of water used over 50% of the inside building area. The water consumption and wastewater are based on company estimates, not on data from functioning plants with similar feedstock.

<sup>&</sup>lt;sup>1</sup>Waikato river vision and strategy. <a href="https://waikatoregion.govt.nz/assets/WRC/Council/Policy-and-Plans/HR/S32/Part-A/Waikato-River-Authority-2012-Restoring-and-protecting-the-health-and-wellbeing-of-the-Waikato-River-vision-and-strategy.pdf">https://waikatoregion.govt.nz/assets/WRC/Council/Policy-and-Plans/HR/S32/Part-A/Waikato-River-Authority-2012-Restoring-and-protecting-the-health-and-wellbeing-of-the-Waikato-River-vision-and-strategy.pdf</a>

The proposal also intends to channel an ash slurry through this wastewater system from the furnace grate. (p67, sec 9.2.4, WRC application). This grate ash slurry (36.7m3/day) contains heavy metals and dioxins.

The wastewater storage for both washdown water and ash slurry water should be considered as hazardous substance storage.

The applicant notes that areas that would be washed down are "highly contaminated internal building wash areas" (p57, application):

- The application does not include a list of the contaminates, nor the amounts or toxicity of contamination. It does not include any reference to relevant standards for this water or how it would be monitored.
- There is a note that "wastewater undergoes some treatment on site through screening and softening". However, there is no description of this process or components in the application.

There is no mechanism or consideration of an overflow feature for this system or where this would be discharged.

The application has not included any description of how water storage beyond the five day capacity would be handled or identified risk mitigation.

The applicant claims the wastewater would be purchased by its other company, Global Metal Solutions, as firefighting water or washdown water for its own facilities elsewhere (attachment 5, Final responses to Section 92A WRC). This is highly contaminated water that cannot be considered appropriate for these purposes. Such uses would significantly spread dioxin and heavy metal contamination into new and unrelated sites, this is of serious concern.

#### Roof, roading and grass areas: stormwater will impact the Mangapiko stream

These areas are all described in the proposal as 'low risk' (appendix M, Infrastructure Report, p14) but it is unclear on what basis that conclusion is drawn.

The description of these areas as 'low risk' does not accord with international peer reviewed research (cited in full in the section on land contamination) which shows elevated levels of dioxin and heavy metals surrounding incinerator sites.

There is no water quality treatment nor interceptor system proposed for the majority of the site (54.6% of the total area). Instead, it will run into the Mangapiko stream. This is unacceptable.

The application includes no assessment of the risk of pollutants from these areas entering the stream under normal operating conditions, or the cumulative effects of these pollutants, or any effects occurring under "Other than normal operating conditions".

The proposed stormwater filtering systems, where used, do not address all pollutants of concern, and do not filter to an acceptable level. The Mangapiko stream will be required to absorb these contaminants. In a flood event, these filtering systems will be immediately overwhelmed.

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The applicant notes that the proposed new structures would result in additional flooding in the Fonterra complex and in some residential houses: Nos. 331-467 Factory Road (application, p50).

The proposed 300mm freeboard does not comply with the 500mm requirement, which may itself be inadequate to address flooding and future flooding events. The proposal includes underground bunkers where waste will be stored, adding to the environmental risks as the minimum 500mm requirement is proposed not to be met.

#### Land contamination

The application does not address the land contamination inherent in its operations, and no consent for discharge to land has been filed. As no modelling or data has been provided by the applicant, there can be no conclusions drawn nor mitigation measures offered.

Significant peer reviewed research exists demonstrating land contamination from incinerator sites from the downwind air emissions.

The stack height is a significant factor in air dispersion and thus land contamination. Additional stack height would mean pollutants would be more widely dispersed on surrounding residential neighbourhoods.

The incinerator proposes to burn 480 tonnes per day, yet nowhere in the application is there a clear indication of how much feedstock could be onsite at any given time creating another pathway for land contamination.

Additional considerations include the issue of land contamination from hazardous substances stored on site and waste streams (fly ash, bottom ash) resulting from the incineration process that may remain on site during "Other than normal operating conditions" or as a result of other unforeseen conditions. The proposed activity will be contrary to the objectives and policies of the WDP.

#### **Current land designation**

Contrary to the claims of the applicant, the site is totally unsuitable for a large scale waste incinerator. The current "Specialised Dairy Industrial Area" designation means that the land use is intended to ensure that any activity there was aligned with Fonterra's activities (WDP, 7.1.6).

Waste incineration immediately adjacent to food production is not a compatible activity. Academic research into the impacts of contamination scares relating to Fonterra products notes:

"any competitive advantage held by the New Zealand dairy industry is based on the perceived quality of its products...Fonterra's reputational standing has allowed it to expand globally and is the result of New Zealand's overall 'clean green' image and internationally recognised institutional frameworks."<sup>2</sup>

 $<sup>^2</sup>$  The Trade Impacts of a Food Scare: The Fonterra Contamination Incident, Katarina Stojkov, Ilan Noy and Yiğit Sağlam. Victoria University of Wellington

Even the hint of dioxin, heavy metal or other contamination will have direct financial consequences for Fonterra's operations which would then have a flow on effect on jobs, the local economy and Aotearoa's international exporting reputation.

Waipā District Council (WDC) has developed a <u>Growth Strategy</u> that identifies land designations for anticipated residential and industrial growth to the year 2050. Two areas are identified for industrial growth: at Bond Road and Paterangi Road. The first choice of the applicant was within this stated area. This did not eventuate because the seller didn't want a waste incinerator located there. Racecourse Road is a second choice for the applicant. Building a waste incinerator on this site is inconsistent with the wider goals of the Growth Strategy.

#### **Proximity of Residential housing**

The proposed site is largely residential and residential housing in the area is only going to intensify e.g., a church located on Racecourse Road is being demolished and replaced with more housing.

#### Proposal is a hazardous facility with hazardous substances

The proposal will involve the storage and use of hazardous substances. It is therefore considered by definition to be a hazardous facility. The starting point is the Hazardous Facilities Screening Procedure (HFSP) referenced in s.19 of the WDP.

The hazardous substance list in the application appears to be incomplete compared to other similar proposals and the assumed quantities of (some of) the listed substances are too low. The HFSP worksheet is incomplete and interpreted incorrectly (see MfE, Planning Guide for Hazardous Facilities, 2002).

It is more likely than not that the necessary storage and use of hazardous substances is a restricted discretionary activity rather than permitted in particular in respect of diesel. That would require a risk assessment in accordance with the Fourth Schedule, RMA and an assessment against criteria of the WDP. This also has implications on the assessment of the frequency and scale of hazardous substance transport movements to the site. All this work needs to be carried out by a qualified and experienced practitioner.

#### Diesel storage and use

The applicant has grossly underestimated the amount of diesel that will be needed, and that will need to be stored onsite.

The HFSP assessment by HD Geo (October 2021) states in the background section that the quantity of diesel is yet to be determined. On the next pages it explains: "We have assumed a 5,000 litres maximum storage quantity for calculation purposes." On that basis, it establishes the activity status for the storage and use of hazardous substances as permitted.

A resource consent for a restricted discretionary activity would be required for this quantity of diesel storage.

The applicant do not have an accurate understanding how much diesel needs to be stored and used on site to support the proposed process at the required temperature.

#### Other hazardous substances

Both the AEE and the HD Geo report incorrectly state that diesel is the only relevant or 'regulated' or hazardous substance necessary for this proposal. Ammonium hydroxide, for example, listed in the application/AEE document is classified as potentially flammable, corrosive and acutely toxic to aquatic life. The HD Geo report fails to mention ammonium hydroxide and does not provide a Safety Data Sheet for it.

#### Traffic, vehicles and trucks

- There will be a significant increase in truck traffic on Racecourse Road and we note the traffic survey submitted by the applicant, the survey was done during COVID, this does not accurately reflect average traffic and is therefore deficient data that needs to be discounted or completed again during a typical "normal" day. The information provided by the applicant is seriously misleading.
- Vibration from trucks passing, currently some residents on Racecourse Road are experiencing shakes and cracks in their residential interior walls when cement trucks go past. This will only get worst with the increase in truck traffic along the road.
- Increase in noise from trucks passing residents are already putting up with noise, this will only get worst with an increase in truck traffic along Racecourse Road.
- Increase in the potential for incidents and accidents for residents, in particular for our children.
- Increase in vehicle traffic the applicant is proposing to employ up to 60 staff plus there will be additional vehicles visiting the site to assist with running the plant e.g., contractors for repairs and maintenance, cleaners, caterers etc. resulting in an increase in vehicle traffic.

#### Noise, Odour and Dust

These three elements all have an impact on the surrounding environment that will be more than minor.

There is no specific local meteorological data available for the site, meaning it is difficult to ascertain accurate estimates about the impacts of noise, odour and dust.

Clean air is central to a healthy, sustainable environment. Clean air is not just about protecting people's health from pollutants, such as fine particles and carbon monoxide. It is also about protecting people from offensive smells that can affect their daily activities and general wellbeing. Offensive odour is a significant cause of public complaints to councils and is typically a difficult environmental issue to assess and manage.3

The application provides almost no information about where the majority of the 166,000 tonnes of feedstock will come from. Some 78,880 tonnes/year (roughly 216 tonnes/day) of Mixed Solid Waste (MSW) is proposed feedstock. In Waipā, 50.2% of MSW is organic waste (36.5% food waste) and another 12.3% of waste is nappies and sanitary items.<sup>4</sup>

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<sup>&</sup>lt;sup>3</sup> Ministry for the Environment. 2003. Good Practice Guide for Assessing and Managing Odour in New Zealand. https://olores.mma.gob.cl/wp-content/uploads/2019/03/Good-Practice-Guide-for-Assessing-and-Managing-Odourin-New-Zealand.pdf

<sup>&</sup>lt;sup>4</sup> Waipā District Council, 2023. *Waipā Waste Minimisation and Management Plan - Final - March 2023-2029* p12. https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/our-

The Air Quality Assessment (appendix L, sec 3.11) discusses in one paragraph, information about odour, this is severely inadequate in addressing the impact of this on the surrounding community.

Depending on the severity of the odour event, one single occurrence may be sufficient to deem that a significant adverse effect has occurred.

Fugitive odorous discharges from receiving waste have not been assessed. These may be a significant contributor to cumulative effects.

The applicant says, "most of the raw material will be pre-sorted to eliminate putrescible materials and will have no odour. Additional checks will be made...and loads..rejected if necessary." It is unclear where this material is from in the first place and where it will go after sorting. There are no clear contracts with waste providers to determine the content of the waste. There is no odour evaluation. The community and environment will be subject to the odour of the materials that come in and out, irrespective of whether they are accepted or not.

The application states, "Dumping will only occur when the access door is closed," as a means of odour, noise and dust control. However, there are an anticipated 26 truck movements per hour at the facility (application, p46). It is unclear if it is even feasible to ensure that the doors are always closed when dumping occurs given the anticipated arrival of loads.

The applicant claims that there will be no odour from the stacks due to the temperature. (Air Quality Assessment, appendix L, Sec 3.11). However, during periods of start-up and less than optimal fuel mix, temperatures will be lower and variable, with regular opportunities for adverse odour impacts over a wide area of the community.

Discharge of toxic particulate matter via overloaded skip bin receptacle for baghouse residual ash that contains heavy metals and dioxin: "Dust is discharged from the baghouse hopper to a covered skip via a rotary valve and shute that exits inside the skip so that there is no significant dust. Overfilling of the skip is possible but daily inspections will **minimise it**." (3.10.4 Cyclone and Bagfilter dust collection). The most dangerous fly ash must be more than "minimised" by a broad description of a daily inspection. There should be information about how much matter is produced, and "overfilling" should be prohibited and subject to rigorous compliance.

#### **Dioxins**

- Dioxins and other chemicals will accumulate in our food chain system, as the toxic ash is dispersed
  into the air, it will fall onto our land and water. As an example, cows will eat grass with the toxic ash,
  this then goes into our milk and then sold to consumers domestically and exported to international
  markets.
- Landfills are the largest source of dioxins in Aotearoa. A Ministry for the Environment report states
  landfills are responsible for more than half of dioxin emissions in Aotearoa and are the greatest
  source of dioxins. The application prides itself on diverting waste from landfills, as landfills are the
  largest source of dioxins then this plant will be taking those dioxins and dispersing these into the air.

 $\underline{council/haveyoursay/Waste\%20 minimisation/Waipa\%CC\%84\%20 Waste\%20 Minimisation\%20 and \%20 Management\%20 Plan\%20-\%20 Final\%20-\%20 March\%202023$ 

Despite best efforts, there is no guarantee that 100% of these dioxins will not be released into the air and furthermore, the dioxins that are managed to be captured by the scrubbers and filters — where are these disposed of? Are these highly-concentrated toxic filters and scrubbers incinerated? Or are they disposed of elsewhere? If elsewhere, than where? Landfill?

- Agent orange is only one of the many dioxins contained in the nano particles released into the air.
- Waipa does not want to be breathing in the dioxins from rubbish disposed of in other areas e.g.
   Auckland.

#### Risk: Fire, explosions and floods

#### Fire and Explosion

The risk of fire and explosion at the proposed site are significant. Due to the location, these risks cannot be adequately mitigated by any method. These risks, to both human safety and environmental health, are unacceptable, and are exacerbated as the applicant specifically proposes having extensive public facilities on site. There is significant guidance and literature both locally and internationally on the risks of fire and explosion at waste facilities, and specifically at incinerators.

Waikato Regional Council's (WRC) *Guidance for storage and stockpiling of end of life tyres for local government* is a leading source of information relevant to consideration of fire and explosion risks in this proposal.

### Availability and training of firefighters in Te Awamutu

Te Awamutu Volunteer Fire Brigade is a volunteer station that means all members of the brigade dedicate their own time in order to serve the community. In January 2023, the Te Awamutu Volunteer Fire Brigade dealt with 28 callouts. The closest career firefighters (e.g., 24-hour rostered) are based in Hamilton.

#### Flooding risk

There is no risk assessment of flooding of the facility included in this application. The *Floodplain Assessment* undertaken by Golovin is an assessment of the impact of the development of the site on potential flooding. It does not consider the risks associated with flooding of the incinerator itself, the associated storage and processing activities or the surrounding area once the facility becomes operational.

Potential risks include contamination of the surrounding properties, land, stream and groundwater with feedstock, ash and hazardous substances.

Advice from the Ministry for the Environment to Local Government states:

A sound risk assessment process is fundamental to ensuring climate change is appropriately factored into the planning and decision-making processes:

rate the level of consequences of a flood (from insignificant to catastrophic)

- rate the likelihood of a specific flood event occurring (rare to almost certain)
- assign a risk level, given both the consequences and likelihood (low to extreme)

• analyse the results to compare how your risk profile might change with climate change.<sup>5</sup>

Extreme severe weather events resulting in widespread catastrophic flooding in Auckland, Coromandel and the East Coast in 2023 illustrate that existing climate change models, including flooding assessments, are at best limited and conservative in their estimates of impacts.

#### **Human Health**

No human health assessment has been undertaken for this project. It is therefore not possible to determine what the effects, and the severity of those effects, are. Any human health assessment must be based on a credible assessment of hazardous substances, risks and emissions. This proposal has significant deficiencies and arguable conclusions with respect to the data and modelling provided. This assessment is vital in order to assess this application and is disappointing to see that the applicant has not considered this, despite statements from the applicant that they want to be a "good corporate citizen", they have only attempted to undertake what is required by legislation i.e. the bare minimum.

A recent systematic review of human health studies of waste-to-energy incinerators published in the *Australian and New Zealand Journal of Public Health* concludes:

"This review shows contamination of food and ingestion of pollutants is a significant risk pathway for both nearby and distant residents...Because most studies in this review examined only a small subset of potential exposure and disease pathways, together with the low quality, it is likely that our review has 'under-discovered' the full health-effects picture...diseases from exposures tend to manifest only after many years of cumulative exposure, so it is premature to conclude that these newer technologies improve safety."

#### **Air Pollution**

This proposal claims that its emissions are within the National Environmental Standards for Air Quality (NESAQ) limits. Those findings are not consistent with the proposed feedstocks, supplementary fuel and peer reviewed research. The health implications for exposure to PM10, PM2.5, acid gases and dioxins/furans are well understood.

A number of emissions with severe human health impacts are not modelled at all including polycyclic aromatic hydrocarbons (PAHs):

"One of the concerns about the disposal of tire waste at the flue gas-component concentrations emitted is the amount of polycyclic aromatic hydrocarbons (PAHs) formed and the resulting environmental damage. Many PAHs are widely referred to as carcinogens, mutagens, and teratogens and thus pose a significant danger to human health and the well-being of humans."

<sup>&</sup>lt;sup>5</sup> Ministry for the Environment. *Preparing for Future Flooding:* A Guide for Local Government. Part 3. Assessing flood risk. <a href="https://environment.govt.nz/publications/preparing-for-future-flooding-a-guide-for-local-government-in-new-zealand/part-three-assessing-flood-risk/">https://environment.govt.nz/publications/preparing-for-future-flooding-a-guide-for-local-government-in-new-zealand/part-three-assessing-flood-risk/</a>

<sup>&</sup>lt;sup>6</sup> Peter W. Tait, James Brew, Angelina Che, Adam Costanzo, Andrew Danyluk, Meg Davis, Ahmed Khalaf, Kathryn McMahon, Alastair Watson, Kirsten Rowcliff, Devin Bowles, "The health impacts of waste incineration: a systematic review", *Australian and New Zealand Journal of Public Health*, Volume 44, Issue 1, 2020, Pages 40-48, ISSN 1326-0200, <a href="https://doi.org/10.1111/1753-6405.12939">https://doi.org/10.1111/1753-6405.12939</a>.

<sup>&</sup>lt;sup>7</sup> Dóra Mentes, Csenge Emese Tóth, Gábor Nagy, Gábor Muránszky, Csaba Póliska, "Investigation of gaseous and solid pollutants emitted from waste tire combustion at different temperatures," *Waste Management*, Volume 149, 2022, Pages 302-312, ISSN 0956-053X, <a href="https://doi.org/10.1016/j.wasman.2022.06.027">https://doi.org/10.1016/j.wasman.2022.06.027</a>.

The 2021 World Health Organisation (WHO) air quality guidelines are more stringent for most critical air pollutants and reflect the overwhelming evidence of the impacts to human health, even at low levels. They set a more stringent threshold for air pollutants than the NESAQ, which are based on the old 2005 WHO air quality guidelines.8 In 2020, the government proposed amendments to the NESAQ and one of the aims of the amendments was to better control the release of fine particles into the air. Timeframes for the proposed amendments are subject to the release of new evidence, including updates to the WHO guidelines and the Health and Air Pollution in New Zealand study. They were due to be released mid to late 2022.

Air pollution does significant harm to many New Zealanders, including children. There were 32 premature deaths in the Waipā District due to air pollution (PM2.5 and NO2) (among people aged 30+ years) in 2016.9

Other pathways for exposure including ingestion must be considered in respect to human health.

#### Cumulative effects

Cumulative effects are an important way through which pollutants affect public health, yet the ability to measure impact over time is severely compromised in Aoterroa because of the lack of baseline data. This is evidenced by the lack of local data for Te Awamutu.

#### Climate change and health impacts

This incinerator would be a net contributor to climate change. The applicant argues that they are not subject to an assessment of the impacts of their contribution to overall GHG emissions.

Climate change is often understood primarily in terms of global temperature rise and environmental issues like drought, heat and flooding. Climate change is also having dramatic human health impacts on infectious diseases, access to safe food, water and sanitation, the abundance of allergens, the behaviour and spread of viruses, and accelerating respiratory and pulmonary disease.

Climate change is a stress multiplier, putting pressure on vulnerable systems, populations, and regions. As such, a human health assessment of this proposal must include an analysis of the contribution of additional carbon dioxide and other GHGs to the atmosphere.

The RMA has been amended to require local authorities to 'have regard to' the National Adaptation Plan and the Emissions Reduction Plan. While this application was submitted for this requirement came into force, it would be remiss of the commissioners to disregard this simply due to the timing of a legislative change, and we strongly urge the commissioners to have regard to this recent amendment.

### Climate change and ETS requirements

The applicant's claim that this facility will result in net savings of tens of thousands of tonnes of greenhouse gas emissions is completely inaccurate and misleading. 400 tonnes per day of refuse derived waste will contain 113 tonnes of carbon per day. When burned that carbon would emit 413

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<sup>&</sup>lt;sup>8</sup>Ministry for the Environment. 2021.. Updated environmental data on New Zealand's air quality released today https://environment.govt.nz/news/updated-environmental-data-on-new-zealands-air-quality-released-today/

<sup>&</sup>lt;sup>9</sup> Environmental Health Intelligence New Zealand. Health effects of air pollution. https://www.ehinz.ac.nz/indicators/air-quality/health-effects-of-air-pollution/

tonnes of  $CO_2$  per day or 151,000 tonnes per year. If instead that waste is landfilled, then most of the carbon would remain underground.

The Greenhouse Gas Emissions report (GHG report) commissioned by the applicant is also incorrect<sup>10</sup> to say that waste-to-energy facilities are not included in the Emissions Trading Scheme. These facilities are defined as Stationary Energy and Industrial Processes, and guided by *Regulations 2009: 21–26 – "Persons who combust used or waste oil, used tyres, or waste to generate electricity or industrial heat are required to participate in the NZ ETS":*<sup>11</sup>

The application is deficient of National Environmental Standard requirements for an emissions plan under the National Environmental Standards for Greenhouse Gas Emissions from Industrial Process Heat Regulations 2023 (NESIH).

The applicant's GHG report, claims a range of offsets, most if not all of which cannot be claimed. It similarly fails to account for the Applicant's stated claim of removing putrescible materials from MSW feedstock inputs. When viewed critically, CO2 emissions from this proposal are on par with coal.

In countries like Aotearoa that already have a high proportion of renewable energy generation, and because waste to energy incinerators only contribute to 'base load' electricity demand, rather than 'peak load' (because they must operate continuously i.e., they cannot fire-up or shut-down quickly to address an energy production shortfall).

Most assessments of the climate impact of waste to energy technologies only consider 'production-based' emissions (i.e. those produced by the facility itself) and do not account for 'consumption-based' or 'embodied' emissions (i.e. full lifecycle emissions of materials and products that become waste), which have been estimated to account for nearly half of all global emissions.

#### Feedstock supply

Granting of consent must be done on the basis that the proposal is credible: that it will operate in the way stated in the application subject to any conditions. However, the company has failed to provide any evidence that it can operate in the way stated in the application because there is no evidence for suppliers for its feedstock beyond its own operations (as Global Metal Solutions).

The application includes mention of tyres throughout, however it is nowhere stated where the tyres would come from. At present, Waste Management Ltd (WML) has a long term contract with Golden Bay Cement to provide tyre derived fuel (TDF) which takes approximately half of all Aotearoa's tyres. WML has a tyre shredder, and a collection network that extends to the South Island. Given that Global Contracting Solutions is proposing to rely on the other half of the entire country's tyre supply there is a total absence of any credible plan to obtain this feedstock. There is local competition for used tyres. Cambridge-based, Treadlite reuses tyres as horse arena flooring, playground matting, artificial sports

<sup>12</sup> Case Study: Tyre Recycling

https://www.wastemanagement.co.nz/news-and-media/Case-Study-Tyre-Recycling/

 $<sup>^{10}</sup>$  Formative. GCS Waste to energy plant: greenhouse gas profile. Appendix N to the original Application pp 34-35 (appended to this submission)

<sup>&</sup>lt;sup>11</sup> Climate Change (Stationary Energy and Industrial Processes) Regulations 2009: 21–26 https://environment.govt.nz/assets/Publications/Files/seip-reporting-waste-combustion.pdf

fields, mats and gym flooring. The company has an existing collection programme including a South Island representative.

Given that the applicant proposes to use half of all the end-of-life tyres each year, the lack of information about how these tyres are going to be collected, how they are processed and where they are going to be stored (beyond a vague reference to a 400m3 shed for materials) is a serious absence information.

The applicant states that "there will be occasions where deliveries from consolidation sites where flock, baled waste, tyres, processed C&I and other inorganic waste stocks may be stored outside for short periods of time. This may occur during breakdown, service periods, re-commissioning periods." (Sec 7.1, Response to Requests for Information under Sec 92A, dated 8 July 2022). There is no indication what "short periods of time" means. The storage of tyres outdoors is subject to a National Standards and a resource consent may be needed for this activity, as the applicant has not provided this information, we cannot comment.

The source for MSW is equally lacking in any detail. The BERL report included in the Applicant's proposal says:

"Two large companies, Waste Management and EnviroNZ (also known as EnviroWaste), dominate the New Zealand waste sector. These two companies control the majority of New Zealand's waste either through direct contracts with private customers, or through waste service contracts with local authorities. The sector has a number of smaller participants, and some local authority operated services, but there is no direct central control of the New Zealand waste stream. Any future large scale WtE facility will need to work with these companies to source the waste volumes required. Complicating any move to WtE will be the heavy influence these companies have. They are unlikely to support a move to WtE, given the investments they have made or will be making in new or expanded landfills. The parent companies of these waste companies operate WtE facilities in other countries, and have, to date, not expressed interest in doing so in New Zealand."

There are no such contracts in place (nothing is included in the application) and no expressions of interest from large waste suppliers. The only credible source of feedstock is the applicant's own company, Global Metal Solutions, for the flock, and no evidence of its access to the stated volume is provided in the application.

More confusingly, in response to the Sec 92A questions to WRC, the applicant refers to the use of "commercial and industrial waste" (Sec 7.1, Response to Requests for Information under Sec 92A, dated 8 July 2022). No where in the application is there reference to C&I waste beyond this mention, and nowhere is that term defined. The applicant has been deliberately broad, with no supporting information.

Shredder flock, another intended feedstock, is a by-product of the metal shredding process and usually includes materials derived from the mechanical shredding of white goods and other metallic products, not just from the shredding of vehicles. It comprises mainly non-ferrous material and could include rubber, glass, plastic, PCBs, lead, other heavy metals (hexavalent chromium, cadmium and mercury), oils and automotive fluids. <sup>13</sup> Shredder flock is defined as a hazardous substance in some jurisdictions. It is

<sup>&</sup>lt;sup>13</sup> Report on the implementation of the NSW Extended Producer Responsibility Priority Statement 2004 https://www.epa.nsw.gov.au/~/media/EPA/Corporate%20Site/resources/waste/050250-epr-expert.ashx

difficult to determine emissions profiles and risk issues when the applicant has not provided this important information, a more thorough investigation of the composition of flock is required.

Plastic is another intended feedstock that raises serious concerns. It is commonly assumed that incineration can permanently eliminate plastic waste. However, unburned material still exists in the bottom ash that is a solid residue from incinerators. Peer reviewed research of bottom ash in 12 mass burn incinerators, one bottom ash disposal centre and four fluidised bed incinerators, showed that bottom ash was a neglected microplastics source.<sup>14</sup>

One significant concern that arises from the lack of credible feedstock supplies is that easily recoverable materials will be instead directed to keep the incinerator burning, which would contradict the applicant's claim in its section 92 response that the incinerator would complement, rather than compete, with reuse and recycling options.

An additional concern is that material that poses significantly different risks to the environment and human health (e.g., hazardous material streams) would be used if other "approved" feedstocks are not available. Hazardous waste incinerators are banned in Aotearoa.

#### Hazardous byproducts: wastewater and ash

The application's lack of detail and dubious evidence for offtake agreements for its waste byproducts raises concerns about the potential inadequate storage and handling of these hazardous substances onsite, as well as their potential to be sent to facilities with inadequate controls for disposal, treatment and use.

On pages 33-34 of the application, the proposal indicates that the wastewater and ash byproducts (apart from fly ash) will be sent to landfill, or "for processing and disposal offsite". WRC requested further information on evidence of legitimate offtake agreements and for details of contaminants likely to be contained in the wastewater in its section 92(1) request for further information. The applicant's responses to relevant questions (25, 26, 39, 43, 44) fail to give confidence that the proposal has adequate arrangements in place.

The applicant's response to question 25, "Please provide details of contaminants that will be/are likely to be in the wastewater from the recycling building", is severely lacking in detail.

The applicant directs WRC to a table describing the makeup of the wastewater from the recycling process on page 20, appendix J - Infrastructure and Earthworks Assessment Report. This table is a summary of water inputs (demand) and outputs (waste) and provides few details on the full list of potential contaminants that may be present in the wastewater. It is important to note that a proportion of the wastewater contains ash from the wet de-asher unit, which is likely to contain a wide array of

<sup>&</sup>lt;sup>14</sup> Zhan Yang, Fan Lü, Hua Zhang, Wei Wang, Liming Shao, Jianfeng Ye, Pinjing He, Is incineration the terminator of plastics and microplastics?, *Journal of Hazardous Materials*, Volume 401, 2021, 123429, ISSN 0304-3894, <a href="https://doi.org/10.1016/j.jhazmat.2020.123429">https://doi.org/10.1016/j.jhazmat.2020.123429</a>

contaminants including heavy metals, dissolved salts such as  $Cl^{-}$  and  $SO_4^{2-}$ ,  $^{15}$  and a range of other persistent organic pollutants.  $^{16}$ 

Directly above this table (p19-20, appendix J) states:

"The wastewater from the recycling building is wastewater that is not considered suitable for the existing Waipa treatment facility. The waste discharge will be removed from the site in sealed trucks and disposed of at a managed waste facility."

This raises serious questions about where the applicant will send this contaminated water and how it will be used (see below), and if the applicant cannot find an appropriate disposal facility, how/where this will be handled and stored safely before it can be treated appropriately or sent to an appropriate disposal facility.

The applicant's response to question 26, "please provide evidence of consultation with a managed waste facility that they will accept the wastewater from the Paewira Plant recycling building", is less than transparent.

The applicant refers WRC to attachment 5, a letter from GMS, the sister company to the applicant, a provider of some feedstock for the incinerator. The letter presents as if GMS is a disconnected party willing to take the wastewater "for our washdown and fire-fighting needs". Information has not been provided that GMS is an appropriate disposal facility for the contaminated wastewater.

The applicant's response to question 39, "please provide evidence of consultation with a suitably licensed landfill owner/operator that ash and other non-recyclable material will be accepted by the landfill", does not provide such evidence.

The applicant directs WRC to attachment 7, an assessment of the proposal against WDC's 2017-2023 Waste Management and Minimisation Plan. Only a single paragraph in this assessment mentions ash byproducts.

#### The assessment does not:

- 1. Distinguish the different types of ash (e.g., grate ash, boiler ash and fly ash) and how they will be managed differently (p33-34, application) (i.e., that all ash except fly ash will disposed of to landfill)
- 2. Provide any discussion of where and by whom the ashes (except fly ash) will be landfilled, or any evidence of licensed landfill owners/operators who would be willing to accept them
- 3. Recognise critical distinctions between fly ash produced by coal-powered industrial processes (e.g., power plants and boilers) and waste incinerator fly ash, the latter of which contains a far greater quantity of toxic chemical residues and is unsuitable for use in construction/cement/concrete products without significant and expensive treatment processes, which are not proposed by the applicant. This is demonstrated in the application where the applicant states the fly ash "will be used for low grade concrete such as barriers" (p20,

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<sup>&</sup>lt;sup>15</sup> Hu et al. 2021. 'The fate of heavy metals and salts during the wet treatment of municipal solid waste incineration bottom ash.' *Waste Management*, Vol. 121, pp. 33-41. <u>https://doi.org/10.1016/j.wasman.2020.11.049</u>

<sup>&</sup>lt;sup>16</sup> Rollinson 2022. *Toxic Fallout: Waste Incinerator Bottom Ash in a Circular Economy.* Zero Waste Europe and GAIA. https://zerowasteeurope.eu/wp-content/uploads/2022/01/zwe\_Jan2022\_toxic\_fallout\_research\_report.pdf

application). Furthermore, fly ash is currently classified as hazardous waste in Europe and the use of fly ash reduces the capacity of the cement – strength and durability

An additional assessment of fly ash as a hazardous substance is provided by external consultants in 92(1) supplementary information (appendix F - Hazardous Substances Review - update - HDGeo). This assesses fly ash as a 'Generic Solid', rather than assessing the actual risks of waste incinerator fly ash. The consultants state that "values given to the 'Generic Solid' are very conservative and likely overestimate the actual risk from fly ash", but do not provide any discussion, evidence or justification for the appropriateness of these generic values, including whether incinerator fly ash may contain substances of high concern, or whether they also recognise the significant differences between coal-power derived fly ash and incinerator fly ash.

#### **Waste Minimisation**

#### Waipā's Waste Profile and Strategic Approach to Waste Minimisation

Waipā have developed a relatively proactive approach to waste minimisation compared to many other (particularly small) territorial authorities across Aotearoa. This includes an 18-year <u>Waipā Waste</u> <u>Strategy</u> which has many parallels with MfE's new national Waste Strategy, such as an emphasis on increasing resource recovery, repair, reuse, and recycling activities, shifting towards a circular economy, and "moving away from a 'disposable' economy" (p11).<sup>17</sup> The Strategy has a vision of "Building zero waste and sustainable communities" and activities to achieve the goals of the Waipā Waste Strategy have and will be included in the Long-Term (10-year) and Annual Plans.

The Waipā Waste Strategy also includes a section discussing the alignment of the Strategy with a Tāngata Whenua worldview. It raises high level questions relevant to this application which we have covered at length in this submission, such as whether an incinerator supports managing waste according to the waste hierarchy, whether the proposed site is appropriate, and whether there are adequate safeguards against the potential for environmental pollution.

More recently, a Waste Assessment for Waipā was completed in 2022 to inform the development of the district's new Waste Minimisation and Management Plan (2023-2029), which found that in 2020/21 Waipā generated approximately 27,000 tonnes of general waste (kerbside collections and transfer stations) which went to landfills (p12).<sup>18</sup> The Waste Assessment reported several notable findings that raise questions on this application, including:

• 50.2% of household rubbish in Waipā was organic material, with 72% of this being food. The applicant has stated that putrescible waste will be removed from the feedstock for the incinerator, meaning that the proposal will not only require thorough sorting processes to remove this high volume of material in household waste, but may have a substantially reduced quantity of MSW as feedstock

https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/our-council/documentsandpublications/wastemanagement/documents/Waste%20Strategy%202017-2035%20Waipa%20District%20Council.pdf

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<sup>&</sup>lt;sup>17</sup> Waipā District Council (2017). Waipa Waste Strategy 2017-2035.

<sup>&</sup>lt;sup>18</sup> Waipā District Council. 2023. *Waipā Waste Minimisation and Management Plan* 2023-2029. https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/our-council/haveyoursay/Waste%20minimisation/Waipa%CC%84%20Waste%20Minimisation%20and%20Management% 20Plan%20-%20Final%20-%20March%202023

- While total waste disposed of in Waipā increased by around 5000 tonnes since the last assessment, the per capita rate remained unchanged, bucking the national trend of increases. It is likely that waste minimisation activities are starting to have an effect in Waipā
- These trends will likely continue: "Total waste volumes in Waipā are not expected to increase significantly over the period of the next Waste Management and Minimisation Plan" (p40).<sup>19</sup>

In summary, these trends outline that the application is not a good fit for the future transitions in the waste and resource recovery sector in Waipā (and nationally) towards a circular approach, and that almost all of the material for this facility will need to be imported from outside of the district. This is not a proposal for the benefit of Te Awamutu or the wider Waipā community.

#### **Circular Economy**

This incinerator proposal undermines rather than supports the shift to a low carbon, low waste circular economy. Incineration of mixed solid waste is not compatible with the national, regional and local shift towards a low waste, low emissions circular economy. Incineration is a waste disposal activity just like landfill. Focusing on disposal technologies keeps us stuck on the linear take-make-waste pathway. Investing in and supporting the development of waste disposal options consumes budgets that could be used to put in place real solutions that reduce, reuse, recycle and compost products and materials.

Waste to energy technologies do not address the continued production of waste - whether waste is disposed of in landfill or via waste-to-energy, they are both ambulances at the bottom of the cliff. In fact, Waste to energy projects consistently derail efforts to reduce waste generation by locking-in the linear economic system of production, consumption and disposal of finite resources.

The trouble is that creating fuel out of plastics made from fossil fuels is just a different way of creating greenhouse gas emissions from the same raw materials.

#### **Economic impact**

The applicant promotes the proposal as an economic winner for the community that will create jobs, bring revenue to the area and not unreasonably harm the environment. But the economic benefits they claim are minimal compared to a similar investment in genuine zero waste infrastructure in terms of job creation<sup>20</sup> and economic activity.<sup>21</sup> Critically, there are potentially additional negative economic impacts (such as existing businesses leaving the community or choosing not to locate there as a result of the incinerator) and of course, the environmental impacts are much greater.

By contrast, the region is already endowed with the country's premier zero waste initiative, Xtreme Zero Waste, in Whaingaroa/Raglan. With 40+ employees, millions in turnover and a 78% diversion rate of materials from landfill, it represents an alternative, real-life opportunity for the people of Te Awamutu.

<sup>20</sup> RREUSE. 2015. Briefing on job creation potential in the re-use sector. <a href="https://rreuse.org/wp-content/uploads/Final-briefing-on-reuse-jobs-website-2.pdf">https://rreuse.org/wp-content/uploads/Final-briefing-on-reuse-jobs-website-2.pdf</a>

<sup>&</sup>lt;sup>19</sup> Waipā District Council (2022). *Waipā District Council: Waste Assessment 2022*. https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/our-council/documentsandpublications/wastemanagement/documents/Waipa%20Waste%20Assessment%202022.pdf

<sup>&</sup>lt;sup>21</sup> GAIA. 2021. The High Cost of Waste Incineration. <a href="https://www.no-burn.org/wp-content/uploads/The-High-Cost-of-Waste-Incineration-March-30.pdf">https://www.no-burn.org/wp-content/uploads/The-High-Cost-of-Waste-Incineration-March-30.pdf</a>

This proposal is compared with a waste-to-energy incinerator in Korbach, Germany for the purpose of air assessment. This facility uses about half of the feedstock. It employs 15 people in total, with 10 of these doing shift work.

This proposal makes a number of claims that do not withstand scrutiny. The company's economic assessment says that:

"There will also be efficiency gains from better handling of waste, which benefits businesses and the community (cheaper disposal) and local government (reduced need for new landfills). There are also expected to be benefits in terms of energy generated by the plant, which will enable the network to operate more efficiently."

Neither of these is demonstrably true. There is no clear analysis of the cost of disposal that includes, for example, the requirement for ETS credits. There is no cost comparison with other forms of disposal nor an analysis of how central government waste initiatives will impact waste volumes and consequently, the need for new landfills or how the likely application of the waste levy to material disposed of using incineration would affect the economics.

Aotearoa's largest waste company, Waste Management Limited, owns and operates waste-to-energy incinerators all over the world, yet, they have not done this in Aotearoa, there must be a good reason for this. A summary of their statement:

"the government has not supported widespread investment in WtE as the community benefits above are not as evident...to deliver adequate return on the investment in WtE plants, a guaranteed specific volume of continual waste (often including potentially recyclable materials) is needed for efficient operation of the plant — without that ongoing volume over several decades, the WtE plant will not be financially or operationally sustainable. This is generally called the "feed the beast" effect, and it does not support New Zealand's goals as stated in the Waste Minimisation Act, namely to "encourage waste minimisation and a decrease in waste disposal".

In Waste Management's experience, our investigations globally, including in Australia, China, and across Europe, indicate the costs associated with WtE are significantly higher than current methods of waste disposal to landfill. As such, were WtE to be of consideration, it would need government intervention (that is, government protection for these facilities) as there is in European and other countries, to make it a viable proposition for commercial investment."

As seen in a number of countries including Sweden, Denmark, the UK, Germany, the Netherlands, South Korea, and mainland China, municipalities have struggled with over-investments in waste-to-energy plants and unused capacity of the infrastructure.<sup>22</sup>

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<sup>&</sup>lt;sup>22</sup> You, Ke. (2015, June). Joint Use of the Municipal Waste Incineration Infrastructure in Seoul. *Seoul Solution*. https://seoulsolution.kr/sites/default/files/policy/2%EA%B6%8C\_11\_Environment\_Joint%20Use%20of%20the%20Municipal%20Waste%20Incineration%20Infrastructure%20in%20Seoul.pdf

Shapiro-Bengtsen, S., Andersen, F., Münster, M., & Zou, L. (2020, July). "Municipal Solid Waste Available to the Chinese Energy Sector – Provincial Projections to 2050." *Waste Management: Volume 112*. https://doi.org/10.1016/j.wasman.2020.05.014

Shapiro-Bengtsen, S. (2020, August). "Is China Building More Waste Incinerators Than it Needs?." *China Dialogue*. <a href="https://chinadialogue.net/en/pollution/is-china-building-more-waste-incinerators-than-it-needs/">https://chinadialogue.net/en/pollution/is-china-building-more-waste-incinerators-than-it-needs/</a>

United Kingdom without Incineration. (2017). Part of the Bin the Burners Briefing Series: Incineration Overcapacity https://ukwin.org.uk/btb/BtB\_Incineration\_Overcapacity.pdf

### **Cultural Impacts**

The WDC Notification Decision says, "It difficult to come to a clear position on the cultural values of the site and any potential impacts given that a Cultural Impact assessment has not been completed and the response from Waikato Tainui is ambiguous."

Waikato-Tainui have indicated that they would like a Cultural Impact Assessment conducted as part of the application process. (sec 92A Responses to Waikato Regional Council, email from Alana Mako, Waikato-Tainui).

An application of this magnitude should have a full cultural impact assessment conducted, and ideally this should have been conducted prior to the acceptance of the application for processing. Full, prior and informed consent is essential.

### Conclusion

This application does not meet the test for completeness under s 88(2)(b) of the RMA (and consequently Schedule  $4 ext{ s1}$ , s6(1)(c) and s7(1)(f)) but potentially also for adequacy under s 92 of the RMA. The documentation submitted by the applicant is inadequate and incomplete. The proposal has many unanswered questions, insufficient and skewed data, unsubstantiated assumptions about its operations that cannot be relied upon for decision making.

Taken as a whole or in parts, this proposal is largely problematic. While the applicant and its contractors argue that all hurdles can be overcome and that all effects are minor or less than minor, the evidence either does not support those conclusions or there is ambiguity about what work and inputs are actually required.

For a proposal of this nature and scale, potentially a first for Aotearoa, you would think the applicant would have included all required and critical information and evidence, completed a robust and thorough due diligence process and undertaken a more-than-bare-minimum approach to this proposal. However, the application that we have in front of us has:

- Missing standard compulsory and vital information and evidence
- Unsubstantiated assumptions that cannot be relied on
- Greenwashing statements
- No consideration for members of the Waipa community
- No consideration for the effects on Waipa's neighbours
- No consideration for future generations.

Clearly, the applicant <u>does not</u> have the appropriate and required expertise and skills to operate a facility like this.

Given the inappropriate location of this proposal coupled with the multiple non-complying portions and restricted discretionary activities, the community of Te Awamutu cannot be expected to take on what is novel technology for Aotearoa. This proposal is contrary to the WDP, both in general and specific terms.

Sora, M. (2013, January). Incineration Overcapacity and Waste Shipping in Europe: the End of the Proximity Principle?. Fundacio ENT & Global Alliance for Incinerator Alternatives. https://www.no-burn.org/wp-content/uploads/Overcapacity\_report\_2013.pdf

Jocument Set ID: 11115790 Version: 2, Version Date: 18/10/2023 Most importantly, this proposal has long term negative implications in terms of human health, environmental health and waste minimisation.

We urge the commissioners to probe into all possible impacts of this proposal. When a fulsome investigation is complete, it will be obvious that the only conclusion can be to decline this application.

It is clear this community does not want this incinerator in their community or anywhere in Aotearoa.

Lastly, we support the submissions of Go Eco and Zero Waste Network.

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I request pursuant to section 100A of the Act, 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.

(or perso	n authorised to sign on beh	nalf of submitter) (A signature is not required	if you make your	submission by e	electronic means.)
Date:	13 October 2023	Contact person: Komen Ellie (name and designation, if applicant)	Don't	Bum	Waip9
Postal					addre

### Notes to submitter

If you are making a submission to the Environmental Protection Authority, you should use form 16B.

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 your submission in hard copy please deliver to Waipa District Council, 101 Bank Street, Te Awamutu or 23 Wilson Street, Cambridge or post to Private Bag 2402, Te Awamutu 3840

If you make your submission by electronic means, a signature is not required. Electronic submissions on resource consent applications must be directed to <a href="mailto:submissions@waipadc.govt.nz">submissions@waipadc.govt.nz</a>.

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. You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out an activity that a regional coastal plan describes as a restricted coastal activity.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least one of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

### **Privacy information**

The information you have provided on this form is required so that your submission can be processed under the RMA. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission.

LATE



## **Submission on a Notified Resource Consent Application**

Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

APPLICANT'S NAME: Global Contracting Solutions Limited  LOCATION: 401 Racecourse Road, Te Awamutu
I am/am not* a trade competitor for the purposes of section 308B of the Resource Management Act 1991.
I am/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.
The specific parts of the application that my submission relates to are:  Traffic of Thucks passing my House proporty.  24 hrs I day, 7 Days a week in Charason would be working.
My submission is:  Support parts or all of  Oppose parts or all of are neutral parts or all of  include—
the reasons for your views.  - Potential Impacts to prices of reviolential Howing  - Roadis Busy enought New-Damage to Road  - Discharge of Toxics into the fir  - sight of the Buildings & chimneys  - Peristent colour Doyst from the rubbish & Ash  I seek the following decision from the consent authority:  give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought  Peoline the application
wish (or do not wish) to be heard in support of my submission.
I do wish to be heard in support of my submission (this means that you will speak at the hearing)
I do not wish to be heard in support of my submission (this means that you will not be advised of the date of the hearing and will not speak at the hearing)
If others make a similar submission I will consider presenting a joint case with them at the hearing.
You must tick one of the boxes above, otherwise it will be deemed that you do not wish to be heard and we will not advise you of the date of the hearing.
I have served a copy of my submission on the applicant. (this is required by section 96(6) (b) of the Resource Management Act 1991)

I request/do not request\*, pursuant to section 100A of the Act, 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.

Signature of submitter:	morrice	
(or person authorised to sign on ben	alj oj submitterj (A signature is not requir	ed if you make your submission by electronic means.)
Date: 10/10/23	(name and designation, if applicant)	alalm Price
Postal address: 128	4 Racecour der section 352 of the Act):	se Road TeAwamusa

### Notes to submitter

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- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

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Late

Michelle Budgen MSc BA(Hons) MNZPI

Te Awamutu, 3800

12 October 2023

Consents Team Leader Waipa District Council Private Gaby 2402 Te Awamutu 3840

Dear Sir/Madam,

Re: Submission on Land Use Consent for a Waste to Energy Facility at 401 Racecourse Road, Te Awamutu

I have outlined my concerns with the proposed activity of a waste to energy plant at 401 Racecourse Road and limited the scope of my submission to a refined set of matters.

Please accept my submission in the capacity of a 'local resident' and not in relation to my profession and expertise as a professional planner.

I consider that this non-complying activity, will create adverse effects on the environment that can not be mitigated or mediated to a level which would be deemed 'acceptable'. The activity is not 'anticipated' and the environmental effects generated by the proposal go beyond what could ever be acceptable.

### 1 Part 2 of the RMA

As this is a non-complying activity unanticipated by the Waipa District Plan, I consider it relevant to consider Part 2 of the Resource Management Act. Having reviewed Part 2 'Other Matters', I believe the proposal is contrary to the following:

- Section 7 (c) the maintenance and enhancement of amenity values.
- Section 7 (f) maintenance and enhancement of the quality of the environment.
- Section 7 (i) the effects of climate change.
- Section 7 (j) the benefits to be derived from the use and development of renewable energy.

I believe the proposal will have adverse effects on not only the surrounding residents, but residents across Te Awamutu in terms of visual effects.

The proposal will degrade the quality of the environment through odour, air quality, noise and transportation effects.

The proposal is for burning solid waste which would generate emissions and contribute to climate change.

Section 7(j) encourages the use of renewable energy use, this proposal is not for a renewable energy source.

### 2 Waste Management and National Direction

The draft New Zealand Waste Strategy sets out performance stands for the amount of household kerbside waste diverted from landfill that district and city councils will need to meet with the aim to increase the amount of waste reducing to 50% by July 2030.

Waipa District Council along with most other councils across New Zealand have introduced a rigorous recycling regime, whereby plastics, cardboard, paper and glass are collected by a council run service. Recycling wheelie bins were introduced across the Waipa district to encourage more recycling in 2019, a similar regime was rolled out in Hamilton in 2020. Waipa District Council has recorded that as of 2023 they are achieving 30.8% of waste diversion (Waipa Waste Minimisation and Management Plan, March 2023)

With a nationwide mandate to reduce waste and the creation of specific legislation to address this, the development of a waste to energy plant seems contrary to the vision that the Waste Strategy is seeking.

New Zealand prides itself in being 'green' and at present 80% of electricity generated in New Zealand is from renewable sources, it is considered with new polices this could reach 90%. New Zealand has mandated against nuclear power generation and focused on renewable energy sources included a predominance of hydro-power generation. Consenting an energy from waste plant within the boundaries of an established town, would be a step in the wrong direction.

### 3 Waipa District Plan Zoning

Whilst the predominant zoning of the site is industrial, to the north, south and east of the site is residentially zoned land (refer to Figure 1 below). It is noted there are also a number of overlays on the site, of particular interest is that relating to flood risk.

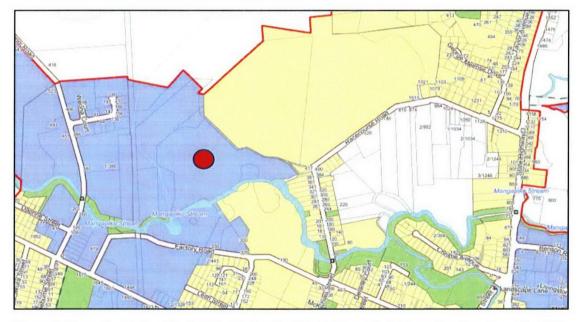


Figure 1: Operative Waipa District Plan Zoning (red dot is the subject site and, yellow is residentially zoned land).

The operative Waipa District Plan defines industrial activities as the use of land and building where people or machinery:

- Extract, process or convert natural resources, excluding farming activities and Mineral extraction activities
- Produce or manufacture goods; and/or
- Service, test or repair goods or machinery; and/or

- Store goods (ensuing from the industrial process); and/or
- Transport or distribute goods including depots.

The proposal is a **non-complying activity** as the proposal is an activity not anticipated in the zone.

Given the high degree of surrounding residential zoned land, it is considered that created a waste to energy site in this location is wholly inappropriate and incompatible with the surrounding environment, due to the proximity of existing and anticipated homes within the structure plan area.

There is considered to be no permitted baseline for this proposal as the activity.

Given the proposal is a non-complying activity the proposal is not restricted by any matters of discretion.

### 4 Character and Amenity Effects

The AEE provided with the application covered Character and Amenity Effects in detail, however the content did not come across as an 'objective view' but more as an 'advocate' for the proposal.

Looking at the proposal objectively, the proposed use does not fit within the definition of an industrial use and therefore this activity is unanticipated. The site is also bounded on three sides by residential zoning. The access to the site is bounded by residential dwellings, with residential dwelling directly adjacent to the site. There is also a established childcare facility within close proximity to the site.

The residents of 381, 471, 384 and 400 Racecourse Road will experience a complete change in character in the use of the area and loss of amenity. Firstly, with regard to the earthwork operations, secondly the construction movements during the construction phase and then thirdly the ongoing traffic movements with solid waste delivers entering and existing the site.

Given the site exits into an established residential area, this appears to be inconsistent with the objectives and policies in relation to amenity (including but not limited to Objective 7.3.2, 7.3.3 and Policy 7.3.3.2) for surrounding uses. It is also noted that the access is via a collector road and not the State Highway.

With regard to the suitability of the proposed industrial zoning, I don't consider this to be appropriate given the predominance of sensitive users in the form of residentially zoned land and a daycare adjacent to the site. The proposed use of the site will create air quality, noise, odour and dust effects as outlined in the applicants AEE.

### 5 Access and Transportation Effects

The access is through a residential area which will reduce the level of amenity for those residents living on Racecource Road and surrounds. The minimum setback requirements detailed in provision 16.4.2.5 of 11m between vehicle crossing can also not be meet. Whilst acoustic screening is proposed on the accessway, given the nature of the deliveries to this site of waste, this will result in adverse effects on the neighbours, including air emissions, noise, vibration and dust.

### 6 Visual Effects

The landscape and visual report provided by Mansegh Graham identifies that the waste to energy plant will be visually prominent within 1km away and will result in a loss of open pastural land. As the proposed activity is not anticipated, this would result in a visual change not anticipated in this location.

Whilst mitigation planting is proposed to reduce the visual impacts, as demonstrated in the photomontages provided in the above mentioned report, the building height will be considerable

higher than the trees and will create a visual dominance on the landscape. This is especially true to the east of the site.

The landscape assessment provided **did not** consider views from dwellings located at elevation on the other side of Te Awamutu, some 2.5km away from the site. The elevation change of Pukuru Street and Frontier Estate, will result in a visual dominance on the landscape from properties located at this elevated position. Figure 2 below, demonstrates the existing view across Te Awamutu towards the proposed site, which at present demonstrate a change to rural hinterland. Properties on Frontier Estate would be more in alignment with the proposed site and at a higher elevation to be looking across the town.



Figure 2, View from across Te Awamutu.

It is considered that the landscape and visual assessment is not comprehensive enough to consider views from across the town. At a distance of 2.5km away this proposal will create adverse visual effects.

### 7 Flood Risk

The site is also bounded by the Mangapiko Stream, with the site being susceptible to flooding. The proposal has presented with non-compliances with provision 15.4.2.14 and 15.4.2.15, with regard to not meeting the minimum 500mm building platform.

Given the nature of the proposal being the storage and burning of solid waste including hazardous waste, flooding of this site would be disastrous not only on the Mangapiko Stream but on the surrounding environment.

The Mangapiko Stream is a tributary of the Waipa River. The Waipa River and its tributaries are protected by the Nga Wai o Maniapoto (Waipa River) Act 2012. The vision and strategy contained within the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, extends to the catchments of the Waipa River (Section 8 (1) - Nga Wai o Maniapoto (Waipa River) Act 2012.

The key principles of the vision and strategy include (but not limited to) the following:

- The restoration and protection of the health and wellbeing of the Waikato River
- The adoption of a precautionary approach towards decisions that may result in significant adverse effect.
- The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities.
- The restoration of water quality.

Having a hazardous facility not meeting the minimum floor level in a high-risk flood area raises a lot of concern for potential adverse environmental effect in the event of flooding. One would also

consider that the establishment of an energy to waste facility on the banks of a tributary of the Waipa River is not consistent with the intent of the River legislation.

### 8 Summary

In summary, it is considered the proposal is not compatible with the location, it is not consistent with the anticipated use of the site, nor is it consistent with Part 2, the direction of national direction in terms of reducing waste and carbon emissions, or the anticipated use of the site in relation to the District Plan

Please register my interest in attending the hearing, I would like to be heard.

Kind regards,

Michelle Budgen MSc BA (hons) MNZPI

Budger





## **Submission on a Notified Resource Consent Application** Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

	NT'S NAME: Global Contracting Solutions Limited N: 401 Racecourse Road, Te Awamutu
l am/am ı	$not^*$ a trade competitor for the purposes of section 308B of the Resource Management Act 1991.
(a) ac	not directly affected by an effect of the subject matter of the submission that—dversely affects the environment; and pees not relate to trade competition or the effects of trade competition.
The speci	ific parts of the application that my submission relates to are:
The whol	e application
My subm	ission is:
Support <sub>f</sub> include— •	the reasons for your views.
	designing waste out, as our current system is extractive, exploitative, and destructive. Burning waste the current system. Not to mention it's wasteful and toxic and creates emissions.
	e following decision from the consent authority: e details, including the parts of the application you wish to have amended and the general nature of any conditions
oppose	this application. I want the Waipā District Council to decline this application.
wish (or	do not wish) to be heard in support of my submission.
	TICK I do wish to be heard in support of my submission (this means that you will speak at the hearing)
<u> </u>	I do not wish to be heard in support of my submission (this means that you will not be advised of the date of the hearing and will not speak at the hearing)
	TICK If others make a similar submission I will consider presenting a joint case with them at the hearing.

I request/do not request\*, pursuant to section 100A of the Act, 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.

Signatu	re of submitter:
(or persor	authorised to sign on behalf of submitter) (A signature is not required if you make your submission by electronic means.)
Date:	13 October 2023_Contactperson: Jacqui Forbes
	(name and designation, if applicant)

Postal address: \_49a Government Rd, Raglan 3225 (or alternative method of service under section 352 of the Act):

### Notes to submitter

If you are making a submission to the Environmental Protection Authority, you should use form 16B.

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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 your submission in hard copy please deliver to Waipa District Council, 101 Bank Street, Te Awamutu or 23 Wilson Street, Cambridge or post to Private Bag 2402, Te Awamutu 3840

If you make your submission by electronic means, a signature is not required. Electronic submissions on resource consent applications must be directed to <a href="mailto:submissions@waipadc.govt.nz">submissions@waipadc.govt.nz</a>.

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. You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out an activity that a regional coastal plan describes as a restricted coastal activity.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least one of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

### Privacy information

The information you have provided on this form is required so that your submission can be processed under the RMA. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission.





From:

"Crystal Foster"

Sent:

Fri, 13 Oct 2023 23:02:40 +1300

To:

"Submissions" <submissions@waipadc.govt.nz>

Subject:

External Sender: Waste to energy plant

Categories:

Donna

**CYBER SECURITY WARNING:** This email is from an external source - be careful of attachments and links. Please follow the Cybersecurity Policy and report suspicious emails to Servicedesk Tena koe.

As a resident of Racecourse Road, I am writing to express my opposition to the proposed "waste to energy" plant proposed to be built on this road.

Although Global Contracting Solutions have stated that the proposed plant will create pollution within "acceptable levels" why are the people who will be breathing in the pollution not able to decide what they feel is acceptable? Each one of us will have to process the chemical pollutants being released and breathed in through the detoxification systems of our own bodies, primarily through our liver. Why should we have no choice about this load that is added to our livers to process?

Why is it okay for "acceptable levels" of toxin exposure to be set by a governing body, when the effects for people in the community are cumulative? Every toxin-emitting plant may be discharging "acceptable levels" individually, but we are exposed to all of these and our bodies have to process them all.

What are "acceptable levels" of toxin exposure for babies and pregnant women? There are none. In utero is the most dangerous time for human exposure to environmental toxins, and can have lifelong effects for these children. Where is the choice for pregnant women and their babies?

Why also is this plant being proposed to be built bordering a kohanga reo, a primary school and a tertiary learning institution? And a high school across the road from these? Who agreed to this? I realise that the area might be zoned as "rural" but we need to use common sense and consider the fact that this is a residential area with housing and schools RIGHT NEXT DOOR to this site.

Waste incineration in other countries was originally touted as a good solution to landfill problems, however now is considered to negatively impact climate change and add harmful pollutants to the environment. Because of this these plants are no longer part of the zero emissions future plans in Europe: <a href="https://zerowasteeurope.eu/2021/05/wte-incineration-no-place-sustainability-agenda/">https://zerowasteeurope.eu/2021/05/wte-incineration-no-place-sustainability-agenda/</a>

Our future is in moving to zero waste, not creating businesses that rely on rubbish continually being supplied in order to make a profit. Our community will be a part of the zero waste solution. There are many passionate people who live here who do not want their land, water and air poisoned, and will do whatever it takes to stop this, including creating zero waste within their own households. We can do this, and we need to be given the choice and not subject to toxin exposure that will have farreaching effects for the future of our land, air and water and the health of our future generations.

Crystal Foster

Sent with Proton Mail secure email.

Document Set ID: 11115853

Version: 1, Version Date: 16/10/2023



From: "Hannah Austin"

**Sent:** Mon, 16 Oct 2023 02:27:30 +1300

To: "richard.falconer@terrag-oup.co.nz" <richard.falconer@terrag-oup.co.nz>;

"Submissions" <submissions@waipadc.govt.nz>

Subject: External Sender: Submission regarding Global Contracting Solutions Limited

**CYBER SECURITY WARNING:** This email is from an external source - be careful of attachments and links. Please follow the Cybersecurity Policy and report suspicious emails to Servicedesk

To whom it may concern,

My name is Hannah Austin, and my home address is 368 Te Mawhai Road, RD5, Te Awamutu.

This is my submission to opposes all parts of the Global Contracting Solutions Limited (Waipā District Council (WDC) Application – Reference LU/0323/21) to be here in our town. Do not put this waste destroying plant in our town, or anywhere near it.

I appose this in every way, this sort of plant should be put somewhere far away from a growing town like te Awamutu. This will kill te Awamutu as been such a lovely and family friendly town. There are so many schools and pre schools within walking distance to the proposed site, this wouldn't be incredibly unhealthy for them.

I wish to be heard in support of my submission.

I will consider presenting a joint case with others submitting similar submissions with them at a hearing.

I have served a copy of my submission on the applicant. - this email has been sent also to richard.falconer@terrag-oup.co.nz

Don't burn Waipa.

Do not ruin our town.

Sincerely,

Hannah Austin





# Submission on a Notified Resource Consent Application Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

APPLICANT'S NAME: Global Contracting Solutions Limited		
LOCATION: 401 Racecourse Road, Te Awamutu		
I am not a trade competitor for the purposes of section 308B of the Resource Management Act 1991.		
I am/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.		
The specific parts of the application that my submission relates to are: Refer to submission.		
My submission is:  Support parts or all of □ Oppose parts or all of □ are neutral parts or all of □ include—  • the reasons for your views.		
Refer to submission.		
I seek the following decision from the consent authority: give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought		
Refer to submission.		
I wish to be heard in support of my submission.		
I do wish to be heard in support of my submission (this means that you will speak at the hearing)		
You must tick one of the boxes above, otherwise it will be deemed that you do not wish to be heard and we will not advise you of the date of the hearing.		

Yes I have served a copy of my submission on the applicant. (this is required by section 96(6) (b) of the Resource Management Act 1991)

13 October 2023

Taranaki Energy Watch Incorporated Submission - Global

Contracting Solutions application to Waipā District Council for land use consent to build a waste to energy facility (Paewira) at 401

Racecourse Road, Te Awamutu

From: Taranaki Energy Watch Incorporated

39A Celia Street

Stratford 4332

By email: taranakienergywatch@gmail.com

Address for service:

39A Celia Street

Stratford 4332

By email: taranakienergywatch@gmail.com

- 1. This is a submission on the publicly notified application by Global Contracting Solutions for land use consent to Waipā District Council (WDC) to build a waste to energy facility (Paewira WTE facility) at 401 Racecourse Road, Te Awamutu and is lodged by Taranaki Energy Watch Incorporated, an incorporated society formed in 1998 (TEW). Taranaki Energy Watch will not gain an advantage in trade competition through this submission. Taranaki Energy Watch wishes to be heard in relation to its submission. Taranaki Energy Watch does not wish to present a joint case.
- 2. Taranaki Energy Watch <u>oppose</u> this application and ask for the Waipā District Council to decline this application.
- 3. Taranaki Energy Watch ask that the Waipā District Council and the Waikato Regional Council request the Minister for the Environment to call the Paewira WTE facility application in as a proposal of national significance under s 142(1) of the RMA. The application has significant potential adverse environmental effects. The Waimate Project Kea waste to energy application has been recently called in and is a similar project following a request from the Councils.¹ This would also allow for consideration of the new national direction on industrial process heat (the National Policy Statement and National Environmental Standards and the new provisions in the RMA regarding the effects on climate change of greenhouse gas emissions.
- 4. Taranaki Energy Watch submission is principally concerned with the whole of the application including but not limited to:
  - hazardous facilities and the use and storage of hazardous substances;
  - potential inaccuracies or incomplete information in the application;
  - New South Wales legislation for Waste from Energy facilities; and
  - Proximity to existing sensitive activities and new (or expansion of existing) sensitive activities (incompatible activities)

 $<sup>^{1}\,\</sup>underline{\text{https://www.ecan.govt.nz/get-involved/news-and-events/2023/councils-welcome-ministers-decision-to-call-in-applications/}$ 

for the following reasons:

- 4.1 It does not avoid, remedy or mitigate adverse effects on the environment.
- 4.2 It does not achieve the purpose of the Resource Management Act 1991 (RMA) and is inconsistent with the principles in Part 2 of the RMA.
- 4.3 It does not address relevant statutory functions in ss30, 31 RMA, relevant considerations in s32, s32A RMA, Part 5, 1st and 4<sup>th</sup> Schedules RMA.
- 4.4 For the further reasons set out below in this submission.

### Background

- 5. TEW is a long-standing grass roots community group based in Taranaki. We have participated over many decades in submissions and hearings on district and regional plans and resource consents relating to energy matters in our own province and to national legislation on similar.
- 6. TEW won a significant Environment Court case relating to oil and gas regulation in South Taranaki District in September 2020 which extended for 4 years of hearings and focused particularly on fatality and injury risk and incompatible activities (petroleum facilities (significant hazardous facilities) and sensitive activities (both new and expansion of existing)). There was 4 interim findings and a final decision. <sup>2 3</sup> The Environment Court findings are relevant to issues relating to use and storage of

<sup>&</sup>lt;sup>2</sup> https://www.rnz.co.nz/news/national/428392/energy-watchdog-wins-court-battle-for-safety-buffer-zones

<sup>&</sup>lt;sup>3</sup> http://www.nzlii.org/cgi-bin/sinodisp/nz/cases/NZEnvC/2020/165.html?query=Taranaki%20Energy%20Watch

hazardous substances and incompatible activities in the context of the Paewira WTE facility application and are raised in this submission.

### Waste to energy facilities in Aotearoa New Zealand

- 7. There are no operating WTE facilities in Aotearoa New Zealand. There are currently 2 proposed facilities applications.
- 8. One of the WTE facilities proposed in NZ is Project Kea which is planning to process 1000 tonnes of feedstock a day, 365, 000 tonne a year, 24/7, steam turbines and developing an electricity generation plant (Output mode 1 (100% electricity (30MW)) or output mode 2 (70% electricity(20MW) and 30% steam). <sup>4</sup> Waimate District Council and Environment Canterbury applied and were successful in having the Minister for the Environment call in the application for several reasons including its national significance. <sup>5 6 7</sup>
- 9. The other plant (Paewira WTE facility) being proposed is the subject of this current submission. If consented it is to be in an industrial area and residential area immediately adjacent to schools and homes. They plan to process 480 tonnes of feedstock a day, 175,200 tonnes a year, 3 furnaces with steam generation (2 turbines (20-22 MW) and plan to develop an electrical plant. 8

<sup>4</sup>https://www.ecan.govt.nz/data/consent-

search/?keyword=South%20island%20resource%20recovery%20limited

<sup>&</sup>lt;sup>5</sup> https://waimate.infocouncil.biz/Open/2023/06/CO 20230620 AGN 6627 AT.PDF at Section 16.9.

 $<sup>^{6} \ \</sup>underline{\text{https://www.stuff.co.nz/timaru-herald/132309497/council-staff-ask-elected-officials-to-call-in-government-over-wastetoenergy-plant-proposal}$ 

<sup>&</sup>lt;sup>7</sup> https://www.ecan.govt.nz/get-involved/news-and-events/2023/councils-welcome-ministers-decision-to-call-in-applications/

 $<sup>{}^{8}\,\</sup>underline{\text{https://www.waipadc.govt.nz/our-services/planning-and-resource-consents/notified-resource-consents/401-racecourse-road-te-awamutu}$ 

### Hazardous facilities

- 10. It is TEW's view that the Company and Waipā District Council do not consider the proposed Paewira WTE facility is a hazardous facility. TEW consider that it is a hazardous facility.
- 11. In the Hazardous Facilities Screening Procedure (HFSP) Assessment for determining the consenting requirements for hazardous substances storage and use it states the following hazardous substances will be used:
  - Diesel fuel (quantity to be determined)
  - Ammonia or urea (15 m3 of urea)
  - Sodium bicarbonate (15 m3 silo)
  - Trisodium phosphate (Na3PO4) water conditioner (500 L)
  - Ammonium hydroxide (NH4OH) water conditioner (140 L)<sup>9</sup>
- 12. Further the HFSP Assessment states that "We have assumed a 5,000 L maximum storage quantity for calculation purposes." <sup>10</sup> TEW are concerned that the amount of diesel required has been significantly underestimated. For example, the proposed Project Kea WTE facility proposes to process 365,000 tonne of waste a year and require 100,000 L of diesel stored on site compared to the Paewira WTE facility processing 175,200 tonne of feedstock a year and storing 5,000 L of diesel.
- 13. Ammonium hydroxide (140 L) is listed as a water conditioner in the HFSP Assessment stating "Water treatment chemicals will also be stored and used on site. They are

<sup>&</sup>lt;sup>9</sup> https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/ourservices/planning-and-resource-

<sup>&</sup>lt;u>consents/Consent%20Applications%20of%20Interest/LU%200323%2021/Documents/Appendix%2011%20-</u>%20Hazardous%20Facilities%20Screening%20Procedure%20Assessment at digital p.2.

<sup>&</sup>lt;sup>10</sup> https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/ourservices/planning-and-resource-

<sup>&</sup>lt;u>consents/Consent%20Applications%20of%20Interest/LU%200323%2021/Documents/Appendix%2011%20-%20Hazardous%20Facilities%20Screening%20Procedure%20Assessment</u> at digital p.3.

considered nonhazardous substances and not included in the calculations". <sup>11</sup> This appears contrary to a New South Wales waste for energy application (Cleanaways) where ammonium hydroxide is described as a hazard with the potential to cause offsite risk. <sup>12</sup> TEW is concerned that the quantity of the ammonium hydroxide may also be underestimated.

- 14. Potential byproducts are possibly hazardous however have not been included.
- 15. TEW believe there needs to be a comprehensive hazard and risk assessment completed as part of the application process.

New South Wales Environment Protection Agency (NSW EPA) Energy from Waste (EFW) legislation, assessment, and applications

- 16. There is no specific legislation relating to WTE facilities in Aotearoa New Zealand.

  Taranaki Energy Watch say that regional and district council plans and current national legislation may not be adequate to avoid, manage or mitigate the 'more than minor' potential adverse effects of the proposed Paewira WTE facility.
- 17. The Climate Commission discussed "tensions over thermal waste-to-energy for emissions reductions" referencing waste to energy plants in the United Kingdom (UK), a concern with the growth in emissions and advising "a precautionary approach could beneficially inform waste-to-energy policy and investment considerations in Aotearoa New Zealand". 13

<sup>&</sup>lt;sup>11</sup> https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/ourservices/planning-and-resource-

consents/Consent%20Applications%20of%20Interest/LU%200323%2021/Documents/Appendix%2011%20-%20Hazardous%20Facilities%20Screening%20Procedure%20Assessment at digital p.3.

<sup>&</sup>lt;sup>12</sup> https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-10395%2120200924T215959.781%20GMT at digital p.6.

<sup>&</sup>lt;sup>13</sup> https://www.climatecommission.govt.nz/public/Advice-to-govt-docs/ERP2/draft-erp2/CCC4940 Draft-ERP-Advice-2023-P02-V02-web.pdf at p.153-154.

- 18. New South Wales have recent regulations (2022) relating to energy from waste facilities. <sup>14</sup> There is an outline of the assessment process with NSW EPA and this includes hazards and risk. <sup>15</sup> <sup>16</sup>
- 19. The NSW EPA are currently considering a large EFW facility (Cleanaway's Western Sydney Energy and Resource Recovery Centre) in New South Wales. <sup>17</sup> They required information on hazards and risks. <sup>18</sup>
- 20. The following information below is required for Environment Impact Statements with WTE applications in New South Wales. <sup>19</sup> <sup>20</sup> Taranaki Energy Watch believe some of these aspects have not been adequately considered (if at all) in the equivalent Assessment for Environmental Effects for the Paewira WTE facility.

The following issues have been identified to be assessed in the EIS, including their categorisation as either Key or Other.

Key issues:

- Waste management (including waste supply, management of residual waste and compliance with the EfW Policy Statement).
- · Air quality and odour.
- · Human health.
- Noise and vibration.

<sup>&</sup>lt;sup>14</sup> https://www.planning.nsw.gov.au/assess-and-regulate/state-significant-projects/energy-from-waste#assessment-of-energy-from-waste-facilities-in-nsw

<sup>&</sup>lt;sup>15</sup> https://www.planning.nsw.gov.au/assess-and-regulate/state-significant-projects/energy-from-waste#assessment-process

<sup>&</sup>lt;sup>16</sup> https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=PAE-1219%2120191129T043029.561%20GMT

<sup>&</sup>lt;sup>17</sup> https://www.planningportal.nsw.gov.au/major-projects/projects/cleanaways-western-sydney-energy-resource-recovery-centre

<sup>&</sup>lt;sup>18</sup> https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=PAE-1219%2120191129T043029.561%20GMT at digital p.8.

<sup>&</sup>lt;sup>19</sup> https://www.planning.nsw.gov.au/assess-and-regulate/development-assessment/environmental-impact-statement-guidelines

 $<sup>\</sup>frac{20}{https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=PDA-1085\%2120191114T043241.332\%20GMT at pg. vii.$ 

### 13 October 2023

- Water surface, groundwater and hydrology.
- Traffic and transport.
- · Hazard and risk.
- Flora and fauna.
- Landscape character and visual amenity.
- Greenhouse gas emissions and climate risk assessment.
- Airspace operations.
- Contamination, geology and soils.
- · Services and utilities.
- Social.
- Cumulative impacts.

<u>Proximity to existing sensitive activities and new (or expansion of existing) sensitive</u> activities (incompatible activities)

- 21. TEW are concerned with the potential issues of incompatible activities being near one another. The example (Cleanaways) provided earlier from New South Wales have separation distances of more than 1 kilometre to sensitive activities however in the case of this application the closest sensitive activities (residences) are 100-200 metres. <sup>21</sup>
- 22. There are existing education facilities and residences on an adjacent property or nearby (within approximately 200-350 metres) the proposed Paewira WTE facility.

  These are not shown in the application. See **Appendix A**.

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-10395%2120200924T215959.781%20GMT at digital p.6.

- 23. There are existing dwellings identified at the 401 Racecourse Road property which are within 200 metres (approximately 100-110 metres) of the proposed Paewira WTE facility. <sup>22</sup> See Appendix B.
- 24. There is the potential for further development of residential zones immediately adjacent to the property at 401 Racecourse Road, Te Awamutu. <sup>23</sup> <sup>24</sup> **See Appendix C.**
- 25. The Paewira WTE facility plans to include education, exhibition and staff facilities buildings. <sup>25</sup> These are immediately adjacent to the WTE operations. <sup>26</sup>

https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/ourservices/planning-and-resource-

consents/Consent%20Applications%20of%20Interest/LU%200323%2021/Application%20and%20AEE%20-%20September%202023.pdf at Figure 2 at digital p.17.

<sup>&</sup>lt;sup>23</sup> https://eplan.waipadc.govt.nz/eplan/rules/0/33/0/0/0/47

<sup>&</sup>lt;sup>24</sup> https://eplan.waipadc.govt.nz/eplan/rules/0/32/0/0/0/47

https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/ourservices/planning-and-resource-

 $<sup>\</sup>frac{consents/Consent\%20Applications\%20of\%20Interest/LU\%200323\%2021/Application\%20and\%20AEE\%20-6820September\%202023.pdf at paragraph [4.14.3].$ 

<sup>&</sup>lt;sup>26</sup> https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/ourservices/planning-and-resource-

 $<sup>\</sup>frac{consents/Consent\%20Applications\%20of\%20Interest/LU\%200323\%2021/Application\%20and\%20AEE\%20-66820September\%202023.pdf at Figure 29 on digital p.44.$ 

13 October 2023

### Appendix A: Maps and distances 27 28

### 2.5 LOCALITY PLANS

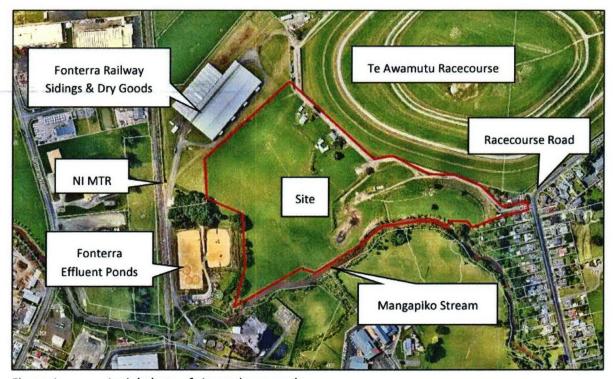
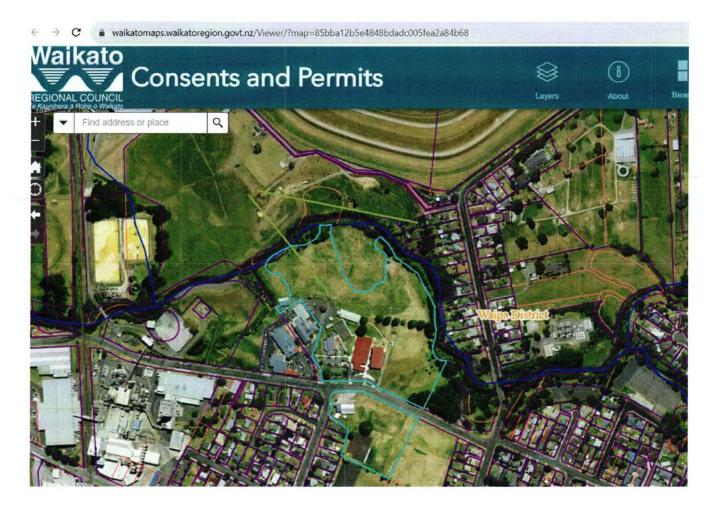


Figure 1: Aerial photo of site and surrounds

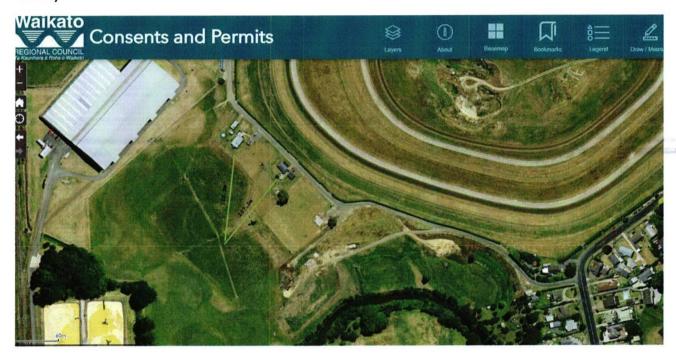
<sup>&</sup>lt;sup>27</sup> https://www.waipadc.govt.nz/repository/libraries/id:26zgz4o7s1cxbyk7hfo7/hierarchy/ourservices/planning-and-resource-

 $<sup>\</sup>frac{consents/Consent\%20Applications\%20of\%20Interest/LU\%200323\%2021/Application\%20and\%20AEE\%20-\%20September\%202023.pdf$ 

<sup>&</sup>lt;sup>28</sup> https://waikatomaps.waikatoregion.govt.nz/Viewer/?map=85bba12b5e4848bdadc005fea2a84b68

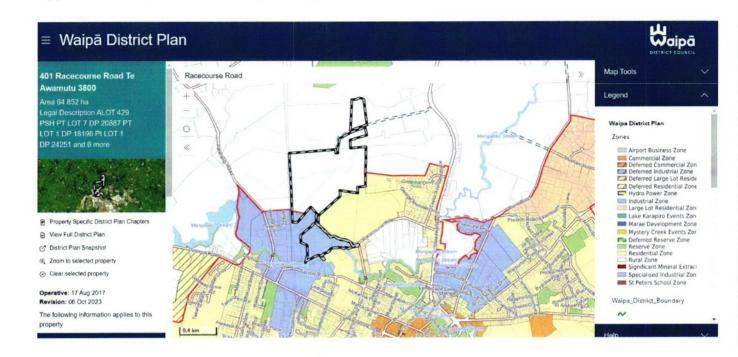


Appendix B: Residences within approximately 100-110 metres from the Paewira WTE facility  $^{29}$ 



<sup>&</sup>lt;sup>29</sup> https://waikatomaps.waikatoregion.govt.nz/Viewer/?map=85bba12b5e4848bdadc005fea2a84b68

Appendix C: Residential zones in proximity to 401 Racecourse Road 30



<sup>&</sup>lt;sup>30</sup> https://eplan.waipadc.govt.nz/eplan/property/70062/0/46? t=property

I request/do not request\*, pursuant to section 100A of the Act, 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.

Taranaki Energy watch

Signature of submitter: Sarah Roberts

(or person authorised to sign on behalf of submitter) (A signature is not required if you make your submission by electronic means.)

Date: 13-10-2023 Contact person: Sarah Roberts

(name and designation, if applicant)

Postal address: 39A Celia Street Stratford 4332 (or alternative method of service under section 352 of the Act):

### Notes to submitter

If you are making a submission to the Environmental Protection Authority, you should use form 16B.

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 your submission in hard copy please deliver to Waipa District Council, 101 Bank Street, Te Awamutu or 23 Wilson Street, Cambridge or post to Private Bag 2402, Te Awamutu 3840

If you make your submission by electronic means, a signature is not required. Electronic submissions on resource consent applications must be directed to <a href="mailto:submissions@waipadc.govt.nz">submissions@waipadc.govt.nz</a>.

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Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least one of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
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### Submission on a Notified Resource Consent Application

Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

APPLICANT'S NAME: Global Contracting Solutions Limited LOCATION: 401 Racecourse Road, Te Awamutu
Jam/am-not* a trade competitor for the purposes of section 308B of the Resource Management Act 1991.
I am/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.
The specific parts of the application that my submission relates to are:
by this incinerates.
My submission is:
Support parts or all of Oppose parts or all of are neutral parts or all of include—
the reasons for your views.
unlested technology is proposed with inadoquet
larborating testing in terms at pollution.
I seek the following decision from the consent authority:  give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought  THE INCINETALE PROPERTY FESTER IN NO.
, , ,
I wish (or do not wish) to be heard in support of my submission.
I do wish to be heard in support of my submission (this means that you will speak at the hearing)
I do not wish to be heard in support of my submission (this means that you will not be advised of the date of the hearing and will not speak at the hearing)
☐ If others make a similar submission I will consider presenting a joint case with them at the hearing.
You must tick one of the boxes above, otherwise it will be deemed that you do not wish to be heard and we will <u>not</u> advise you of the date of the hearing.
I have served a copy of my submission on the applicant. (this is required by section 96(6) (b) of the Resource Management Act 1991)

3/3

I request/do not request\*, pursuant to section 100A of the Act, 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.

Signature of submitter: (or person authorised to sign on behalf of submitter) (A signature is not required if you make your submission by electronic means.)

Date: 13/10/23

Contact person: USULa Edgington

Postal address: 2, Nenny Road

### Notes to submitter

If you are making a submission to the Environmental Protection Authority, you should use form 16B.

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 your submission in hard copy please deliver to Waipa District Council, 101 Bank Street, Te Awamutu or 23 Wilson Street, Cambridge or post to Private Bag 2402, Te Awamutu 3840

If you make your submission by electronic means, a signature is not required. Electronic submissions on resource consent applications must be directed to submissions@waipadc.govt.nz.

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. You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out an activity that a regional coastal plan describes as a restricted coastal activity.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least one of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

### Privacy information

The information you have provided on this form is required so that your submission can be processed under the RMA. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission.







## Submission on a Notified Resource Consent Application Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

	'S NAME: Global Contracting Solutions Limited 401 Racecourse Road, Te Awamutu
am no	t* a trade competitor for the purposes of section 308B of the Resource Management Act 1991.
(a) adve	t directly affected by an effect of the subject matter of the submission that— ersely affects the environment; and s not relate to trade competition or the effects of trade competition.
	parts of the application that my submission relates to are:
	ubmission relates to the whole application.
My submiss	sion is:
Support par include—	ts or all of Oppose parts or all of are neutral parts or all of
	the reasons for your views.
land,	and has more like hood to be detrimental to our township
than t	poneficial. Because of it's situation there seems to be very high rosk of damage to health and environment
give precise de	ollowing decision from the consent authority:  etails, including the parts of the application you wish to have amended and the general nature of any conditions
I of to ded	spose this application and I would like the Waspa District Council
wish (or de	o not wish) to be heard in support of my submission.
	I do wish to be heard in support of my submission this means that you will speak at the hearing)
	do not wish to be heard in support of my submission this means that you will not be advised of the date of the hearing and will not speak at the hearing)
	f others make a similar submission I will consider presenting a joint case with them at the hearing.
	ck one of the boxes above, otherwise it will be deemed that you do not wish to be heard not advise you of the date of the hearing.
	have served a copy of my submission on the applicant.

(this is required by section 96(6) (b) of the Resource Management Act 1991)

Kia Ora, I am Hazel, I am a resident of the Te Awamutu area, and wish to share my reasoning behind opposing the application by Global Contracting Solutions Limited, to build a waste to energy incinerator in our township.

I do not believe this to be a wise or safe introduction to our township, either environmentally or public health-wise. It poses significant risks and danger to our community from many aspects, not least of which are the pollutants into the atmosphere but also the toxic waste ash.

The dioxins knowns to be emitted from such sites pose a serious health risk to our populace, not just those with pre-existing health conditions e.g. asthma. Dioxins produced by such a plant have been shown to accumulate over time in human tissue (and no doubt animals too), where they remain for life with the obvious potential to reduce life expectancy. Further to this some of our most vulnerable members of the community live or reside in the area nearest to the proposed site, including elderly and young children. I also believe there is the potential for poor mental health outcomes should such plans succeed, for example light and sound pollution which is known to cause a myriad of issues not east of which is poor sleep/insomnia, but also the emotional stress of those in the immediately surrounding residential area whose properties face devaluation which is already appearing to be a very real scenario.

The foreseeable environmental impacts are also very serious. Not only is the intent to burn things going to contribute to climate change and affect air quality, but the fuel proposed to start the plant, "dirty diesel" seems insensible. The site including the diesel to be stored, poses a very real fire risk and to consider is our town only has a volunteer fire brigade. The applicants also intend to draw tens of thousands of litres of water from our water supply, which up until last summer faced yearly restrictions and in a drier year very believably could again. Our local waterways also face a very real threat from such an establishment, especially due to the fact the chosen site is on a flood plain with the potential for its toxic ash byproducts to be washed into the Mangapiko Stream and connecting waterways should the water rise that far. Unusual weather events are becoming all the more common. It is also believed that the toxins released into the air can be expected to travel far and wide and thus have the potential to negatively affect other established businesses and companies in our community, e.g. The Fonterra Dairy Factory and various farmers and growers, who, rely on our clean, fresh air to produce food for our community, nation and international buyers who fuel the economy.

There is also the issue of our local which are already struggling to cope under current traffic conditions and if this application succeeds would see hundreds more trucks per day put them under further pressure. Not to mention the pressure on roads and the environmental impacts from emissions as these trucks travel from other regions. Of further worry is the facts no such contracts yet exist and should they fail to be obtained, what then will be burned in this plant?

My final issue with this proposal is the fact that this is untested technology in New Zealand and therefore the are not sufficient restrictions or safeguards in place yet. It seems that the model being followed is not being exacted with the same controls, waste or fuels, and as such is not really comparable. Further to this, the applicant does not have prior knowledge with such waste or its disposal, especially in this manner.

Thank you.

I request/do not request\*, pursuant to section 100A of the Act, 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.

pate: 13/10/2023	Contact person:	Hazel vickers
	(name and designation, if applican	nt)

### Notes to submitter

If you are making a submission to the Environmental Protection Authority, you should use form 16B.

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 your submission in hard copy please deliver to Waipa District Council, 101 Bank Street, Te Awamutu or 23 Wilson Street, Cambridge or post to Private Bag 2402, Te Awamutu 3840

If you make your submission by electronic means, a signature is not required. Electronic submissions on resource consent applications must be directed to <a href="mailto:submissions@waipadc.govt.nz">submissions@waipadc.govt.nz</a>.

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. You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out an activity that a regional coastal plan describes as a restricted coastal activity.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least one of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

### **Privacy information**

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## Submission on a Notified Resource Consent Application

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

LOCA	ICANT'S NAME: Global Contracting Solutions Limited TION: 401 Racecourse Road, Te Awamutu
lame	am not) a trade competitor for the purposes of section 3088 of the Resource Management Act 1991.
(a) (b)	om not directly affected by an effect of the subject matter of the submission that— adversely affects the environment; and does not relate to trade competition or the effects of trade competition.
- Ind	ecific parts of the application that my submission relates to are: The whole application. icharge of emissions affecting quality of life (live within 700m of site) correct land zone ucc creased yehicle movements causing detenoration of roads + safety risk unit pollution to town
Suppoi include-	t parts or all of  Oppose parts or all of  are neutral parts or all of
	the reasons for your views.
side s will ne werin	mily reside within 700m of the proposal site and are on the down wind of prevailing invals. My children also offered the formyord day are This facility actively impact our disability of life will also have favorual impacts with a brown values. The increased traffic increasing to vill be a significant safety rish the following decision from the consent authority: for our family also, as we regularly we decide the decision from the consent authority:
wish	for the concents to be denied a the proposal for this facility to be shut down not suitable for our community and should not be allowed to precised.
wish (o	r do not wish) to be heard in support of my submission.  I do wish to be heard in support of my submission (this means that you will speak at the hearing)
0/	I do not wish to be heard in support of my submission (this means that you will not be advised of the date of the hearing and will not speak at the hearing)
0	If others make a similar submission I will consider presenting a joint case with them at the hearing.
TOTAL PROPERTY OF THE PARTY OF	tick one of the boxes above, otherwise It will be deemed that you do not wish to be heard Ill not advise you of the date of the hearing.
0	I have served a copy of my submission on the applicant.  (this is required by section 96(6) (b) of the Resource Management Act 1991)

ot request, pursuant to section 100A of the Act, 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.

Signature of submitter.

er) (A signature is not required if you make your submission by electronic means.) for person authorized to sign on behalf of sut

Date: 10 10 2023

Contact person: Alussa-Tayne Upston

Postal address: 90 Mangahoe St., Te Awamutu

for alternative method of service under detion \$53 of the Act,

#### Notes to submitter

If you are making a submission to the Environmental Protection Authority, you should use form 168.

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 cloting 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 your submission in hard copy please deliver to Walpa District Council, 101 Bank Street, Te Awarmutu or 23 Wilson Street, Cambridge or post to Private Bag 2402, Te Awamutu 3840

If you make your submission by electronic means, a signature is not required. Electronic submissions on resource consent applications must be directed to submissions (i walquide govt.na.

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. You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out an activity that a regional coastal plan describes as a restricted coastal.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least one of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case;
- · it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- · it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

#### Privacy Information

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give precise density including the pures of the application you wish to have resembled and the general matter of any conditions

with for the white application to be declined

I wish (or do not wish) to be heard in support of my submission.

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I do not wish to be heard in support of my submission. n trease that you will not be advance of the date of the boursey and will not speak at the bearing)

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

You must tick one of the boxes above, otherwise it will be deemed that you do not wish to be heard and we will not advice you of the date of the hearing.

I have served a copy of my submission on the applicant. (they is required by section 26(6) (b) of the Resource Management Act 1991)

I respons/do not request", pursuant to section 100A of the Act, 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.

Signature of subminer

rived by eign in behalf of submitter) (I regulation is not required of you make your submission by electronic majors)

**PATRICIA** 

Chris upsten

Poursaine 90 Manaphoe St. Te Amamurlu 2000

Notes to submitter

If you are emiling a submission to the Environmental Personnel Authority, you should not from 1415.
The showing date for serving submissions on the consent authority in the 20th working day after the date on which public or feested medication is given. If the application is subject to feested medication, the consent authority may adopt an earlier

change that the submissions once the comment authority receives temporary flors all effected persons.

If you are a trade competitive, your right to make a submission may be instead by the trade competition provisions as Fact 11.5 of the Resource Management Act 1991.

You must serve a copy of your submission on the applicant as soon as reasonably positionable after you have served your

The states were a copy of your columnism on the applicant as both to remonable positionable after you have served your subtrances on the content authority.

If you make your subtrances in hard copy plants deliver to Waspa District Council, 102 Black Street. To Assume or 21 Wilson Street, Cambridge or post to Private Blag 2452, To Assume 2340

If you make your subtrances by electronic reasons a signature is not required. Electronic submissions on resource concert applications must be districted to subtrances waspash governor.

If you make a request senior section 100A of the Resource Management Act 1991, you must do so in writing no later than 1 working days after the close of submissions and you may be lately to seek or contribute to the country submissioners or contemporated. You may not make a superit endow session 100A of the Resource Management Act 1991 is relation to an application for a country not make a superit endow session 100A of the Resource Management Act 1991 is relation to an application for a country to make a superit endow session 100A of the Resource Management Act 1991 is relation to an application for a country to purple of an activity that a regional contribute in a restricted consist of the first parts.

Picture note that your substitution (or part of your substitution) may be sends out if the authority is catalined that at beast one of the following applies to the substitution (or part of the substitution):

• if an freedom or ventalised:

• if the flores on remainfully or principle to see.

• if an exactly for an interestible in accompanies to all or the substitution maps for the part) to be taken further

roument Set ID: 11116134 Version Date: 17/10/2023



## SCHOOL OF SCIENCE University of Waikato



Joel D. Rindelaub Private Bag 3105 Hamilton, New Zealand Email: jrindela@waikato.ac.nz

Waipā District Council Waikato Regional Council

13 October 2023

Tēnā koe,

In this letter, I present my comments on the proposed waste-to-energy plant outlined in application numbers LU/0323/21 and APP143988. These comments represent my personal views as an active researcher in topics related to air quality, and they do not necessarily reflect those of the University of Waikato. I have no competing financial interests or relationships related to the content written in this correspondence.

Overall, I **oppose** the application for the proposed waste-to-energy facility in the Waipā district. The facility represents an unsustainable path forward for power generation, and it incurs serious concerns related to the health and well-being of New Zealanders.

Waste-to-energy facilities are often termed as "green" energy, however their use fundamentally opposes the concept of "green", as they encourage the production of waste in the generation of power. To be more environmentally friendly, New Zealand needs to reduce waste and promote reusable solutions rather than to continue consuming finite resources.

There are also major problems with air pollution produced from incineration that can impact local populations. Combustion processes, like those in the proposed plans, can create large amounts of harmful byproducts, including known carcinogens. In relation to pollutants PM<sub>2.5</sub> and NO<sub>2</sub> acknowledged in the application, there are no safe exposure levels. Even an increase as small as 1 µg/m³ in PM<sub>2.5</sub> can lead to an increase in hazard ratio by 1.021 (Wang et al., 2017) while an increase as small as 9.5 ppb NO<sub>2</sub> can lead to an increase in hazard ratio by 1.052 (Crouse et al., 2015). This means even small increases below the current WHO guidelines are still very harmful.

Additionally, the application underestimates the risk from chemical pollutants. The production of carcinogenic dioxins, for instance, would lead to local deposition of persisting organic pollutants that do not break down easily, meaning they will endure in the environment with potential to bioaccumulate. The application also does not account for carcinogen polycyclic aromatic hydrocarbons (known combustion products) and tyre additives, such the highly ecotoxic 6PPD-Q (Usha Jyoti et al., 2023).

A waste-to-energy plant in Waipā will increase pollution, thus increasing illness and lowering economic output. In Aotearoa New Zealand, air pollution is related to more than 3,300 deaths annually, more than melanoma, colon cancer, diabetes, and road accidents *combined*. There is also evidence to suggest PM<sub>2.5</sub> is linked to mental disorders, such as dementia (Chen et al., 2017), reduced intelligence levels (Zhang et al., 2018), impaired brain development in children (Guxens et al., 2018), schizophrenia, bipolar and personality disorders (Khan et al., 2019), depression (Braithwaite et al., 2019), and autism (Chun et al., 2020).

We do not need to add to the already substantial air pollution burden in Aotearoa New Zealand. Instead, we should be creating more innovative solutions that best protect the short- and long-term health of our communities and the environment.

Thank you for your time and the consideration of my comments.

Nāku iti noa, nā,

Jol Kulelul

Joel D. Rindelaub, Ph.D.

#### References:

Braithwaite I, Zhang S, Kirkbride JB, et al. *Environ. Health Perspect.* **2019**, 127, 126002.

Chen H, Kwong JC, Copes R., et al. Lancet 2017, 389 (10070), 718

Chun H, Leung C, Wen SW, et al. Envrion. Pollut. 2020, 256, 113307.

Crouse, Dan L., et al. Environmental health perspectives 123.11 (2015): 1180-1186.

Guxens M, Lubczynska MJ, Muetzel RL, et al. Biol. Psychiatry 2018, 84, 295.

Khan A, Plana-Ripoll O, Antonesen S, et al. PloS Biol. 2019, 17, e3000353.

Maji, Usha Jyoti, et al. "Toxicological effects of tire rubber-derived 6PPD-quinone, a species-specific toxicant, and dithiobisbenzanilide (DTBBA) in the marine rotifer Brachionus koreanus." Marine Pollution Bulletin 192 (2023): 115002.

Wang, Yan, et al. "Long-term exposure to PM2. 5 and mortality among older adults in the southeastern US." Epidemiology (Cambridge, Mass.) 28.2 (2017): 207.

Zhang X, Chen X, Zhang X. PNAS 2018, 115, 9193.

LATE

# **Submission on a Notified Resource Consent Application**



Form 13

Sections 41D, 95A, 95B, 95C, 96, 127(3) and 234(4), Resource Management Act 1991

This is a submission on:

APPLICANT'S NAME: Global Contracting Solutions Limited LOCATION: 401 Racecourse Road, Te Awamutu
tandam not a trade competitor for the purposes of section 308B of the Resource Management Act 199
l am/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.
The specific parts of the application that my submission relates to are:  Traffic Management, encurone and Support
My submission is:
Support parts or all of  Oppose parts of all of  are neutral parts or all of  include—  the reasons for your views.
Negative impact on infoustructure ie roads a devaluation of Nearty properties a environmental
devaluation of Nearty properties a environmental activities as per my Warbato Regional Council
I seek the following decision from the consent authority: give precise details, including the parts of the application you wish to have amended and the general nature of any condition sought
Ask that global Contracting application be
I wish (or do not wish) to be heard in support of my submission.
I do wish to be heard in support of my submission (this means that you will speak at the hearing)
I do not wish to be heard in support of my submission (this means that you will not be advised of the date of the hearing and will not speak at the hearing)
If others make a similar submission I will consider presenting a joint case with them at the hearing.
You must tick one of the boxes above, otherwise it will be deemed that you do not wish to be hear and we will not advise you of the date of the hearing.
I have served a copy of my submission on the applicant. (this is required by section 96(6) (b) of the Resource Management Act 1991)

I request/do not request\*, pursuant to section 100A of the Act, 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.

Signature of submitter:

(or person authorised to sign on behalf of submitter) (A alguature is not required if you make your submission by electronic means.)

Date: 9-10-23.

Contact person: Sheven Loshruge

Postal address: 100 Kacecause rel 1e house (or alternative method of service under section 352 of the Act):

# Notes to submitter

If you are making a submission to the Environmental Protection Authority, you should use form 16B.

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 your submission in hard copy please deliver to Waipa District Council, 101 Bank Street, Te Awamutu or 23 Wilson Street, Cambridge or post to Private Bag 2402, Te Awamutu 3840

If you make your submission by electronic means, a signature is not required. Electronic submissions on resource consent applications must be directed to <a href="mailto:submissions@waipadc.govt.nz">submissions@waipadc.govt.nz</a>.

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Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least one of the following applies to the submission (or part of the submission):

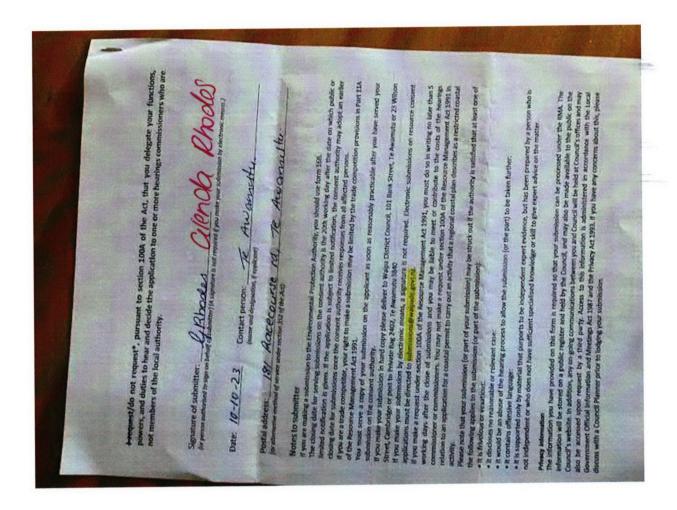
- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

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lotified Resource Consent Application Form 13 Sections 41D, 95A, 95B, 95C, 96, 127(3) and 724(4), Resource Management Act 1591	Secource Management Act 1991_ submission that— spetition	of our follows are needed as	and the general nature of any conditions	peak at the fearing. And case with them at the hearing.	that you do not with to be heard
Submission on a Notified Resource Consent Application Form 13 Sections 41D, 954, 956, 950, 957, 96, 127(3) and 234(4) This is a submission on:	APPLICANT'S NAME: Global Contracting Solutions Limited LOCATION: 401 Recedures Fload, Te Awarmutu Lam/am not "a trade competitor for the purposes of section 2088 of the Resource Management Act 1991.  I am/am not directly affected by an effect of the subject matter of the submission that—  (a) adversely affects the environment; and (b) adversely affects the environment; and (b) does not relate to trade competition or the effects of trade competition.  The specific parts of the application that my submission relates to are:  Air Affects on our Food	on is:  Oppose part or airt of the reasons for your views.	is seek the following decision from the consent authority: give precise details, including the parts of the application you with to have amended and the general nature of any conditions south. $\mathcal{PCU}(n) \in \mathcal{Appl}(\mathcal{A}^{k} \mathcal{P}_{1})$	Wish (or do not wish) to be heard in support of my submission.    I do wish to be heard in support of my submission   Observement that you will speak at the hearing.	Indian must fick one of the boxes above, otherwise it will be deemed that you do not wish to be heard and we will not addise you of the date of the hearing.    I have served a copy of my submission on the applicant.   This is required by section 94(6) (9) of the Parovice Management Act 1991)



Sent from my iPhone

From: <u>alastair brickell</u>

To: <u>info</u>

Cc: Adam@contractingsolutions.co.nz

**Subject:** External Sender: Submission on Global Contracting Solutions Waipa WTE Plant

Date:Friday, 13 October 2023 11:12:20 pmAttachments:Waipa Incineration Submission.docx

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I have attached my submission in support of Global Contracting Solutions proposal for a WTE facility at Te Awamutu:

#### WDC REF: LU/0323/21

- 1. I wish to be heard in support of my submission.
- 2. I have forwarded a copy of this submission to the applicant.
- 3. I am not a trade competitor for the purposes of section 308B of the Resource Management Act 1991.
- 4. 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.
- 5. I seek the following decision from the consent authority:
- Granting of the requested consent by the applicant.

Submission by:

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# SUBMISSION ON PROPOSED GLOBAL CONTRACTING SOLUTIONS WTE FACILITY IN TE AWAMUTU

Alastair Brickell, October 13, 2023

### 1. Introduction

It is important that the proposed Te Awamutu WTE plant be considered primarily as a medium scale power station rather than just a waste disposal facility. This is especially significant as it produces a very valuable form of electrical energy, one that can be used for increasingly important grid stabilisation as discussed below in section 5.

WTE facilities are especially useful as they turn what is otherwise a problem (eg. plastic waste) into a valuable resource and considerably reduce waste volumes going to landfill. They are increasingly being used in Europe as well as North America and Asia. The UK now incinerates 48% of its municipal waste compared with only 12% a decade ago.

Seven EU countries have WTE plants and as a consequence now landfill less than 3% of their waste. Sweden with a population about twice that of NZ already has 34 such facilities. In many European countries landfill disposal is severely restricted or actually totally forbidden due to toxic leachate problems. It is not inconceivable that similar restrictions could be legislated in NZ in the future.

Electricity consumption is predicted to greatly increase in New Zealand as we move towards electrification of transport and other industries by 2050 so several new power stations will be required. Combusting municipal and construction waste in WTE facilities like the one being proposed mean that we do not have to burn coal or natural gas to generate this electricity.

# 2. A Useful Analogue - The Bern, Switzerland WTE Facility

In 2018 I toured the modern WTE facility in Europe in Bern, the Swiss capital, where it is located right on the edge of the city. It is very similar in size to the proposed Waipa facility and well illustrates the potential of this method of waste disposal.

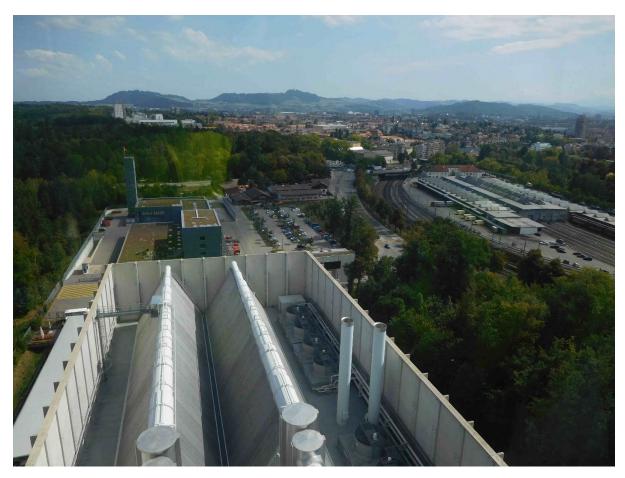


FIGURE 1 - VIEW FROM ROOF OF BERN WTE FACILITY LOOKING TOWARDS

BERN CITY (BERN CITY FIRESTATION IN MIDDLE FOREGROUND – BLUE

BUILDING

It takes a wider range of material than is apparently currently being proposed for the Waipa facility with virtually no sorting of household waste required and we even observed old couches and styrofoam being unloaded by the public at the site for which they have to pay a disposal charge.

Domestic waste is actually surprisingly high in energy and other valuable materials. A typical 5kg or 35l bag of household waste has the same energy content as 1.5l of oil and can contain 5-20% by weight of metals, much of which can be easily recovered.



FIGURE 2 - TYPICAL FEED FOR BERN PLANT: NOTE AA BATTERY, ALUMINIUM & STEEL CANS, PLASTIC AND FOOD WASTE, ETC.

This Bern site actually contains two separate incineration plants in the same large building. The one most similar to the proposed Waipa facility mainly takes household and municipal rubbish along with light industrial waste.

This domestic waste plant, which is similar to the proposed GCS one, produces about 16MW of electricity along with waste heat at 175°C which is used in nearby buildings and piped over a 36km network to a range of users around the city. In Te Awamutu it is quite likely that the waste heat could be used by a range of nearby industries (such as the adjacent milk plant or timber drying facilities) or greenhouses could be established in the region to grow out of season, and thus valuable, crops.

The Bern facility also produces as a byproduct in the bottom ash (or clinker) approximately 5 tons of ferrous metals a day (mainly iron and steel) and 5 tons of non-ferrous metals a day (eg. copper, nickel, etc.) which are valuable and can be reclaimed and sold. Small amounts of precious metals such as gold and silver are also recovered, mainly from incinerated e-waste.

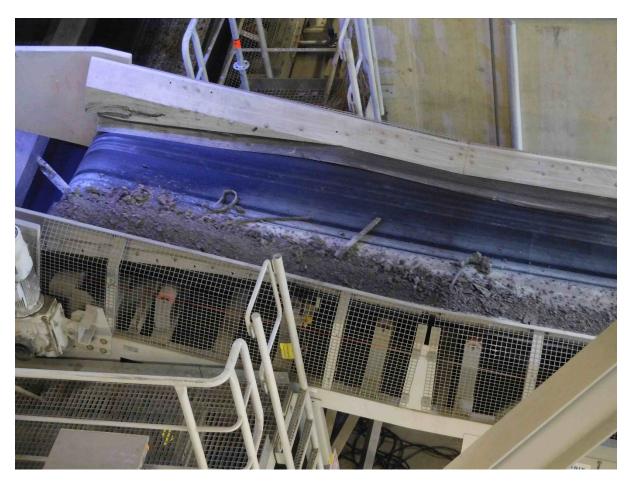


FIGURE 3 - FERROUS METAL IN BERN BOTTOM CLINKER FOR RECOVERY

The adjacent facility in Bern just takes forestry slash (which is very well controlled in Switzerland) and wood construction waste as a feedstock and produces and additional 27Mw of electricity. Both plants operate to the highest and most recent European Union environmental air standards and are well within these limits for all pollutants including dioxins. There is also an adjacent 46Mw natural gas power station on the site for periods of high electricity demand.



FIGURE 4 - GISBORNE FORESTRY SLASH - A WASTED ENERGY RESOURCE

Many overseas WTE plants also take sewerage sludge which, being high in organic material, can be combusted to produce energy rather than ending up in landfills.

#### 3. Environmental Issues

#### **Dioxin Concerns**

There have been concerns in the past by environmental groups about the level of pollution that WTE plants could produce. The main concern is dioxin but new plant designs have essentially solved this problem as the latest designs ensure the entire combustion stream is maintained at 1000°C to 1200°C which very effectively breaks dioxins down. By using the newest technology Sweden has reduced its countrywide annual dioxin production from 100ppm to just 0.5ppm from all its plants so it is no longer an issue for them and need not be in NZ.

One uncontrolled fire at a rubbish collection point in NZ can easily produce more dioxin than would be produced over the entire lifetime of one of the WTE facilities. These fires often seem to mysteriously occur when there are problems with the disposal of mountains of plastic waste and also car tyre fires occur and can be problematic to extinguish and produce huge volumes of toxic smoke. Such plastic fires have been seen at Kopu collection points near Thames in the past more than once and occur throughout the country.



A blaze which sent clouds of toxic black smoke into the air near Thames yesterday was contained by fire crews last night.

The smoke, which had a noxious smell, was generated by piles of burning plastic waste at a recycling plant. Fire crews were still at the Smart Environmental plant four hours after the blaze was first reported.

At its peak, an area 200m by 100m was burning.

Fire and Emergency NZ said no evacuations were needed but

advised residents if they were concerned then they could leave the

The firm's managing director, Grahame Christian, told Newstalk ZB that the fire is restricted to plastics outside the building beside State Highway 26.

The plant shares the site with the Carter Holt Harvey mill in Kopu where a fire raged in April last year. FENZ first received phone calls about the blaze at 2.30pm while a police spokesperson said they were notified about the blaze by FENZ at

2.45pm. On arrival, fire crews discovered a number of plastic bales on fire.

De-Ana Wensor said the fire was massive and strong winds in the area were making it swirl into the air "like a twister"

Eve Gibson, near Matatoki, said the sky near the fire was filled with smoke. "It's just masses and masses of black smoke pouring out" she said. "The smell is just unbelievable."

St John spokeswoman Beverley Tse said they were assisting FENZ at the scene.

# FIGURE 5 - MYSTERIOUS PLASTIC RUBBISH FIRES NEAR THAMES

# **Odour Concerns**

In properly designed facilities dust, odours and smoke are not a problem as the plant I visited in Bern shows. On the roof where the chimney vents are located there is no smell, no dust and no smoke; just shimmering heat as can be seen in the image below on a somewhat cloudy day. Figure 1 shows the rooftop low temperature heat recovery process so virtually no steam is released from the chimney stack.



FIGURE 6 - BERN WTE PLANT CHIMNEY STACK: - NO SMOKE, NO SMELL;

JUST HEAT

# **Greenhouse Gas Concerns**

The proposed facility, in common with all steam generating power stations, will inevitably produce some greenhouse gases, notably water vapour as steam and CO2. However, it should be noted that much of the feedstock such as wood, food, plastic and possibly sewerage sludge would contribute considerably more CO2 and CH4 (methane) into the atmosphere if deposited in a landfill where it can oxidise over time. While larger landfills can recover some of this CH4, typically only about 68%, some facilities in New Zealand recover none at all. Several studies estimate that methane is up to 28 times more potent as a greenhouse gas than CO2. Unlike conventional leaky landfills a WTE plant can combust 100% of the methane in the waste and produces only a small amount of the much less harmful CO2 in the process. This provides a net greenhouse benefit as the more potent methane is prevented from getting into the atmosphere and the electricity produced is just a bonus.

# **Transport Concerns**

Conventional landfills already involve road transport of waste, often over large distances. It is possible that due to the scale of the Waipa plant and the adjacent rail siding that some of the feedstock could involve rail transport for much of its journey in the future (eg. from Auckland) which is much more efficient than road transport. This could also help to reduce the truck traffic on nearby roads.

# **Compatibility With Existing Recycling Schem Concerns**

While some overseas WTE facilities take virtually all household waste including small batteries (Fig. 2) there is no reason why the Waipa facility should interrupt the existing or future recycling schemes in NZ. It will compliment the current and planned recycling operations and it is likely that the mix of plastic or other waste it consumes will change as recycling technology changes. It provides one more option for councils deciding what to do with their locally generated waste.

Already soft plastic (eg. milkbottles) is being used to produce black fence posts in a unique NZ process. While this seems on the surface to be a final solution it is really only delaying the disposal problem. Recycled plastic fence posts on farms or orchards will eventually break down, despite being UV stabilised. The stumps may well be left in the ground thus just transferring waste from our cities to the NZ farmland which is not a particularly good solution. Although the recovered posts or parts of posts could perhaps be recycled once or twice again, eventually they will have to be disposed of. So this 'solution' in not actually a solution, it just delays eventual disposal. However, with a WTE facility, especially one in a rural area like Te Awamutu, these end of life posts could eventually become a valuable and easily handled high energy feedstock thus finally providing a real solution and useful energy.

#### **Feedstock Supply Concerns**

Concern has been expressed by some that there might not be sufficient waste to continuously feed the Waipa facility in the future. At least one WTE plants in Sweden imports waste from the UK and there is no reason why NZ could not take waste from Australia with Sydney being a suitable source. We already import fuel (overseas coal) to fire the Huntly power station so importing fuel is not new to NZ. The adjacent railway line to the proposed plant could enable this in the future. However, if domestic waste quantities decrease it is likely

that the percentage of used tyres or other waste in the mix could be increased in the future to take up any shortfall.

#### 4. Facility Will Consume Used Tyres

A significant feature of the proposed WTE plant is that it plans to use discarded vehicle tyres for 20% of its feed. Anyone travelling in the NZ countryside will have seen piles of these lying around on farms and industrial areas. Disposal of these items is a huge environmental problem that is rarely addressed in NZ or overseas.

New research efforts are only just beginning to reveal the impact of near-invisible tire dust. A recent report from the *Pew Charitable Trust* found that 78 percent of ocean microplastics are from synthetic tire rubber. These toxic particles often end up ingested by marine animals, where they can cause neurological effects, behavioural changes, and abnormal growth.

Scientists eventually identified a chemical called 6PPD, typically used in tire manufacturing to slow cracking and degradation. When exposed to ozone in the atmosphere, the chemical transforms into multiple other species, including 6PPD-quinone—which was found to be highly toxic to multiple fish, including coho salmon in the US. The same chemical has since been detected in human urine, though any potential health impacts remain unknown. While the vast majority of this material will come from tyre rubber washing off our roads some will come from uncontrolled combustion and also weathering of old tyres in tyre dumps.

In NZ we produce about 5 million used tyres each year. Some are used in cement manufacture and others sent overseas for 'recycling', often being turned into artificial grass or turf. However, this eventually breaks down and can easily lead to 6PPD ending up in the oceans.

Many NZ tyres remain on farms and in waterways and industrial sites throughout the country. Here they slowly oxidise releasing CO2 and other gases into the atmosphere and rubber particles into our waterways. From time to time they get burnt or spontaneously combust in suspicious circumstances producing huge amounts of toxic smoke.

Figure 7 of a tyre dump fire in Kuwait illustrates the hazard these tyre dumps can pose. Huge amounts of thick toxic smoke are released to the environment with a great deal of heat generated. However, proper combusting one kilogram of used trye can produce more than 10x the energy in a similar mass of coal and this fact can make them a very useful addition to the waste stream for a WTE facility. The heat can be recovered to produce electricity rather than being wasted to the environment and causing air pollution.



FIGURE 7 - KUWAIT TYRE DUMP FIRE

Figure 8 shows residue from a small tyre fire on a farm in Northland in 2022 but there have been much bigger tyre fires in NZ in the past.

The 12% steel reinforcing in the tyres remains virtually intact, just as it would in a WTE facility, with the major difference being that in the WTE facility it can be recovered and recycled and actually is a valuable byproduct that can produce an income stream for the facility.



# FIGURE 8 - STEEL REINFORCING BELT WASTE AFTER NORTHLAND 2022 TYRE FIRE

#### 5. Valuable Form of Electricity Produced

The electricity produced by the proposed plant would be in the order of 15 MW, while not huge in overseas terms, is not inconsiderable in the NZ electricity scene. It is especially valuable electricity as it will be produced 24/7 365 days a year regardless of whether or not the sun is shining or the wind is blowing or the dams are full. It will also be considerable quieter and occupy much less land than a similarly productive wind turbine facility. With an expected life of about 60 years the Te Awamutu plant will last at least twice as long as the wind or solar farms which will require partial or complete replacement and disposal twice during this period. Recycling of wind turbine blades and solar panels is already a big environmental problem overseas.

An often overlooked feature is that the WTE energy will be produced in a system with high rotating mass inertia in the steam turbine. This inertia is critical for ensuring national grid frequency stability which wind and solar power generators have great difficulty providing. Lack of frequency stability in a national grid can have very serious consequences for consumers, especially industrial ones.

This will become even more important as wind and solar supplies increasingly penetrate the national grid in future years. In addition baseload generators are essential to provide start up capability and synchronisation to the grid in the event of partial or complete grid collapse due to potential earthquakes or volcanic eruptions. The 1995-6 eruptions of Mt. Ruapehu and its effects on hydro generation showed just how vulnerable our national grid and dams can be to these events, largely as a result of the ash produced. As a geologist I am concerned that these events will certainly continue in the future with Taupo, Taranaki and the Rotorua and Ruapehu areas being of particular concern.

#### **6. Possible Tourism Benefits**

While these facilities can be large structures there is no need for them to be ugly. The late visionary architect Friedensreich Hundertwasser was a great fan of incineration plants and designed several large ones. He died in New Zealand and his legacy includes the Kawakawa toilets and now the new Whangarei Hundertwasser Centre which recognises his accomplishments. A Hundertwasser designed WTE plant in Waipa could be a great compliment to these structures and a tourist attraction in its own right as part of a national Hundterwasser trail. I am not aware if GCS has considered this in their planning but perhaps they might. Te Awamutu is already on the tourist trail with it's unique Space Centre and a Hundertwasser style building could well bring in more tourists, even international ones.

Overseas these facilities are well accepted by their communities with one in Japan (Fig. 9) having its own creche and café and is popular with tourists with another in Copenhagen having been designed with a towering roof that has been constructed to become a year round ski slope.

The illustrations below are obviously of much larger WTE facilities overseas but even a scaled down version of these could be a local Hundertwasser landmark. Perhaps regional tourism operators or even councils could assist with costs involved in altering the design to make it truly unique.



FIGURE 9 - HUNDERTWASSER DESIGN WTE PLANT – OSAKA,

JAPAN



FIGURE 10 - HUNDERTWASSER DESIGN WTE PLANT - VIENNA, <u>AUSTRIA</u>