Thrumster Wastewater Scheme Objection

1. Insufficient Time for Public Review

a/ Why has the council provided objectors with only 14 days to respond to a complex, multi-document proposal, despite taking months to review objections? This limited timeframe makes it nearly impossible for residents to properly assess the approximately 2,000 pages released in the Response to Submissions (RTS) and Amended Thrumster plan.

b/ Inability for community to provide informed feedback

Also I would have liked to apply for these additional documents

Thrumster Wastewater Scheme – Strategic Wastewater Management Plan (Beca HunterH2O, 2023d), *Discharge Options Assessment* (Beca HunterH2O, February 2024), *Connection Investigation Response – ECN-022950_MNC000088 – Thrumster Sewer Scheme V3* (April 2025), and Feedback from the Birpai Traditional Owners Corporation,

But council has a waiting period of 20 days to receive these documents. This restriction hinders the community's ability to provide informed feedback.

2/ Concerns Regarding GHD Report Reliability

The GHD RTS and Amendment Report for the Thrumster Wastewater Scheme contain inconsistencies that raise concerns about the accuracy and transparency of the information presented. The reports acknowledge potential errors, stating:

"GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information." (Amendment Report Thrumster Wastewater Scheme, p. 38)

Given the significant financial investment in GHD's consultancy services, it is reasonable to expect accountability for the accuracy of their findings. These concerns warrant an independent review to ensure objectivity in decision-making.

3 /Pedestrian and cyclist safety:

Council is very aware from resident concerns and objections for the concern of safety for pedestrians, joggers cyclists and school children that walk along Fernbank Creek Rd daily.

The GHD RTS have deceived and misled DPHI stating that there is no expected pedestrian activity along Fernbank Creek Rd. Also note there is a bus-stop on the corner of Hastings river drive and Fernbank creek rd.

See below

Page 52 Question from DPHI

Is there sufficient space to allow pedestrian movement along Fernbank Creek rd?

Response

There are currently no pedestrian facilities on Fernbank Creek Road. In accordance with the distance of the construction compound/WTP site from Port Macquarie (a minimum of three kilometres) and the absence of active transport facilities on the roads leading to the construction compound/WTP site it is not expected that there will be any pedestrian activity on Fernbank Creek Road.

Response to resident comment by council

P 18

Council will provide clear sightlines for school children, cyclists and pedestrians from Fernbank Creek Road and Hastings River Drive intersection to 433 Fernbank Creek Road. During construction the traffic management plan will look to implement a restriction on deliveries to the site aligned with the school bus schedules.

This discrepancy raises concerns about whether pedestrian activity has been adequately considered. Heavy vehicle traffic from construction and ongoing operations will create additional risks, making road safety improvements essential.

4/ Bioaerosols, Microtoxins

The GHD RTS report I believe has been misleading in their response regarding the release of microorganisms, microtoxins, gases, viruses and fungi spores into the atmosphere. These reports state that they would not be released due to no bubbling. **Thrumster WWTP treatment process includes a continuous bioreactor which will agitate the water releasing the toxins – see below**

page 16 -18 RTS

comment

Microorganisms and viruses and micro toxins released from waste water system will threaten health of closest residents.

Answer

This outdoor storage pond is not going to have aeration – i.e. where air is bubbled through the water in the pond to keep oxygen levels at appropriate levels. Given that most of the treatment processes occurs within structures there is no pathway for bio aerosols to form and to then escape to the atmosphere and leave the site. Enclosing the processes has also improved conditions for the workers at these facilities by limiting their exposure to bio aerosols.

Appendix A Updated project description

“Thrumsper WWTP treatment process includes a continuous bioreactor with submerged membrane separation or membrane bioreactor (MBR) providing mechanical and biological nutrient reduction in wastewater.’

5/ Ecoli Concentrations during a wet event or flood

Response to EColi and raw sewage release in event of wet weather or flood is misleading and a misrepresentation of what may actually occur

Answer to E.coli in the GHD RTS

Table 5.4 lists the expected concentrations of enterococci during emergency discharge situations – i.e. in flood conditions." In this type of situation, there will not be sufficient time to undertake full treatment of the wastewater which is why a higher level of enterococci is listed. In this type of situation, there is also considerably more water flowing through all of the creeks. Discharges that might occur if the stormwater storage pond should ever overflow will be mixed into a very large volume of water which is why it is considered that the change in levels of enterococci will only be small."

Given the nature of the local swampland where water flow is minimal, untreated effluent may pool rather than disperse. This scenario increases risks of contamination, odour generation, and harm to local wildlife, particularly endangered species. A more thorough environmental impact assessment is required.

6/ Odour

The GHD reports state that gaseous waste streams would be extracted to the Odour Control Unit
There is no Odour control unit !!

Page 53 question from DPHI

Confirm how the management of solid, liquid and gaseous waste streams with potential to generate emissions to air will be undertaken

Response

"The wastewater treatment plant is highly automated and controlled. Solid waste would be transferred from the sludge loading facility which has been included in the dispersion model. Gaseous waste streams from the inlet works and sludge dewatering would be extracted to the odour control unit**.** Liquid waste would be treated by the facility and sources of odour during treatment have been included in the dispersion model."

Despite this claim, the documentation indicates that an Odour Control Unit is not currently planned for installation but may be considered in the future if deemed necessary. This discrepancy assumes odour mitigation may not exist. Residents in proximity to the WWTP need assurance that odour impacts will be properly addressed from the outset, rather than left as a future possibility.

see EIS below

odour	Likely	STP will be odour source and impacts will be subject to nearest sensitive receivers and airshed behaviour	Y	Y	?	Y	Yes	Key Issue + Focussed Engagement	Odour has been assessed as part of the Air Quality Impact Assessment report (AQIA). Assessment of odour impacts was undertaken based on a review of the operational activities, review of the recommended separation distances, estimation of odour emissions based on review of similar operating plants, and prediction of impacts at the nearest sensitive receptors using dispersion modelling. Three scenarios were modelled with varying use of the odour control unit (OCU). Predicted concentrations complied with the criteria at all receptors for all modelled scenarios, with increased use of the OCU leading to reduced odour impacts at the receptors. Based on this, the risk of odour impacts at nearby sensitive receptors is considered to be low. Management and mitigation measures have been proposed for general operation of the project to further reduce risk of odour emissions

7/ Water and environmental contamination

a/ Non-compliance with Water Quality Standards

The GHD RTS report admit water quality won't be met contaminating our waterways

Page 75 RTS

Comment from EPA

NSW Water Quality Objectives will not be met by the proposal

response

It is acknowledged that compliance against the NSW Water Quality Objectives may not be met for several of the parameters analysed, the releases will generally only influence water quality in Kooloonbung Creek with aquatic ecology assessments

b/ Flawed hydrodynamic Modelling approach

The Thrumster Wastewater Scheme – Kooloonbung Creek hydrodynamic analysis see Appendix C Supporting information.

This analysis appears to rely on outdated data, using a dry-month scenario from records that are approximately nine years old I believe this is the best case scenario and modelling should have been based on worst case scenario with heavy rain periods to predict real water quality impact to the environment. More comprehensive modelling that considers recent climate trends and wet-weather events should be undertaken to ensure environmental integrity.

2 Analysis and interpretation

2.1 Simulation period

The simulation period selected for the analysis consisted of four weeks within March 2016. This period fell within the average rainfall simulation year that was applied in the modelling for the Water Quality Impact Assessment (Intrawater, 2024). As presented in Figures 2-1 and 2-2 below, this represented a generally dry period allowing for focussed analysis of contributions from the WWTPs and the tidal influences on the flows in Kooloonbung Creek.

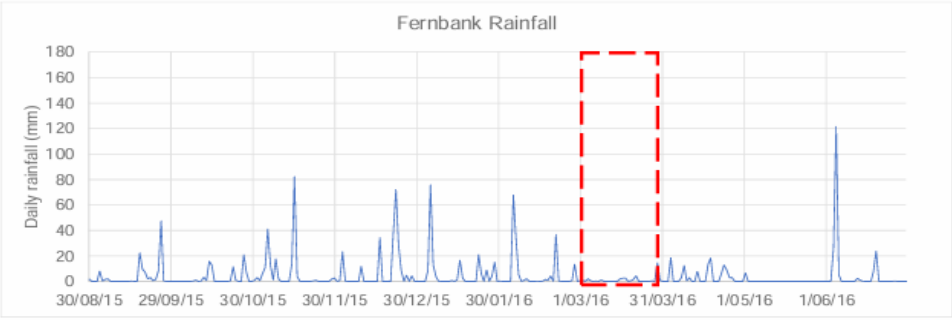


Figure 2-1 Daily rainfall for the Fernbank catchment (2015-16)

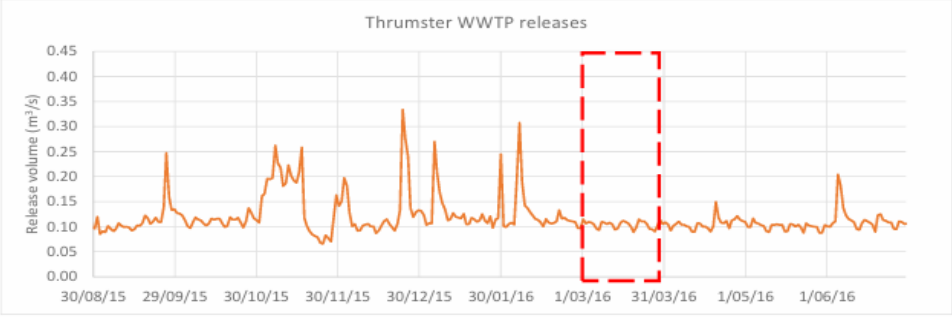


Figure 2-2 Release volumes for the Thrumster WWTP to Kooloonbung Creek (2015-16)

8/ Noise

a/ Inadequate Consideration of Noise Impacts

Noise is a significant concern for affected residents and businesses, yet the report appears to downplay its impact. For example:

- **Noise Monitoring Locations**: The RTS states that measurements were conducted, but some locations such as CT-04—were placed away from the proposed alignment. This raises concerns about whether the worst-case scenario was properly assessed. (RTS, p. 43)

b/ Contradictory Statements on Construction Hours in GHD RTS

Page 28 - Construction will occur during standard daytime hours when possible, with noisy or vibrating work scheduled for less sensitive times. Standard construction hours are: – 7am to 6pm Monday to Friday – 7am to 1pm Saturday – No work on Sunday and Public holidays

This is repeated in the Amendment report

Construction Work Hours Appendix A Updated project description

Project element	Summary of the project
Construction work hours	– Monday to Friday: 7:00 am to 6:00 pm – Saturday: 8:00 am to 1:00 pm – No work on Sundays or public holiday

BUT THESE REPORTS GIVE REFERENCE TO REFER TO ref NV4 see below:-

appendix B-Updated management measures

regarding noise

ref NV4

No more than two consecutive nights of noise with special audible characteristics and/or vibration generating work may be undertaken in the same NCA over any 7-day period, unless otherwise approved by the relevant authority.

This contradicts the GHD RTS assurances on page 28 response to submission that work during construction won't be disruptive, see -Construction Work Hours Table. Drilling pouring concrete and heavy machinery may need to proceed nonstop e.g. concrete cant dry during pour with this impact would make living unbearable Continuous noise exposure—can have significant effects on residents' well-being. More transparent communication regarding the actual construction schedule and improved mitigation measures is required.

Ref NV4 permits alternating night-time construction over extended periods, Furthermore construction can be approved by relevant authorities to be even worse.

This contradicts assurances that work will not be overly disruptive, as NV4 permits alternating night-time construction over extended periods.

We have a right of peaceful enjoyment of our property

c/ Neighbouring residents also need to be given precise information of intensity, hours, days, weeks and months that noise will be affecting them from drilling, delivery of land fill during construction

d/ According to Appendix F Noise and Vibration, I believe St Columba Anglican School needs to be told exactly the length of time- weeks, months drilling noise and vibration and intensity will affect their students

e/ Residents and businesses need to be informed of noise and odour etc released through the pumping stations and vents during operation

f/ Absence of Individual Consultation for Thousands of Residents

The Amendment Report Thrumster Wastewater Scheme Page 34 states

'Due to the large extent of the project and large number of sensitive receivers, amended predicted noise levels at individual receivers has not been provided.'

This suggests that many affected residents have not been individually consulted or informed about noise disruptions.

g/ This EIS clearly shows noise is a key issue during the prolonged months of construction where noise is predicted to exceed the controlling criterion of 55 dBA LAeq, (1 hour) and 60 dBA LAeq, (15 hour), respectively. Mitigation measures as previously discussed ref NV4 allows for 2 consecutive nights of work a night reprieve then alternating night time interruption It also allows for continuous disruption every working day

In a rural environment where background noise levels are typically **30–35 dB**, prolonged exposure to noise exceeding **55–60 dB** will be highly disruptive. This omission needs to be addressed to ensure affected communities have an opportunity to discuss and mitigate the impacts.

Noise mitigation seems deceiving when comparing the GHD response to our comments see also table attached from EIS

Environmental Impact Statement (EIS) scoping worksheet for:			hh *Thrumster wastewater scheme - Port Macquarie Hastings Council*						10-Aug-22	29-Jul-24
What matters might be impacted?			What activities might cause an impact?		What are the characteristics of the impact?				What level of assessment and engagement is required in the EIS preparation phase?	
Social and environmental matters i.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements *Click on the matter for a description, or the link above for full glossary*			Without any mitigation, is the proposal likely to impact on the matter? *(Select from list)*	If there is a 'likely' impact: 1. list the activities expected to cause the impact; and 2. if applicable, list the receptor being impacted and its status. *E.g. construction noise will be heard at nearby school* If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location? *(Manual entry)*	Is the impact, without mitigation, expected to cause a material effect with regard to its... *(Answer 'Y', 'N' or '?')* *Click on characteristic for description, or the link above for further detail*				Does the impact need assessment in the EIS? *(Auto fills)*	Expected level of assessment and/or engagement required *(Auto fills)*	Updated following completion of specialist assessment
					extent?	duration?	severity?	sensitivity?			
		acoustic	Likely	Construction noise would be heard at nearby sensitive receivers including schools, residences. Confirm operational noise	?	?	N	?	Unknown	Other Issue	Noise and vibration is identified as a key issue and raised by the community. A Noise and Vibration Impact Assessment (NVIA) has been prepared for the project. Outcomes of this NVIA identified that noise from WWTP and pipeline construction was predicted to exceed noise management levels (NML) at nearby sensitive receivers. Analysis indicated that daytime road traffic noise levels at at nearby sensitive receivers along Fernbank Creek Road south of Hastings River Drive and Hastings River Drive east of Winery Drive were predicted to exceed the controlling criterion of 55 dBA LAeq, (1 hour) and 60 dBA LAeq, (15 hour), respectively. Noise modelling predictions indicated no adverse impacts during the operation of the project at surrounding sensitive receivers. The relative increases in road traffic noise levels associated with the operation of the WWTP are predicted to be less than 0.5 dBA. These changes are compliant with the guidance contained in the RNP (EPA 2011). Mitigation measures for construction and operational noise impacts are identified in the NVIA to minimise potential impacts.

9/ Vibration Impacts on nearby Properties

a/ Lack of communication on Potential Property Damage

Affected and neighbouring residents have not been informed of the vibration potential damage to property and that they will receive vibrations above the British standard and AVTG daytime human comfort criteria

See Below from the EIS

During pipeline trenching construction, residential and non-residential receivers that are nearby may potentially experience vibration levels above the DIN 4150 structural damage safe working distances. At the WWTP work location, sensitive receivers were identified to potentially experience vibration levels above the British Standard and Assessing Vibration: a technical guideline (AVTG) (2006).

b/ Lack of communication of effect of vibration effects on residents

Neighbouring affected residents have not been informed on the expected vibration discomfort that they will receive

See below from EIS

AVTG daytime human comfort criteria during the access road construction activities. During trenching construction activities, residential and non-residential receivers that are nearby may potentially experience vibration levels above the British Standard and AVTG daytime human comfort criteria.

Additionally, ref NV4 permits drilling to continue 2 nights continuously. Sensitive receivers especially those residents adjoining the plant have not been informed how long in weeks months these vibrations can continue see below:-

Environmental Impact Statement (EIS) scoping worksheet for:	hh *Thrumster wastewater scheme - Port Macquarie Hastings Council*							10-Aug-22	29-Jul-24
What matters might be impacted?			What activities might cause an impact?	What are the characteristics of the impact?				What level of assessment and engagement is required in the EIS preparation phase?	
Social and environmental matters I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements *Click on the matter for a description, or the link above for full glossary*			Without any mitigation, is the proposal likely to impact on the matter? *(Select from list)*	If there is a 'likely' impact: 1. list the activities expected to cause the impact; and 2. if applicable, list the receptor being impacted and its status. *E.g. construction noise will be heard at nearby school* If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location? *(Manual entry)*	Is the impact, without mitigation, expected to cause a material effect with regard to its... *(Answer 'Y', 'N' or '?')* *Click on characteristic for description, or the link above for further detail*				Does the impact need assessment in the EIS? *(Auto fills)*	Expected level of assessment and/or engagement required *(Auto fills)*	Updated following completion of specialist assessment
					extent?	duration?	severity?	sensitivity?			
		other - please specify	n/a							No assessment necessary - Worksheet only	Vibration: A NVIA has been prepared for the project. Vibration from the construction of the WWTP identified no existing sensitive receivers within the structural damage safe working distances. During pipeline trenching construction, residential and non-residential receivers that are nearby may potentially experience vibration levels above the DIN 4150 structural damage safe working distances. At the WWTP work location, sensitive receivers were identified to potentially experience vibration levels above the British Standard and Assessing Vibration: a technical guideline (AVTG) (2006). AVTG daytime human comfort criteria during the access road construction activities. During trenching construction activities, residential and non-residential receivers that are nearby may potentially experience vibration levels above the British Standard and AVTG daytime human comfort criteria. No operational vibration impacts are anticipated given the distance between the nearest sensitive receivers to the WWTP and the pipelines will be buried underground. Mitigation measures for construction and operational vibration impacts are identified in the NVIA to minimise potential impacts

c/ Accessibility and Transparency of Impact Data

Appendix F of the Amended Report of Thrumster Wastewater Scheme contains critical data on highly impacted properties yet it appears placed at the very end from page 1399 to 1412, perhaps in the hope it would be overlooked by the uninformed impacted properties.

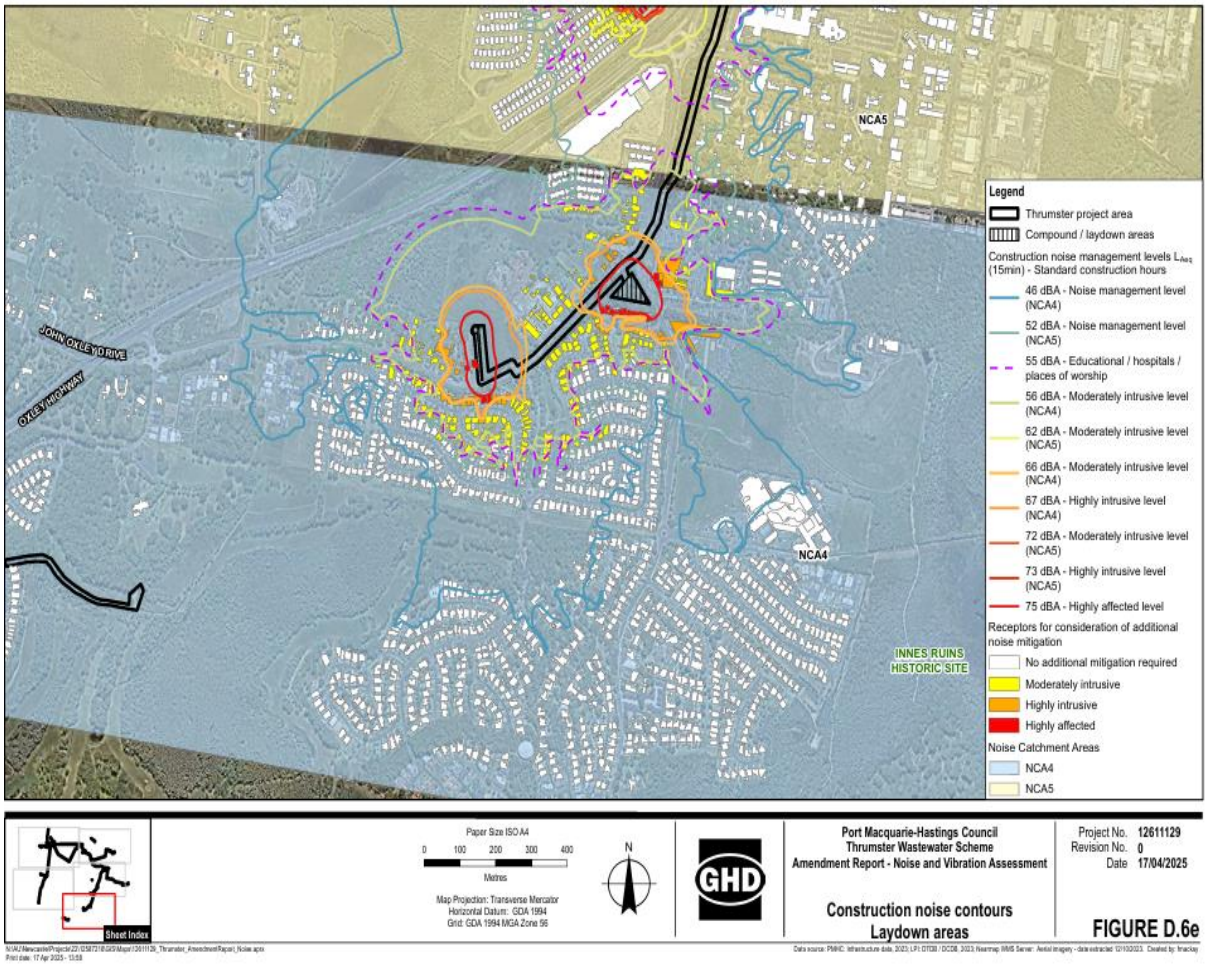
The maps provided in Appendix F maps (see below) are difficult to decipher due to omitted road names, making it unclear which properties will be affected. Improving transparency and accessibility of this information is essential to ensure impacted residents can properly assess the risks.

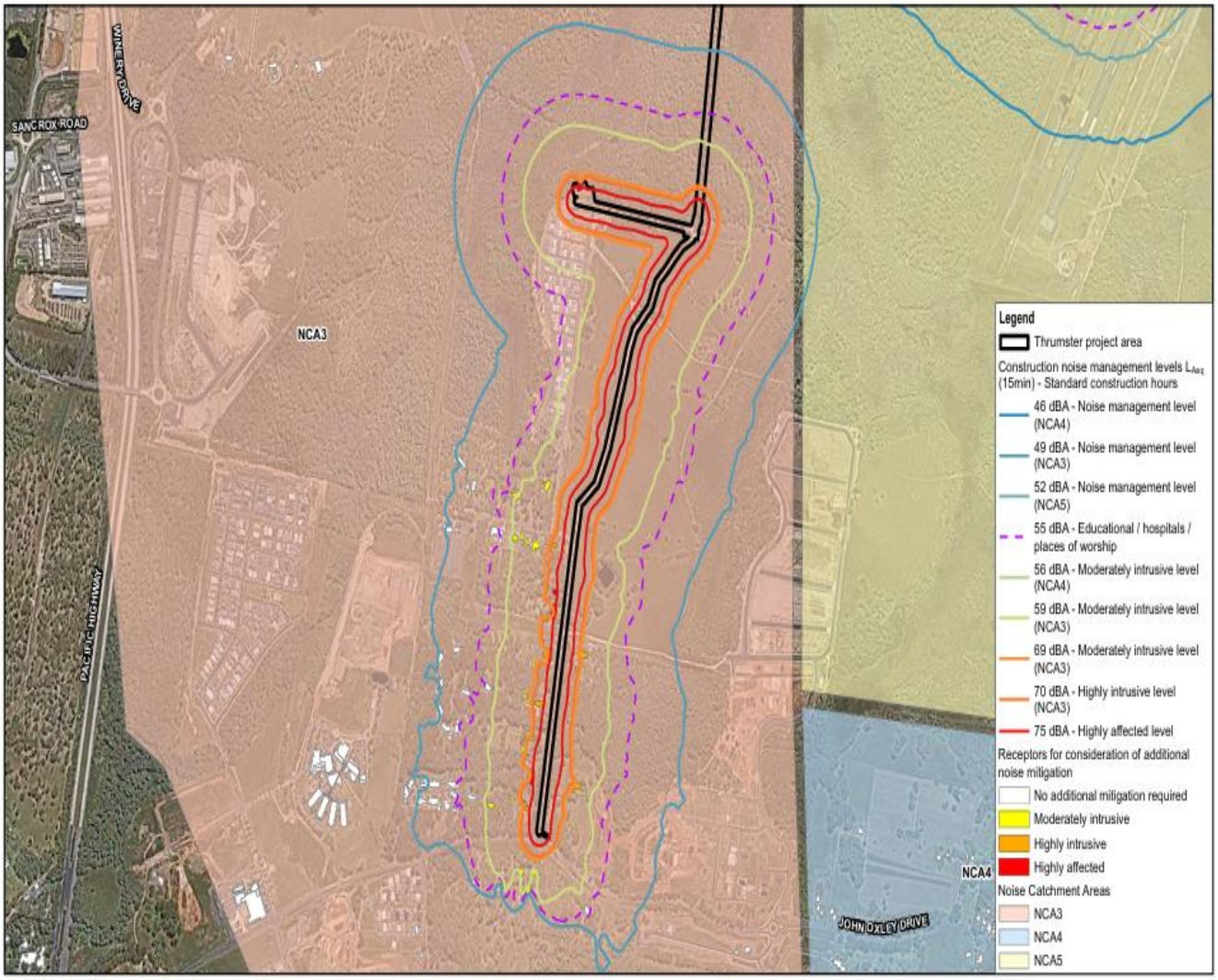
Living near the facility during construction will be unbearable

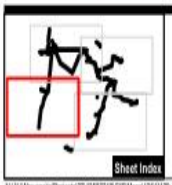
d/ Precise Information required for residents

Neighbouring residents still lack precise information of intensity, hours, days, weeks and months that vibration will be affecting them from drilling, and delivery of land fill during construction. We still have not been informed!

Appendix F Noise and Vibration







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Grid: GDA 1994 MGA Zone 56

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GHD

Port Macquarie-Hastings Council
Thrumster Wastewater Scheme
Amendment Report - Noise and Vibration Assessment

Project No. 12611129
Revision No. 0
Date 17/04/2025

Construction noise contours
Pipeline installation - trenching

FIGURE D.4a

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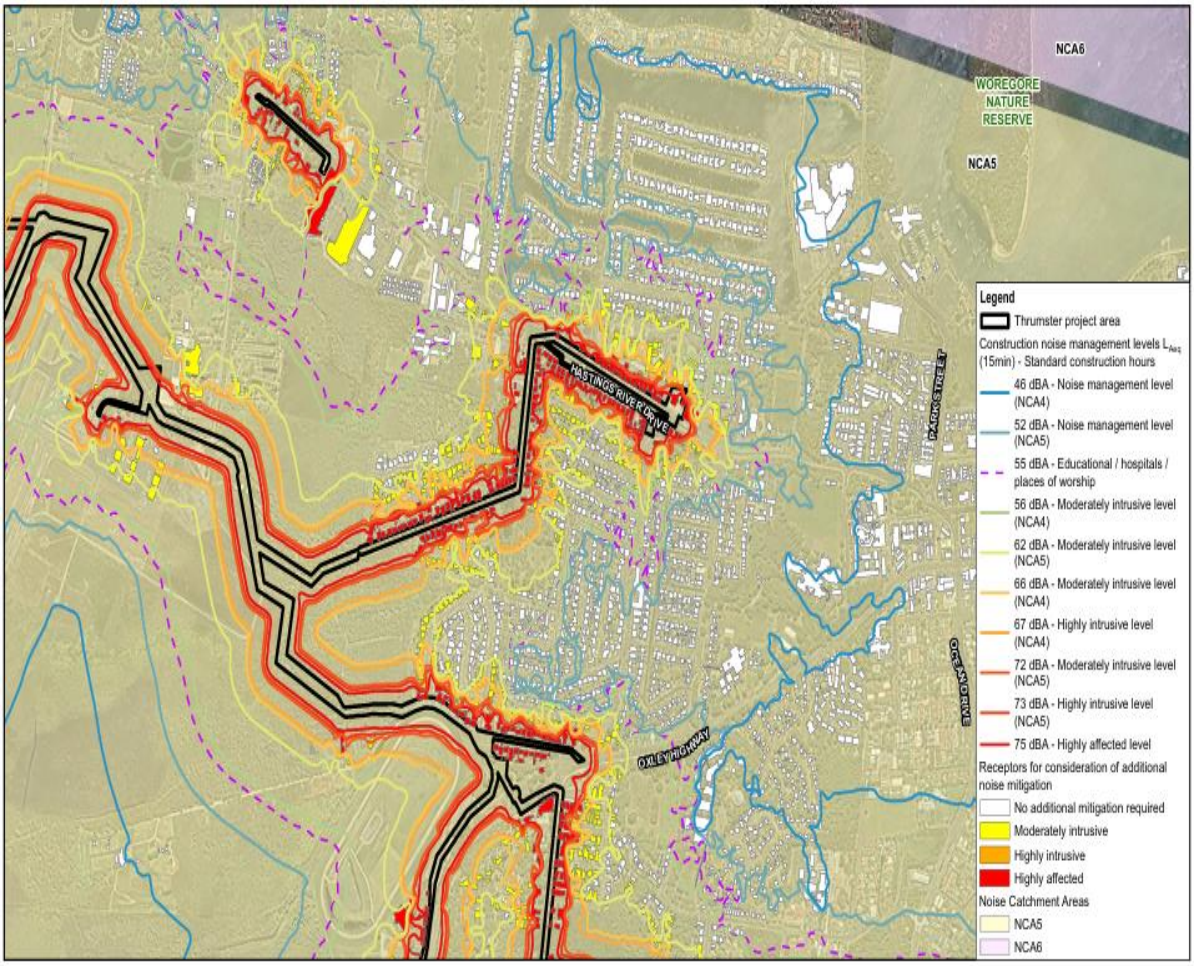

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Port Macquarie-Hastings Council
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Amendment Report - Noise and Vibration Assessment

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Construction noise contours
Pipeline installation - trenching

FIGURE D.4c

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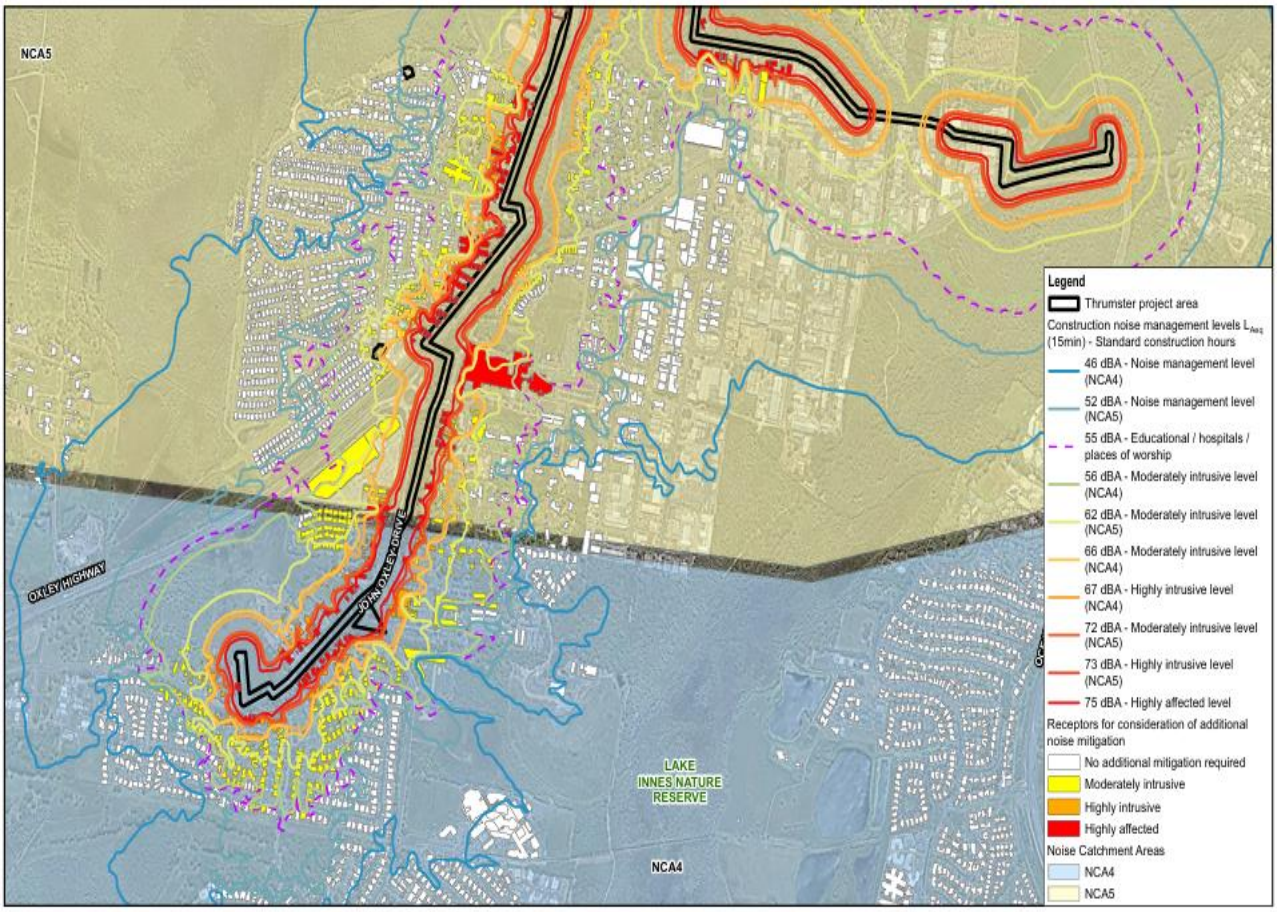

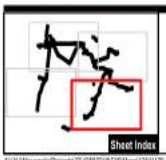

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Port Macquarie-Hastings Council
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Amendment Report - Noise and Vibration Assessment

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Construction noise contours
Pipeline installation - trenching

FIGURE D.4d

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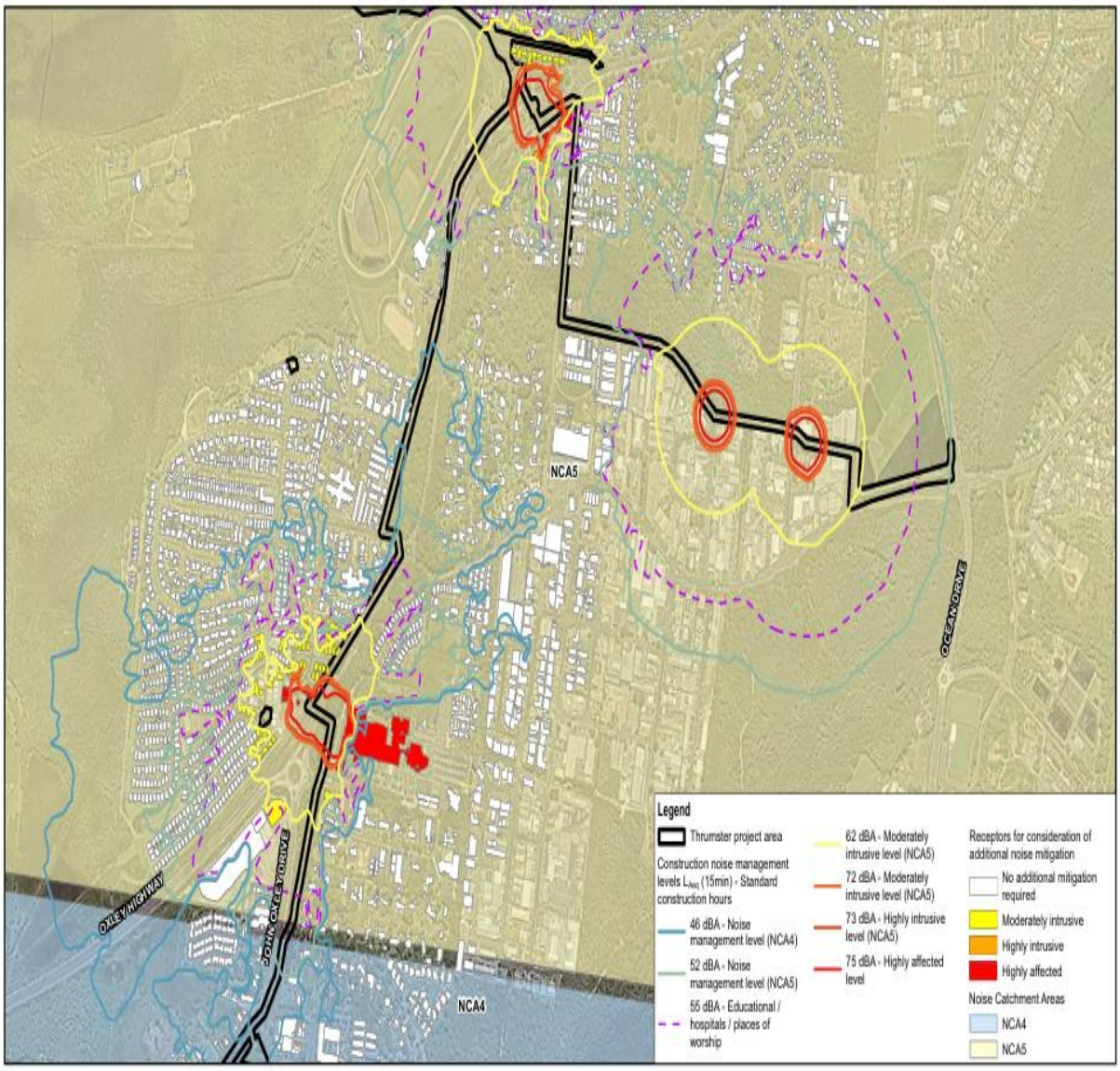

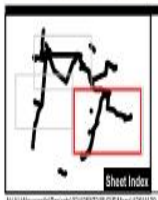

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Port Macquarie-Hastings Council
Thrumster Wastewater Scheme
Amendment Report - Noise and Vibration Assessment

Project No. **12611129**
Revision No. **0**
Date **17/04/2025**

Construction noise contours
Pipeline installation - under boring

FIGURE D.5c

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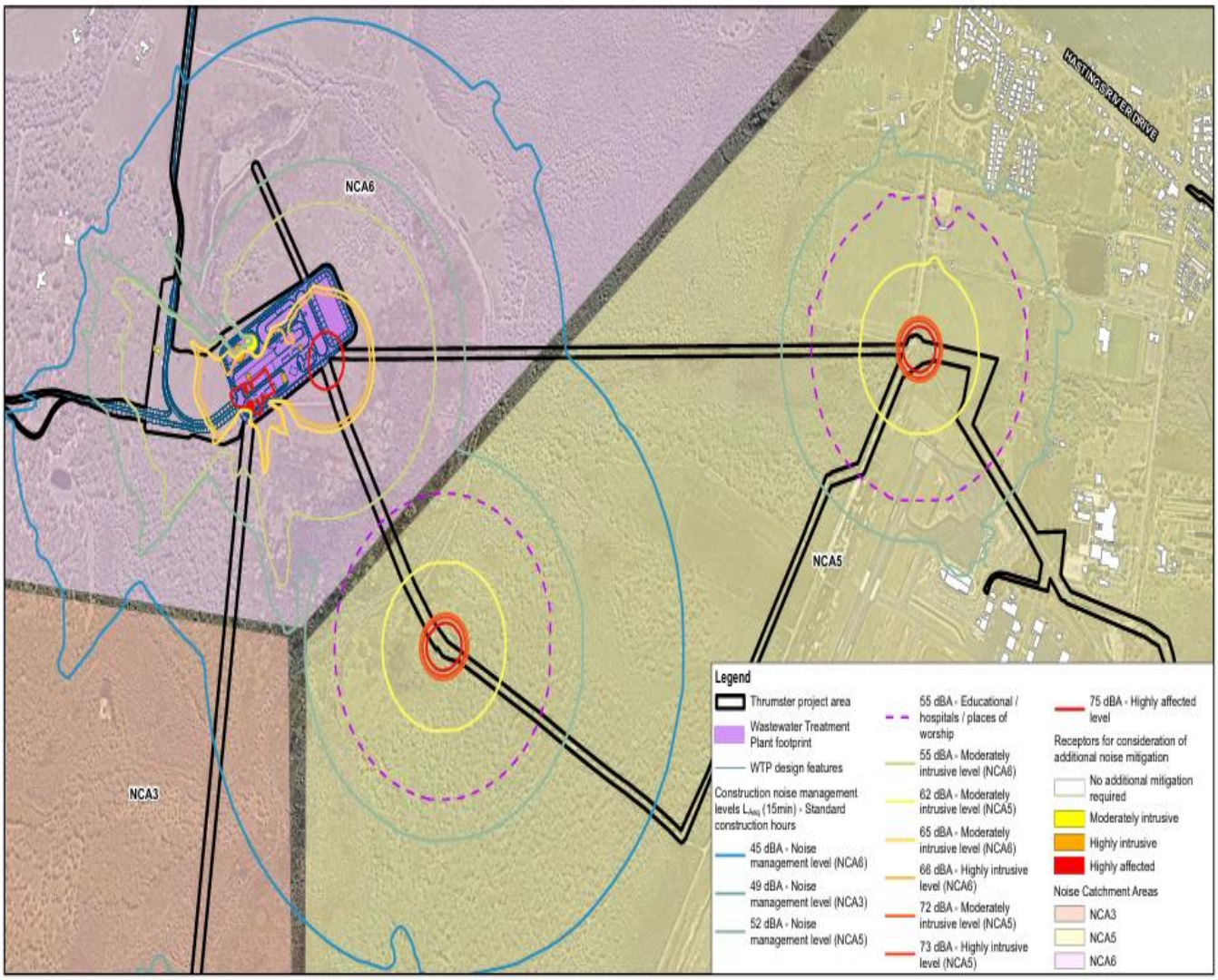

Sheet Index

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Port Macquarie-Hastings Council
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Construction noise contours
Pipeline installation - under boring

FIGURE D.5b

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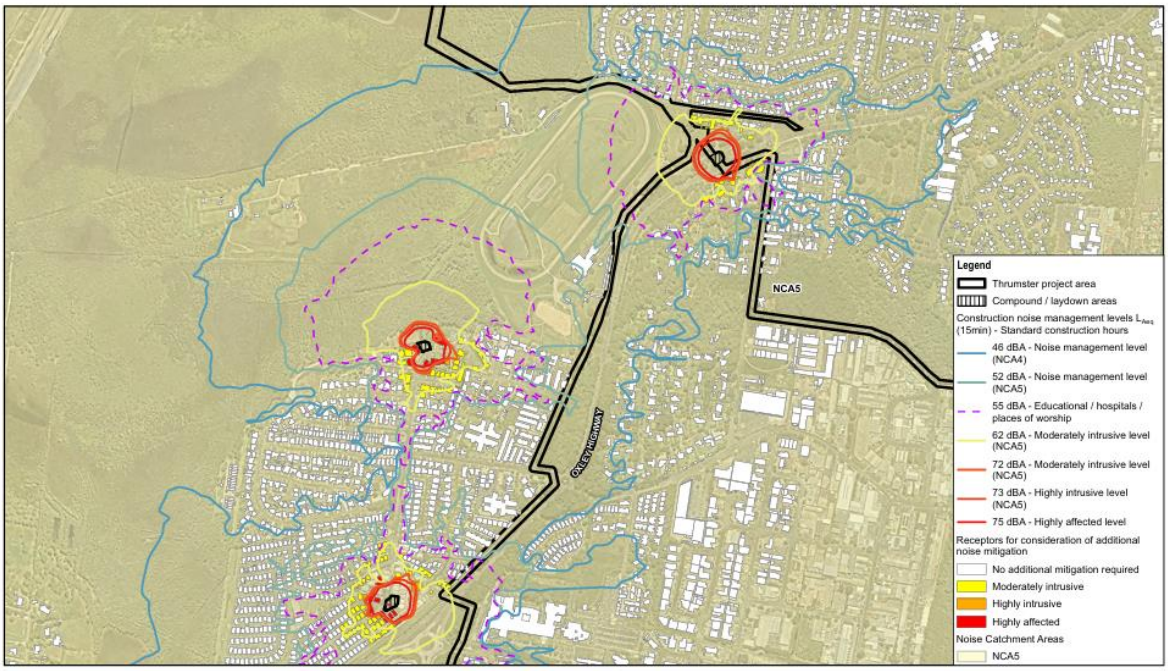

Sheet Index

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Map Projection: Transverse Mercator
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Grid: GDA 1994 MGA Zone 56

GHD

Port Macquarie-Hastings Council
Thrumster Wastewater Scheme
Amendment Report - Noise and Vibration Assessment

Construction noise contours
Laydown areas

Project No. **12611129**
Revision No. **0**
Date **17/04/2025**

FIGURE D.6d

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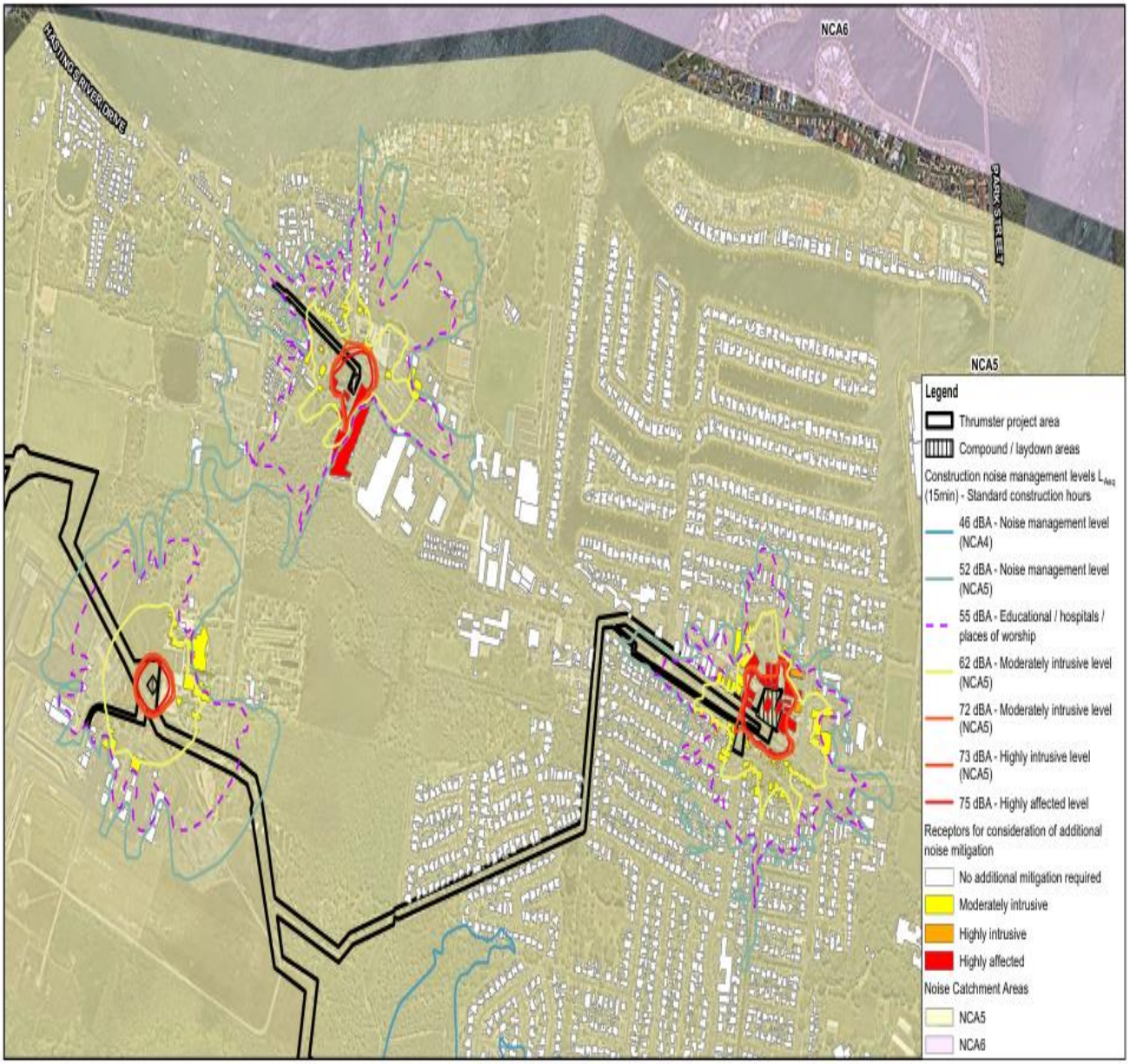

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GHD

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Construction noise contours
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FIGURE D.6c

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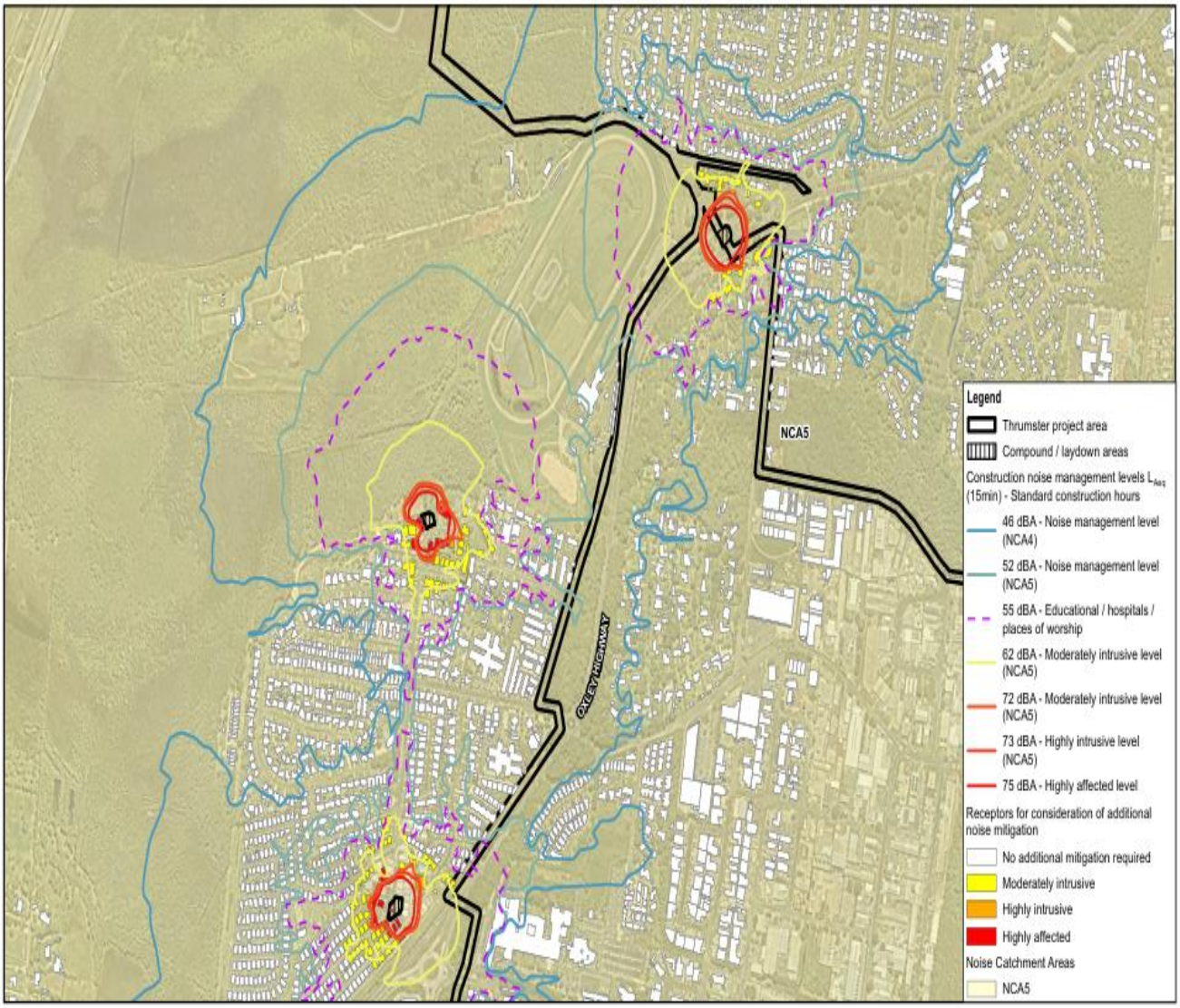

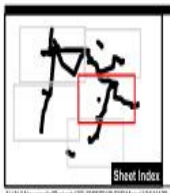

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GHD

Port Macquarie-Hastings Council
Thrumster Wastewater Scheme
Amendment Report - Noise and Vibration Assessment

Project No. 12611129
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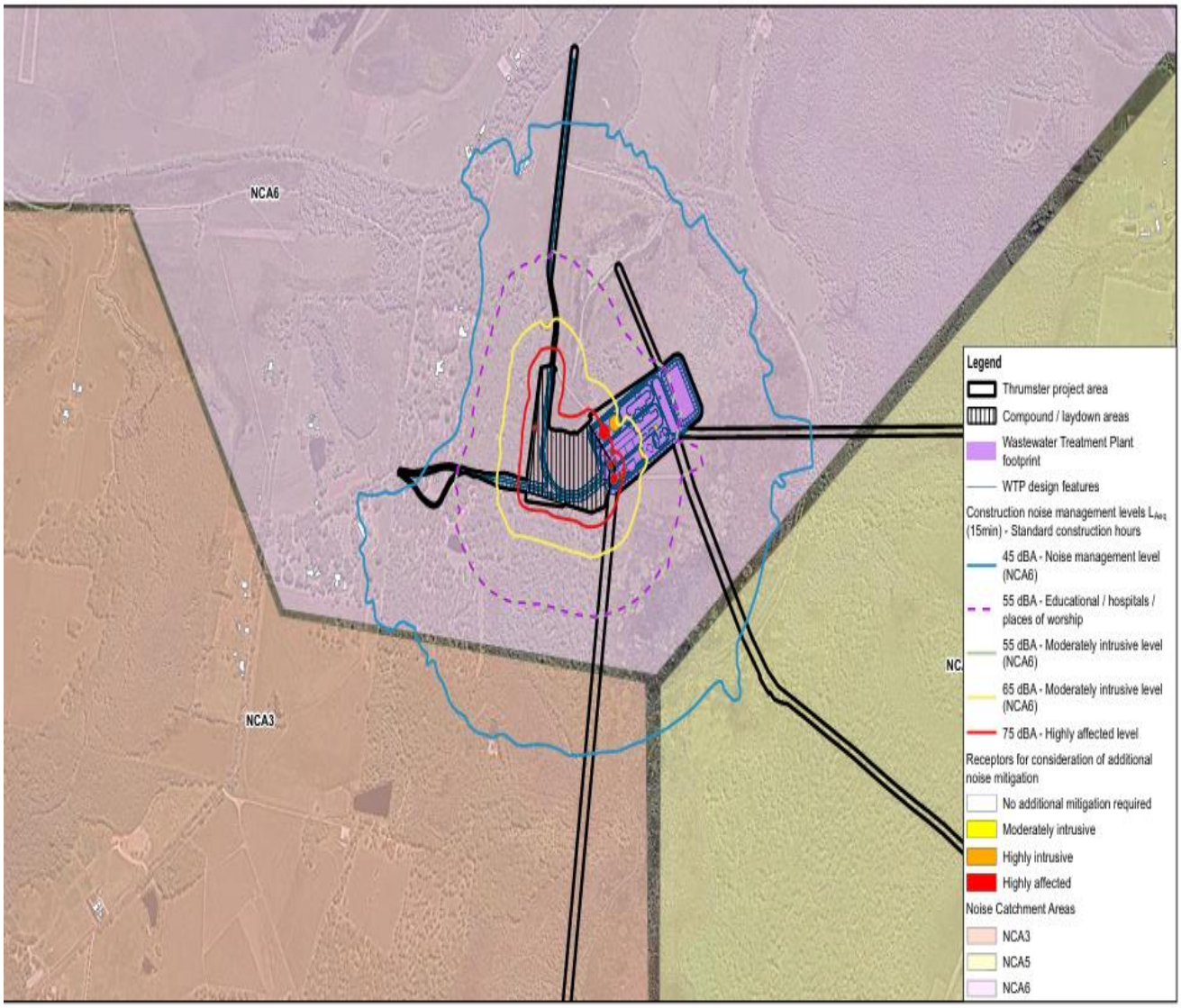
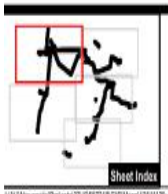
Construction noise contours Laydown areas

FIGURE D.6d

N:\AU\Newcastle\Projects\23-35872\B\GIS\Maps\12611129_Thrumster_AmendmentReport_Noise.aprx
Print date: 17 Apr 2025 - 13:57

Data source: PMHC: Infrastructure data, 2023; LPI: DTDB / DCDB, 2023; Nearmap: WMS Server: Aerial imagery - date extracted 12/10/2023. Created by: tmackay





Paper Size ISO A4

0 120 240 360 480

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

N

GHD

Port Macquarie-Hastings Council
Thrumster Wastewater Scheme
Amendment Report - Noise and Vibration Assessment

Project No. 12611129
Revision No. 0
Date 17/04/2025

Construction noise contours Laydown areas

FIGURE D.6b

A:\AU\Newcastle\Projects\23\12611129\GIS\Mxds\12611129_Thrumster_AmendmentReport_Noise.aprx
Print date: 17 Apr 2025 - 13:57

Data source: PMHC: Infrastructure data, 2023; LPI: DTDB / DCDB, 2023; Nearmap WMS Server: Aerial imagery - date extracted: 12/10/2023. Created by: fmackay

10/ Air quality during construction

An air quality impact assessment has been prepared for the project. A qualitative assessment was undertaken to estimate the impacts of dust emissions for the construction stage in accordance with the Guidance on the assessment of dust from demolition and construction (Institute of Air Quality Management, 2024). Emissions from demolition, earthworks, construction and trackout were identified as low risk for all dust soiling and human health impacts, and medium risk for ecological impacts for construction of the WWTP.

However, concerns remain regarding unaddressed factors:

- **Naturally Occurring Asbestos (NOA)**: There has been no mention of the potential use of naturally occurring asbestos sourced from the Corowa Dam Project. If this material is used, airborne asbestos dust could pose significant health risks to nearby residents and workers.
- **Roof Water Collection & Contamination Risks**: All neighbouring properties are not connected to town water and rely on rainwater collection for household use. The impact assessment does not account for potential contamination of roof water supplies, meaning residents may unknowingly inhale or ingest **silica and asbestos dust**.

A more thorough investigation into airborne pollutants, especially in relation to contaminating residential water supplies and hazardous dust is required.

What matters might be impacted?			What activities might cause an impact?		What are the characteristics of the impact?					What level of assessment and engagement is required in the EIS preparation phase?	
Social and environmental matters I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements *Click on the matter for a description, or the link above for full glossary*			Without any mitigation, is the proposal likely to impact on the matter? *(Select from list)*	If there is a 'likely' impact: 1. list the activities expected to cause the impact; and 2. If applicable, list the receptor being impacted and its status. *E.g. construction noise will be heard at nearby school* If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location? *(Manual entry)*	Is the impact, without mitigation, expected to cause a material effect with regard to its... *(Answer 'Y', 'N' or '?')* *Click on characteristic for description, or the link above for further detail*				Does the impact need assessment in the EIS? *(Auto fills)*	Expected level of assessment and/or engagement required *(Auto fills)*	Updated following completion of specialist assessment
					extent?	duration?	severity?	sensitivity?			
	AIR	particulate matter	Likely	Construction stage at pipeline may generate dust that could affect sensitive receivers (residential)	N	Y	N	Y	Yes	Other Issue	An air quality impact assessment has been prepared for the project. A qualitative assessment was undertaken to estimate the impacts of dust emissions for the construction stage in accordance with the Guidance on the assessment of dust from demolition and construction (Institute of Air Quality Management, 2024). Emissions from demolition, earthworks, construction and trackout were identified as low risk for all dust soiling and human health impacts, and medium risk for ecological impacts for construction of the WWTP. General management and mitigation measures have been proposed for construction to further reduce risk of dust emissions. Additional mitigation measures have been proposed for construction in areas within 20 metres of the nearest sensitive receptors

11/ Site Access and Emergency Planning

a/ Contraindications in Council Statements Regarding Land Acquisition

In our initial meeting with council and GHDH we were assured that there will be "NO COMPULSARY ACQUISITION we will use boats helicopters and other means to access the plant in event of a flood or fire" This is False as our neighbor is receiving pressure to sell a thoroughfare

b/ Unclear Emergency Access Planning

As of **May 11, 2025**, no clear documentation is available indicating the location of emergency access routes in flood scenarios. If emergency access is a critical component of the wastewater scheme's viability, detailed plans must be provided to the public for review

Site access	– Access to the WWTP is via Fernbank Creek Rd from Hastings River Drive to the north, or Winery Rd to the south. • Primary access to WWTP via new 1.15 km access road to Fernbank Creek Rd to the north. • A secondary 563 metre flood-proof all- weather access road will provide access Fernbank Creek Rd to the west during flood conditions (see Figure 3.1).
Power supply	– Power would be supplied to the WWTP site from Essential Energy Boronia Street Zone substation via the grid in Boundary Street. – The maximum demand for the site is calculated to be 1.47 MVA for Stage 1 (2039), and 2.4MVA (3440A) for ultimate design capacity. – Two 1500 kVA transformers have been proposed for the site to be installed above the Probable Maximum Flood Level (PMFL).

12/ Power Supply

I understand that the initial plan for underground power isn't possible and that high voltage powerlines will be required to service this project. However, crucial details—including the planned path of these powerlines and cost estimates—appear to have been omitted from official reports.

Additionally, no analysis has been provided on potential **radiation exposure** and its impact on nearby properties amenity. The lack of transparency regarding power infrastructure necessitates further disclosure to affected residents.

13/ Water Quality Monitoring During Construction

Water quality will not be appropriately monitored during Construction

"Ref A10 Water Quality monitoring

ONLY VISUAL Water QUALITY MONITORING WILL BE IMPLEMENTED DURING CONSTRUCTION"

This approach is insufficient, as it fails to measure key risks such as:

- **Runoff contamination** from **fill materials containing naturally occurring asbestos.**
- **Acid sulfate leakage** and **sediment pollution** affecting local watercourses.
- The potential contamination of **bore water and surrounding ecosystems** due to unmonitored discharge

A more robust water quality monitoring system must be established, incorporating scientific testing rather than relying solely on visual assessments.

14/ Estimated development cost

a/ Inconsistent cost Estimates

The estimated development cost (EDC) previously known as the capital investment value (CIV) for the project is $134 Million (excluding GST, contingency and escalation costs). Published again in the Amendment Report TWWS

Again this Amendment report I believe deceives all residents and rate payers as a July 2023 document states $200M Capital build cost. This does not consider increasing costs due to inflation over the past 2 years

b/ Comparisons with Alternative Development Models

The projected **operational cost of the combined Thrumster-Koala plants is $312 million**, with additional expenses for:

- **Environmental credit costs**
- **Power upgrades**
- **Road improvements**
- **Compensation for affected residents**
- **Potential cost overruns due to inflation and unforeseen obstacles**

Total estimated costs could approach **$400 million**, all of which I believe would be covered by ratepayers. In contrast, **upgrade of the preferred centralized facility at Koala st -Lake rd would only cost $182M with an operation cost of $265 which is a $135M cheaper option!**

c/ Potential Underquoting of Development Costs

Submitting a **Development Application (DA)** with an unrealistically low cost estimate may misrepresent the financial burden on ratepayers. Further investigation is required to determine whether the lower estimates were intended to minimize scrutiny or reduce fees associated with the DA process.

15/ Biodiversity Assessment

a/ Lack of Public Engangement with Environmental Experts

I have spoken with photographers and orchid enthusiasts that frequent this area and they were not aware of the planned Thrumster WWS. Public education and information of the impacts on the environment and groups that have enjoyed this area needs to have been be communicated in a much more open and transparent way. Considering the cost and environmental and community impact especially in a flood event, stronger public education and transparency are necessary.

Biodiversity Assessment Report

de Witt Ecology

Table 4 Changes in species polygon areas and species credit requirements between the Initial BDAR and the Revised BDAR.

			Initial BDAR		Revised BDAR		Change	
Common name	Scientific name	Matter of National Environmental Significance	Loss of habitat (ha)	Species credits required	Loss of habitat (ha)	Species credits required	Change in habitat (ha)	Change in Species credits required
Trailing Woodruff	*Asperula asthenes*	Yes	0	0	0.61	18	0.61	18
Small Pale Grass-lily	*Caesia parviflora var. minor*	-	0.73	28	0.76	30	0.03	2
Wallum Froglet	*Crinia tinnula*	-	4.2	51	3.25	26	-0.95	-25
Leafless Tongue Orchid	*Cryptostylis hunteriana*	Yes	2.32	24	2.98	28	0.66	4
Spider Orchid	*Dendrobium melaleucaphilum*	-	0.73	28	0.76	30	0.03	2
Swift Parrot	*Lathamus discolor*	Yes	1.07	22	2.3	67	1.23	45
Green-thighed Frog	*Litoria brevipalmata*	-	0.76	21	0.75	21	-0.01	0
Slender Marsdenia	*Marsdenia longiloba*	Yes	1.11	41	1.04	41	-0.07	0
Biconvex Paperbark	*Melaleuca biconvexa*	Yes	0	0	1.88	6	1.88	6
Southern Myotis	*Myotis Macropus*	-	11.26	112	10.15	84	-1.11	-28
Giant Dragonfly	*Petalura gigantea*	-	14.32	187	13.74	139	-0.58	-48
Squirrel Glider	*Petaurus norfolcensis*	-	1.87	64	3.4	115	1.53	51
Koala	*Phascolarctos cinereus*	Yes	1.87	64	3.4	115	1.53	51
Eastern Cave Bat	*Vespadelus troughtoni*	-	22.61	253	23.97	281	1.36	28
Total Species Credits				**895**		**1001**		**106**

b/ Unaddressed Threats to Native Species

While measures have been proposed to possibly mitigate some harm to the **Endangered Giant Dragonfly**, other species—including:

- **Swift Parrot**
- **Slender Marsdenia**
- **Trailing Woodruff**
- **Leafless Tongue Orchid** …have lost habitat without clear environmental protections. Instead, species credits appear to be the primary mechanism for addressing biodiversity losses, which may not sufficiently compensate for habitat destruction.

16/ Aboriginal and Biripi land council consultation

a/ Lack of Direct Consultation with Biripi Local Aboriginal Land Council Representatives

I visited Biripi Local Aboriginal Land Council and met with CEO Jaclyn Rajcany and Uncle Bill on Monday 12th May. I was surprised that at this stage they were still not aware of the Thrumster WWS nor the 38 artefacts found,

38 Artefacts found 1 I believe was museum quality see attached

see below from the Niche report

It was recorded as a blade core, flaked bipolarly, with dimensions 73 millimetres (mm) x 38 millimetres x 25 millimetres in size. No further material was identified during the survey program at the site; however, visibility was recorded as being 10% to 20%.

Table 24: Thrumster PAD 1 (AHIMS ID# 30-3-0390) artefact detail

Artefact No.	Test pit	Material type	Artefact type	Notes
1	TSA01	Greywacke	Flake	Grey, feather termination. 45.5 x 51.9 x 18.6 mm
2	TSA02	Greywacke	Core	Grey, multi-directional
3	TSA03	Greywacke	Flaked stone	Grey
4	TSA04	Other	Flake	Grey, feather termination
5	A02	greywacke	Angular fragment	Grey
6	A02	Greywacke	Flake	Grey, hinge termination
7	A02	Quartz	Angular fragment	White
8	A02	Greywacke	Angular fragment	Grey
9	A03	Silcrete	Angular fragment	Beige
10	A03	Quartz	Flake	White, feather termination,
11	A04	Greywacke	Medial Flake	Grey
12	A05	Silcrete	Flake	Brown, cortical platform, feather termination
13	B01	Greywacke	Flake	Grey, crushed platform, hinge termination
14	B01	Greywacke	Flake	Grey, feather termination
15	B01	Greywacke	Flake	Grey, feather termination
16	B01	Greywacke	Angular fragment	Grey
17	B01	Quartz	Angular fragment	White

Artefact No.	Test pit	Material type	Artefact type	Notes
18	B01	Silcrete	Flake	Beige, crushed platform, feather termination
19	B01	Quartz	Angular fragment	White
20	B04	Quartz	Flake	White, crushed platform, stepped termination
21	C02	Greywacke	Angular fragment	Grey
22	C02	Greywacke	Flake	Grey, feather termination
23	C02	Quartz	Flake	Grey, feather termination
24	C02	Quartz	Flake	Grey, crushed platform, feather termination
25	C03	Jasper	Distal flake	Red, feather termination
26	C04	Silcrete	Angular fragment	Purple
27	C05	Silcrete	Flake	Pink, plunge termination
28	C05	Greywacke	Core	Grey, multidirectional core
29	C05	Silcrete	Angular fragment	Brown
30	C05	Quartz	Flake	White, plunge termination
31	C05	Quartz	Medial tool	Pink, edge damage, utilised
32	D01	Quartz	Flake	White, feather termination
33	D01	Quartz	Flake	White, feather termination
34	D02	Quartz	Flake	White, step termination
35	D06	Silcrete	Flake	Beige, feather termination
36	D07	Quartz	Angular fragment	White

b/ Incomplete and Limited Artefact Surveys

Poor visibility of 10-20 %(above) indicates this study may not been conducted thoroughly, (see Niche Report)- This suggests that **80–90% of potential artefacts may not have been identified**, raising concerns about whether cultural heritage protections were adequately upheld. The **poor survey visibility** warrants a more thorough assessment.

c/ Redacted Documentation

"Redacted for public display Access to this redacted content may be provided on request to Niche where appropriate."

Transparency is essential in a project that impacts Aboriginal heritage. These hidden documents should be made publicly available to ensure thorough cultural heritage assessments.

d/ Failure to Fully Engage Aboriginal Communities

Despite ongoing Australia-wide efforts to improve consultation with Aboriginal communities and uphold Indigenous heritage protections, the **Biripi Local Aboriginal Land Council** was not fully informed of the project's development. Given its direct impact on cultural sites, full and transparent inclusion of Aboriginal representatives should have been a priority.

Conclusion and Requested Actions

As of **May 11, 2025**, the **Council's official website**—the primary source of public information—continues to present misleading content. There has been little public promotion of the exhibition period, and affected ratepayers were seemingly left uninformed.

Additionally:

- Cost estimates have fluctuated significantly without proper disclosure.
- **More viable wastewater management alternatives**, such as upgrades to **Lake Road and Koala Street facilities**, have not been fully disclosed
- Consultation was **selectively conducted**, excluding many residents most impacted by the plant's location and effluent discharge.
- While **Hastings Birdwatchers** and **Friends of Kooloonbung Creek** contributed to the Multi-Criteria Analysis (**MCA**), **Fernbank Creek residents** were left out, depriving them of a voice in the process.

These repeated failures in transparency, stakeholder engagement, and accuracy **undermine public trust** and, in my view, **compromise the legitimacy of the project**.

I respectfully request the following actions:

1. **An immediate independent review** of the EIS, RTS, and Amendment Report submissions to verify accuracy and completeness.
2. Suspension of approvals and planning decisions until a full, independent investigation is conducted including reassessment of the omitted reports and multi-criteria analysis based on the information that is available now.
3. Public release of all previously withheld documents and revised cost estimates.

The assessment of the EIS of this project by DPHI and other relevant departments, in its current form, must not proceed without full accountability, transparency, and a reassessment of its environmental, cultural, and financial impacts.

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