

Environmental Assessment Submission

National Ceramics Industries Australia
Part 3A Major Project – MP09_0006

Submitted by: Farley Investigation Area Landowners Group

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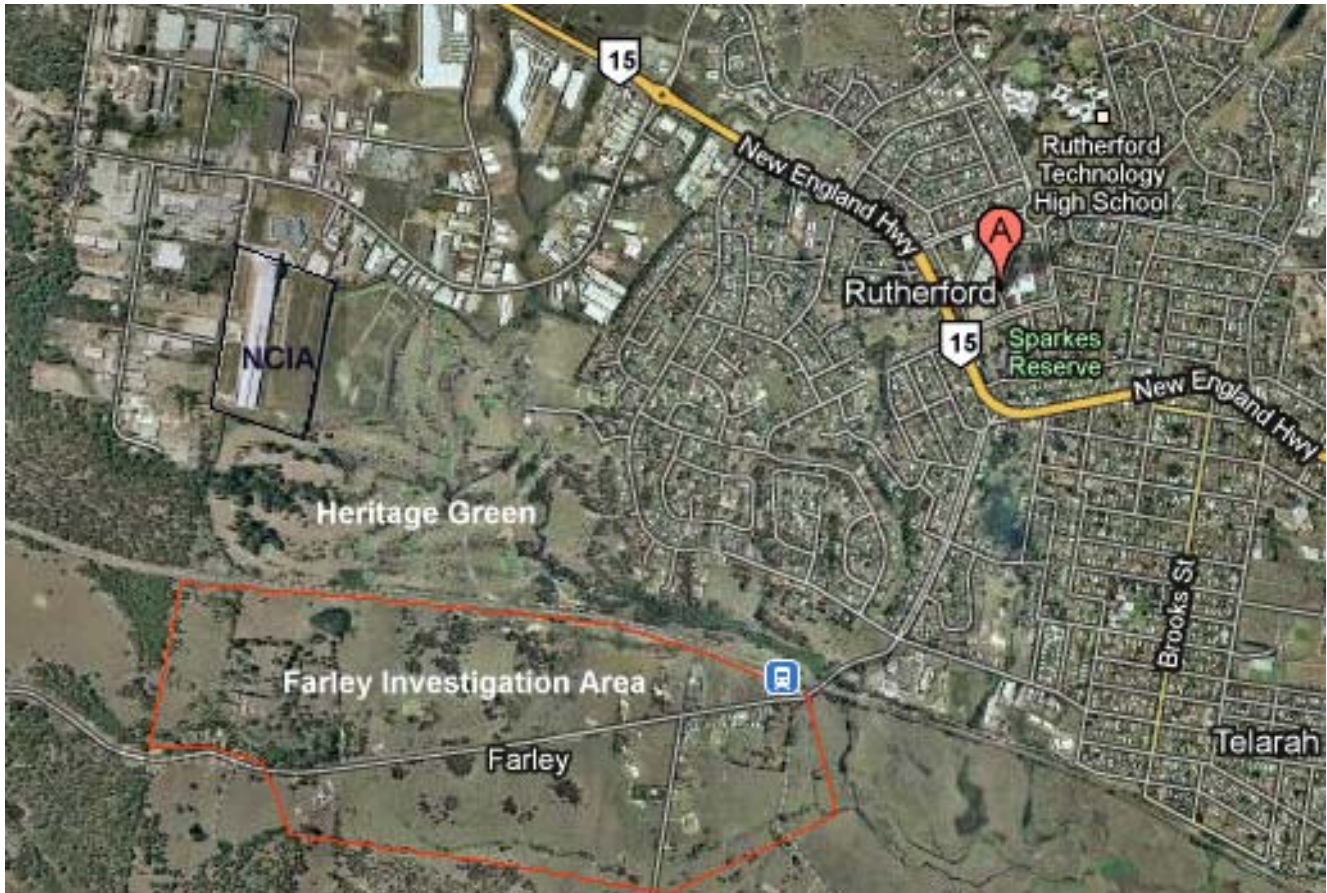
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Table of Contents

1. Introduction	1
2. Foundation Issues	2
2.1. Inadequate evaluation of the impact of the NCIA Project on the FIA	2
2.1.1. Farley Investigation Area Developmental Status	2
2.1.2. Maitland City Council Support	2
2.1.3. Development Progress	3
2.2. Failure to adequately address the Director General's Requirements	3
2.3. Insufficient Opportunity Cost Analysis	3
2.4. Insufficient Acceptance of Responsibility for Environmental Impacts	3
3. Director General Key Issues – Detailed Review	6
3.1. Noise Issues	6
3.2. Air Quality and Odour Issues	8
3.3. Visual Amenity Issues	11
4. Conclusion	12

1. Introduction

The Farley Investigation Area (**FIA**) is an area defined by Maitland City Council which is approximately 140 hectares on the southern side of the main northern railway. It extends from Farley station on the northern and southern sides of Wollombi Road. It is being developed collectively by the Farley Investigation Area Landowners Group (**FIALG**) and is scheduled to accommodate 1500 residential allotments.



Reference: Google Maps

Over the coming decades, the Hunter Region is poised to experience exponential economic and population growth. Just as the development of industry is crucial to unlocking this potential so too is the development of identified urban release areas to house the projected population growth. The State Government acknowledges the inevitability of urban zones adjacent to industrial areas and has recognised the imperative of good planning to achieve sustainable symbiotic relationships between residential and industrial land uses.

The FIALG strongly object to the National Ceramics Industries Australia Part 3A Development proposal (**NCIA Project**) in its current form because adequate environmental assessment has not been undertaken to determine the resultant impacts on residential development within the FIA.

This submission seeks to:

- highlight project issues that have been inadequately identified, quantified or mitigated
- provide recommendations that address these issues, and
- ultimately to promote the development and long term coexistence of light and heavy industry in the Rutherford Industrial Area with neighbouring existing and future urban areas.

2. Foundation Issues

2.1. Inadequate evaluation of the impact of the NCIA Project on the FIA

- The FIA is one of two urban release areas, the other being Heritage Green (HG), in very close proximity to the NCIA site that will be manifestly impacted by the substantial expansion of the NCIA facility.
- The NCIA Project Environmental Assessment (EA) indicates that:
"Land to the south of the Main Northern Railway Line is generally zoned for rural purposes, with some rural residential development along Wollombi Road." (EA, p9)
 This assessment is erroneous as the majority of the land described is part of the FIA - an urban release area that is in the process of being rezoned to residential as evidenced in Sections 2.1.1, 2.1.2 and 2.1.3.
- The EA treatment of Farley as rural is inexplicable given that the EA devotes a sub-section (EA, s5.2.1, p30) to detailing its support of the Lower Hunter Regional Strategy, 2006 and yet Farley is clearly identified in the Strategy as a 'Proposed Urban Area'.
- The Director General (DG) recognises the need to address the NCIA project's integration with future land uses when the DG states in a number of Key Issues that the proponent needs to qualify the *'impact of the proposed development on sensitive receptors (both current and proposed)'*. All of the FIA must be considered as sensitive receptor for as the EA points out:
"DECCW considers sensitive receptors to be areas where people are likely to either live or work, or engage in recreational activities." (EA, p52)
- The failure by the NCIA Project to accurately identify the entire FIA as a sensitive receptor has meant that it has not adequately identified or measured the key impacts nor considered any mitigation measures that may be required. In short, the EA has not complied with the DG's directive. The level of impact assessment afforded to HG should similarly be afforded to the FIA, the other major urban release area in close proximity.
- Given the FIA's development trajectory, it is expected that rezoning will be complete and an overall concept plan for a staged subdivision development approved in the second half of 2011. Clearly there is potential for imminent and ongoing land use conflict which needs to be considered and addressed to ensure the long term economic and environmental sustainability of both projects.

Recommendations

- The EA needs to acknowledge that the entire FIA urban release area is a sensitive receptor and provide a detailed evaluation of impacts, identification of required mitigations and resultant residual impacts.

2.1.1. Farley Investigation Area Developmental Status

The Farley Investigation Area is:

- identified and adopted as a proposed urban area within the Lower Hunter Regional Strategy 2006
- identified and approved as Category 1 – Residential within the Maitland Urban Settlement Strategy (MUSS) 2008
- currently subject to a rezoning application lodged with Maitland City Council, RZ 09-005.
- scheduled to go to the Department of Planning gateway process by the end of the year.

2.1.2. Maitland City Council Support

Council have clearly demonstrated their support for the expeditious rezoning/development of the FIA as evidenced by the following:

- Council fast tracked the promotion of the FIA from Category 2 to Category 1 Residential land in the MUSS (2008)
- Council requested that a Farley Landholders Group be formed to facilitate an efficient and comprehensive approach to the development of the area.
- Council and the Department of Planning have indicated that the rezoning application can progress immediately upon gazettal of the Maitland LEP 2011 and be processed concurrently to ensure there is no unnecessary delay. Council have advised they are expecting to gazette the Maitland LEP in June 2011.

2.1.3. Development Progress

- The following preliminary studies have been completed and will be further augmented and finalised upon recommendations from the Department of Planning during the gateway process:
 - o Historical Heritage, Nexus Archaeology and Heritage
 - o Indigenous Archaeological , McCardle Cultural Heritage Pty Ltd
 - o Flora and Fauna, RPS Australia East Pty Ltd
 - o Water and Sewage Servicing, RPS Harper Somers O'Sullivan Pty Ltd
 - o Noise and Acoustics, Spectrum Acoustics
 - o Traffic, Better Transport Future
 - o Geotechnical Urban Capability, Coffey Geotechnics Pty Ltd
 - o Stormwater Management, ADW Johnson Pty Ltd
 - o Land Supply, ADW Johnson Pty Ltd
- Additional documentation already created:
 - o Preliminary structure plan has been prepared and submitted to Maitland Council.
 - o Concept subdivision layouts have been prepared for specific lots within the FIA including part of Lot 90 DP 774537 which adjoins the existing railway corridor.
 - o Preliminary work is under way to develop a Concept Plan which will be lodged with Maitland Council for consideration concurrently with the rezoning application. Upon gazettal of the rezoning in 2011 Council will be able to determine the overall Concept Plan application.

2.2. Failure to adequately address the Director General's Requirements

The Director General's Environmental Assessment Requirements have not been adequately addressed in respect of the following sections:

Heading	Requirement	EA Inadequacy
General Requirements 2	<i>"The environmental Assessment of the project must include detailed description of the project, including the plans for any proposed building works."</i>	Does not provide detailed plans of the proposed building works, omissions include: <ul style="list-style-type: none"> • Specifications (eg. weight, colour) of sheet metals proposed for wall and roof construction • Appropriately scaled architectural relief drawings • A detailed landscaping and external lighting plan
General Requirements 4	<i>"The environmental Assessment of the project must include a description of the existing environment, using sufficient base line data."</i>	<ul style="list-style-type: none"> • Does not provide a topographical map of the site or surrounding areas, including the FIA. • Does not provide Air Quality contour maps for Scenario 1.
Key Issues: Noise	<i>"Noise & Vibration – including construction, operational and traffic noise and particularly the impact of the proposed development to sensitive receptors (both current and proposed)."</i>	<ul style="list-style-type: none"> • Does not include a detailed assessment of the FIA. • Additional details provided in Section 3.1 Noise Issues .
Key Issues: Air Quality & Odour	<i>"Air Quality & Odour – air quality impacts for construction and operation of the proposed development, particularly in relation to particulates and impacts to sensitive receptors (both current and proposed). Details of proposed mitigation measures."</i>	<ul style="list-style-type: none"> • Does not include a detailed assessment of the FIA. • Additional details provided in Section 3.2 Air Quality and Odour Issues.
Key Issues: Visual	<i>"Visual – assess the visual impact of design and siting of the facilities & buildings, lighting and any signage. Proposed landscaping including details"</i>	<ul style="list-style-type: none"> • Does not include a detailed assessment of the FIA. • Additional details provided in Section 3.3 Visual Amenity Issues.

Heading	Requirement	EA Inadequacy
	<i>of indigenous vegetation planting to off-set clearing."</i>	
Consultation	<i>"During the preparation of the Environmental Assessment, you should consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups or affected landowners."</i>	<p>Questionable engagement with Farley residents.</p> <ul style="list-style-type: none"> EA Section 6.3 does not identify Wollombi Rd residents as being recipients of any NCIA notification yet Figure 9 indicates they were included. Interviewed residents could not recall receiving a letter from NCIA. To date the FIALG has not been contacted by NCIA.

Recommendations

- Require NCIA to fully comply with the DG's requirements prior to determining the proposal.

2.3. Insufficient Opportunity Cost Analysis

- An often quoted object of the Environmental Planning and Assessment Act 1979 is *"to encourage the promotion and co-ordination of the orderly and economic use and development of land"*.
- At the heart of this object, is the notion that for every land use option there is inevitably an environmental and economic cost AND an opportunity cost attached to that option. The Act enshrines as a fundamental planning principle the need to consider the options and make determinations that optimize the benefits *"for the purpose of promoting the social and economic welfare of the community and a better environment."*
- The opportunity cost of the planning choice is of particular importance to the assessment of the EA proposal. The Rutherford Industrial Area has limited environmental margins particularly with respect to air quality and noise due to its close proximity to existing and future residential development. The modeling clearly demonstrates that the cumulative estate emissions is fast approaching and in some cases already exceeding the regulatory limits. NCIA is already a significant pollution emitter and the proposed expansion is identified as having the potential to alter air quality in established residential precincts as well as impact on the development of identified urban release areas. The opportunity cost of allowing NCIA to consume a disproportionate amount of the environmental margin is that:
 - there may be fewer opportunities for the development of other industries and the potential for underutilization of industrial zoned land and infrastructure in the Rutherford area; and
 - there is a risk of sterilizing potential residential land in the FIA and HG if adequate emission limits and mitigation measures are not imposed.
- The EA does not provide a compelling case for the economic benefits to the local economy which is mostly based on an employment increase of 70 personnel. When balanced against the voracious consumption of environmental margins there is arguably a case that a range of cleaner industries will ultimately provide a better employment and economic return with less environmental impact.

Recommendations

- When considering the social and economic benefit of the project, the Department of Planning should place due weight on NCIA's consumption of environmental margins and the effect of that on future industrial and residential development in the surrounding precincts,

2.4. Insufficient Acceptance of Responsibility for Environmental Impacts

- A fundamental tenant of sound planning is that all reasonable measures should be required to contain the impacts of a development within the confines of the development site. Not only is it the most effective method of reducing the scale of any impact but it also ensures that the development potential of other sites in close proximity are not unduly inhibited by the impacts.
- This notion is enshrined in the Maitland LEP 1993 Clause 23(2) where in respect to land zoned 4(a) General Industrial (the zoning that applies to the NCIA site), *"Industrial development is allowed only if it does not adversely affect adjacent residential areas."* Similarly in SEPP 33, developments of 'potentially hazardous and

offensive industries' are required to contain their impacts so that they do not adversely affect existing and future land development in the locality.

- In its current form, the proposed expansion does adversely affect existing and planned residential areas with respect to noise, air quality and visual amenity. While some cursory attempts at mitigations have been made the proponent has also sought to reduce their liability by imposing these affects on 3rd parties by:
 - o seeking increases in permissible pollution limits, effectively reducing the existing and future residential amenity; and
 - o requiring other developments to provide the mitigation measures to attenuate impacts largely produced by NCIA eg. NCIA insistence that HG attenuates noise by constructing barriers and land buffers.
- In addition, the proponent has a history of abrogating its environmental obligations, for example:
 - o Air quality standards and monitoring procedures have been regularly breached, as evidenced in environmental reports for the existing NCIA development.
 - o Visual amenity considerations were disregarded when the existing facility was constructed. In the EIS for the existing facility, NCIA had indicated they would utilize external building construction materials that were colored dull greys and grey-greens to reduce the visual dominance of the building but failed to implement this, adopting a light cream color instead.

Recommendations

- The Department of Planning should reaffirm the existing development consent emission limits for noise and air quality.
- The Department of Planning should require NCIA to undertake additional strategies for reducing and containing the impacts of their proposal thereby upholding their development obligations under the Maitland LEP 1993 to obviate adverse offsite environmental impacts.
- Should the proposal be approved, it is imperative that the development consent is appropriately conditioned and that a strict regime of compliance is enforced.
- The Department of Planning should evaluate this proposal in the light of SEPP 33 provisions as the industry has the potential qualify as a 'potentially offensive industry'.
- NCIA should consult with the FIALG to explore opportunities for co-operation to resolve the land use conflicts.

3. Director General Key Issues – Detailed Review

This section provides a detailed review of three of the Director General Requirements – Key Issues that have the greatest impact on the FIA: Air Quality, Noise and Visual Amenity.

3.1. Noise Issues

- As the FIA was not recognised as an urban release area in the EA, the majority of the FIA land was regarded as rural land and as a consequence the FIA has not been comprehensively assessed for acoustic impacts.
- The EA is requesting a significant increase in the upper limit thresholds for noise emissions beyond the existing developmental consent that applies to the currently identified Farley sensitive receptors.

Times	Old Limits	New Noise Goals	Difference
Daytime (7am – 6pm)	41 dBA	43 dBA	2 dBA
Evening (6pm – 10pm)	39 dBA	43 dBA	4 dBA
Night (10pm – 6am)	35 dBA	42 dBA	7 dBA

- Note that the above values are for existing sensitive receptors in Farley. Given that the FIA extends down to the railway line the impact to some potential FIA sensitive receptors would be more akin to the HG impacts.

Times	Old Limits	New Noise Goals (HG)	Difference
Daytime (7am – 6pm)	41 dBA	48 dBA	7 dBA
Evening (6pm – 10pm)	39 dBA	48 dBA	9 dBA
Night (10pm – 6am)	35 dBA	43 dBA	8 dBA

- The development consent for the existing NCIA plan identified acoustic impacts that were deemed appropriate for the surrounding residential environment. Further explanation is required as to why higher noise limits are now appropriate and acceptable for the same sensitive receivers.
- The request for a manifest reduction in the current acoustic amenity of the environment does not appear to be warranted as there are numerous design and construction attenuation methods that can better contain the noise on-site, which have not been included in the NCIA noise attenuation strategy, for example:
 - Construction of the building using concrete slabs.
 - Use of thicker roof metal sheeting.
 - Greater application of industrial silencing techniques, for example in the dust extraction facility
- Even under the existing NCIA noise emission consents, where the maximum daytime allowable limit is 35 dBA parts of the FIA are being impacted. The EA indicates that the 35dBA contour extends into the FIA, quite considerably under temperature inversion and north-west wind conditions (EA Appendix E Noise Impact Assessment – Appendix C2 & C4 respectively).
- There are a number of collection and modelling methodological issues and anomalies with noise data that devalue the EA's conclusions:
 - There was only one noise logger south of the railway line at 256 Wollombi Road and it was NOT at the location identified as the nearest potentially affected noise-sensitive receiver along Wollombi Rd (EA Appendix E, Figure 4, p7)
 - The EA identifies the nearest sensitive receiver south of the railway line as “located approximately 860m from the site boundary.” (EA, p64). As the northern boundary of the FIA is the rail corridor there is clearly the potential for many sensitive receptors to be impacted considerably closer than the identified receptor.
 - There is no breakdown of the production process that analyses and characterises each acoustic noise event. This data would allow for a greater understanding of the impact of the noise beyond its volume and inform more targeted attenuation strategies.
 - The noise goals for the existing Rutherford residential area and the HG residential area are different (EA, Table 25, p65), even though equivalent residential densities are envisaged. Clarity is required as to why these should be different and how any such rationale might be applied to the determination of the FIA noise goals.

- o The EA makes the following point about the assessment of sleep disturbances:

“To avoid the likelihood of sleep disturbance, the ENCM [Environmental Noise Control Manual] recommends that the $L_{A1(1 \text{ minute})}$ noise level of the source under consideration should not exceed the background noise level (L_{A90}) by more than 15dBA when measured outside the bedroom window of the receiver during the night time hours (10.00 pm to 7.00 am).” (EA, p65)

- o Then in the following table (Table 26, EA. p65) details night time sleep disturbance noise goals for Farley which are in defiance of the ENCM recommendation by up to 7 db:

Location	Measured Background Noise Level (L_{A90})	Sleep Disturbance Noise Goal $L_{A1(1 \text{ minute})}$	Difference
Residences south of the project along Wollombi Road in the suburb of Farley.	37 dBA	59 dBA	22 dBA

- o There is a marked difference in the level of incursion into the FIA of the 35dBA contour between the Heggies (2009) study and the Bridges Acoustic (2002) study (EA, Figure 10). Additional detail is required to account for the difference and substantiate the Heggies study as the more reliable estimate.
- o NCIA contend they cannot fully account for the acoustic impacts to the HG site as:

“The degree of affectation would depend on the type of development proposed for different areas of the proposed Heritage Green (i.e. site layout and orientation)” (EA, Appendix E, p22)

NCIA can still model the acoustic impacts under a variety of scenarios that take into account distances from the noise source and dwelling density/height to provide acoustic measurement estimates and expected exceedances of target noise goals. The EA needs to perform more comprehensive acoustic modelling to quantify the extent of impacts on both urban releases areas (FIA and HG) with and without mitigation measures so that adequate consideration can be given to the acceptability of the residual environmental impacts.
- o The EA indicates that operational noise modelling has assumed that the noise mitigation and management measures have been implemented. Yet there is no clarity as to the attenuation value of the assumed mitigations.
- o The EA utilises the Industrial Noise Policy definition of ‘urban’ when accessing amenity for residential receiver types. With respect to the FIA the ‘suburban’ definition would more accurately characterise the future environment and adoption of this definition would have required the EA to address more stringent noise emission standards.
- The ARTC Maitland to Minimbah Third Rail proposal is a Part 3a project currently being deliberated on by the Department of Planning and given that it is the link between the completed first phase and the Newcastle port it is highly likely to be approved. The ARTC project will significantly add to the background acoustic environment, during the construction and operational phases. Based on the proposed construction schedules of both projects the construction phases may well run concurrently. The EA does not acknowledge the Third Rail Project or take into account the cumulative effect of the acoustic impacts of both projects during the construction or operational phases.
- While the expanded rail operations will have a significant impact to the acoustic amenity of the area and ARTC has a responsibility to ameliorate the impacts, this in no way diminishes NCIA’s responsibility to contain and/or mitigate acoustic impacts to the FIA site. Rail passbys are not continuous and adequate attenuation measures need to be in place to mitigate the acoustic impacts of the NCIA plant, inclusive or exclusive of ARTC generated acoustic impacts. Similarly NCIA can not rely on the development of HG to provide acoustic barriers that will attenuate noise emanating from the NCIA site as ultimately there is no guarantee for the FIA that the HG site will be developed.

Recommendations

- NCIA need to acoustically assess the FIA to account for all existing and future sensitive receptors. The assessment must detail the environmental impact to these receptors, articulate intended mitigations and quantify any residual impacts.
- The Department of Planning should retain the noise emission limits within the existing consent. And if retained, NCIA need to indicate the acoustic mitigation measures proposed to negate the encroachment of the 35dBA noise contour into the FIA.
- NCIA need to undertake additional noise attenuation strategies that preserve the acoustic amenity of the surrounding vicinity.
- The Department of Planning should condition as part of any consent the implementation of the mitigation and management assumptions used in the acoustic modelling.

- NCIA need to address methodological issues and data anomalies and revalidate noise findings and goals.
- NCIA need to meet immediately with affected urban release landowners to explore opportunities for cooperation to address acoustic mitigations. For example, the utilisation of construction fill in the construction of bunds.

3.2. Air Quality and Odour Issues

- The FIALG consider air quality impacts on existing and future residential development as being a significant environmental issue associated with the expansion of the NCIA operations. The current NCIA approval for Stages 1-4 have specific requirements to adhere to in accordance with the DECCW Guidelines and to ensure compliance with their Environment Protection Licence, which is inclusive of on-going monitoring.
- The EA examined two development scenarios.
 - o Scenario 1 – the approved and operating plant Stages 1-4 in the existing building.
 - o Scenario 2 – the proposed stages 1-8 operating within the existing and proposed building.
- A number of different types of air pollutants were identified and modelled however only two present as being of significant concern. These being particulate matter less than 10 microns (PM₁₀) and Hydrogen Fluoride (HF). Each of these pollutants is discussed in subsequent sub-sections.
- The potential air quality impacts on future residents within the FIA has not been adequately identified and addressed. Sensitive receptors 7, 18 and 19 are within the FIA but are approximately in excess of 1000m from the NCIA stacks. There will be significant residential development between the identified existing Farley receptors and the Main Northern Railway Line. The EA needs to model this development scenario to identify all air quality impacts on future residences in this location. It is possible that potential impacts will be more akin to those modelled for precincts within the HG proposal. In this regard it is essential that NCIA are required to utilise best practice work methodologies and technologies to reduce emissions at the source as this is the most effective form of environmental management.
- In addition to impact on future dwellings, existing sensitive receptors along Wollombi road are all serviced by tank water captured from rooves of existing structures. The modelled increase in PM₁₀ and HF's will have a detrimental impact on overall water quality in the short term particularly during construction until such time as the urban release area becomes fully serviced with reticulated water and sewer. The cumulative impact on air quality and noise emissions from NCIA and the ARTC Third Rail project, particularly if construction occurs concurrently, is significant and should be addressed to ensure a holistic planning response.

Particulate Matter (PM₁₀)

- The table below clearly illustrates that there is a significant difference in the air quality impacts between Scenario 1 and Scenario 2 with respect to the 24hr Ground Level Concentrations (GLCs) of PM₁₀ criteria.

Sensitive Receptors		PM ₁₀ - 24 Hour Emissions	
		Existing (Scenario 1)	Proposed (Scenario 2)
Boundary Receptors	1	56.2	61.1
	2	50.7	54
	3	51.8	55.2
Residential Receptors	4	50.6	53.4
	5	-	51.1
	6	-	51.3
	7	-	50.5
	8	-	51.5
	11	-	51.6
	14	-	51.9
	17	-	51.6
	18	-	50.9
	20	53.1	57.7
	21	52.4	55

Sensitive Receptors		PM ₁₀ - 24 Hour Emissions	
		Existing (Scenario 1)	Proposed (Scenario 2)
	22	51	52.7
Maximum Threshold Criteria		50	50

Source: Extract from EA – Appendix C, Air Quality Impact Assessment, Table 10 and Table 13.

Note that table only includes receptor where adopted criteria was exceeded.

- Scenario 1 already has exceedances occurring at the Boundary Receptors and nearby future residential receptors at HG (7 exceedances).
- Under Scenario 2 there are 14 exceedances in the GLCs 24hr PM₁₀ criteria, equating to 9 out of the 16 residential receptors as well as the 3 boundary receptors. The table clearly demonstrates that the expansion of the NCIA project will result in twice as many residential receptors being likely to experience exceedances in 24 hr PM₁₀ levels. These levels suggest that there is significant potential for land use conflict between the expanded NCIA plant and existing and future residential development.
- It is noted that there are no PM₁₀ exceedances predicted at any receptor over an annual period.
- The modelled NCIA expansion emissions are significant in that receptors well within the existing residential area of Rutherford which were not affected under Scenario 1 will now be affected by exceedances in Scenario 2. The EA has not provided any 24hr PM₁₀ GLC contours so it is difficult to determine the spatial differences between Scenario 1 and 2.
- The EA states that the major factor contributing to PM₁₀ exceedances is the high level of ambient particulates from other sources and that the expanded NCIA plant emissions will be negligible. In this regard the EA has not identified the impacts of PM₁₀ exceedances on the FIA or indicated specific mitigation works to reduce PM₁₀ emissions at the source.
- Maitland Council in their submission to the EA expresses specific concern about NCIA's history of environmental performance citing previous environmental reports with detailed numerous exceedances in air quality standards. It is imperative that NCIA demonstrate evidence of having explored all mitigation options to reduce PM₁₀ stack omissions to limit the number of 24hr PM₁₀ exceedances to those experienced under Scenario 1, anything less would be environmentally irresponsible.
- The ongoing increase in PM₁₀ emissions as a result of the NCIA expanded operations combined with operational emissions from the third Track proposal (fugitive dust and diesel locomotive emissions) need to be considered when assessing the impact on the amenity of existing and future residents in the locality.
- The containment of impacts to within the site where ever possible is essential to the long-term co-existence and sustainability of industrial and residential development

Hydrogen Fluoride (HF)

- The table below clearly illustrates that there is a significant difference in the air quality impacts between Scenario 1 and Scenario 2 with respect to the 24hr GLCs of HF criteria.

Sensitive Receptors		Total Fluoride as Hydrogen Fluoride 90 Day Emissions	
		Existing (Scenario 1)	Proposed (Scenario 2)
Boundary Receptors	1	0.66	0.69
Residential Receptors	20	0.53	0.59
	21	0.50	0.57
	22	0.55	0.62
Maximum Threshold Criteria		0.5	0.5

Source: Extract from EA – Appendix C, Air Quality Impact Assessment, Table 10 and Table 13.

Note that table only includes receptor where adopted criteria was exceeded.

- Modelling for Scenario 1 indicates HF emissions are within the regulatory limits except for an exceedance of the 24hr GLCs at Receptor 22 within the HG site. However the criteria for 90 day average GLCs are exceeded at the Boundary receptors and those residential receptors within the HG site.
- Scenario 2 again indicates the same receptors will experience exceedances with respect to HF however the potential level of exceedance has increased significantly by up to .07(ug/m³). Given the location of the receptors where exceedances are expected to occur there is a probability that if unmitigated HF's may impact on future dwellings within the FIA.

- Given the close proximity of existing residential development, coupled with the identified urban release areas, one has to question the merits of approving an extension to the largest tile factory in Australasia at the interface between industrial and residential development in Rutherford. In order for the sustainable co-existence of the land-uses, NCIA must contain their emissions on site wherever practicable.

Recommendations

- NCIA need to provide additional explanation to account for the significant differences in the number and location of residential receptors impacted by air quality exceedances between Scenario 1 and Scenario 2.
- NCIA need to clearly identify the mitigation strategies that have already been factored into the modelling and then quantify the level of attenuation afforded from any other proposed works so that the likely residual air quality impacts for the FIA can be identified and addressed.
- NCIA need to meet immediately with affected urban release landowners to explore opportunities for cooperation and potential mitigation to address air quality impacts. For example, the utilization of fill extracted during the NCIA building phase in the construction of landscaped bunds; provision of water filters for residents reliant on water collected from rooves.
- The Department of Planning need to establish appropriate benchmarks for PM₁₀ and HF through conditions of consent including an on-going program for both on and off site monitoring.

3.3. Visual Amenity Issues

- The NCIA EA has not identified nor reviewed the potential visual impacts on future residential development within the FIA. The visual perspectives incorporated within the EA are not taken from any identified or potential residential receivers along Wollombi road.
- The visual impacts within the FIA are unknown and are likely to be varied due to the topography of the FIA. The FIA land slopes upwards away from the railway line to the ridgeline defined by Wollombi Road. The existing NCIA building, due to its size and colour, is already prominent in the industrial landscape when viewed from Farley. The proposed new building due to its height, bulk and scale will exponentially exacerbate the already significant visual impact.
- The EA proposes that the visual impact will be mitigated by the choice of building colours and material selection, appropriate landscaping and the installation of lighting which avoids lighting spillage. It is difficult to determine the residual visual impact as the EA does not provide details on how the bulk and scale of the building will be reduced through selection of building materials and colours. Given that a large number of future residences (HG and FIA) are likely to be viewing the development, many from elevated locations, it is incumbent on the proponent to identify specifically any architectural and aesthetic treatments that are proposed, so that an informed assessment can be undertaken. In this regard it would be appropriate for a series of photomontages to be prepared showing the likely impact from sensitive locations within HG and the FIA. Consideration should be given to the greater use of articulation in both the roof and walls to assist in reducing the bulk and scale, and to the use of alternate wall materials such as Hebel block or pre-fabricated concrete panels with recessed sections to provide visual relief, these options would have the added benefit of having increased acoustic attenuation properties.
- A significant proportion of the site is proposed to be developed (building and hard stand) leaving limited opportunity for landscaping. Given that landscaping is intended to mitigate the development's overall visual impact it is imperative that a detailed landscaping plan be prepared showing vegetation types, location, numbers and mature heights. The landscaping plan should take into account views from the various locations within the FIA. The landscaping strategy/plan should also canvass offsite landscaping opportunities and to this end the Farley Landowners Group are keen to engage with NCIA to discuss the proposal and the best way to mitigate its visual, acoustic and air quality impacts on future residences within the identified Farley urban release area.
- Specific details regarding building treatments/materials, landscaping and lighting are integral to understanding the impact of the proposal and should be provided and assessed prior to any determination. Should consent be granted to the proposal relevant conditions should be imposed to ensure compliance with these aspects of the development. History on this site has proven that reliance on general commitments within the EIS does not translate to enforceable development outcomes as is evidenced by the existing colour of the building being light cream as opposed to the grey-green that was muted, likewise the promise to use materials to provide visual relief has not eventuated.

Recommendations

- NCIA need to provide specific details of all external finishes and building materials to be used and how they will mitigate the visual impact of the building from the FIA. NCIA need to give greater consideration to building design solutions to mitigate visual, noise and air quality impacts
- NCIA need to prepare photomontages that view the development from a variety of sensitive receptor locations within the FIA.
- NCIA need to provide a detailed landscaping plan, showing location, type, number and mature heights of trees and shrubs.
- NCIA need to provide a detailed lighting plan, showing outdoor installation locations, orientations and lighting types.
- NCIA need to meet immediately with affected urban release landowners to explore opportunities for cooperation to address visual impacts. For example, the utilization of construction fill in the formation of earth bunds and landscaping both on and off-site.

4. Conclusion

- The FIALG recognises the need for industrial and urban development to co-exist, however at this time the FIALG strongly objects to the NCIA upgrade proposal based on the following:
 - o The failure of the EA to acknowledge and fully evaluate the FIA as a sensitive receptor. The FIA has long been identified by Council and the Department of Planning as an urban release area and is already substantially progressed in the development approvals process.
 - o The failure of the EA to adequately comply with all the Director General's requirements.
 - o The request for an increase in pollution emission permissions, without adequate adoption of design and mitigation measures to reasonably contain the increased noise and air quality impacts within the NCIA site and soften the visual amenity impacts of the facility.
 - o NCIA's poor record of environmental compliance and unwillingness to accept responsibility for the environmental impacts of their activities.
 - o The adverse environmental impact on the existing and future residential amenity and questionable economic benefits when balanced against economic opportunity costs and environmental impacts.
- While the FIALG strongly objects to the NCIA proposal in its current form, we believe that if the extent of impact can be made acceptable then this may lead to a withdrawal of our objection. In order to make the final impact acceptable, NCIA must address the following in their Preferred Project Report:
 - o NCIA must acknowledge and fully evaluate the FIA as a sensitive receptor.
 - o The EA must be modified to implement the recommendations detailed in this submission.
- The optimum planning outcome is an upgrade to the NCIA operations with minimal impact on the development and on-going amenity of the identified residential precincts. The greatest opportunity to drive this outcome is through a considered and co-operative approach between NCIA and affected landholders at the pre planning approval and pre construction phases. The FIALG believe that during the Preferred Project Report finalisation period there would be great value in NCIA entering into direct dialog with the FIALG to canvass options for the reduction of any long term conflict and ensure economic and environmentally sound development outcomes for both projects.