

BEFORE THE PANEL CONVENER

FTAA-2506-1074

IN THE MATTER

of an application for approvals ("Application")
under s42 of the Fast-track Approvals Act 2024
("FTAA")

AND

IN THE MATTER

of the construction and operation of a structural
steel manufacturing plant by Green Steel, being a
project listed in Schedule 2 to the FTAA ("Project")

**APPLICANT'S RESPONSE TO MINUTE 5 OF THE PANEL – FURTHER
INFORMATION REQUEST #3**

12 DECEMBER 2025

G K Chappell
Barrister

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MAY IT PLEASE THE PANEL:

- 1.1 This memorandum, filed on behalf of National Green Steel Limited (“Green Steel”), responds to Minute 5 of the Panel requesting further information and addresses the following issues:
- a. The landscape peer review;
 - b. Green Steel’s commitment to renewable energy to operate the plant; and
 - c. The information from Harness Downs Ltd relating to koiwi.

LANDSCAPE RESPONSE

- 1.2 Noting the overall conclusion of the landscape peer review by Shannon Bray of Wayfinder (“Peer Review”), that the Assessment “has probably overestimated effects on landscape”, Greenwood Associates Landscape Architecture Ltd (“Greenwood”) have responded to the Peer Review addressing the following key matters (refer Appendix One):
- a. Te Ture Whaimana;
 - b. Effects on visual amenity of nearby residential properties as set out on pages 14-15 of the Peer Review;
 - c. Visual effects and effects on landscape character associated with emissions from the on-site stacks’ plumes; and
 - d. Proposed conditions of consent relating to the landscape planting plan.
- 1.3 In summary, Greenwood concludes that:
- a. the proposed planting will have a positive effect on the Waipapa Stream in a way that will achieve betterment consistent with the objectives of Te Ture Whaimana;
 - b. Overall, the level of effect of the proposal on visual amenity on private residential properties that will have partial views towards the site will predominantly be at a very low to low level, with the

only private residential property to experience a level of effect higher than this being 136 Hampton Downs Road (low-moderate);

- c. Due to the intermittent nature of emissions from the stacks there is a negligible effect on both visual amenity and effects on landscape character; and
- d. The proposed conditions of consent relating to planting will appropriately address landscape mitigation.

1.4 Air Quality New Zealand Limited have provided a statement addressing the visual discharges from the stacks, (Appendix Two), relied on by Greenwood.

2. RENEWABLE ENERGY

2.1 Minute 2 of the Panel dated 31 October 2025 raised questions concerning greenhouse gas (“GHG”) emissions from electricity used by the plant. In response Mr Garg confirmed that Green Steel “plans to purchase most of the plant’s electricity requirements from renewable electricity developers via long term power purchase agreements.”¹ The applicant’s memorandum of counsel dated 14 November 2025 in response to Minute 2 clarified the legal position that responsibility for emissions from electricity generation lies with the generator, not the end user (see paras 2.19–2.26).

2.2 In Minute 5, the Panel refers to the applicant’s information on renewable energy use and the management approach proposed to achieve this. It requests further details on how this management protocol will be implemented, and in particular, whether it will be enforced through a consent condition.

2.3 In response, it is appropriate to refer to the wider national policy settings which reinforce the legal position set out in the memorandum of 14 November 2025: The New Zealand Government regulates GHG emissions through a comprehensive framework combining market mechanisms - the Emissions Trading Scheme (“ETS”), national direction

¹ Statement of Mr Garg dated 13 November 2025 in response to Minute 2 at para 14.

under the Resource Management Act (NES/NPS)² and long-term emissions budgets under the Climate Change Response Act 2002.³

- 2.4 The Resource Management (National Environmental Standards for Greenhouse Gas Emissions from Industrial Process Heat) 2023 (“NES-GHG”) regulate fossil fuel combustion devices but exclude electricity use as electricity emissions are managed upstream via the ETS. The NES-GHG effectively directs Green Steel to use electricity instead of directly burning fossil fuels where that is the best practicable option.⁴
- 2.5 Under the ETS, the obligation to account for GHG emissions from electricity generation rests with fossil fuel suppliers and generators who burn coal, gas, or oil. These entities must purchase and surrender New Zealand Units (NZUs) for their emissions, with the cost passed through to wholesale electricity prices. Consequently, consumers like Green Steel pay prices reflecting the carbon intensity of the grid, while renewable generators have no ETS obligations. This upstream pricing fully internalises emissions costs in market prices, so end users are not required to separately regulate or prove renewable sourcing.
- 2.6 The practical effect of these mechanisms is that industrial users like Green Steel are incentivised to reduce non-renewable electricity emissions costs through a Virtual Power Purchase Agreement (“VPPA”) with renewable electricity generators.
- 2.7 Under the VPPA model, Green Steel contracts a strike price with renewable generators and receives renewable energy certificates. Generators sell electricity into the wholesale market, while Green Steel continues to purchase from the grid. Green Steel’s consumption is matched with renewable generation on an annual basis. As noted by Mr Carmichael in his response to Minute 4, Green Steel may then elect to scale back production if the purchase price becomes uneconomic.
- 2.8 However, as Green Steel cannot predict or control New Zealand’s future renewable electricity capacity, imposing a condition requiring (100%) renewable electricity sourcing could restrict the plant’s future operations.

² The National Environmental Standards for Greenhouse Gas Emissions from Industrial Process Heat 2023 and the National Policy Statement for Greenhouse Gas Emissions from Industrial Process Heat 2023.

³ This Act establishes, *inter alia*, legal binding targets and set emissions budgets to cap emissions.

⁴ Refer to regs 16 and 17.

The applicant is unwilling to commit to factors beyond its control and considers that market responses to government policy settings appropriately manage its approach to electricity use and the reduction of greenhouse gas emissions.

- 2.9 Notwithstanding the legal issues outlined in earlier submissions, it is neither appropriate nor necessary to impose a consent condition to manage emissions reductions. The government's current multi-pronged strategy leverages market mechanisms and targeted regulations to streamline compliance and focus efforts effectively.
- 2.10 For the avoidance of doubt, s83 of the FTAA provides that when exercising its discretion to set conditions, the Panel must not impose conditions more onerous than necessary to address the relevant issue. A condition obliging the applicant to source electricity exclusively from renewable generation would fail this test. Even if such a condition were lawful, it would be unnecessary and disproportionate in light of the existing regulatory framework.

3. INFORMATION PROVIDED BY HARNESS DOWNS LIMITED

- 3.1 In response to Minute 5, on 8 December 2025 Harness Downs Limited provided information relating to koiwi on the Green Steel site. This information was referred to Clough and Associates for assessment, and on 11 December 2025 two archaeologists surveyed the escarpment area at the southern end of the property where koiwi had reportedly been found in the past and donated to Auckland Museum. Clough and Associates' preliminary results confirm their previous archaeological assessment lodged with the application that there are no archaeological sites on the property. An addendum report will be provided to the Panel via the EPA early next week.

DATED this 12th day of December 2025

A handwritten signature in blue ink, appearing to read 'G K Chappell', with a period at the end.

G K Chappell

Counsel for National Green Steel Limited

Appendix One



Response to received peer review on Landscape Assessment for proposed green steel mill at 61 Hampton Downs Road

Date: 11/12/2025

Prepared for: Green Steel Limited.

Site Location: 61 Hampton Downs Road

Report Number: 2512-MEMO-RESPONSE-PEER-REVIEW-J002447-
HAMPTON_DOWNS_61_FINAL_R00

Revision: 00

Status: FINAL

Report Author: Chris Campbell

QA/QC Check: Richard Greenwood

1. PURPOSE

1.1. This purpose of this memorandum is to respond to the peer review on the project landscape assessment (I.D: J002167-LA, Date: 26 May 2025) received from Mr. Shannon Bray.

1.2. In preparing this response I am conscious of Mr Bray's assertion in his 'final conclusion' of page 19 that *"..we have reached the conclusion that the Assessment has probably overestimated effects on landscape"*. I have limited my response to one matter which the Panel has specifically requested an assessment on, responding to an assessment of dwellings, and three other matters which I felt merited a response. The four topics of response addressed below are;

- Te Ture Whaimana;
- Effects on visual amenity of nearby residential properties as set out on pages 14-15 of the Bray review; and

- Effects on visual amenity and character of emissions from the on-site stacks' plumes.
- Proposed conditions of consent relating to the landscape planting plan.

2. Te Ture Whaimana

2.1. The peer review notes;

"While the Waikato River is not specifically mentioned, overland flow and watercourses are identified. However, no comment is given on restoration and protection and all planting is referenced in relation to the landform and not water quality (or quantity). Te Ture Whaimana is a statutory RMA document that is highly relevant to any activity with potential to impact on the health and wellbeing of the Waikato River. Water management is a key aspect of the proposal and its relationship to the river. In our opinion, there is insufficient information to determine how the proposal contributes to the restoration and protection of the health and wellbeing of the Waikato River."

2.2. The AEE lodged with the application refers to Te Ture Whaimana noting that the CIA concludes that the project aligns with this document. I understand that Te Ture Whaimana is the primary direction setting document for the Waikato River including its tributaries and I have had regard to this in preparing my review below.

2.3. Te Ture Whaimana is the primary direction setting document for the Waikato River including its tributaries. Its vision is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come.

2.4. Te Ture Whaimana contains thirteen (13) objectives pertaining to 'restoring and protecting the health and wellbeing of the Waikato River'. I consider the following key objective to be pertinent to assessing landscape effects of this proposal as it references planting / flora, although I have generally had regard to the Vision and all of the objectives

Objective - (i) The protection and enhancement of significant sites, fisheries, flora, and fauna

2.5. In terms of landscape effects, it can be concluded from Mr. Bray's statement and from objective (i) in Te Ture Whaimana that the following should be given consideration;

- Water quality of the Waipapa River (branch of the Waikato River)
- Enhancement of flora at riparian edges

2.6. Both of these aspects have been addressed through the proposed riparian planting strategy outlined in the 'Landscape Strategy' document (which consists of a series of planting plans) prepared by Peers Brown Miller (dated: 21.05.25) which requires the provision of 2.27ha of 'Riparian Bank Planting' running alongside the eastern bank of the existing stream. This planting is intended to supplement and enhance the 'existing riparian stream planting'.

2.7. The below excerpt for the 'Landscape Strategy' document shows the extent of this planting in relation to the Waipapa River, with the existing riparian stream planting shown in yellow and the proposed 'riparian bank planting' shown in light purple.

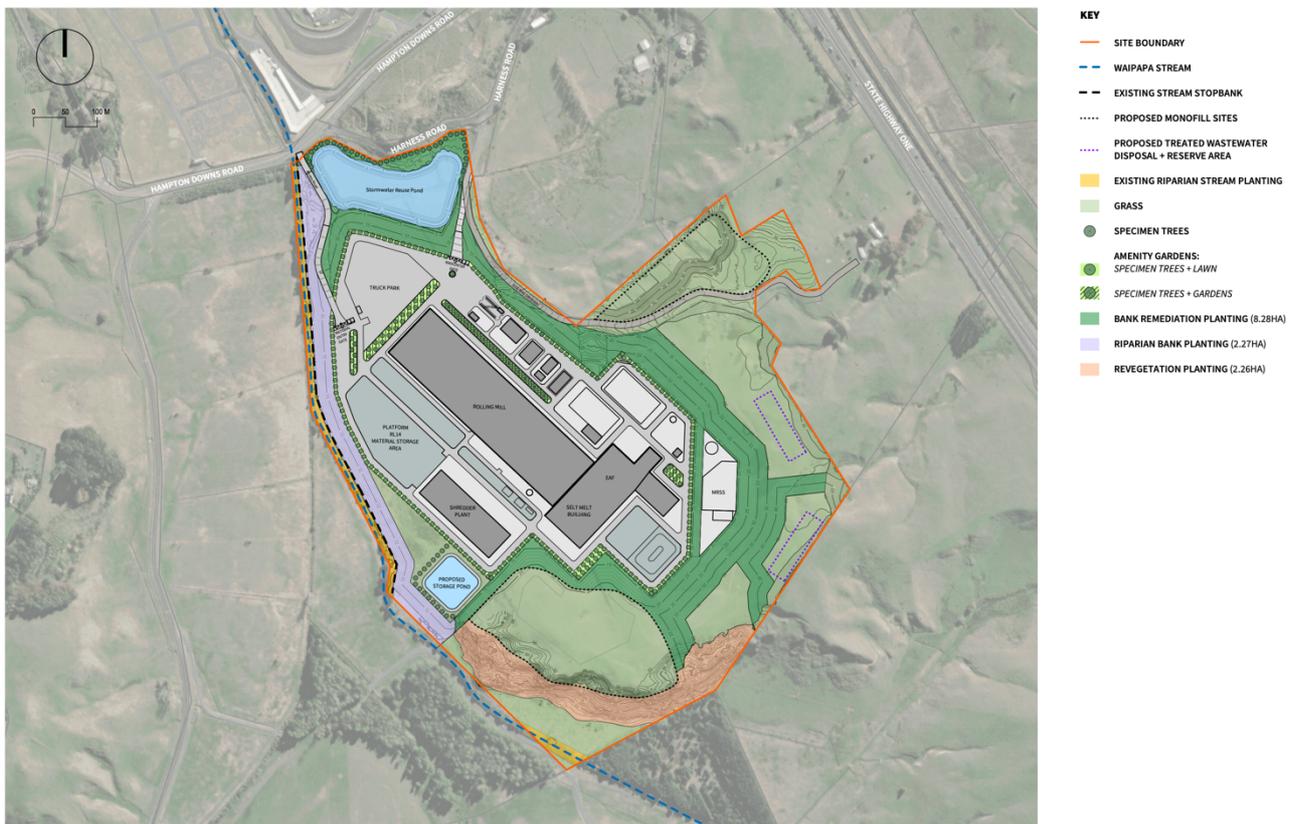


Figure 1: Proposed site planting layout¹

2.8. The design strategy for the riparian bank planting is outlined below in an excerpt from drawing 6.0 of the 'Landscape Strategy' package.

'DESIGN STRATEGY

CONTEXT

- *Continuation of riparian stream and existing native planting*
- *Stop bank requires stabilisation with planting*

¹ Drawing 2.0 – Landscape Site Plan – 'Landscape Strategy' – produced by PBM (21.05.25)

- *Sloped bank leading up to the recycling plant*
- *Exposed steep bank*
- *Integrate with surrounding native ecosystem*

RESPONSE

- *Native species to blend with existing riparian planting*
- *Ground cover and low shrubs for stabilisation*
- *Native trees along bank for visual continuity*
- *Focus on erosion control and ecological restoration*

OUTCOMES

- *Enhanced stream and stop bank stability*
- *Improved habitat for local wildlife*
- *Integration with surrounding native planting*
- *Long term environmental capital'*

2.9. The selected plant species are exclusively native species.

2.10. Based on the information provided in the 'Landscape Strategy' document, I am of the opinion that the proposed planting will enhance the existing riparian flora by increasing the amount of native planting on the banks of the Waipapa Stream.

2.11. Water quality will also be enhanced with the greater amount of native planting present that will act as a buffer to onsite flows. Habitat for birds will also be provided through the proposed flowering plants (Mānuka, Kānuka, Kōwhai, Hoheria, Tī Kōuka) and taller trees (Kāhikatea, Tōtara, Rewarewa, Rimu).

2.12. Therefore, based off the proposed planting strategy, it can be concluded that Te Ture Whaimana has been considered in terms of landscape effects on the Waipapa River. With the riparian environment receiving enhancement through an increase in native planting, overall, I consider that this proposed planting will have a positive effect on the Waipapa Stream in a way that will achieve betterment consistent with the objectives of Te Ture Whaimana

3. Effects on visual amenity of nearby residential properties

3.1. In the original landscape assessment, the private realm areas (i.e.: private residences) identified as having a level of effect were 136 Hampton Downs Road, 61B Hampton Downs Road and a cluster of dwellings at Springhill Road

3.2. These individual properties on Hampton Downs Road and the cluster at Springhill Road were identified during the site visit from areas where the proposal was potentially visible from within the public realm and an image was obtained from the closest point to these properties from within the public realm.

- 3.3. The rating of effects was attributed based on the area where the proposal was most visible from the point of the public realm closest to these individual properties (Hampton Downs Road) and the cluster of dwellings (Springhill Road) and as such represents the potential highest level of effect on visual amenity that I would consider to be experienced from these dwellings.
- 3.4. With regards to both the 'Springhill Road cluster' and Hampton Downs dwellings equating a specific rating to the level of effect from each dwelling and its associated curtilage is a somewhat difficult and fraught endeavour as it is not possible to enter these dwellings, therefore an assumption must be made from views available from within the adjacent public realm and based on site observations and available aerial photography. Hence applying the highest potential rating of effect across all the properties in each cluster enables the highest level of potential effect to be considered, noting that the Springhill Road cluster was assessed as **low**.
- 3.5. In general terms of exposure of the identified properties on both Hampton Downs and Springhill Roads, it is anticipated that the dwellings on Springhill Road will have views of the main green steel plant obscured by the prevailing topography, however views to the upper portions of the two taller stacks (at 56m and 55m) are likely and the dwellings on Hampton Downs Road will likely have oblique views towards the green steel plant, which will reduce over time as the proposed on-site planting matures.
- 3.6. I will note that Mr. Bray states *'...whether the curtilage of the dwelling provides any screening such as a garage, or amenity vegetation within the property...'* I do not consider it best practice to rely on vegetation within private properties to act as a mitigation measure in terms of visual amenity as the applicant has no control over whether this is maintained or not, therefore it can be prudent to consider effects if this vegetation is not present as assigning a lower rating based on the presence of vegetation, which may be removed may lead to a skewed rating of effects on private visual amenity.
- 3.7. Nevertheless, I will provide a brief summation of the rating of effects for each of the dwellings that form a part of the individual Hampton Downs Road properties and the 'Springhill Road cluster' and will take into account any existing planting or structures that may potentially obscure views towards the site.
- 3.8. **61B Hampton Downs Road:** No rating of effects was given in the initial assessment, rather a comment provided that the upper portions of the stacks would be visible. Based on the sections provided in the RFI response, this statement holds true. The main body of buildings will be obscured from

view by the prevailing topography when viewed from the curtilage area of the dwelling.

- 3.9. The curtilage area of 61B Hampton Downs Road currently (based on aerial photography) contains a number of established trees within the curtilage area surrounding the existing dwelling on both the west and eastern elevations of the dwelling, which will likely obscure views towards the aforementioned stacks (although associated intermittent steam emissions may be visible). Therefore, if the existing curtilage vegetation is taken into account, the level of effect on visual amenity can be considered to be **very low** (note that this rating of effects would increase to low if this planting was to be removed).
- 3.10. **136 Hampton Downs Road:** The rating of effects given in the initial assessment was **moderate** and this was ascribed based on a direct view to the proposed steel mill and with the proposed plants (on site) yet to mature. Upon maturation of the proposed tree and shrub planting on the site this rating of effect can be considered to reduce to **low-moderate**.
- 3.11. The eastern boundary of this property contains a series of mature coniferous trees of varying density and coverage, thus views through these trees towards the proposal are likely obtainable from the outdoor living space / curtilage area of the existing dwelling, with the stacks and associated intermittent steam emissions likely visible over top of the tree line. Accordingly, if this existing planting within the property is to be taken into account the level of effect on visual amenity can be assessed as being **low-moderate** upon initial establishment of the proposed green steel mill and reducing to **low** as the proposed vegetation matures.
- 3.12. **335 Springhill Road:** The dwelling located on this property has no identifiable vegetation to obscure a view between its associated curtilage (which includes a swimming pool) and the site. With the dwelling orientated with its long axis towards the site, it can be assumed that the indoor living space is located parallel to the swimming pool. Therefore, the overall level of effect of **low** can be applied to the level of effect on visual amenity from this property, considering that the view will be largely restricted to the upper portions of the two taller stacks and associated intermittent steam emissions.
- 3.13. **336 Springhill Road:** The dwelling located on this property is encircled by boundary planting that also encloses the outdoor living space. This planting consists of high level shrubs which will likely obscure views from within the curtilage area of this property. Therefore, if this existing planting is taken into account the level of effect on visual amenity when considering the views towards the site from within the curtilage area of this property can be considered to be **very low** as views to the stacks and associated intermittent

steam emissions will be largely obscured (note that this rating of effects would increase to low if this planting was to be removed).

- 3.14. **347 Springhill Road:** The dwelling located on this property has no identifiable vegetation to obscure a view between its associated curtilage and the site; to the south there is a collection of ancillary buildings (sheds, barns etc...) that sit at a lower level than the dwelling and thus there will be no interruption/obscuration of views towards the site and the upper portions of the two tallest stacks and associated intermittent steam emissions. Therefore, the initially ascribed rating of effects of **low** on visual amenity of this property where the proposal can be seen is considered appropriate.
- 3.15. **377 Springhill Road:** The dwelling located on this property has no trees within the curtilage area that would sit between a view from within the outdoor living space towards the site. There is an area of native vegetation (likely associated with a riparian corridor) that sits to the south of the dwelling on this property, although it sits at a lower elevation than the dwelling and is unlikely to impede any views towards the site (specifically the upper portions of the stacks and associated intermittent steam emissions). The dwelling is orientated with its long axis on a north-south alignment; therefore, the indoor living space is presumably orientated away from the site, reducing the availability of views towards the site from inside the dwelling. Taking the combination of available views to the upper reaches of the two tallest stacks and associated intermittent steam emissions from the outdoor living area and corresponding likely lack of views towards the site from inside the dwelling, the level of effect on visual amenity for this property generated by the proposal can be considered to be **very low-low**.
- 3.16. **389 Springhill Road:** This property operates as an equestrian centre, and as such, a large, two storey, barn/warehouse styled structure sits at the centre of this property directly to the south of the dwelling and associated curtilage. Hence, this larger building sits within the view line from this dwelling / curtilage and will likely obscure views towards the site (specifically the upper portions of the taller stacks) although the associated intermittent steam emissions may be visible. Therefore, the level of effect on visual amenity on this property generated by the proposal can be considered to be **very low**.
- 3.17. **400 Springhill Road:** The dwelling located on this property has no trees within the curtilage area that would sit between a view from within the outdoor living space towards the site. The dwelling is orientated with its long axis on a north-south alignment; therefore, the indoor living space is presumably orientated away from the site, reducing the availability of views towards the site from inside the dwelling. It is likely that views towards the site (specifically the upper portions of the two taller stacks and associated intermittent steam emissions) will only be generally available when outside

of the dwelling, although there is a row of trees on Springhill Road that may obscure some views towards the site from outside of the dwelling. Taking the combination of available views to the upper reaches of the two tallest stacks and associated intermittent steam emissions from the outdoor living area and corresponding likely lack of views towards the site from inside the dwelling, the level of effect on visual amenity for this property generated by the proposal can be considered to be **very low-low**.

3.18. In addition to the aforementioned properties on Hampton Downs Road and Springhill Road, during the site visit undertaken in support of the project landscape assessment on 8th November 2024, I also visited Whangamarino Road and concluded that due to the prevailing topography and vegetation cover to the south of the site, that it was unlikely any aspect of the site would be visible and that any visibility would be limited to the upper extremities of the two taller stacks and any and associated intermittent steam emissions. Therefore, the level of effect on visual amenity on properties located on Whangamarino road can be considered to not exceed a level of **very low**, irrespective of location, and or orientation of the dwelling and associated curtilage relative to the site.

3.19. Overall, the level of effect of the proposal on visual amenity on private residential properties that will have partial views towards the site will predominantly be at a very low to low level, with the only private residential property to experience a level of effect higher than this being 136 Hampton Downs Road, which sits to the north-west of the site and is considered to have effects ranging from low-moderate dependent on the establishment status of the proposed planting.

4. Effects on visual amenity and character of emissions from the on-site stacks' plumes.

4.1. The height and visibility of the stacks were considered when ascribing the various ratings of effects on both landscape character and private properties.

4.2. However, the potential plumes of steam / smoke emitting from the 3 stacks across the proposed green steel mill were not described within the original landscape assessment.

4.3. In order to determine and understand the frequency / degree of emissions I have conferred with the project air quality consultants and refer to their advice dated 11.12.25

4.4. Based on this advice I consider that due to the intermittent nature of

emissions from these stacks that there is a negligible effect on both visual amenity and effects on landscape character.

5. Proposed conditions of consent relating to the landscape planting plan.

5.1 Mr Bray's peer review report suggested a series of recommendations that address specific effects of the proposal, including in relation to the proposed mitigation that is integral to the proposal and the assessment.

5.2 Green Steel discussed conditions of consent with both relevant council and in the case of landscaping, with Waikato District Council. The following landscaping conditions were agreed as appropriate with the Council.

Landscaping

- 1) *Notwithstanding any vegetative methods to be employed to ensure slope stability and erosion control, the Consent Holder must implement the landscape strategy identified in the Landscape Strategy prepared for the site by PBM dated 21 May 2025 (as submitted with the application). The landscape planting as indicated by the Landscape strategy and Landscape Plan must be undertaken in the next planting season (Autumn / Spring) following the practical completion of site development (which for the purposes of this condition includes bulk earthworks and building construction ahead of site operations) and, must be completed within twelve (12) months of the site development.*
- 2) *The plantings required by Condition 62 must be maintained to the satisfaction of Waikato District Council's Monitoring Department. If any of the landscaping dies and/or becomes diseased, the dead and/or diseased landscaping must be replaced in the same or similar location within the next planting season (generally between May and October) by a same or similar species.'*

5.3 In my view these two conditions satisfy the concerns Mr Bray raised about the lack of conditions referred to in my report. The first condition requires compliance with the Planting Plan and completion of it, and the second requires maintenance to the satisfaction of the Council, with replacement mandatory in the event plant mortality.

5.4 These conditions will ensure the planting I have referred to above that are part of the landscape mitigation, occurs to the appropriate standard.

11 December 2025

c/o Craig Shear, Shearer Consulting Limited
for National Green Steel Limited
29 Hobill Ave
Wiri
Auckland 2104

Dear Craig,

National Green Steel Application FTA-2506-1074 – Visible Plume Assessment

1 Introduction

Air Quality Consulting NZ Limited (AQCNZ) has been engaged by National Green Steel Limited (National Steel) to provide information on the likely visible characteristics of stack discharges from the proposed Green Steel Mill at Hampton Downs. This information is intended to support the landscape architect's visual assessment of the plant by describing the expected nature, frequency, and appearance of plumes from the three primary emission points, namely the Steel Melt Shop baghouse stack, the Reheating Furnace stack, and the Shredder stack.

While this advice reflects AQCNZ's current understanding of the proposed plant design, operating conditions, and emission control systems, the final plume characteristics may vary as detailed design, commissioning, and operational practices are confirmed and therefore the information presented should be considered indicative rather than definitive.

The visible characteristics of discharges from the three main stacks are described below.

2 Visible characteristics of stack discharges

2.1 Shredder stack

Air from the shredder is treated through a wet scrubber system before discharge via a 10 m high stack. The scrubber system operates with extensive water spray and a proprietary wetting agent that keeps material within the system and associated floc damp. As a result, exhaust gas temperatures at the stack are expected to be close to ambient, with very low particulate loadings. Under these conditions, the discharge is not expected to form a persistent visible plume. Any short lived condensation effects at the stack tip are expected to be minor and confined close to the discharge point. Given the relatively low stack height in the context of surrounding buildings and structures, and the treated nature of the discharge, AQCENZ considers that a visible plume from the shredder stack is unlikely under normal operating conditions.

2.2 Reheating Furnace stack

The Reheating Furnace in the Rolling Mill will combust landfill gas, compressed natural gas, or liquefied petroleum gas. These fuels produce flue gases that consist primarily of carbon dioxide and water vapour, with very low levels of particulate and colour forming pollutants (oxides of nitrogen etc.) when combustion is well controlled.

The Reheating Furnace stack will be discharged via a 56 m high stack at elevated temperature, which promotes good dispersion and reduces the likelihood of condensation of water vapour immediately above the stack. While all combustion processes generate water vapour, the fraction of water in the flue gas and the discharge conditions are such that a distinct white water vapour plume is not expected to be a common feature, except possibly as a faint plume on cool, humid mornings. Overall, AQCENZ considers that discharges from the Reheating Furnace stack will be largely clear and that any visible plume will be limited in extent and of low visual prominence.

2.3 Steel Melt Shop baghouse stack

Exhaust from the Electric Arc Furnace, Ladle Furnace, and associated material handling systems is captured by the Fume Treatment Plant and discharged via a baghouse with a 55 m high stack. The baghouse is designed to achieve very low particulate concentrations, with typical total suspended particulate concentrations expected to be less than 5 mg/m³. This means that the discharge will not include a persistent grey or brown particulate plume. The ductwork upstream of the baghouse is water cooled, and the exhaust gas may contain some residual moisture. There is therefore potential for a white water vapour plume to be visible from time to time when moist gases are discharged into cool, humid ambient air, especially when scrap contains residual moisture or surface water. In these cases, any visible plume is expected to be a short lived, white, steam type plume that dissipates within a relatively short distance of the stack due to mixing with the surrounding air. AQCENZ does not expect a continuous visible plume or any dark, smoke like plume from the Steel Melt Shop baghouse stack under normal operating conditions.

2.4 Summary

In summary, the shredder stack discharge is not expected to generate a visible plume, the Reheating Furnace stack discharge will be largely clear with at most a weak water vapour plume under specific cool and humid conditions, and the Steel Melt Shop baghouse stack may occasionally exhibit a short lived white steam plume associated with moisture in the exhaust. Given the height of the main stacks (promoting the rapid dilution of the plume), the effective emission controls proposed, and the expected operating conditions, AQCNZ considers that visible plumes from the plant will be infrequent, of low intensity, and of limited visual significance in the surrounding environment. We understand that our findings are consistent with the plant designers' description of the expected plume behaviour.

3 Closure

If you have any questions regarding the above assessment, please don't hesitate to contact the undersigned.

Yours sincerely,



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AIR QUALITY
CONSULTING NZ

Limitations

Air Quality Consulting NZ Limited has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of National Green Steel Limited, and only those third parties who have been authorised in writing by Air Quality Consulting NZ Limited to rely on this report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report.

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Air Quality Consulting NZ Limited assumes no liability for any inaccuracies in or omissions to that information.

This report was prepared in December 2025 and is based on the conditions encountered and information reviewed at the time of preparation. Air Quality Consulting NZ Limited disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

This assessment has been prepared using preliminary information supplied to AQCNZ regarding plant design, process conditions, and emission control performance. These inputs have not been independently verified and are subject to refinement during detailed design, commissioning, and subsequent operational practice.

As a result, the plume descriptions provided in this document are indicative only and should not be relied upon as a prediction of the final stack plume characteristics. AQCNZ's conclusions are valid only for the information and assumptions stated herein. If any aspect of the design or operation changes, or if additional information becomes available, the assessment should be reviewed and may require revision. AQCNZ accepts no responsibility for decisions made on the basis of this report beyond the stated scope and assumptions.