



Residents Against Richmond Valley Incinerator Inc

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Mr Peter Cameron
Department of Regional NSW

By email: regionaljobprecincts@regional.nsw.gov.au

Dear Mr Cameron

Residents Against the Richmond Valley Incinerator Inc. (RARVI) is a community organisation based in the Northern Rivers region of NSW. RARVI was formed when the Richmond Valley Regional Jobs Precinct in Casino was designated by the NSW State Government as one of four allowable locations to build and operate an Energy from Waste (EfW) incinerator, although there is, as yet, no formal proposal for an EfW facility in Casino.

As such, RARVI has closely examined the Master Plan for the Richmond Valley Regional Job Precinct, and its supporting technical reports and other documents.

We understood, via documents received following a request under the Government Information (Public Access) Act 2009, that Richmond Valley Council had requested the term 'Alternative Waste Treatment System' be used in preference to any mention of the thermal treatment or burning of waste. We believe your department agreed to this request to avoid the controversy of a future EfW facility affecting the exhibition of the Master Plan.

RARVI believes there has been no transparency to date in the decision-making process leading to Casino's selection for either an RJP or a potential site for an EfW facility. We were therefore deeply disappointed that the exhibition of the RJP Master Plan has not provided further detail regarding these strategic planning decisions.

Our detailed comments on the Master Plan are attached. We strongly recommend further community consultation on a revised plan which consistently and clearly outlines the proposed zoning and identifies where heavy industry, such as the AWTS or EfW incinerator, may be located, provides better consideration of the necessary buffers to avoid noise, odour and air quality impacts of heavy industries to the surrounding rural and residential areas, including mourners visiting Nammoona Lawn Cemetery, outlines how waste generated in the RJP will be managed, including the toxic ash produced by the AWTS.

Yours sincerely

Dr Liz Stops
Convenor, Residents Against Richmond Valley Incinerator Inc.

RARVI submission on RJP Master Plan

The Master Plan

The key failing of the Richmond Valley Regional Job Precinct Master Plan is that it fails to adequately plan for a future energy from waste (EfW) incinerator in the Nammoona sub-precinct.

According to Minister Moriarty's media release, 'This area [the Richmond Valley Regional Job Precinct (RJP)] has the potential to generate up to 1900 new jobs across agribusiness, manufacturing, food processing and other niche industries to 2036 and beyond.' Any reference to energy generation is absent from her glowing description of the RJP's potential, and is also absent in the Vision for the RJP (given on p.8 of the Discussion Paper). This was requested by the Department's Regional Development Group in May 2022.

This absence is curious. The Nammoona sub-precinct in the RJP site is designated in section 144 of the *Protection of the Environment Operations (General) Regulation 2022* (POEO Regulation) as one of only 4 named sites in NSW where energy recovery from the thermal treatment of waste may occur. The development of these Energy from Waste (EfW) incinerators is generally prohibited elsewhere in NSW, presumably due to their inherent risks and impacts. It is puzzling why the statewide significance of the RJP, as part of the NSW Waste Strategy, is not promoted or even acknowledged in the RJP's Vision or the Minister's media release.

At Richmond Valley Council's request, as ascertained from documents received via a Government Information Public Access (GIPA) search, the EfW incinerator is referred to as an "Alternative Waste Treatment System" (AWTS) in the RJP's planning documents (sometimes also referred to as an "Alternate Waste Treatment Solution"). This is obviously an attempt to disguise the fact that it enables an incinerator.

Inadequate consultation has occurred to date

The decision to identify the RJP as a potential site for an EfW incinerator was made with little or no community consultation, at a time when the Northern Rivers of NSW was devastated by floods, leaving no time or opportunity for residents to comment or object. Hence, it is disappointing that the public exhibition of the RJP master plan has failed to provide a much-needed opportunity for meaningful community dialogue and consultation on whether an area immediately adjacent to Casino's established Food Cooperative and residential areas is a suitable location for a future EfW incinerator. Dr Marcos Orellana the United Nations Special Rapporteur on Toxics and Human Rights (who was invited to Australia by the Australian Government in 2023) noted in his End of Mission Statement (EoMS) dated 8 September 2023:

Underlying the distance between the State and communities is the perception of tokenistic engagement. When public participation is reduced to a checklist, instead of being conducive to genuine dialogue, then one of the fundamental pillars of sustainable development begins to collapse. And when that happens dialogue is replaced by anger and distrust.

We believe the feeling of distrust is now widespread in the Casino community.

Whereas various government departments and the Richmond Valley Council have been working on the planning for the RJP for at least 4 years, when the Master Plan and

associated highly technical reports amounting to over 1050 pages were placed on public exhibition, those interested had only a week at most to digest the material before the Community Information sessions. There was no presentation to those who attended – simply an opportunity to ask questions about the RJP. We feel these information sessions were an example of tokenistic and meaningless ‘consultation’ because it was impossible to absorb the information and ask informed questions at that time.

Given the complexity of the information it is our contention that members of the community should have been afforded a detailed presentation on each of the reports, with an opportunity to ask questions. Otherwise, this seems like a box-ticking exercise which doesn't inspire confidence in the process.

We are grateful that the Manager of the RJPs did respond to our questions and provided a two week extension for submissions. It has only been through detailed review of the documents, has it become clear that some of the information contained in the reports is inaccurate and needs to be corrected or removed.

During the Community Information Session at Casino on 21 February 2024, attendees were told that the prior designation of the RJP as a suitable site for an AWTS means such a facility is already permissible in the RJP. Yet there is no information in the document about where one might be located apart from it being in ‘an industrial area’ within Nammoona. There is no detail on what capacity it would have, where the waste would be coming from, what its possible footprint would be or where ash would be disposed of etc. It is also unclear whether the Master Plan can limit the location of any future EfW incinerator through its zoning plan to employment zoned lands, or if the incinerator will remain permissible in all parts of the Nammoona sub-precinct irrespective of conservation and rural zonings.

Residents were told none of these details would be available until a proposal for an AWTS is submitted. Mentions of an AWTS within the RJP are peppered throughout the Master Plan documents and technical reports, but no details are outlined. In fact, an AWTS is promptly dismissed as if it is of no consequence and any potential approvals are entirely separate to the Master Plan. It is not credible that a large structure with such specific requirements and effects as an AWTS would not be at least pinpointed on the RJP site, so that appropriate buffers are put in place as part of the zoning to avoid future potential land use conflicts should an application for an AWTS be submitted.

The Master Plan should outline the details of what is considered possible so that they can be addressed by people making submissions and examined by other businesses who may want to occupy the precinct. The lack of information could be considered a deliberate subterfuge by the NSW Government and Richmond Valley Council in order to deflect any argument against an AWTS.

Summary of our position

While ever an EfW incinerator remains a permissible development we reject the intention (as outlined in the Discussion Paper) for planning processes to be streamlined in the precinct so future investment and development can be made easier. We demand a **thorough and exhaustive planning process** be applied for any EfW incinerator, **or any other industrial development** with the potential to cause pollution, or generate hazardous or intractable waste.

Further, we demand a **revised Master Plan** be placed on exhibition that clearly identifies where in the Nammoona sub-precinct an AWTS (EfW incinerator) may be established, and its necessary buffers to protect other agribusiness and food processing industries from the harmful pollution and other impacts associated with that incinerator.

Why we are opposed to EfW incinerators

AWTS facilities could include technologies such as enclosed composting, anaerobic digestion, or engineered fuel manufacture. However, the AWTS referred to in the Master Plan is an EfW incinerator. This should be specified. As an AWTS is mentioned in the Master Plan and scattered throughout the associated documents, we believe the current scientific research on W2E or EfW incinerators and their impacts on human and environmental health, climate change and recycling, along with degradation of agricultural business, supports a rejection of the Master Plan unless AWTS is removed as a possibility. The following are two of many scientific examples that support this argument.

1. The conclusion of *The Health Impacts of Waste Incineration: a systematic review* (Tait et al. 2019 <https://onlinelibrary.wiley.com/doi/10.1111/1753-6405.12939>) states:

This review shows contamination of food and ingestion of pollutants is a significant risk pathway for both nearby and distant residents. While occupationally exposed groups have been shown in primary studies to most likely suffer adverse effects, they are a relatively smaller population than all residents in the vicinity of incinerators. Workers may be considered a sentinel population for adverse effects. Incinerator workers are probably also local residents so also subject to exposures outside the workplace. Both local residents ingesting food grown in close proximity to incinerators, as well as more distant populations consuming food transported from areas near an incinerator, are open to exposure. 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.

This systematic review highlights significant risks associated with waste incineration as a form of waste management. Many older incinerators were linked with neoplasia, reproductive issues and other diseases. While the results were not consistent across the literature, based on a precautionary principle there is insufficient evidence to conclude that any incinerator is safe. There is some suggestion that newer incinerator technologies with robust maintenance schedules may be less harmful, but 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.

Note that 'more distant populations' are also 'open to exposure' and 'there is insufficient evidence to conclude that any incinerator is safe'.

2. *Greenhouse Gas and Air Quality Impacts of Incineration and Landfill* by Eonomia Consulting for the National Toxic Network, published in 2022 includes in the report conclusion:

Incineration cannot be considered a 'green' or low carbon source of electricity, as the emissions per kWh of energy produced are higher than CCGT, renewables, and the likely aggregated future marginal source of electricity in Australia. The carbon intensity deficit of residual waste incinerators will increase as the electricity grid decarbonises. The use of incineration is therefore also incompatible with the achievement of local net zero climate change targets in respect of emissions from energy generation, unless coupled with carbon capture and storage. This technology is not yet commercially viable, and its use will considerably increase the cost of waste treatment.

In addition, the report found that treated landfill emits less greenhouse gas than an EfW incinerator.

The suite of technical documents that support the Richmond Valley RJP Draft Master Plan do not provide all essential details. A document as important and impactful for the future of the Richmond Valley as the RJP Master Plan should be open and informative and not attempt to disguise, obfuscate or gloss over any details. This is important for people wanting to comment. **It is also essential for people interested in conducting any kind of business within the RJP.** They need to be fully informed in order to be comfortable that their business is compatible with, and will not be compromised by, any other business.

Review of the information supporting the RJP Master Plan

The following analyses each of the documents that comprise the Master Plan.

Master Plan Discussion Paper

We query the justification for the size, extent and location of the Richmond Valley RJP. The *Richmond Valley Growth Management Strategy* states that an additional 187 ha of industrial land will required over the next 20 years. It is unclear why the RJP is so much larger than the required 187 ha, being 510 ha (or 655 ha according to some documents). It is understood there is plenty of industrial zoned land already in Casino which is unutilised or underutilised.

The Line of Sight diagram (Figure 5) fails to acknowledge other relevant planning documents, such as the *State Environmental Planning Policy (Transport and Infrastructure) 2021* which identifies that the thermal treatment of waste involving or resulting in energy recovery is only permissible in areas outside of Greater Sydney permissible under the *Protection of the Environment Operations (General) Regulation 2022*. This regulation identifies the RJP's Nammoona sub-precinct as one of only 4 named sites where thermal treatment of waste may occur.

The circular economy industry is mentioned several times in the Discussion Paper, with no detail about how that might operate. More specific details are required in the Master Plan about how a circular economy industry is envisaged in this location with examples of how businesses might participate. As AWTS, or EFW incinerators, have been deemed part of a circular economy by the former NSW Government on the grounds of 'reuse of resources,' this lack of clarity skirts around this contentious issue and attempts to deflect any argument against it. According to Lisa McClean, CEO of the not-for-profit Circular Australia, the push towards a circular economy requires big systems transitions (source: *Going Circular: Rethinking Plastics in Your Business*, webinar 16 February 2024 hosted by Southern Cross University). She stated that we need to decouple economic growth from the consumption of finite resources, and that can be achieved in 3 ways in a circular economy: first, design out waste and pollution at the source; next, keep materials in the economy at their highest value for as long as possible; and, finally, regenerate natural systems.

Another comment from Dr Orellana was that the term 'circular economy' has been co-opted and abused, and an example of this abuse is the NSW Government legitimising EFW incineration as an inclusion in a circular economy because it satisfies a 'reuse' criteria (because the waste material is being 're-used' to produce energy). This ignores the fact that incinerators come with major environmental impacts through emission of dangerous toxic fumes, produce energy very inefficiently and are even more climate-unfriendly than a coal-fired power station. As he said in his EoMS:

Waste incineration is the end of the line for fossil fuels. It reflects a linear process that is incompatible with a circular economy. Incineration imposes heavy health and other costs on local communities, and it is a significant source of greenhouse gases. It has been reported that even the most modern incinerators produce dioxins, furans, and toxic ash.

EfW incineration as an AWTS would threaten a circular economy's objectives. As such, we reject the characterisation of EFW incineration as 'renewable' or that it even has a role as part of a circular economy. It is a one-way process that destroys the resource it burns and discourages adoption of reuse, upcycling and recycling.

The *Discussion Paper* states the purpose of the Regional Job Precinct initiative is 'to deliver faster planning approvals' and work closely with local councils to 'streamline planning processes.' This is a concern as it could compromise proper oversight of, and opportunity for, public consultation on proposed developments. How is the public going to be reassured that proposals will undergo thorough scrutiny?

With the proposed rezoning outlined in the Discussion Paper (and shown in Figure 7), much of the RJP will become E4 General Industrial. 'Permitted with consent' industries stated as suitable for this zone do not include an AWTS. However, it is understood that the *State Environmental Planning Policy (Transport and Infrastructure) 2021* will prevail over any revised zoning in the Richmond Valley Local Environmental Plan (LEP) in allowing thermal treatment of waste to occur anywhere in the Nammoona sub-precinct, including in the rural and conservation zoned lands.

It is noted however, that the zoning plans in Figure 7 of the *Discussion Paper* and Figure 9 of the *Master Plan* are not consistent with the zoning plan shown in Figure 1.1 of the *Land Use Considerations*. In the latter, less land is to be zoned for conservation management in Nammoona sub-precinct, and a Heavy Industrial area (zoned E5) is identified, conveniently located close to the rail freight terminal. In fact, Sub Precinct 1 Nammoona seeks to 'leverage from rail freight' and so its planning provides for the availability of large format and heavier industrial uses with separation from existing and future residential areas (p. 14).

Under the *Standard Instrument Principal Local Environmental Plan 2006*, it should be remembered that the objectives of Zone E5 Heavy Industrial include to provide areas for heavy industries, and hazardous and 'offensive' storage establishments that need to be separated from other land uses, and to minimise any adverse effect of heavy industry on other land uses. It is questionable how an E5 zone could be located next to conservation or rural-zoned lands. It seems only residential areas are being considered.

The identification of E5 zoning in the *Land Use Considerations* is supported by:

- Figure 3.1 in the *Transport Assessment Report* which includes areas marked with the notation: 'Establish zone to permit a range of general **and higher intensity industrial uses** locations ... where air, noise and odour impacts are manageable'
- Figure 1.2 in the *Biodiversity Technical Report*
- Figure 1-3 in the *Air, Noise and Odour Technical Report*
- Figure 2 of the *Draft Master Plan* which shows by hatching 'Potential higher intensity industry' (surely another way of saying 'heavy industry'?).

With no proper information provided in the Master Plan documents we can only assume this is likely to be where an AWTS would be located.

Table 2 of the *Discussion Paper* appears to be incomplete. The planning approval pathways listed in the Table are just complying development or a development application as required under the LEP. This ignores other potential planning pathways:

- Exempt development
- Development without consent
- State significant development
- State significant infrastructure
- Prohibited development.

It is understood the AWTS would be considered state significant development and that much of the infrastructure provision within the RJP (including electricity transmission lines and

substations) would be classed 'development without consent'. In the absence of E5 zoning, certain heavy industries would be prohibited.

The major discrepancy between the *Discussion Paper* and these other reports (i.e. *Land Use Considerations*, *Transport Assessment Report* and *Biodiversity Technical Report*) requires clarification. If the *Land Use Considerations* is correct, then the *Discussion Paper* is massively misleading. We wonder if the omission is intentional, and another ploy to sweep the possibility of an EfW incineration facility under the carpet.

However, it is noted with some surprise from p.20 of the *Discussion Paper* that, according to the existing Richmond Valley LEP, 'electricity generating works' would be permissible with development consent in the C3 Environmental Zone on Nammoona. We struggle to understand how any other electricity generating works may be consistent with the objectives of this conservation zone to protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values, and how Council managed to get that land use inserted in its LEP as a permissible development in a conservation zone.

With no elaboration on how the term 'electricity generating works' might be interpreted (other than it means a building or place used for the purpose of making or generating electricity, or electricity storage), we can only assume it may also be connected to an EfW incineration facility in Nammoona. If so, then the Master Plan continues to be duplicitous, as it attempts to lay the groundwork for incineration as an AWTS without properly informing the public.

The Proposed Height of Building Map on p.21 of the *Discussion Paper* is also misleading. The text on p.20 states that 'the Richmond Valley LEP will be amended to remove the Height of Building and Minimum Lot Size controls for land proposed to be zoned E4 General Industry, E3 Productivity Support, SP2 Infrastructure and RE Public Recreation'. The map legend on p.21 includes the boundaries of the RJP but does not specify that, within the RJP boundaries, the lack of any colouring on this map means both the height and lot size restrictions will be completely lifted and potentially be unlimited. This oversight should be corrected. It is another instance that arouses suspicion that the potential of an AWTS chimney stack is being hidden from the public. We question why the lot and height restrictions are being removed from land proposed to be zoned as RE1 Public Recreation.

Agricultural Land Assessment

The *Agricultural Land Assessment* only looks at Sub-Precinct 3, Johnson St, when some of the land in the Nammoona sub-precinct is agricultural land (and proposed to remain zoned RU1 Primary Production). Further, Nammoona sub-precinct adjoins rural land that would be impacted by a plume from any future AWTS. The report should address the potential impacts of all business types outlined in the documents on agricultural land within and adjacent to every sub-precinct of the RJP, especially the impact of an AWTS.

The maps of Sub-precinct 3 of the RJP are inaccurate as the adjacent railway line no longer exists. It has been dismantled and is now a bike trail. This inaccuracy is perpetuated in Section 1.2 of the *Master Plan*, which describes an 'eastward connection via the Murwillumbah railway line'. This could be confusing for potential interested businesses and needs to be addressed.

Land Use Considerations Technical Report

This document addresses land use safety planning matters, i.e. risk arising from potentially hazardous industries due to loss of containment of hazardous materials that could lead to

fires, explosions or toxic releases with acute consequences. One of the most potentially hazardous industries is the AWTS and yet it is not identified here. There are numerous overseas examples of incinerators spreading fires and yet that danger to people and other businesses is not considered.

Section 2.2.2 Area 2: *Casino Food Co-Op and surrounds precinct* (p.18) states (our emphasis added):

The Casino Food Co-Op and surrounds precinct ... is centred around an existing abattoir and supporting operations... Within the area the potential to develop **energy infrastructure**, water supply infrastructure and an opportunity site on Department of Education land have been identified.'

The potential 'energy infrastructure' should be elaborated on. Is it a bio energy plant, an adjunct to the EfW incinerator or additional substations? There is an important distinction between these three alternatives. Current enterprises operating in this section would be threatened by an EfW incinerator.

It is only in section 6.12, commencing on p.47, that there is the first recognition of the AWTS. It states:

There are a range of Alternate Waste Treatment Solutions (AWTS) [sic.] either in operation or under development worldwide. The AWTS operate at different scales and employ a variety of different processes and technologies.

Why isn't current research into modern incinerators in the United States and European Union identified here? There are many investigations by independent bodies (rather than the incineration industry) that highlight the dangers and long-term consequences of incineration even with the most recent technology.

On p.48, it states:

Any future proposal for an AWTS facility will require detailed support studies, community engagement and assessment in accordance with NSW State legislation. This assessment will need to consider whether there are any potential hazards related to the processes and technologies that are proposed to be used.

What does 'community engagement' mean, particularly given the minimal community information sessions so far? It seems to us that the community is brought in as a last-minute, hasty, box-ticking exercise, with no intention of addressing concerns.

We question why no hazard assessment is prepared or why the document fails to recognise the potential for land use conflicts if an EfW incinerator is developed at Nammoona. The explanation on p.48 that 'there is no indication of the type, scale or location of AWTS that may be proposed in the Nammoona sub-precinct'(p.48) is weak.

For something as major and potentially impactful on the health of the local population as an AWTS to be left out of safety considerations is a slight to the public. It is also dismissive of the right to accurate and detailed information for any businesses, particularly those that rely on the clean green image of the region, that might want to establish in the RJP but which would experience adverse impacts if an AWTS is later established nearby.

Section 6.13 (p.48) concludes that the range of developments proposed for the Nammoona sub-precinct are likely to be compatible and generally not result in any land-use safety conflict as they do not involve significant quantities of hazardous materials or hazardous

processes. As one of the potential uses of Nammoona is an EfW incinerator, how is it possible to ignore the hazards that could present to other businesses and the conflicts that would result?! An AWTS would threaten the product quality and therefore the financial viability of any agricultural or food-based industry over a wide area, not just the RJP.

Section 6.13 also recognised there may be impact to individual residences but this can be 'managed' by applying the Resilience SEPP. Chapter 3, Part 3 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* requires preparation of a preliminary hazard analysis when a development application is submitted for a potentially hazardous or offensive industry. Again, how will this be consistent with the promised 'streamlining' of planning processes supposedly offered by adoption of the Master Plan?

Figure 6.7 (p.47) shows 4 houses in the southern part of the Nammoona precinct and one in the north-east, plus several others within the 'residential evacuation zone' of the southern rail hub. Figure 7.3 (p.54) shows houses southwest of the Food Co-op precinct, one of which appears to be too close to the proposed 'Power Generation Site' (presumably the BioHub). What will become of those houses and their occupants? As pointed out in an email from the head of the EPA's Strategic Planning Unit to the Manager of RJPs dated 27 April 2023:

Where there are existing residences within the RJP, especially those near [a] Heavy Industry area or EfW, any scheduled activity would have to consider the existing land use rights of those residences, which in this case would be 'rural.' You mentioned that some residences are happy with the subdivision and may sell in the future... and there could be a negotiated agreement with those residences which could be incorporated into the consent conditions and subsequently the licence.

We are aware that the current Mayor of the Richmond Valley Council owns a residence in Nammoona and is willing to sell, but what happens to those other residences if the owners don't agree with the subdivision? Are their continuing use rights simply over-ridden?

Biodiversity Technical Report

The Biodiversity Technical Report is one of several documents which identifies the RJP as being 655 hectares in size.

It illuminates the existential threat to some very special flora and fauna communities in the northern section of Nammoona. Although the report is primarily based on a desktop study, combined with only 22 days of field work over several years, it shows that there should be constraints on development in that area. The biodiversity values are described as those which attach to species and communities listed as vulnerable, endangered or critically endangered under the (Cth) *Environment Protection and Biodiversity Conservation Act* (EPBC Act) and/or the (NSW) *Biodiversity Conservation Act* (BC Act). There are many flora and fauna species with high biodiversity values in this area.

Five plant community types in the Nammoona Precinct have been verified as threatened ecological communities under the BC Act. The following three are given special mention in the report:

- Swamp Sclerophyll Forest on Coastal Flood Plains of the NSW North Coast
- Swamp Oak Flood Plain Forest of the NSW North Coast
- Freshwater Wetlands on the Coastal Plains of the NSW North Coast.

These ecological communities provide food for many fauna species including the endangered Koala and (as their names suggest) are associated with the wetlands, waterways and moister riparian areas of the RJP.

The report identifies that 27 threatened flora species were recorded within 10 km of the RJP, with 8 identified as credit species in the Biodiversity Offsets Scheme, a system which has been thoroughly discredited as offering no protection at all for threatened flora and fauna (Cox 2021, 'How the environmental offsets scheme is failing the Australian wildlife it is meant to protect', *The Guardian*, at www.theguardian.com/environment/2021/oct/22/how-the-environmental-offsets-scheme-is-failing-the-australian-wildlife-it-is-meant-to-protect).

There were 52 threatened fauna species recorded within 10 km of the RJP and the following 6 species were recorded in the RJP: the White Bellied Sea Eagle, the Square-tailed Kite, Little and Large Bent-winged Bats, the Southern Myotis and the Grey-headed Flying Fox. It is also noted that the wetland vegetation in the north of Nammoona provides essential habitat and foraging for species such as the Black-necked Stork and Freckled Duck. The Southern Myotis, a species credit microbat, would be particularly threatened by the loss of its fishing waterways.

The Koala was one of the 52 threatened species mentioned as being recorded although its presence at the site was discounted by the authors. The presence of Koalas must be recognised, as it ranges widely and there are suitable food trees in the eucalypt open forest recorded across the RJP. Also, the Koala has been sighted in many nearby parts of Casino as shown in Friends of the Koala (FoK) records dating from 2001 to 2023. FoK members have been called to sightings of Koalas as close as 300 metres to Nammoona which is definitely within a Koala's home range.

Another species mentioned is the ground orchid *Geodorum densiflorum*. Table 5.3 is misleading in its description of this species' distribution. Populations of this species are known from sites south of Casino, at Whiporie, Kyarran, Coutts Crossing and Corindi. However, the species can be cryptic and does not appear above ground every year. It should be assumed to be present within the RJP.

So, what is the existential threat to the creatures and plants as diverse as the Hairy Jointgrass, the Southern Myotis, the Koala and the Common Planigale? It is clear when the plan for upper Nammoona is examined. Only tiny areas are proposed for conservation zoning - one patch of C2 Environmental Conservation for a major part of the wetland, surrounded by a narrow band to be zoned C3 Conservation Management. To the north lies RU1 Primary Production land with some isolated small patches of conservation-zoned land. The real threat comes from the heavy and general industrial zones E4 and E5 that lie to the east, south and west of the wetland.

These industrial 'employment' zones will threaten the biodiversity of Upper Nammoona, pressing it in on both sides, polluting the wetland and sedge land. To add insult to injury, encircling the northern edge of these delicate conservation areas, is the proposed but apparently already approved Casino Rail Freight Terminal line bringing in, potentially, trash for the AWTS that could be built in the area to be zoned E4 (or E5) to the southeast of the conservation zones. While land uses permitted under the RU1 Primary Production zone should be kinder to the flora and fauna of Upper Nammoona than the proposed industrial zones, the RU1 area covers the Casino rail freight terminal approved in the DA some years ago. Thus, even in this zone there will be industrial development, including a new rail alignment and hardstand area for the loading of containers and associated works. Any

industrial development close to the conservation zones of Upper Nammoona will be a threat to the flora and fauna therein.

The effects of development that impinges on the watercourses and lakes of Upper Nammoona will eventually flow down to the Richmond River via the tributaries of Barlings Creek, affecting the indigenous and non-indigenous flora and fauna as it goes. In the best interests of the biodiversity of Upper Nammoona, it would be wise to reassign the classifications so that E4 and E5 revert to RU1 Primary Production. The railway line would be advantageous to Upper Nammoona if it were left on the drawing-board, as it would not be needed if there were no E4 and E5 industrial uses in Upper Nammoona.

Although the Master Plan purports to 'incorporate protections of existing vegetation and biodiversity values by proposing the creation of conservation zones in areas of high value within the RJP area,' and classifies some flora and fauna as worthy of inclusion in the discredited biodiversity offsets scheme, it is clear to anyone who has looked at the drawing of the layout that E4 and E5 are too close to the areas of 'high value' and will pose an existential threat, particularly to the special flora and fauna of Upper Nammoona; the habitat of the Koala, the Common Planigale (which, despite its name, is threatened with extinction), the fishing microbat, and the Southern Myotis. The Master Plan has identified the habitat for these 3 threatened fauna species within the RJP. Koala populations are in a rapid state of decline in NSW. There is koala habitat in Upper Nammoona and koalas have been recorded in Casino close to the RJP, therefore it should be protected from the industrial development the Master Plan is championing in the RJP.

Soils, Geology and Contamination Report

An initial reading of this report is concerning because it is limited by two important factors: its reliance on desktop data and that it is restricted to existing and historic land use. This is a failing. How can a report that aims to assist in the development of the Master Plan not combine field investigations with a consideration of future use of the RJP?

The use of more land for industrial purposes, particularly in the Nammoona section of the RJP, will increase the likelihood of damage to the soils and contamination of the area. Most of the land in Nammoona is now designated for general industry with areas for potentially higher intensity industry and two catalyst opportunity sites. Since the Master Plan frequently mentions AWTS and renewable energy, it is a failing of the report not to have included an analysis of the potential contamination threat from that source.

The report writers found that past and present data desktop analysis gave no cause for alarm concerning the soil conditions, and no constraints from that quarter were thought likely to hinder the development of the RJP. However, it noted that consideration of the application of water sensitive urban design (WSUD) principles should be given in the proposed development areas to mitigate potential changes to soil water levels and salinity conditions in the catchment, and to minimise environmental degradation. So WSUD is a constraint on industrial development, especially AWTS development. It is also dealing with the future use of the area which is out of character in a report that set out to deal with 'existing and historic land use'. *Consideration* is, however, too tame a word for the protection of the sensitive wetlands in upper Nammoona in particular from the environmental degradation that would ensue from its proximity to industrial development such as an AWTS.

Based on a desktop review, the report found that current and former industrial sites are potential sources of contamination. It then makes the alarming claim that 'the Master Plan and associated zoning generally represent a similar or less sensitive land-use from a

contamination perspective.' What about the AWTS? How can industrial development of that kind be called a less-sensitive use??

There are many contaminants of concern in the Nammoona area and the pathways of concern at the various sites in existence are: inhalation of vapour from soil and /or groundwater and contaminated dust from soils; dermal contact or incidental digestion; transport of contamination through surface water flows and underlying groundwater aquifers; and transport of contaminants through mechanical transport. These pathways are going to be much more congested in the future if an AWTS is ever built in Nammoona.

As well as identifying the current contaminants and the pathways through which they pollute, there is also mention of the receptors of these contaminants, namely; current site users; future site users; potential future users of groundwater; workers carrying out construction, installation or maintenance works within the site; groundwater beneath the site; and adjacent sensitive receptors e.g. adjacent residents, cattle etc. and sensitive ecological receptors. If an AWTS is ever built in the RJP there will be infinitely more damage done to the receptors of these contaminants.

There is much to be concerned about with the current contaminants in the RJP and the threat that now exists for those who wish to develop the area. The report suggests that assessment should take place before future development to prevent exposure to contamination hazards that already exist. It is the increase in contamination from an AWTS that is threatening the future contamination load of the RJP and clearly should be dealt with in the Master Plan.

When threats to the Richmond Valley are considered and planning proposals are uppermost in the minds of the local citizens, a question arises: What happened to Mary Madden Park? It seems to have been swallowed by the western end of Nammoona. As the report says, it is not typical for land used as a park to be zoned as industrial land. This is a question for the Master Plan. We think this would be an example of a 'place-based planning framework that streamlines the approval process, removing statutory barriers, and enhancing investment certainty.' If Mary Madden Park can disappear so quickly it would be just as easy to introduce an AWTS to the RJP. Streamlining might facilitate industrial development, but at a huge community and environmental cost.

Hydrogeology

Note: There is confusion across many reports, including this one, resulting from the use of current LEP designations which will be adjusted and renamed in the near future, as outlined in the Discussion Paper.

Unlike the other documents supporting the Master Plan, the Hydrogeology Report does plan for an AWTS by taking into consideration its water requirements.

A total of four workshops were conducted over a four month period involving technical experts, and local and state government stakeholders. The workshops ensured that the options created were tested with the final two workshops focusing on option development testing and refinement of the preferred option. (p.25)

All three RJP options preferred by workshop participants in the Nammoona Industrial Area include a potential AWTS. As does Table 8.5 (p.34) where the water requirements of an AWTS are estimated. It is astonishing that a dominant operation such as an AWTS is not front and centre in the suite of other Master Plan documents, together with all the detail that would be needed for the community to be well informed.

The report also cursorily addresses the effect of the plume of contaminants likely to result from incineration. On p.14, it mentions a 'plume associated with a contamination source' (i.e. an AWTS) and identifies the constraint this will have on accessing groundwater:

No water supply work (bores) to be granted or amended within the following distances of a plume associated with a contamination source as identified in the plan:

- within 250m
- between 250m and 500m if no drawdown of water will occur within 250 m of the plume
- a distance greater than 500m if necessary to protect the groundwater source, the environment or public safety.

This statement acknowledges that an AWTS is a significant imposition on the landscape, other industries, human health and the environment. It should be considered in much greater detail across the Master Plan suite and honest information given to the community to comment on. It is also ludicrous to pretend that even 500m is a safe distance from a plume. How a plume from an AWTS might spread in this area can be located at <https://norichmondvalleyincinerator.org/plumemap/>

European sources state that the most critical contamination occurs within a 10km radius of EfW incinerators. Given the proximity of agricultural activities, schools, residences, the Food Co-op and other potential businesses to the Nammoona Precinct, an AWTS should be completely removed from possibility.

Some of the 'rules for groundwater works' allow for the Minister to approve variations, for instance, of 'depth to access groundwater' (p.14-15). This is a shocking statement. It undermines the rules and means that, as long as the Minister can be successfully lobbied, rules are irrelevant.

Under the *Water Management Act 2000* (WMA) water licences are separated from land tenure, which means water licences can be traded. 'In general, commercial licences under the WMA 2000 are granted in perpetuity' (p.13). This is a worrisome fact given extreme weather events in recent years, including drought, and the uncertainties of water security being brought about by climate-change.

Figure 3.2 (p.5) includes energy infrastructure at the northern end of Area 2. It is unclear what this energy infrastructure is. Is it a bio hub or is it something adjunct to an AWTS?

The water storage options map (Figure 9.1, p.44) includes a future water pipe courtesy of Rous County Council. The option for Rous to supply water to Casino would have to be dependent on Dunoon Dam being built, to which there is enormous community opposition.

The details within the hydrogeology report on groundwater sources serve to highlight their value, a value that should not be compromised by the introduction of an AWTS.

Why do other reports in the Master Plan suite attempt to gloss over the looming presence of an AWTS? Why has the community not been consulted? Why does Richmond Valley Council continue to protest ignorance about an AWTS when it has been lobbying for it for years?

Intermodal Feasibility Report

This report discusses AWTS in section 2.4 as a potential freight opportunity. Apparently, the Richmond Valley Council has identified that the annual volume of waste to be transported to the Nammoona sub-precinct to feed into such a facility will be 108,000 tonnes by 2041. This estimate is not supported by any publication or other reference.

It is noted that the North Coast Waste Investment Review prepared in September 2020 predicted that the throughput capacity of such a facility would be between 90,000 and 180,000 tonnes of waste per year if each of the 12 North Coast Councils contributed their residual waste. However, since the Review's publication, we understand that only two other councils in the North Coast Region would support transporting their residual municipal waste to an AWTS in Casino.

According to this report, the proposed intermodal terminal would only be viable in terms of the required volumes of material if an AWTS is established in the Nammoona sub-precinct, **and** substantial amounts of waste are transported to the site via rail – either as a regulatory requirement (which may undermine the financial viability of the facility) or because the waste is being sourced from places such as Sydney or Newcastle, well outside the Northern NSW region (as, according to the Investment Report, rail freight is only economically viable for these greater distances).

In Section 3.1, the report states that the development consent for the Casino Rail Freight Terminal (CRFT) submitted in 2010 and modified in 2014 is still valid. It is unclear how this might be the case if “to date, the CRFT has not been constructed”. If there has not been substantial commencement, surely the development consent should have lapsed?

Furthermore, in Section 3.1.1, there is reference to ‘the coastal wetlands habitat zone’ in relation to location of the CRFT. There are no mapped coastal wetlands in the Nammoona sub-precinct. Consistent with the *Biodiversity Report*, this should identify this vegetation as endangered ecological communities of floodplain wetlands.

Structure Plan

The methodology on p.6 of the Structure Plan outlines 5 stages towards the development of the RJP.

Why is it only at Stage 4 that the community is invited to comment/participate in the RJP development process? Stage 1 mentions a ‘stakeholder engagement plan’. How were these ‘stakeholders’ identified? Surely the whole community of the Richmond Valley and broader Northern Rivers must be considered priority stakeholders as we will all be affected in some way by such a major development.

Success of the ambitious ‘snapshot of agriculture megatrends impacting Australia’ (p.9) relies on a perception that the sources of these products are seen to be clean and green. An AWTS incinerator in the vicinity of any of the growing and processing areas of agricultural products would threaten the market potential and viability of these businesses. The map of nearby agricultural industries (Figure 2, p.10) identifies many agricultural enterprises, all of which would be tainted and adversely affected by the presence of an AWTS.

Key Themes in Local Government Narratives (p.21) includes ‘expand local agricultural industries and tourism’, ‘protect the ongoing viability of important farmland’ and ‘support the RJP with a focus on food production, manufacturing and alternative energy’. Is the ‘alternative energy’ an AWTS incinerator, biogas digester (‘BioHub’) or truly non-polluting

renewable energy sources such as solar? The Structure Plan should specify this, as an incinerator is completely incompatible with the other stated aims.

We believe this lack of clarity is intentional. It is a tactic designed to deflect arguments against an AWTS incinerator.

There is little to know information about the consultation processes that may be adopted before an AWTS incinerator is provided. On p.70, the Structure Plan states:

Any future proposal for an AWTS facility will be subject to a separate full development assessment process under the existing planning framework. This would entail detailed community consultation and input from other Government Agencies such as EPA.

As community consultation for the RJP's declaration and Master Plan has been so belated and cursory, how are we to trust that any future process relating to an AWTS facility would be different? We already know that the RJP has already been designated by the NSW Government as suitable for an AWTS incinerator and the Master Plan promises to streamline future planning processes. We reject this outcome.

We note that formulation of the Structure Plan has relied on many reports compiled by a number of agencies and consultants. RARVI has identified many confusions, inconsistencies and contradictions across the reports, as well as omissions. The most glaring omission is a lack of detail about a potential AWTS incinerator.

How could the Structure Plan possibly be relied on to mount a true assembly of measures to satisfy the Richmond Valley RJP Objectives (p.5) and develop the RJP in ways that are compatible between businesses, that allocate resources effectively, and that guard against damage to human health and the environment?

Traffic Assessment Report

This report assumes that the proposed land uses in the Nammoona sub-precinct will include 'a renewable circular energy provider, i.e. energy from waste'. We reject the characterisation of an EfW incinerator as 'renewable' or even part of the circular economy. It is a one-way process that destroys the resource it burns and discourages adoption of reuse, upcycling and recycling.

The Traffic Assessment in Table 3.1 identifies that the EfW incinerator will be classed as heavy industry with high impact (presumably on local roads and traffic). Further, that the 'development yield' (a term not defined) will be a total of 10,118 m². It is unclear how this 'development yield' has been incorporated into the analysis of the traffic that such a facility might generate. It is questionable whether the current traffic generated per metre of gross floor area of current industries in the precinct will be applicable for an EfW facility which will need to be fed hundreds of thousands of tonnes of rubbish each year.

Further, it is considered the traffic generated per GFA is likely to be an underestimate. The traffic count surveys of the Summerland Way/Reynolds Rd intersection in Section 2.5 (p.18) of the report is based on only one day's traffic, on a Tuesday in October 2022. This day is not representative of the traffic using the intersection, which is busier on Wednesdays (when NRLX trading occurs) and on the days when garbage trucks are delivering waste to the landfill. This undermines the credibility of the report and its predictions of future road upgrades needed to accommodate new industries in the RJP.

Utilities Infrastructure Analysis Report.

This report acknowledges some of the planning work carried out to date by Richmond Valley Council in a stocktake of waste types and quantities in each of the 12 North Coast councils and testing the market for alternate [sic.] waste treatment solutions [sic.]. It also discusses AWTS in detail in section 6.5.1 and claims its 'capacity' would be between 5 MVA and 10 MVA. The use of MVA (megavolt-ampere) is curious, as MW (megawatts) is usually used to measure the power output of a generator, whereas MVA is used to measure the electrical load of a system.

However, this report appears to be inconsistent on whether the AWTS may be constructed. For example, it states that construction of the AWTS would mean that Richmond Valley Council may not need to consider landfill solutions beyond 2035 (and so will not need more than one more cell to be established in the Nammoona landfill). But it also states that it does not consider the AWTS to be a reliable source of electricity and so 'should be assumed to not exist for planning purposes.'

One question that is not addressed is what disposal options are being considered for the waste generated by the AWTS (which we understand will be approximately 25% of the waste burnt). Unlike the ash in coal-fired power stations, we understand this is not suitable fly-ash to be used in construction materials. It may need to be transported to a licensed hazardous waste facility. This gap in information is truly concerning.

In the chapter on electricity infrastructure, the report states that the 11kV feeder currently servicing the Nammoona sub-precinct would need to be upgraded if there is significant additional load added to the development area. The use of the term 'load' relates to power consumed within the RJP. There is no mention of any powerline or substation upgrades required should an additional power supply, such as an EfW incinerator become operational in the sub-precinct.

Air, Noise and Odour Technical Report

This report appears to be one of the more recently completed (being December 2023) and yet it also refers to the RJP being an area of approximately 655 hectares, not 510 hectares as per the Master Plan. Of concern to the Casino community, it identifies that the RJP includes 'areas capable of accommodating higher-emission industries'. But it also flags there is a medium to high risk of impact to 'receptors' or 'receivers' (i.e. Casino residents and high school students) from existing industries 'due to the relatively close proximity of these existing receptors to existing industrial activities'.

The report (in section 2.1, p.8) describes a significant history of odour complaints and the need for adequate buffers. And yet, despite this, even more high-emission industries are considered suitable in the RJP in the absence of these buffers.

Similar to other supporting documents, this document fails to clearly identify a suitable location for an EfW incinerator, nor the buffers required to avoid potential risks. However, it does model air dispersion and noise and some of this can be used to guess areas where an EfW incinerator would not be acceptable. Curiously, one of these locations is near the current landfill operations.

The rights of existing residents appear to be neglected by the authors in their assumption that 'appropriate planning measures will be put in place to ensure there are no sensitive receptors from within [the report's] sensitive receptor boundary'. This boundary (shown in

Figure 3-4, p.25) extends to the fence of some existing houses within the built up parts of Casino and seems to include 7 existing residences.

Mourners at Nammoona Lawn Cemetery are not recognised as potential receptors or receivers worthy of consideration in this report. The necessary buffer area for 'received odour' (Figure 5-2) covers the cemetery and Mary Madden Park and appears to extend into houses in Casino.

Heritage Report

This report comprises assessment of both Aboriginal and Historic (shared and non-Aboriginal) heritage. A site of potential heritage significance not considered in the report is Mary Madden Park, a reserve created in 1980 to honour pioneer women from the Casino district. This park lies within the RJP's Nammoona Precinct and yet is not acknowledged at all.

With regard to Aboriginal Heritage, it is unclear whether the relevant community representatives of the Bundjalung Nation have been given the opportunity for detailed consultation. For example, Marcus Ferguson was clear that he was not speaking for the Casino Boolangle Local Aboriginal Land Council when responding to ERM. The Consultation Log in Appendix A identified that the important site inspections and field work were being organised during the immediate aftermath of the 2022 floods, and carried out in April 2022 when members of the community were still focused on flood recovery.

However, it is notable and pleasing that these field investigations found two culturally modified trees which have managed to survive within patches of old growth vegetation inside the RJP's boundary. The lands surrounding these trees should be rezoned for conservation protection (C2) and mapped in the LEP as being of 'high Aboriginal cultural significance' to avoid future harm to these important sites. The statement in section 9.2.1 (p.87) that the newly identified culturally modified tree in survey unit 1 can be managed in accordance with the conditions of AHIP C0001253 is concerning, as the summary of this AHIP's conditions in Table 6.2 suggests that harm by proposed works is permitted for all Aboriginal objects in, on or under the land, except in the three discrete areas identified as 'no harm areas'. Will we lose this old tree and its cultural markings?

It is deeply concerning that a site recorded during the heritage investigations for the RJP Master Plan (namely RVRJP IF 01, AHIMS #04-4-0299) was subsequently destroyed - who by and when is not identified. The statement that 'The site no longer poses a heritage constraint' (Executive Summary, p.i) suggests a very clear motive for the site's destruction. It also suggests there will not be any further investigation of the heritage potential of the area surrounding this former site. The option of repatriating any objects to the site, should they be recovered during compliance action, has apparently been ruled out.

The landscape surrounding the wetland in the northern part of Nammoona has been identified as being of Aboriginal cultural significance. One of the Aboriginal Heritage recommendations states (Executive Summary p.iii):

Master Plan assessment should ensure proposed development would not result in an adverse impact to the health of the Richmond River and existing wetland area within Precinct 1 [Nammoona].

It is unclear how the Master Plan can deliver on this if it ignores some of the polluting industries (such as an AWTS) that might be built in the RJP.

The Richmond River is identified as being a unique ecosystem which supports important populations of shorebirds and threatened species, with value to both the Aboriginal community and early European settlers as a transportation route and source of food. We remain concerned regarding the proximity of the heavy industry shading to the wetland supposedly protected by C2 Conservation Protection and C3 Conservation Management zonings, and the lengthy list of incompatible land uses permissible with consent in the C3 Zone. These planning and zoning decisions will mean that adverse impacts on the wetland and downstream waterways, including the Richmond River, will be inevitable.

The potential for the RJP's development to have adverse impacts on visitors to the adjacent Nammoona Lawn Cemetery is identified in the report, but only in relation to visual impacts. The current building height limit of 8.5 metres in the precinct allows for visual impacts of development to be mitigated through screening vegetation. The removal of the building height limit within the RJP will lead to additional visual impacts that cannot be mitigated. The report recommends completion of a Statement of Heritage Impact (SOHI) before any development exceeds this height limit. However, if the Master Plan were genuine about streamlining future planning approvals in the RJP, a better solution would be to retain the building height limit of 8.5 metres within the viewshed of the cemetery. However, the *Air, Noise and Odour Technical Report* clearly identifies the area closest to the cemetery as part of its 'Preferred Stack Location' (Figure 5-3, p.47).

The heritage assessment fails to recognise the potential for impacts on the lawn cemetery due to noise, odours or other emissions (dust, smoke etc.) arising from industrial development within the RJP. Given the data in the *Air, Noise and Odour Technical Report* identifying the high level of emissions likely to occur in the cemetery, this oversight needs to be corrected.