New South Wales Government
Independent Planning Commission

CHRISTOPHER BLAXLAND		**OBJECT**	Submission ID: 217722
Organisation:	*N/A*	Key issues:	*Social impacts,Land use compatibility (surrounding land uses),Traffic,Other issues*
Location:	*New South Wales 2576*		
Attachment:	*Attached overleaf*		

Submission date: 11/24/2024 4:02:00 PM

See attached document CJM Blaxland - IPC Submission (signed).pdf

Christopher Blaxland

23 November 2024

Independent Planning Commission

Re: Moss Vale Plastics Recycling Facility (SSD—9409987).

I acknowledge the need for plastic recycling plants operated properly by competent management.

However, the plant proposed by Plasrefine is in an inappropriate site.

My arguments focus on 4 aspects:

1. SHIP: This site has been identified by the community as the Southern Highlands Innovation Park. A plastic recycling plant does not belong in the designated precinct.

2. FIRE: Plastic recycling plants present a heightened risk of severe fire, well beyond the resources of local firefighting crews, and with unacceptable risk to community and local environment.

3. PROXIMITY: The proposed plant is not only in a precinct intended for cleaner and quieter industries, but alarmingly close to existing residences – approximately 240m away.

4. LIFE SCIENCES: Based on over 40 years' experience in the life sciences/biotechnology/medical device industry, I would discourage any life sciences company from establishing a research facility in this precinct of SHIP should the Plasrefine proposal be allowed to proceed.

More details of my opinions on these 4 matters are attached.

Sincerely,

[redacted]

[redacted]

1. SHIP

The concept and intended structure of the Southern Highlands Innovation Park has been developed as an initiative of Wingecarribee Shire Council [WSC], and with the financial support of NSW government.

The intent is clear:

> *The SHIP will be aligned with the following CSP goals:*
> *1.1 Ethical and trusted levels of government that work together in the best interest of the Shire*[1]

At one stroke, by its decision on Plasrefine, DPHI has severely damaged any semblance of trust between levels of government and the community. This, in an agency that claims to strive for:

> *"Ensuring that NSW is liveable and prosperous by delivering thriving communities, public spaces, places and economies."*[2]

The CSP [Community Strategic Plan] is a document developed and maintained with active participation of Wingecarribee residents over several iterations and several years. I consider this a significant document and am appalled at the contemptuous way in which DPHI dismisses its intent as expressed in the plans for SHIP.

Recent community meetings have made it abundantly clear that the community wants plastic recycling, **but this is not the right site**.

Critical to the success of an innovation districts is the presence of *"Credible and reputable anchor enterprises or institutions that are present, relevant to and engaged with industry".*[3]

The presence of the Plasrefine plant in SHIP would be a strong deterrent to the industries sought for the Research, Training and Advanced Manufacturing precinct described in the Draft Strategy developed by WSC.[4]

Major issues include constant heavy traffic of heavy vehicles, risk of pollution by escaped materials, increased risk of fire with resulting heavy contamination and possible need for evacuation, interference with power, with waste and water flows in and out.

WSC statements and publications make reference to 'biotechnology' as desirable industry for the Research, Training and Advanced Manufacturing precinct.

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[1] Southern Highlands Innovation Park: Draft Governance Strategy. Page 6, giving reference to Community Strategic Plan: Wingecarribee, 2041

[2] https://www.nsw.gov.au/departments-and-agencies/department-of-planning-housing-and-infrastructure

[3] 8 Success Factors of Innovation Precincts. https://sgsep.com.au/assets/main/SGS-Economics-and-Planning-Innovation-Precincts.pdf

[4] Southern Highlands Innovation Park Draft Master Plan, Page 32

1. SHIP

Life sciences and associated technologies can be very attractive industries and will often form clusters because of possible collaborations and interdependence.

Based on my own experience of 40 years in the pharmaceutical, biotechnology and medical device industries[5], I most certainly would not put a plastics recycling plant anywhere near an early-stage life sciences facility.

Recycling must be managed by experts to a high degree of safety, minimising any risk to residents here or downstream, and that it must not be in the currently proposed Moss Vale site.

[5] My career included 20+ years in a major pharmaceutical company [SmithKline Beecham, now GlaxoSmithKline] with executive responsibilities in company operations in Australia, Korea, The Netherlands and USA. Subsequent experience of 20 years in USA engaged in and advising on the formation and management of small and early phase companies. https://www.linkedin.com/in/chris-blaxland-677a936/details/experience/

2. FIRE

The risk of fire and its sequelae remains a major concern.

- The 2022 fire at Close the Loop in Melbourne is an incident that has affected the outlook for plastics recycling.
    - REDcycle processing of 7,000 tonnes was only a fraction of the goals of Plasrefine
    - *"The blaze took more than 50 firefighters about five hours to bring under control, forcing the closure of the Hume Highway in both directions"* https://www.smh.com.au/national/fire-signalled-fatal-end-to-coles-and-woolies-plastic-recycling-program-20221109-p5bwqb.html

- … and another one in Canberra https://www.abc.net.au/news/2022-12-27/act-recycling-plant-fire-could-burn-for-days/101810000?utm_campaign=abc_news_web&utm_content=link&utm_medium=content_shared&utm_source=abc_news_web

- … and Adelaide. https://www.abc.net.au/news/2020-11-13/fire-at-kilburn-plastics-factory-causes-million-dollar-damage/12880014?utm_campaign=abc_news_web&utm_content=link&utm_medium=content_shared&utm_source=abc_news_web

- *"This being said, plastic recycling has not come without its own challenges. Time Magazine reported on the increase in fire incidents in recycling facilities in North America. It is understood that many small fire incidents go unreported, but there has been an increase in major fire incidents reported in the United States and Canada by a third from 2017 to 2022. Fogelman estimates that the actual number of fires is more than six times what is reported".* Devine et al., J. Fire Sciences 2023, Vol. 41(6) 269–287

Consider the Process

> *"The following steps in the plastic recycling process have been identified to pose a significant fire hazard:*
> *(1) Storage: in all forms, that is, bales of unprocessed plastic, washed or unwashed shredded plastic and plastic pellets. This is primarily related to the high fuel loads present, rather than the chance of ignition.*
> *(2) Shredding: shredding may produce unwanted by-products such as combustible dust.*
> *(3) Melting and extrusion: these processes require a heat source and subsequently pose a risk of starting a fire".* Devine et al, ibid

Unprocessed post-consumer plastic waste is very likely to include unknown and unwanted contaminants, including batteries and inflammable materials.

The normal recycling process is likely to generate toxic compounds.

2. FIRE

> *"A total of 64 VOCs including alkanes, alkenes, monoaromatics, oxygenated VOCs (OVOCs), chlorinated VOCs (ClVOCs) and acrylonitrile during the melting extrusion procedure were identified and quantified."* Zhigui He et al. https://doi.org/10.1016/j.envint.2015.01.004

The risk to staff may be controllable during normal operations within the factory, but it is impossible to contain such materials in case of fire.

The scale of these fires is well beyond the capacity of fire-fighting crews in the Southern Highlands.

Consider Duration:

- *"A huge plume of smoke, visible from miles around, continues to billow over a plastics recycling plant in the city of Richmond, Indiana, where a fire broke out Tuesday afternoon. Some 2,000 people living within half a mile of the facility were forced to evacuate to escape harmful fine particulate matter and potentially toxic chemicals in the air, and building debris falling on their lawns. Once lit, plastic fires are incredibly tough to put out, and officials say the plant will burn for several more days."*
  https://time.com/6271576/recycling-plant-fire-indiana/

- *"Fire in the Remiva plastic-recycling plant and storehouse in Chropyně, the Czech Republic, broke out at about 1 a.m. on Friday, 8th April 2011(Mediafax, 2011). At that time only a few night-shift workers were present in the factory. They all managed to escape from the site. The fire spread as far as 250 m from the focus during the night. The firefighting was inefficient as a strong wind was blowing and it was impossible to locate the fire. A helicopter was used to extinguish the fire from above. The fire was producing a thick black smoke until Sunday evening. Even on Monday, when the firefighters extinguished all the centres of the fire, there was still smoke above the site. A powerful odor from the fire filled the air in the neighbouring area and due to intense firefighting, the local sewage treatment plant was unable to hold the excessive amounts of water. A change in winds made the firefighting even more complicated, as it carried the smoke to the town centre and the nearby residential area. An irritating plume of smoke was rising from the burn-out area. ..... The measurement of the concentration of toxicants showed that toxic substances were being emitted to the air. Due to their high concentration in the air, the officer in charge ordered an evacuation of the adjacent streets. Administrative authorities suggested an evacuation of approximately 300 people living in the area which was affected by the smoke."* Hrinko, M., [CEVRO University, Prague] Krízový manažment [Crisis Management]· September 2020 DOI: 10.26552/krm.C.2020.2.5-13

The nature of the fires:

> *Fire fighters have described the fires from plastic recycling plants as being extremely difficult to extinguish as a result of the composition of plastic resulting in the release of noxious fumes and the high heat release rates (HRRs).*
> Devine et al. J. Fire Sciences 2023, Vol. 41(6) 269–287

2. FIRE

The effects of effluents of such fires on the community:

- *...the officer in charge ordered an evacuation of the adjacent streets. Administrative authorities suggested an evacuation of approximately 300 people living in the area which was affected by the smoke.* Hrinko, M. ibid

- *"Some 2,000 people living within half a mile of the facility were forced to evacuate to escape harmful fine particulate matter and potentially toxic chemicals in the air, and building debris falling on their lawns."* https://time.com/6271576/recycling-plant-fire-indiana/

- *..." the local sewage treatment plant was unable to hold the excessive amounts of water".* Hrinko, M. ibid

The environmental impact:

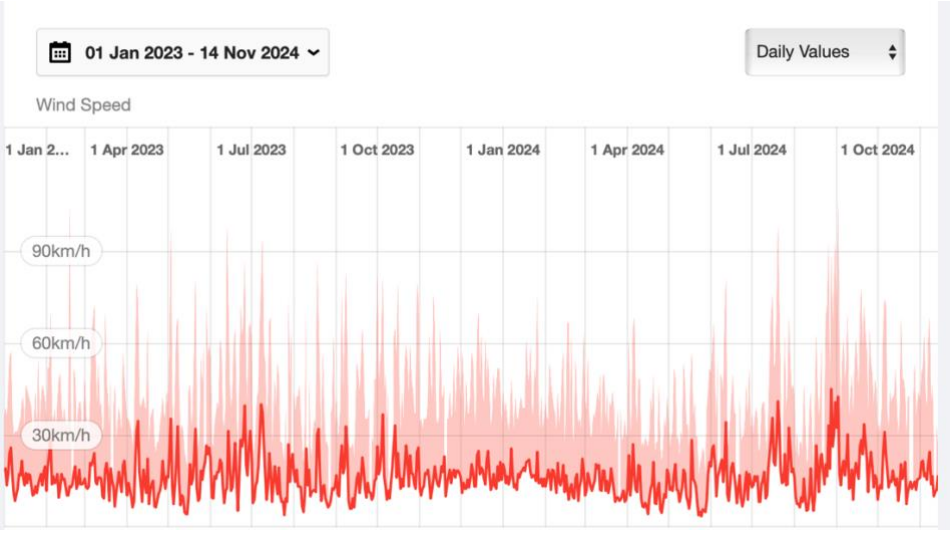
- Excess water from fire-fighting efforts added to smoke and toxic pollutants will have severe effects on flora and fauna in the area with inevitable flow into streams and the riparian zones that contribute to Sydney Water Catchment.

Wingecarribee residents are well aware of strong and persistent winds from the west occurring in winter and spring. These winds complicate firefighting.

> "*The firefighting was inefficient as a strong wind was blowing and it was impossible to locate the fire." Hrinka, M. ibid)*

.... as well as driving the toxic fumes, smoke and debris towards residential areas.

Wind speeds in excess of 60km/hr are common in Moss Vale. Gusts greater than 90 km/hr are less frequent but do occur.[1]



[1] https://www.windfinder.com/forecast/moss-vale

2. FIRE

Plasrefine's consultant, GHD has offered statements that have been published in the 13 Nov 2024 edition of Southern Highlands News. I find these simplistic and inadequate, in some cases irrelevant: *"He said the land was not in a bushfire zone…"*

Residents are concerned because of the risk of catastrophic fire arising within this plant from the inbound feedstock and resulting in gross contamination of the surroundings by smoke toxic vapours, debris and water.

A plant in which such fire is a distinct possibility should not be placed anywhere near residential areas or the types of industry sought for the eastern end of the SHIP.

The planning for each precinct of SHIP must be prepared having regard to the most hazardous substance proposed to be stored on the site. In the case of Plasrefine, much of the material is unknown and must be assumed to contain potential hazards.

3. PROXIMITY

The proposed plant is not only in a precinct intended for cleaner and quieter industries, but alarmingly close to existing residences – approximately 240m away!

In contrast,

- Goldrec Australia, 285 Finns Rd Menangle Park NSW
    - Surrounded by similar zoning and approximately 3.4km from the nearest residence

- Circular Plastics, 10 McLaurin Rd, Ettamoggah, NSW
    - In an Enterprise Zone and approximately 2.3km from the nearest residence

- Kangaroo Plastics, 202-204 Northbourne Rd, Campbellfield, VIC
    - Surrounded by industrial zoning and 2.2km from the nearest residence.[1]

- Parkes Special Activation Precinct, Master Plan June 2020
    - Provides an area that is appropriately located to reduce noise, air quality, odour and dust generating activities, and that can operate 24/7.
    - If the development is a potentially offensive industry, development must have a 1km buffer area within the PSAP site. The boundaries of the PSAP are approximately 2km from residences in Parkes. Commercial Gateway Sub-precinct (0.5 to 1km wide) provides a transition between the heavier industrial uses in other areas of the Precinct and Parkes township.

- YCA Recycling, 16-20 Johanssen Road, Wingfield, SA[2]
    - Surrounded by similar industrial zoning, approximately 1.9km from the nearest residential zone.

I reject completely the claim by MS ROMINA CAVALLO on behalf ofGHD/ Plasrefine that "the proposal provides an appropriate transition between rural residential areas to the south and the broader SHIP through enclosing the building's operations, providing suitable visual mitigation through façade treatment and landscaping, and managing air quality, traffic and noise amenity impacts through design and operational considerations."[3]

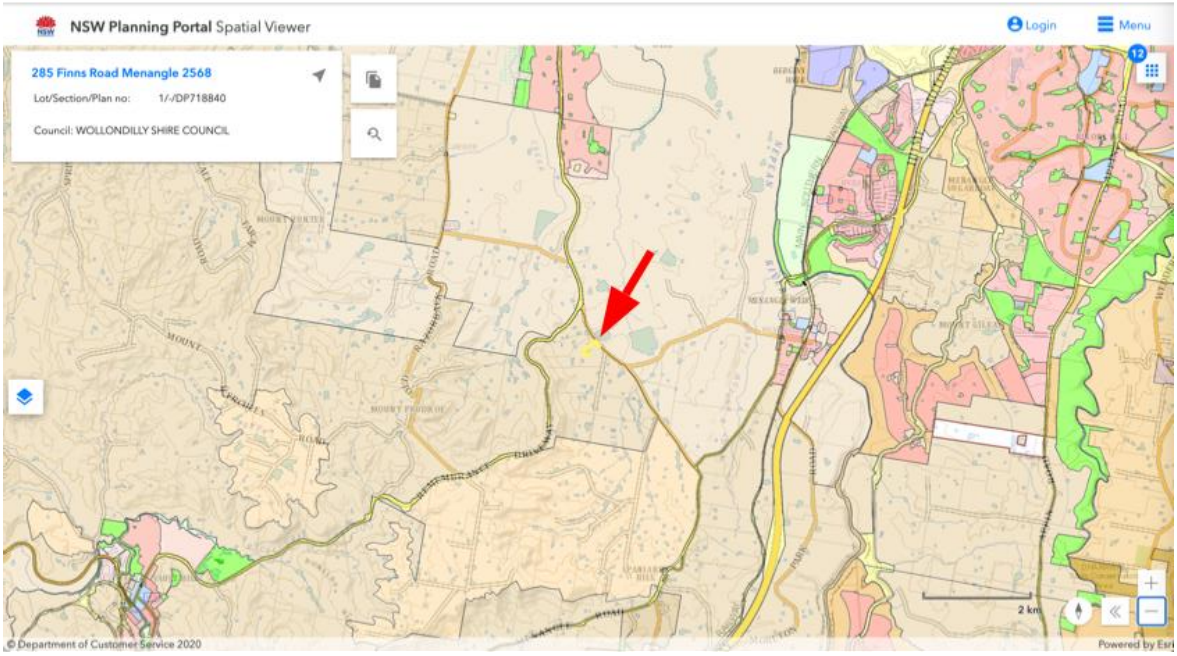
The plastic recycling process is not a benign neighbour. It is an industry that presents considerable risk of damaging effects on "air quality, traffic and noise amenity" and should be placed well away from residences, schools, child care and from the SHIP Research, Training and Advanced Manufacturing precinct

Plasrefine is not an acceptable neighbour

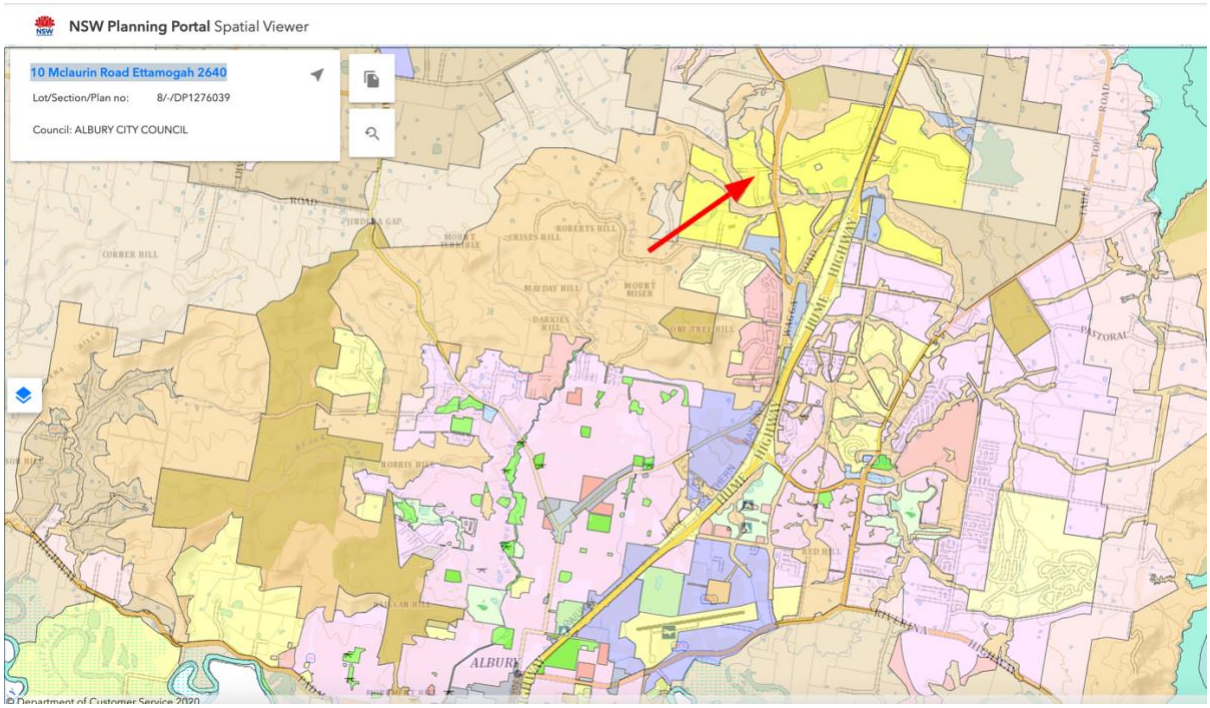
[1] https://mapshare.vic.gov.au/vicplan/
[2] https://code.plan.sa.gov.au/home/property-details?type=valuation&sid=0632427053&sdt=true
[3] TRANSCRIPT OF MEETING; MOSS VALE PLASTICS RECYCLING FACILITY [28/10/2024] P-9

3. PROXIMITY

Goldrec Australia, 285 Finns Rd Menangle Park NSW[4]



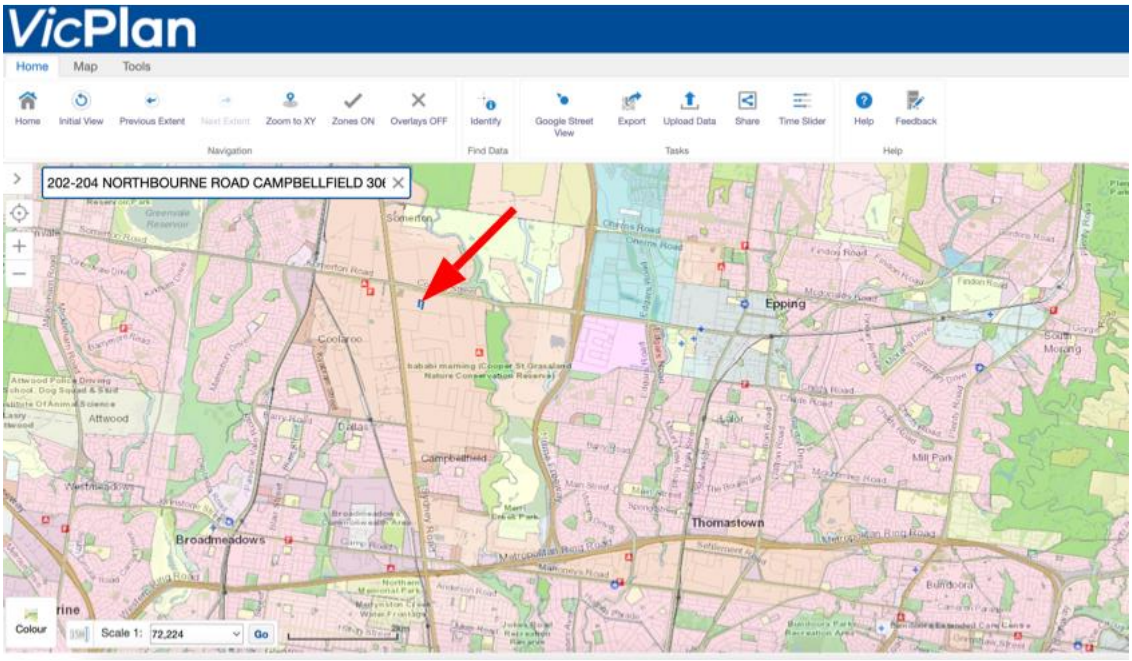
Circular Plastics, 10 McLaurin Rd, Ettamoggah



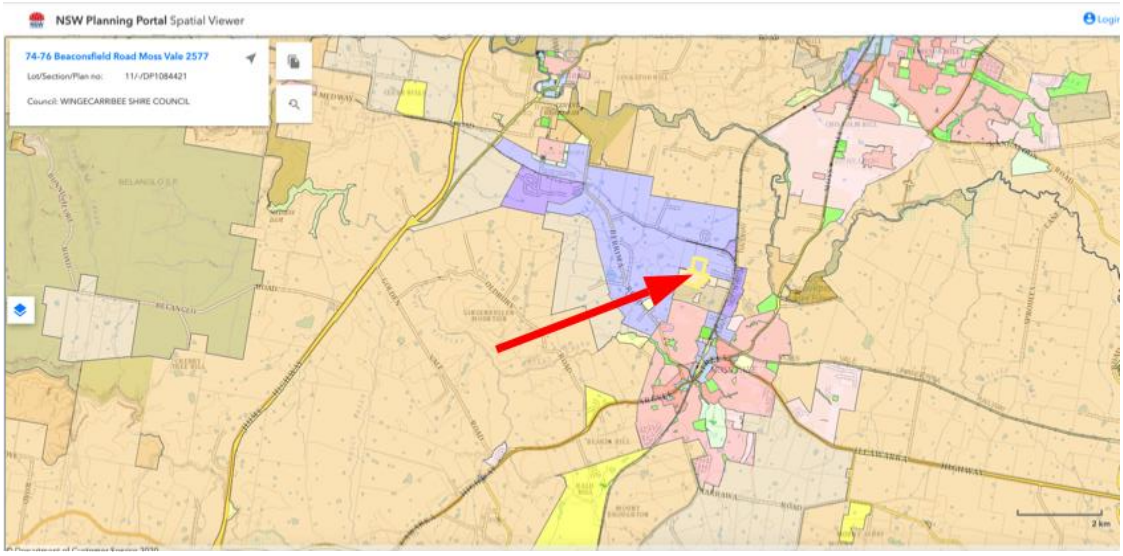
[4] https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address

3. PROXIMITY

Kangaroo Plastics, 202-204 Northbourne Rd, Campbellfield, VIC

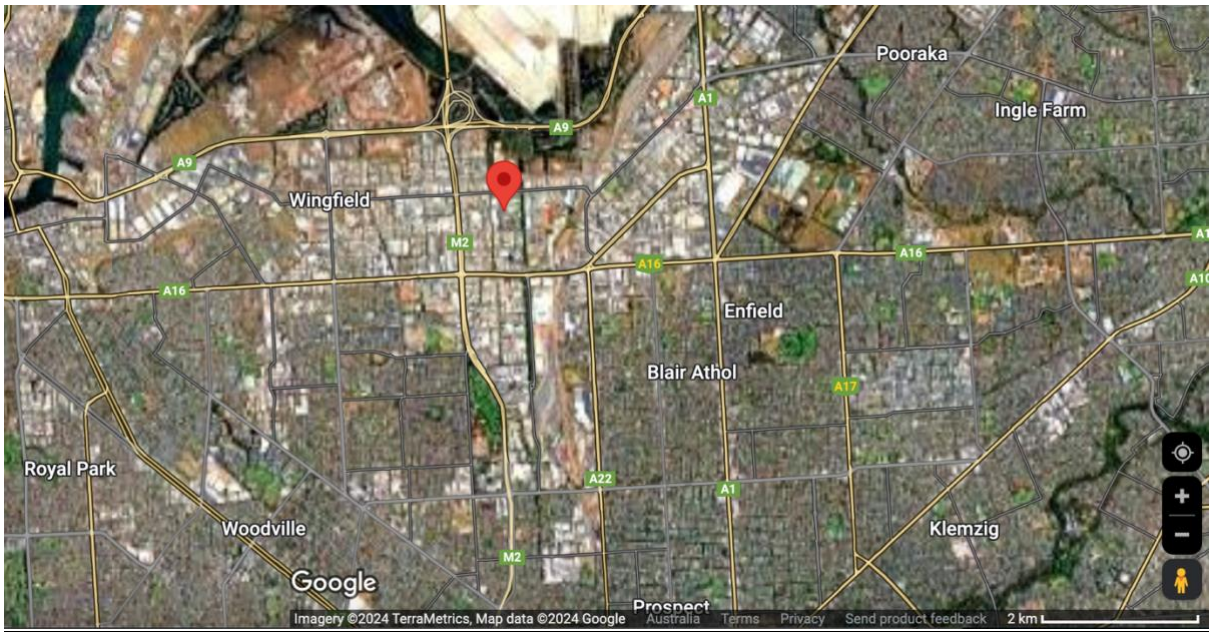


Plasrefine, 74-76 Beaconsfield Road, Moss Vale
Dangerously – and recklessly - close to existing residences – approximately 240 metres!



3. PROXIMITY

YCA Recycling, 16-20 Johanssen Road, Wingfield, SA
https://www.google.com 2024 data



4. LIFE SCIENCES

The following comments are based on over 40 years' experience in the life sciences/biotechnology/medical device industry. This includes executive responsibility for location and fit-out of laboratories as well as operational management[1].

Wingecarribee Shire Council [WSC] has made numerous references to its plans to host biotechnology and similar life sciences organisations in the SHIP.

These industries are highly regulated, even in early research and development stages. The quality of the data is critical and much of it must be gathered following Good Laboratory Practice [GLP] to ensure acceptance in regulatory and intellectual property submissions.

Common locations are in light industry precincts or office parks. The SHIP precinct designated *Research, Training and Advanced Manufacturing* would be consistent with the needs of life science companies.[2]

These companies are usually good neighbours – the operations are clean, quiet, and they employ well-educated (graduate and post-doctoral) staff.

Life science labs will avoid locations where there are unpredictable and uncontrollable influences – pollution of air and water, vibration from heavy vehicles, increased risk of fire, severe risk from possible firefighting activities (pollutants, toxic gases, effluent water laden with toxic residues, interference with power supplies)

Continuity of power is critical

- Highly sensitive automated (analytical and screening) processes
- Widespread use of continuous technologies
- Maintenance of subzero refrigeration of critical materials, and for water purification

Small and early-stage biotech companies have limited resources and cannot afford to allocate those resources to protective systems that reduce the risks of contamination, vibration, noise from the neighbourhood. They must choose good clean site from the outset.

The 11 September 2024 submission made by Garvan/Australian Bioresources outlines the potential hazards to their operations that arise from a plant such as that proposed for Plasrefine.

[1] https://www.linkedin.com/in/chris-blaxland-677a936/
[2] SHIP_DraftUDreport_Update_June 2024

4. LIFE SCIENCES

Those are the same risks that would confront any life sciences company considering a research and development facility in the SHIP. (Although most would outsource necessary animal studies to contractors such as Australian Bioresources.)

As president, chief operating officer, chief executive officer I have been directly involved in the selection of sites and the supervision of fit out of R&D facilities for early stage life science companies. The facilities have included laboratories covering up to 1,900 sq m (20,000 sq ft) which were engaged in medicinal chemistry, analytical chemistry, synthetic chemistry, molecular biology, high throughput screening, and the support systems required for these functions. All these functions are vulnerable to the risks outlined above, and in the Garvan/AR submission.

As an executive, I would not place an early-stage company on a site that requires extra protective and mitigation measures for normal operations. I would be even less enthused about requiring such mitigation measures from the company that was causing the problems.

I reject completely the claim by MS ROMINA CAVALLO on behalf ofGHD/ Plasrefine that "the proposal provides an appropriate transition between rural residential areas to the south and the broader SHIP through enclosing the building's operations, providing suitable visual mitigation through façade treatment and landscaping, and managing air quality, traffic and noise amenity impacts through design and operational considerations."[3]

It is the risk of effects on "air quality, traffic and noise amenity" and fire that make the Plasrefine proposal an unacceptable neighbour for life sciences companies.

If Plasrefine is permitted to build in the proposed site, I would recommend that any life science company look elsewhere for a site.

The SHIP *Research, Training and Advanced Manufacturing Precinct* would not be a suitable site.

[3] TRANSCRIPT OF MEETING; MOSS VALE PLASTICS RECYCLING FACILITY [28/10/2024] P-9