KINETIC
ENVIRONMENTAL

FAST TRACK APPROVALS ACT SUBSTANTIVE APPLICATION

TO CONSTRUCT AND OPERATE A STRUCTURAL STEEL MANUFACTURING PLANT AND ACCESSORY ACTIVITIES

NATIONAL GREEN STEEL
61 HAMPTON DOWNS ROAD

KINETIC ENVIRONMENTAL

Fast Track Approvals Act Substantive Application

To construct and operate a structural steel manufacturing plant and accessory activities

Date	**2 July 2025**
Kinetic Environmental Ref	Hampton Downs Road
Version	Final

Prepared by:

Craig Inskeep
Senior Planner

Reviewed by:

Christian McDean
Principal Planner

Address for Service

E: craig@craigshearer.co.nz

Table of Contents

List of Attachments

Attachment	Description
Attachment 1	FTAA Application Forms/ checklist against the requirements of ss43 and 44 of the FTAA
Attachment 2	List of all persons and groups identified in s 29 of the FTAA
Attachment 3	s30 FTAA written notice from Waikato DC and Waikato RC
Attachment 4	Consultation Summary, prepared by Shearer Consulting dated 16 June 2025
Attachment 5	Records of Title- company extracts.
Attachment 6	Site Plan and 3D Plant view prepared by Earthtech
Attachment 7	Proposed conditions of consent
Attachment 8	Cultural Impact Assessment, prepared by Nga Muka Development Trust, dated 28 April 2025
Attachment 9	Landscape Assessment report, prepared by Greenwood Associates, dated 26 May 2025
Attachment 10	Archaeological Assessment, prepared by Clough and Associates, dated December 2024
Attachment 11	Economic Assessment, prepared by Castalia Limited, dated March 2025
Attachment 12	Preliminary Geotechnical Assessment, prepared by Earthtech, dated 28 May 2025
Attachment 13	Water Take and Supply Plan, prepared by Earthtech, dated 23 May 2025
Attachment 14	Ground Contamination Assessment, prepared by Williamson Land and Water Advisory, dated 26 February 2025
Attachment 15	Hazardous Substances Report, prepared by Williamson Land and Water Advisory, dated 13 May 2025
Attachment 16	On-site wastewater treatment and disposal system, prepared by Ormiston Associates Ltd, dated May 2025
Attachment 17	Monofill Engineering Report, prepared by Earthtech, dated 29 May 2025
Attachment 18	Monofill Monitoring Report, prepared by Earthtech, dated 30 May 2025

Attachment 19	Earthworks Management Plan and ESCP, prepared by Earthtech, dated 23 May 2025
Attachment 20	Air Quality Assessment, prepared by Air Quality Consulting NZ Limited, dated 21 May 2025
Attachment 21	Acoustic Assessment, prepared by Hegley Acoustics, dated 11 June 2025, Letter dated 1 July 2025
Attachment 22	Ecology Assessment, prepared by Pattle Delamore Partners, dated 22 May 2025
Attachment 23	Assessment of fish/mudfish, prepared by AWA Consultants, dated 4 June 2025
Attachment 24	Transportation Assessment, prepared by CKL, dated 23 May 2025
Attachment 25	Engineering Services Assessment, Stormwater and Roading, prepared by Aiery, dated 23 May 2025
Attachment 26	Landscaping Planting Plan, prepared by Peers Brown Miller (PBM), dated 21 May 2025
Attachment 27	Electricity supply – WEL Networks correspondence, dated 19 May 2025
Attachment 28	Hydrogeological Assessment, prepared by Stantec, dated 6 June 2025
Attachment 29	Emissions Reduction Plan, prepared by Lumen, dated 03 April 2025
Attachment 30	Waikato Regional Council feedback
Attachment 31	Waikato District Council feedback
Attachment 32	Copy of FTAA referral request
Attachment 33	District and Regional Plans, Objectives and Policies Assessment

1 Summary

1.1. National Green Steel Limited ("Green Steel") is seeking resource consents under the Fast Track Approvals Act 2024 (FTAA) to enable the construction and operation of a structural steel manufacturing plant, and ancillary activities, using recycled steel as the source material. The plant is to be located at 61 Hampton Downs Road, Te Kauwhata.

1.2. The project will allow Green Steel to develop a business focused on manufacturing structural steel using recycled steel sourced from across New Zealand. The project is expected to provide economic, operational, and environmental advantages by establishing a circular economy in New Zealand for processing recycled steel into structural steel.

1.3. The project will result in significant benefits for the regional and national economy and its operation as a full recycling facility for steel in New Zealand

1.4. The project has been assessed as consistent with the purpose of the FTAA, given the significant regional and national benefits that it will deliver. It is also considered consistent with the purpose of the Resource Management Act 1991 (RMA).

1.5. The project is located within a highly modified area of the district with several large-scale developments established in the immediate vicinity of the site. While some adverse effects on the rural environment are anticipated, these will be appropriately managed through design measures, best practice construction methodologies, and the proposed conditions of consent.

1.6. The project has been developed with supporting detailed technical assessments, which have identified the key potential adverse effects of the project requiring mitigation and the form of mitigation considered necessary.

1.7. Conditions of consent will provide for mitigation where necessary, including measures to minimise effects. The proposed conditions seek to implement a variety of recommended mitigations and associated monitoring and including the implementation of construction management measures, erosion and sediment control measures, construction traffic management, construction noise management, and control of water quality discharges.

1.8. The project is generally consistent with the objectives and policies of the Operative Waikato District Plan, Operative in Part Waikato District Plan and the Waikato Regional Plan

2 Use of Fast-Track Approvals Act 2024

2.1. The project is, and relates solely to, a 'Listed Project' under Schedule 2 of the Fast-track Approvals Act 2024 ("FTAA").

2.2. Pursuant to s42(1) Green Steel is the "authorised person" seeking all necessary approvals to authorise the construction and operation of the project under s42(4) of the FTAA, including resource consents that would otherwise be applied for under the Resource Management Act 1991 ("RMA").

2.3. This substantive application and Assessment of Environmental Effects ("AEE") is provided in accordance with the requirements of the FTAA, including ss42, 43 and 44 and Schedules 5 and 7 of the Act.

2.4. The substantive application does not seek approval for any activity defined as ineligible under s5(1) of FTAA.

2.5. The project, which forms the basis for this substantive application to construct and operate a Steel Mill for the processing of recycled steel accords with the Schedule 2 listing which provides as follows (refer s46(2)(b)):

> Construct and operate a structural steel manufacturing plant, including—
>
> - a scrap-steel shredding plant
> - electric furnaces to produce structural steel
> - a solar farm to provide electricity needed to operate the plant
> - buildings, access roads, and hardstand areas
> - screening and planting to attenuate noise

2.6. With respect to differences between the substantive application and the description of the project provided under Schedule 2 of the FTAA, there have been changes to the ancillary operations associated with the plant.

2.7. During the final phase of the project, it was identified that incorporating two monofill sites – engineered, closed landfill systems - would assist with the sustainability objectives of the Green Steel Project. The monofils are designed to provide a stockpile of floc materials that would otherwise be treated as waste product, to facilitate potential future reuse. These aspects have been assessed in this substantive application.

2.8. The listed application indicated the inclusion of a solar farm. A decision was made by Green Steel to remove the solar farm when it realised 56 MW of continuous electricity would be needed to run all the plant on the site. The vacant land available for solar panel installation falls far short of the amount of electricity to run the plant, and even then, the supply would not be continuous.

2.9. Green Steel realised that it will still need to source most of the electricity from the national grid, with WEL Networks being the local electricity distribution company. As a significant

investment in new infrastructure is needed to get the electricity to the site, it is essential to maximise the electricity load conveyed to the site to justify the expenditure.

2.10. Given the electricity demand for the site and the hours of operation proposed a grid-tied system is considered more appropriate for the site.

Information requirements (ss 43 and 44)

2.11. Checklists A and J have been completed in accordance with the application form to this substantive application to demonstrate where the information required under ss43 and 44 of the FTAA is provided in this document. In accordance with s44, the information in this application is provided in sufficient detail to satisfy the purpose for which it is required.

Pre-lodgement requirement for Listed Project (s29)

2.12. With respect to the pre-lodgement requirements, s29 of the FTAA requires the authorised person for the project (National Green Steel Limited) to consult with the following persons and groups:

- The relevant local authorities; and
- Any relevant iwi authorities, hapu and Treaty settlement entities, including:
  - iwi authorities and groups that represent hapu that are parties to relevant Mana Whakahonoa rohe or joint management agreements; and
  - the tangata whenua of any area within the project area that is taiapure-local fishery, a mataitai reserve, or an area that is subject to bylaws under Part 9 of the Fisheries Act 1996; and
- Any relevant applicant groups with applications for customary marine title under the Marine and Coastal Area (Tukutai Moana Act) 2011; and
- Nga hapu o Ngati Porou, if the project area is within or adjacent to, or the project would directly affect, nga rohe moana o nga hapu o Ngati Porou; and
- The relevant administering agencies; and
- If the proposed approvals for the project are to include an approval described in s2(4)(f) (land exchanges), the holder of an interest in the land that is to be exchanged by the Crown.

2.13. A list of all persons and groups required to be consulted pursuant to s29 (and s11) of the FTAA is appended to this application as Attachment 2. All these persons and groups have been consulted with, and a summary of that consultation is appended as Attachment 4.

2.14. The project is not located within or adjacent to and will not directly affect nga rohe moana o nga hapu o Ngati Porou. It is also not within an area identified as having protected customary rights area under the Marine and Coastal Area (Takutai Moana) Act 2011.

2.15. The activities associated with project, have not been the subject of an application or a decision under a specified Act in accordance with the requirements of s13(4)u) of the FTAA.

2.16. As confirmed by Attachment 3 and in accordance s30(3) of the FTAA, existing resource consents apply to the land for the establishment of two bores and the associated abstraction of groundwater, which are intended to operate with the project and also form part of the assessment contained within this report. No resource consents apply to the land which would prevent the proposed activity from being exercised if granted, and there

are no existing resource consents within the project area to which ss124C(1)(c) or s165ZI of the RMA would apply (refer to Attachment 4). In accordance with the requirements of s30 of the FTAA, the consent authorities (Waikato Regional Council and Waikato District Council) have both provided written notice on 17 June 2025. Following the requirements of s30(6) of the FTAA, the substantive application has been lodged within three months of the date of this notice.

2.17. The project does not include a land exchange in accordance with s. 33 of the FTAA.

Payment of any fee, charge or levy (s43(1)(j)

2.18. Green Steel will pay the fee and levy for a substantive application prescribed under the Fast-Track Approvals Cost Recovery Regulations 2025 upon lodging this application.

3 Introduction

3.1. As outlined in section 1, Green Steel is applying for resource consents under the Fast Track Approvals Act 2024 (FTAA) to construct and operate a new electric arc furnace green steel manufacturing plant. The project includes associated facilities such as a steel shredding plant, an industrial monofill, and ancillary activities, to be located at 61 Hampton Downs Road, Te Kauwhata.

3.2. The project will enable Green Steel to establish a business focused on producing structural steel from recycled materials sourced across New Zealand. By creating a circular economy for recycled steel, the initiative is expected to deliver economic, operational, and environmental benefits.

3.3. Importantly, the project represents the development of New Zealand's first fully integrated steel recycling facility, generating significant regional and national advantages.

Structure of Substantive Application

3.4. The FTAA sets out the framework under which resource consent applications are to be assessed by the panel, together with the information that is required to be provided in a substantive application. In accordance with the requirements of the FTAA, this application is structured as follows and also outlined in the table of contents:

Section 1: Overview Summary of the Project

Section 2: Use of the Fast track Approvals Act 2024 (FTAA)

Section 3: An Introduction including:

- Description and map of the site at which the project is to occur
- Adjoining and Adjacent Properties
- Details of the Immediate surrounding environment
- Wider Surrounding Environment Context
- Key features Hampton Down, Meremere

Section 4: A Description of the project, including:

- Project Context
- An overview of the operations proposed.
- A description of the activities required to support the development of the steel plant and ancillary activities.
- A description of the Industrial Monofill Activities proposed for the site.

Section 5: Reasons for the Application, including a description of the consents required under the

- Operative Waikato District Plan
- Operative in Part Waikato District Plan
- Waikato Regional Plan, and
- Applicable National Environmental Standards.

Section 6: A description of the activities that are permitted by the Plans.

Section 7: An assessment of the Actual and Potential Effects of the Project on the Environment.

Section 8: An assessment of the project against the statutory framework of the FTAA.

Section 10: An assessment against Part 2 of the RMA.

Section 9: An assessment against the relevant statutory RMA documents.

Section 11: Consideration of Treaty Settlements

Section 12: An overview of the consultation and engagement undertaken.

Section 13: Conclusion.

Site Description - 61 Hampton Downs Road, Meremere

3.5. The site is a combination of five adjoining allotments as shown in the image below. The physical address for these five properties is 61, 61A, 61C, 61D and 91 Hampton Downs Road. The registered owner of the sites is Garg Holdings Limited. Vipan Garg is the sole director and majority shareholder of both Garg Holdings Limited and National Green Steel Limited (the authorised person). Refer to Attachment 5 for the certificates of title and Company Extracts.

3.6. The legal descriptions for each of the five allotments that make up the site are:

I. Part Lot 1 DPS 45893, Record of Title SA40B/472 - 14.3327ha
II. Lot 2 DP 310030, Record of Title 39530 - 8805m²
III. Lot 3 DP 310030, Record of Title 39531 -12.5923ha
IV. Lot 4 DP 310030, Record of Title 39532 - 12ha
V. Lot 5 DP 310030, Record of Title 39533 - 13.9597ha

3.7. The total area of the site is **53.7652ha** and can be seen in the aerial image in Figure 1 below.

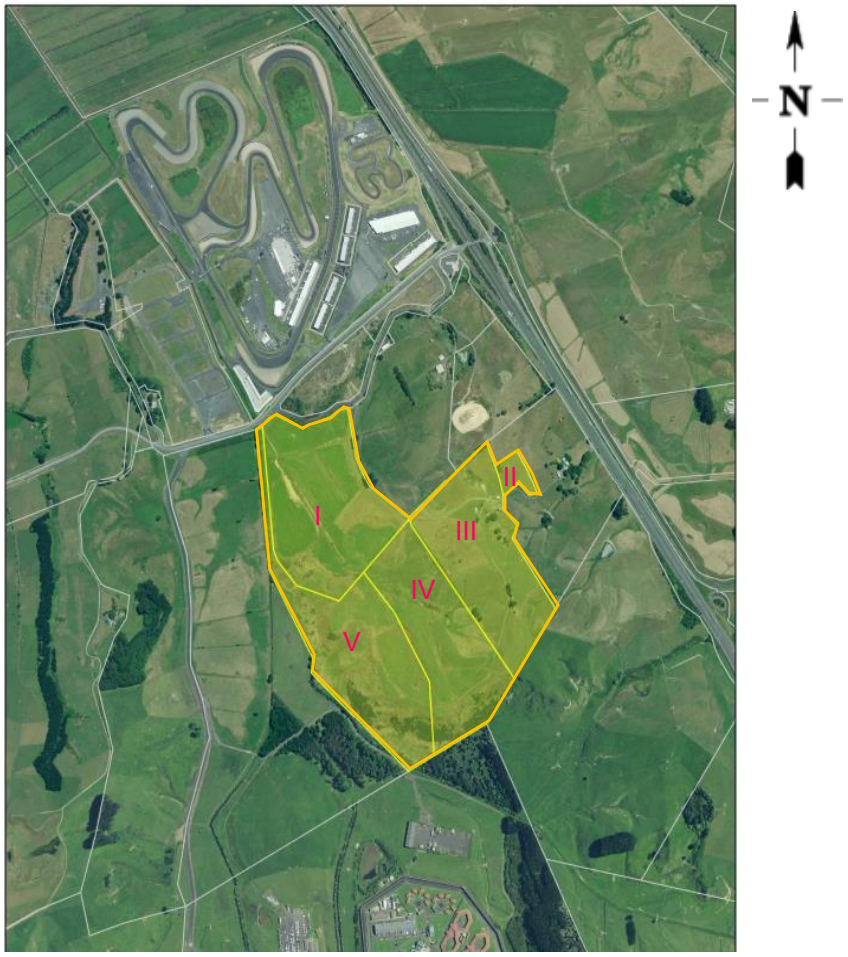


Figure 1: 61A, 61C, 61D and 91 Hampton Downs Road Highlighted Yellow (refer above numbering) Source Grip Maps

3.8. The site is primarily covered in pasture and used as a dry-stock farm, with the lower and northern part of the site previously occupied by rotational feed crops such as maize.

3.9. The site comprises variable rolling topography typical of the Meremere-Te Kauwhata area. The northern portion of the site is primarily a low-lying flat plains area. This portion of land sits at a lower elevation (at approximately RL3.5m) than the adjoining Hampton Downs Road and is impounded by a stop bank which separates the site from the adjoining Waipapa Stream, which runs adjacent to the site and forms the western boundary. Through the central portion of the property, the site rises in elevation through a series of shallow ridges and knolls (RL7.5m to RL10m), before again rising to an elevated section at the southern part of the site. In the southern portion of the site, the higher elevated area forms a peripheral horseshoe ridge around the proposed development. The southern perimeter of the horseshoe varies in elevation from approximately RL42m to RL51m. Figures 2 and 3 below provide a visual representation of the site.

Figure 3: Overview Photograph of the Site looking South (Source Earthtech)

Figure 2: Panoramic image towards southern boundary of the site taken from approximate mid-point of site (Source Greenwood Associates)

3.10. The site has a short section of frontage to both Hampton Downs Road and Harness Roads. Harness Road is accessed from Hampton Downs Road, which in turn is accessed from State Highway 1 (SH1) at the existing grade-separated diamond interchange and associated on and off ramps. The site is currently accessed via a farm entrance from Hampton Downs Road and another from Harness Road via a short section of formed Right of Way over Lot 1 DPS 40372 which, in turn leads to a sealed access lane that also provides access to the adjoining property at 61B Hampton Downs Road (Lot 3 DP 310030). 61B Hampton Downs Road contains a rural dwelling and associated ancillary buildings.

3.11. Several existing flow paths originate from the ridgeline around the property, draining in a northerly direction. Additionally, several existing man-made farm drains transect the lower-lying ground and drain into the Waipapa Stream at the south-west corner of the site. The stream has permanent flow and runs along the western boundary of the site and continues north across Hampton Downs Road alongside the western extent of the Motorsport Park and into the Waikato River close to the Meremere Dragway.

Adjoining and Adjacent Properties

3.12. This section of the report is provided in accordance with Schedule 5, clause 5(1)(b) (i) of the FTAA and provides a description and map of the site at which the Project is to occur, including the name and address of owners and occupiers for the adjacent sites. The matters in schedule 5, subclauses (5)(1)(b)(ii)-(iii) are addressed in section 10 of this report.

3.13. Immediately adjoining and adjacent properties to the Green Steel site have been identified in Figure 4 below and Table 1 below. The references below are also consistent with the consultation summary included as Attachment 4.

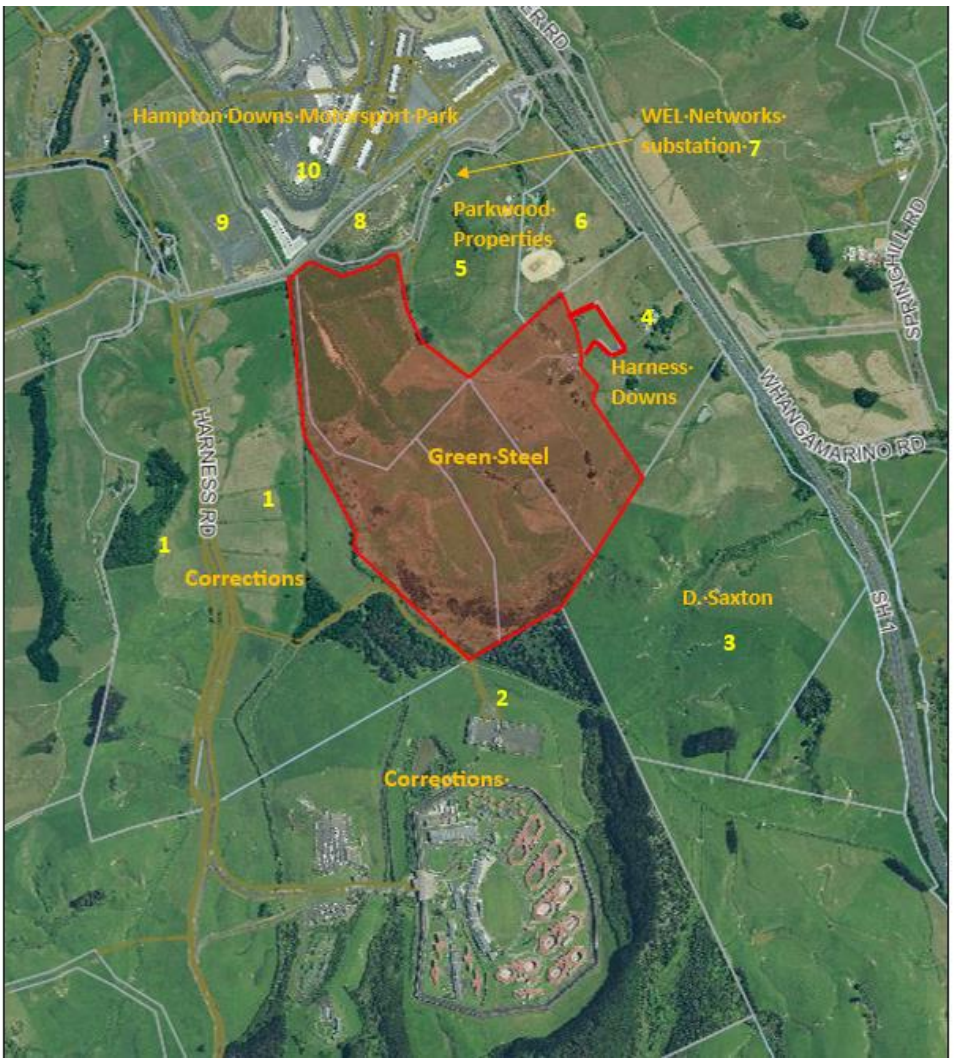


Figure 4: Adjacent Properties

Table 1: Adjacent Property Ownership Details

Reference	Address	Legal Description	Owner
1	181 Harness Road, Whangamarino	Lot 2 Deposited Plan South Auckland 91891 Lot 2 DPS 45006 (RT 47109)	Her Majesty the Queen (Department of Corrections)
2	181 Harness Road, Whangamarino	Lot 3 DPS 45006 (RT SA44C/328)	Her Majesty the Queen (Department of Corrections)
3	133 Stewart Road, Rangiriri	Part Allot 384 Whangamarino PSH (RT SA349/68) Section 50 SO 588031 (RT 1208399) Section 51 SO 588031 (RT 1208400)	David Saxton
4	61B Hampton Downs Road, Whangamarino	Lot 1 DP 310030 (RT 39529)	Harness Downs Limited
5	23 Hampton Downs Road, Whangamarino	Lot 2 DP 419130 (RT 473369)	Parkwood Properties Limited
6	23 Hampton Downs Road, Whangamarino	Part Lot 1 Deposited Plan South Auckland 43275 (RT 473369)	Parkwood Properties Limited
7	43 Hampton Downs Road, Whangamarino	Lot 1 DP 419130 (RT 473368)	WEL Networks Limited
8	Hampton Downs Road	Lot 5 DP 411257(RT 449214)	HD Land Limited
9	Hampton Downs Road	Lot 2 DP 411257 (RT 449212)	
10	20 Hampton Downs Road, Whangamarino	Lot 1 DP 411257 (RT 500902)	

Surrounding Environment and Site Description

3.14. The area of Hampton Downs is located in the northern Waikato region of New Zealand, strategically positioned between Auckland and Hamilton. The area is a modified semi-rural area in character, with a mix of agricultural land, industrial facilities, and recreational developments. The site is zoned General Rural under the Waikato District Plan. It is well-connected via State Highway 1, making it accessible for both local and regional traffic. Hampton Downs is located north of Te Kauwhata and south of Meremere.

3.15. In a wider context, the site sits in proximity to the Waikato Expressway (SH1), with the expressway partially visible from the site and the Hampton Downs Motorsport Park. Access to Hampton Downs (and the site) is via SH1, turning west into Hampton Downs Road via the grade-separated interchange, which provides access to the local road.

3.16. Hampton Downs is a unique and active area with the following large-scale established mixed uses:

i. Hampton Downs Motorsport Park
ii. Hampton Downs Raceway Accommodation Precinct
iii. Hampton Downs Landfill
iv. Hampton Downs Industrial/ Commercial Precinct
v. Spring Hill Corrections Facility

vi. Auxiliary Services (Refuelling station and WEL networks substation)

vii. Meremere Dragway

These activities and land uses are interspersed with more traditional rural uses including:

viii. Rural lifestyle properties, and

ix. Rural landuse activities

3.17. **Hampton Downs Motorsport Park:** The Motorsport Park is located immediately north of the property. The Hampton Downs Motorsport Park is a major feature of the area, encompassing a range of infrastructure to support motorsport events and recreational facilities. It includes a full international-standard racetrack, including a smaller circuit for national and club race day events, commercial motorsport services, pitlane facilities, dealership garages, vehicle transportation and storage, driver training centres, café, go-kart tracks, and large-scale event spaces. The facilities are provided for in the Motorsport and Recreation Zone of the Operative in Part Waikato District Plan.

3.18. **Hampton Downs Raceway Accommodation Precincts:** Situated within the overall Motorsport Park, the onsite residential accommodation apartments have been developed in conjunction with the Motorsport facilities. These are situated at the southern end of the central portion of Motorsport Park and are noted as potentially sensitive receivers which differ from the primary motorsport activities.

3.19. **Hampton Downs Landfill:** Approximately 1.5km to the west of the site, along Hampton Downs Road, is the Hampton Downs Landfill owned by Enviro NZ. The landfill was established in 2005 and comprises 87ha and is one of the largest purpose-built refuse management facilities in New Zealand. The landfill serves as a critical waste management facility for Auckland and Waikato regions, serving the solid waste disposal needs of the cities of Auckland and Hamilton, as well as several other areas of the North Island. The landfill provides specific disposal facilities for domestic and commercial refuse, contaminated materials and hazardous substances. The landfill includes advanced infrastructure for landfill gas capture and energy generation. The facility also operates an organics processing facility on-site and has recently doubled its capacity, supporting New Zealand's transition to a circular economy by processing green waste and food scraps.

3.20. **Hampton Downs Industrial/Commercial Precinct:** This is an industrial park which is zoned Motorsport and Recreation Zone of the Operative in Part Waikato District Plan with a specific precinct overlay. It is located to the north-west of the site (neighbouring the Hampton Downs Motorsport Park). This park is currently vacant, however has the infrastructure (roads, building platforms, etc.) set up to receive industrial-style built-form and it is reasonable to assume that this will be progressively developed over the next five years as demand necessitates.

3.21. **The Spring Hill Corrections Facility**: The Department of Corrections Spring Hill Corrections Facility is situated to the south of the site and shares a common boundary with the project site (although it cannot be readily seen from within the boundaries of the Green Steel site due to topography along the southern boundary). The Spring Hill facility is accessed via a private road on Department of Corrections land to the west of the site. The prison occupies a 215ha site, housing minimum to high-security male prisoners. It has a large primary and secondary security perimeter area that is fenced around the prison facilities. In addition to correctional facilities, the site also includes extensive rehabilitation and vocational training programs.

3.22. **The Meremere Dragway:** This is located to the north of Hampton Downs beyond a low-lying rural property. The Dragway is a well-known motorsport venue hosting drag racing events and contributing to the area's recreational motorsport identity.

3.23. **Auxiliary Services:** Due to the presence of the SH1 Interchange, an unmanned Gull refuelling station is situated just off the interchange at the beginning of Hampton Downs Road. This is a typical service station development comprising a large bunded space with a series of fuel bowsers. The site is a self-service facility; it does not include the commercial retail component typical of a service station. Further along Harness Road, a WEL Networks electrical substation has been sited to provide additional electricity capacity for the current level of development in the Hampton Downs area. The substation is housed within a larger format building.

3.24. **Rural Uses**: Beyond the larger scale land use indicated the area is also utilised for rural activities. These surrounding rural properties typify a rolling to flat terrain rural landscape and contain small pockets of native planting, with established fence lines and farm drains visible. The land is predominantly used for pastoral farming, including dairy and dry stock grazing.

3.25. Rural residential properties are scattered throughout the area, often associated with lifestyle blocks. Located north-west of the Motorsport Park is a small grouping of rural lifestyle properties that obtain entrance and access off Hampton Downs Road and Chris Amon Drive.

3.26. To the north and east of the site, the property adjoins two small rural properties, both with established rural dwellings, one of which is also placing cleanfill material on the site as a consented cleanfill area.

3.27. **Summary:** The above facilities create a level of modification that is over and above what would be typically expected within a traditional rural environment for the immediate Hampton Downs area. These facilities are all considered to be large-scale land uses which have an impact on the rural character and amenity of the wider area and have resulted in consistent zone protections for their activities being afforded by the Operative in Part Waikato District Plan. Each of these sites and the associated uses also contribute traffic flows to the immediate network as part of their normal operations, with the motorsport park authorised to host large format public events periodically. For the motorsport and landfill activities there is also a noise output that differs from a common rural context.

Wider Surrounding Environment Context - Key Features Hampton Downs, Meremere

3.28. To the west of Hampton Downs is the Waikato River. A number of tributaries in the immediate and surrounding area flow and connect into the Waikato River, including the Waipapa Stream. The landscape between the site and the river is gently undulating, with a mix of pastureland, planted shelterbelts, and pockets of native vegetation.

3.29. The Te Kauwhata township is situated approximately 12km south of Hampton Downs. It serves as a local service hub with schools, shops, and community facilities, and is experiencing residential growth due to its location between Auckland and Hamilton. Te Kauwhata features a number of sports clubs, a college, junior schools, kura kaupapa, and a library in the town centre, alongside retail stores and a small-scale supermarket. Te Kauwhata is known for its vineyards, horticulture, and proximity to Lake Waikare.

3.30. Meremere is situated on an elevated area between the Waikato Expressway State Highway 1 (SH1) and the North Island Main Trunk Railway. Meremere is a small community node that is approximately 6km north of Hampton Downs and has a small population of circa 600 people. Originally, for a number of years, a coal-fired power station operated near Meremere, and much of the workforce lived in the town; however, since its decommissioning, the small settlement has lacked local employment opportunities, requiring residents to travel via SH1 to the larger settlements of Huntly and the suburbs of South Auckland.

3.31. To the east of Meremere is the Whangamarino wetland. The wetland is a government purpose reserve and is an internationally recognised wetland, registered as a RAMSAR site. The activity is not situated within a contributing catchment to the Whangamarino wetland and, therefore, is beyond identification as a feature of the wider environment. It will not be affected by the project.

4 Green Steel - The Proposal

4.1. This section provides a comprehensive description of the proposed activity in accordance with Schedule 5, clause 5(1)(a) of the FTAA.

Project Context

4.2. The applicant company's sister company, National Steel Limited, is a specialist steel and metals recovery and recycling company in New Zealand with collection yards located across the country in Auckland, Wellington, Hamilton, Putaruru and Christchurch. The company recovers metal resources mainly from end-of-life vehicles (ELVs), most of which are currently sent offshore (e.g. India) for processing and upcycling into useable products.

4.3. Currently, New Zealand does not reuse steel, as all scrap is exported, and in turn, structural steel is imported. Setting up a new greenfield steel plant to manufacture structural steel using existing New Zealand scrap steel is consistent with the concept of a circular economy and an obvious way to play our part in the global effort to reduce industrial emissions. Reconfiguring the world's iron and steel production to be consistent with the global goal of zero net emissions by 2050 is the concept embodied by 'Green Steel'. In the absence of processing plants in New Zealand there is currently no circularity of these resources.

4.4. The Waste Minimisation Act 2008 (WMA, 2008) is designed to encourage waste diversion from landfills, as well as the minimisation and reduction in the quantities of waste disposed. The Act requires industry to consider the following waste hierarchy steps (in order of importance): reduction; reuse; recycling; recovery; treatment; and lastly, disposal.

4.5. New Zealand's Waste Strategy (MfE, March 2023) emphasises that the country should move towards a Circular Economy (CE), expressing that "We need high-quality systems and infrastructure for the whole country that enable widespread circular management of products and materials, including reuse, repair and recycling."

4.6. Aligned to a national vision to achieve a low-emissions, low-waste society, embedding circular economy principles by 2050 in New Zealand, Green Steel proposes to establish in-country processing of recovered metals from recycled ELVs and other scrap metals.

4.7. The development of a steel smelter and processing facility is proposed at 61 Hampton Downs Road (refer to Figure 1). Green Steel is seeking resource consents under the FTAA to enable the construction and operation of a new green steel plant and ancillary activities, including a steel shredding plant, and two areas set aside for monofills. This will enable the development of the business aimed at manufacturing structural steel with the source material derived from recycled steel collected from throughout New Zealand.

4.8. The objective of the proposal is to make steel production sustainable in New Zealand. This will involve the development of a steel 'mini mill' using recycled scrap metal, in place of iron ore or iron sands, as the basic input. It would use electric arc furnace (EAF) technology to produce high-quality structural steel with a far lower carbon footprint than existing processing and production methods used in steel production in New Zealand, reducing

the need for imported steel. Alongside the mill will be a scrap steel shredding plant utilising scrap sourced from throughout New Zealand as source material for the plant. The mill would produce around 200,000 tonnes of various steel grades for construction use nationally.

4.9. The plant will generate up to 200 jobs for the local and regional community and reduce New Zealand's reliance on expensive imported construction steel.

Overview of the Operations Proposed at the Site

4.10. The steel smelter and processing complex will require the construction of a large main building platform for the proposed EAF furnace, mill areas, transformers and switches, stores and administration buildings, covering a combined area of some 21.2ha, as shown in Figures 5 and 6 and illustrated in Attachment 6.

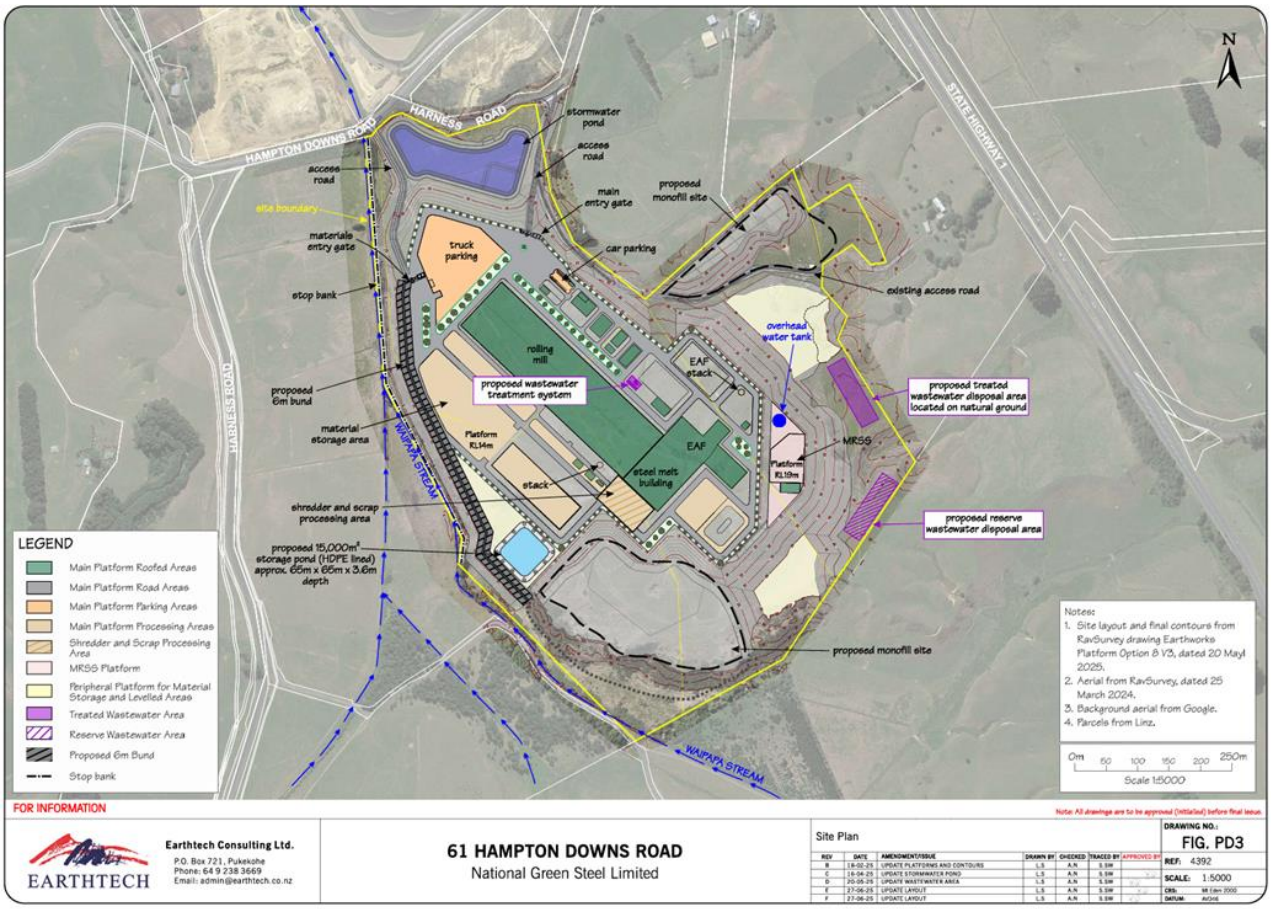


Figure 5: 3D Green Steel Site Plan (see Attachment 6 for an A3 version of the plan)

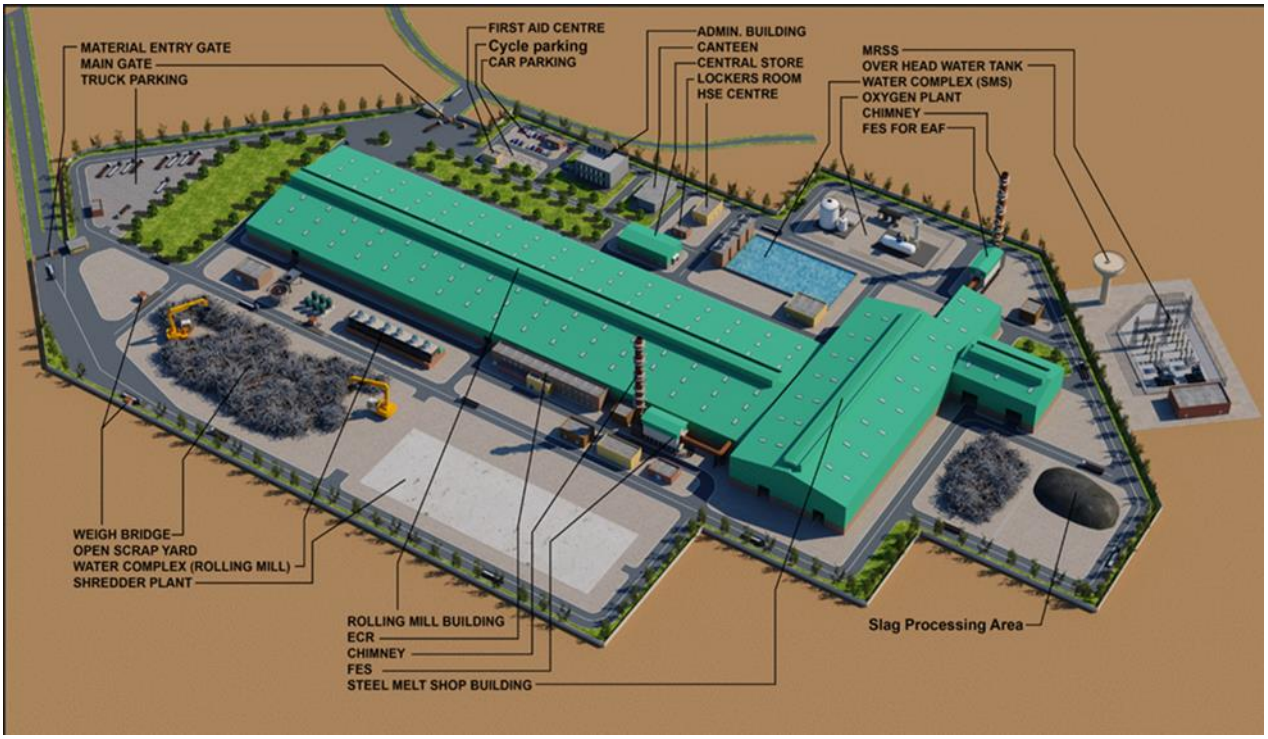


Figure 6: 3D Image showing indicative location of key facilities on site (see Attachment 6 for an A3 version of the image)

4.11. In summary, the main activities proposed can be categorised into the following five main outcomes for the project, which are further detailed in the following sections:

Site Preparation Bulk Earthworks

An extensive programme of site preparation is required to modify the topography of the land to accommodate the large flat surface needed to construct the steel plant and ancillary activities. The extent of the earthworks for the main platform is 32.7ha. The development overall, comprising the main platform and several proposed perimeter platforms, is approximately 48.7ha across the total of 53.7ha of the combined sites. Bulk earthworks are further described below.

Green Steel Mill/Steel Shredding and Recycling

Two new large buildings, approximately 450m long by 100m wide, will be constructed to house the electric arc furnace, steel melt facility and rolling mill used in the steel manufacturing and moulding process.

The main input will be recycled steel sourced from throughout the country. Currently, unlike most developed countries, New Zealand does not re-purpose scrap metal. Instead, it collects it, shreds it, and then exports the raw material for other countries to manufacture into new products. Supporting the steel plant will be a new Shear Plant, which cuts large pieces of steel (e.g. whole car bodies) into manageable sizes prior to shredding. The material will then be fed into a new Shredder Plant, which uses rotating hammers to break steel into smaller fragments. These will then be cleaned and sorted, ready for melting in furnaces in the EAF. Non-ferrous metals and non-metallic waste will be separated for separate recycling.

Monofills

Two new industrial Monofills (two locations on the site) will be created for the storage of non-metallic waste (e.g. car upholstery from the shredding process). The Monofills will enable the diversion of shredded material from the site that would otherwise be disposed of permanently in municipal landfills. Because the fill will comprise a single material,

uncontaminated with other material, it has the potential to be mined and recovered later for recycling or reuse. The south-west monofill will be constructed and filled first, and once that is filled within approximately 15 years, the second monofill to north-east will follow.

Site Infrastructure Requirements

An overview of the site infrastructure requirements is included below.

Operational Aspects of the Project

An overview of the site operational aspects forming part of the project is included below.

Site Preparation – Bulk Earthworks Main Platform

4.12. The steel plant complex will necessitate the establishment of a singular, expansive main building platform of 21.2 ha to accommodate the EAF furnace, mill areas, storage facilities, administration buildings, and other related structures. A secondary platform will also be constructed to accommodate the Main Receiving Sub Station (MRSS) platform, which will house equipment such as transformers, switchgear, and switches.

4.13. A comprehensive earthworks programme over an area of 44.7 ha is planned with technical advice on the civil engineering aspects being provided by Earthtech Consulting Limited (Earthtech), refer to Attachments 12, 13, 17 and 19. Earthworks are necessary to reshape the site in preparation for the construction of various buildings and facilities that will constitute the steel mill and its ancillary operations. The site currently rises to RL45m at its southern end, whereas at the northern end, the elevation drops to as low as RL5. To attain the final design platform level for the main steel plant and ancillary activities, cuts of approximately 20m will be necessary at the southern end of the site, along with nearly 10m of filling at the northern end to level the site.

4.14. The main platform is proposed at RL14m and an elevated secondary MRSS platform at RL19m in the southeastern corner. Estimated earthworks volumes for the project include 1,918,000 m³ of cut: and 1,935,120 m³ of fill, with an approximate 1% surplus of 17,120 m³, which will be required to achieve these platforms (refer to Table 2). It is likely that a net balance will be achieved with the surplus material being utilised for landscaping fill and potentially the construction of a screening embankment along the southwestern and northern portions of the site. Undercutting of unsuitable compressible materials (1-2m depth) is expected on the lower northern portion of the site, and preloading of areas is likely. Note that the indicated 1.9 million m³ of cut includes the establishment of the two monofill sites described in later sections of this report. Initially, several perimeter platforms are to be constructed for the monofill areas at proposed elevations RL14m, RL35m and RL45m as part of stage 3. A 3D model indication of the finished contours for the site is included as Figure 7.

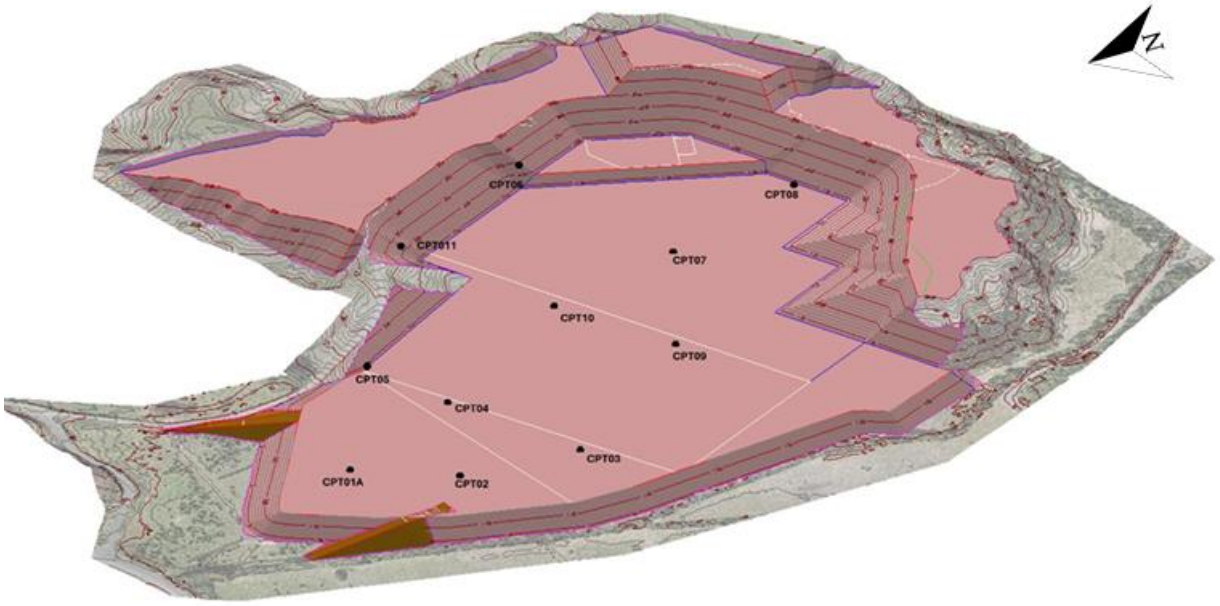
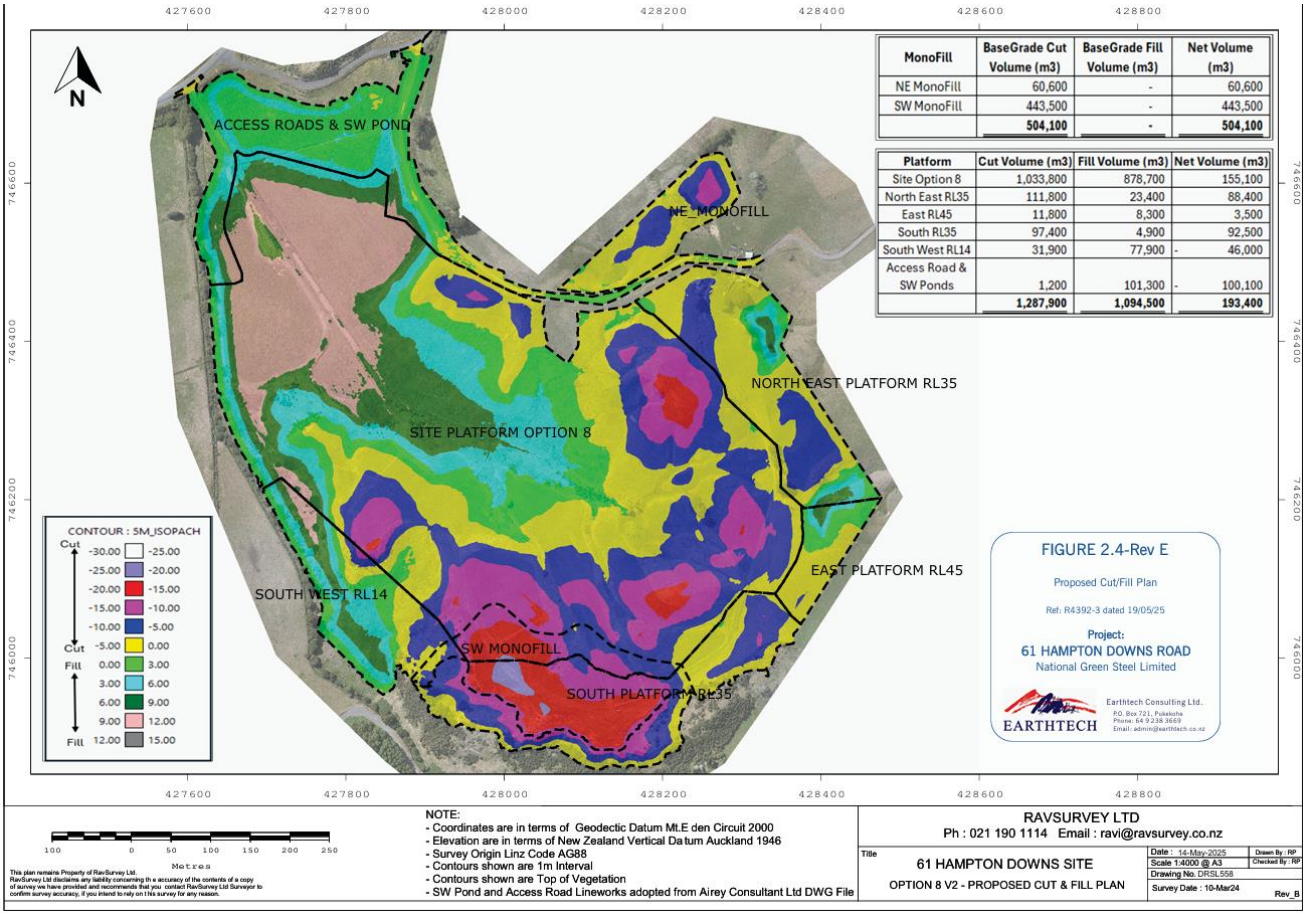


Figure 7: 3D illustrative image of the site showing the extent and final landform of the proposed earthworks (Source Earthtech Report Attachment 12)



MonoFill	BaseGrade Cut Volume (m3)	BaseGrade Fill Volume (m3)	Net Volume (m3)
NE MonoFill	60,600	-	60,600
SW MonoFill	443,500	-	443,500
	504,100	**-**	**504,100**

Platform	Cut Volume (m3)	Fill Volume (m3)	Net Volume (m3)
Site Option 8	1,033,800	878,700	155,100
North East RL35	111,800	23,400	88,400
East RL45	11,800	8,300	3,500
South RL35	97,400	4,900	92,500
South West RL14	31,900	77,900	- 46,000
Access Road & SW Ponds	1,200	101,300	- 100,100
	1,287,900	**1,094,500**	**193,400**

NOTE:
- Coordinates are in terms of Geodectic Datum Mt.E den Circuit 2000
- Elevation are in terms of New Zealand Vertical Datum Auckland 1946
- Survey Origin Linz Code AG88
- Contours shown are 1m Interval
- Contours shown are Top of Vegetation
- SW Pond and Access Road Lineworks adopted from Airey Consultant Ltd DWG File

Figure 8: Proposed Cut to fill plan Green Steel Project (Source Earthtech Report Attachment 12)

4.15. The bulk earthworks are planned to be carried out over three main stages:

Stage 1: Northern Main Platform, SW Monofill and EAF Building Platform

- Excavation of the SW Monofill and fill to the northern main platform portion
- Construction of the northern stormwater containment/storage pond
- Excavation of the cuts around the southern horseshoe in the southern and southwestern portions of the site and construction of the EAF and Steel Melt Shop building platform

Stage 2: Southern Cuts and Construction of the Southern and Central Main Platform

- Excavation of the cuts around the southern horseshoe in the southeastern, southern and southwestern portions of the site, including the RL19m MRSS platform

Stage 3: Construction of the Peripheral Platforms

- Cut to fill of the peripheral platforms around the outer horseshoe, i.e. RL35m (NE); RL19 (E), RL35m (SE); RL35m (SW) and RL14 (SW).

Table 2:Estimated Earthworks volumes by areas

Platform	Cut (m^3)	Fill (m^3)	Possible Undercut and/or Unsuitable Material (m^3)
Main	1,033,800	878,700	Est. 106,000
Perimeter	254,100	215,800	Est. 20,000
Totals	1,287,900m^3	1,094,500m^3	126,000m^3
Monofills	504,100m^3	0m^3	
Adjusted fill (allowing for undercuts)	+126,000m^3	+126,000m^3	
Adjusted fill (allowing for use of excess fill material)	+0m^3	+714,620m^3	
Adjusted Totals	**1,918,000m^3**	**1,935,120m^3**	
Variance	-1%		

*Earthworks cut/fill balance overall is an estimated -17,120m^3

4.16. Geosynthetics (e.g. geogrids) will be used to enhance fill performance and reduce settlement.

4.17. Earthworks will commence following detailed design in the 2025/26 earthworks period. Should earthworks not be completed within the standard earthwork season, approval may be requested from the regional council to continue under winter works authorisations based on established erosion and sediment controls.

4.18. Earthworks will require careful engineering and management with the provision of strategically positioned stormwater retention and settlement/stilling pond(s) to minimise sediment loss from the earthworks catchment areas and the site overall. A draft Earthworks Management Plan and Erosion and Sediment Control Plan (ESCP) has been

prepared by Earthtech for the Project and is included as Attachment 19. This is briefly summarised below. All works will be undertaken following the Waikato Regional Council Erosion and Sediment Control: Guidelines for Soil Disturbing Activities, January 2009.TR 2009/02. A final ESCP will be provided to the Waikato Regional Council as part of the pre-start conditions as identified in Attachment 7.

4.19. Enabling works will be undertaken to ensure the arrangement of erosion and sediment controls or devices are in place in advance of the earthworks operations commencing, i.e. 'Day 1' of physical works. This generally includes diversion drains, decanting earth bunds, and stormwater sediment retention ponds (SRPs). Erosion and sediment control measures will be appropriately staged as the construction of the main platform progresses in the cut and fill earthworks areas.

4.20. Earthworks will be undertaken in cells, each with its own sediment retention pond. A maximum of approximately 5 ha of land will be left exposed in any one cell. All earth-worked areas will be self-contained by earth diversion and containment bunds. Several sediment retention ponds (SRPs) are to be constructed within the designated catchments for the site. Clean water will be diverted and conveyed around the site along lined contour drains and down chutes or flumes where required. Additional erosion and sediment control devices include decanting earth bunds, clean water and dirty water diversion bunds and drains, and silt control fences. Sediment control ponds have been considered within the ESCP. Exposed earth areas will be suitably stabilised by way of hay mulching and hydro-seeding, or topsoil and planting or re-grassing immediately, and placement of erosion protection (riprap on geofabric) where required immediately after excavation. Stormwater management during the earthworks phase, including the division of the site into designated and sized catchments and stormwater retention (or control) ponds (SPs), will also be managed on an ongoing basis during the earthworks phase.

4.21. Ensuring the sequencing and synchronisation of the earthworks cut and fill construction areas is important, requiring strategic timing of soil volumes placed for preloads, temporary stockpiles, landscaping embankments and engineered fill for the platforms.

4.22. A buffer area will be formed alongside the Waipapa Stream, with earthworks setback by a minimum of 10m. Where the stopbank is located, earthworks will be located back from the bank itself, to prevent any sediment-laden water from entering the stream environment during the construction process, and after site development is completed.

4.23. Exposed surfaces during construction have the potential to generate dust, particularly during windy and/or dry conditions. Dust suppression measures will be implemented as required, and these will be set out in the Construction Management Plan and Dust Management Plan.

Figure 9: Williamson Soil sampling locations around farm buildings

4.24. The National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS) sets out nationally consistent planning controls appropriate to district councils for assessing potential human health effects related to contaminants in soil. The regulations apply to specific activities on land (soil disturbance, bulk soil sampling, subdivision, and land use change) where a HAIL activity has occurred.

4.25. An assessment of the NESCS has been undertaken by Williamson Land and Water Advisory, which concludes that the NESCS applies to the site (in part only) because HAIL activities have occurred on the site. HAIL activity E1 has been identified in the area surrounding the redundant wool shed. Earthworks or soil disturbance in the immediate surrounds of the wool shed will trigger the NESCS regulations. As the permitted activity threshold is very low for ACM, the volumes removed from the site in any remediation would likely exceed the Permitted Activity thresholds. As asbestos is present at concentrations that present a risk under both the current and future land uses, the proposal triggers the “changing use” provisions set out under Part 4 of Regulation 8 of the NESCS. This is because changing the use of land of a piece of land is defined under the NESCS as changing land to a use that is reasonably likely to harm human health.

4.26. As site-wide earthworks are proposed, the wool shed, farm sheds and livestock yards will be demolished, and asbestos-contaminated soil around the wool shed will be remediated as part of enabling works. Consent will therefore be required on a Restricted Discretionary basis under Regulation 10 of the NESCS for soil disturbance around the wool shed/ yards.

4.27. Earthworks or soil disturbance across the wider site is not captured by the NESCS as areas beyond the immediate surrounds of the wool shed are not considered to be HAIL areas (or a piece of land) under the NESCS.

Green Steel Mill

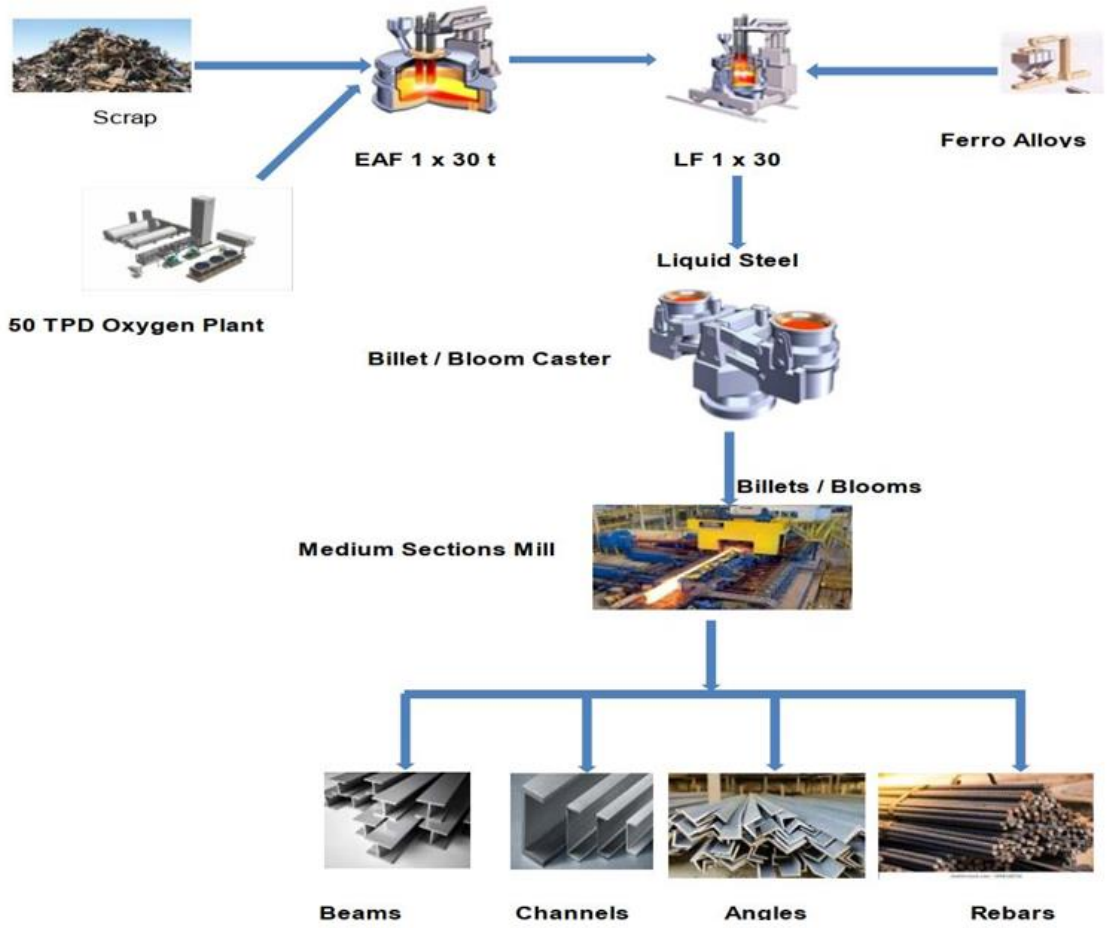


Figure 10: Process flow diagram for Green Steel *(Source Lumen Report at Attachment 29)*

4.28. Green Steel is proposing to build and operate a 200,000 tonnes per annum green steel mill. The shredded steel will be melted in an Electric Arc Furnace (EAF), a highly efficient technology that uses high-temperature electric arcs to create molten steel. Once melted, the steel will be refined and shaped into various finished products, such as beams, channels, angles, and bars, which are commonly used in construction and manufacturing. This process aims to reduce waste and lower environmental impact compared to traditional steelmaking.

4.29. The steelmaking process involves several key stages, including melting, continuous casting, rolling, and the use of an oxygen plant to enhance efficiency: see Figure 10 above. In the EAF, the shredded scrap is charged at a rate of approximately 35 tonnes/hr and melted using high-power graphite electrodes, which generate an electric arc to produce intense heat. Oxygen is injected into the furnace to accelerate the oxidation of impurities such as carbon, phosphorus, and sulphur. Fluxes like lime and dolomite are added to form a slag layer that captures unwanted elements. A maximum heat demand of approximately 14 MW is required for the EAF, which aims to produce 200,000 tonnes of liquid steel per year.

4.30. A Ladle Furnace (LF) is used to refine the liquid steel from the EAF, which requires a maximum heat demand of approximately 2 MW. After refining, the molten steel is transferred to the billet caster, where it is continuously poured into moulds at a rate of approximately 40 t/h to form semi-finished steel billets. These billets gradually solidify as they pass through a series of cooling zones before being cut into the required lengths. The billets are then stored before further processing in the rolling mill.

4.31. The next stage involves rolling in the medium section-cum-bar mill, where the billets are reheated in a furnace to reach the desired rolling temperature. The hot billets are then passed through multiple rolling stands to reduce their size and shape them into specific profiles such as angles, channels, beams, and bars (round, square, or flat). Controlled cooling methods are used to achieve the required mechanical properties before the final products undergo straightening, cutting, and quality inspection. The reheating takes place in an Equalizer Furnace (EF) which uses LPG with a maximum heat demand of approximately 10 MW (for hot charging) or 20 MW (for cold charging) and a production rate up to 45 tonnes/h. The target production rate of the section mill is 200,000 tonnes of steel per year.

4.32. To support this entire operation, an oxygen plant is integrated into the facility to provide a steady supply of high-purity oxygen. This oxygen is primarily used in the EAF to improve melting efficiency by enhancing combustion, accelerating the decarbonisation process, and reducing electricity consumption. The oxygen plant plays a critical role in optimising energy use and ensuring consistent steel quality. All major equipment in the proposed process, except for the medium section-cum-bar mill, will operate on electricity. The shredder, electric arc furnace (EAF), billet caster, and oxygen plant are all electrically powered, ensuring efficient and environmentally friendly operation. However, the EF (used for reheating material for the medium section-cum-bar mill) will be an LPG-fired system, chosen specifically for its superior controllability in achieving precise temperature profiles during reheating and rolling, which is critical for maintaining the desired mechanical properties of the final steel products.

4.33. In the Electric Arc Furnace (EAF) steelmaking process, sludge is generated as a byproduct primarily during the off-gas cleaning phase. As this sludge often contains hazardous heavy metals (especially zinc and lead), this material will be captured and disposed of at an authorised trade waste facility, either in Auckland or in the Waikato Region.

Source Material and Scrap Steel Shredding Process

4.34. The raw material for the plant is sourced from throughout New Zealand. National Steel has a network of scrap metal collection centres in both the North and South Islands. Material from these facilities is currently transported to South Auckland, where the company's existing shredder is located.

Figure 11: End of Life Vehicles (ELV) prepared and stored for shredding at National Green Steel's sister site - current processing and recovery plant in Manukau, Auckland.

4.35. Scrap metal, such as sheet metal or beams and primarily End of Life Vehicles/car bodies (ELV) as seen in Figure 11, is processed in a two-step process. The first involves a pre-shredder running the material through a shear, which reduces the raw material into intermediate-sized pieces before they are fed into the main shredder. The pre-shredder shear generates no emissions of dust, flock, or metals. Its design also significantly reduces the risk of explosions in the main shredding system. In the unlikely event of an ignition caused by the contents of a gas cylinder or fuel tank, the open environment of the pre-shredding process minimises the likelihood of explosive ignition.

4.36. Material from the pre-shredder is then conveyed directly into the main shredder, which consists of counter-rotating drums fitted with fixed hammers or cogs. The shredded material is then transferred to a Zig-Zag Separator, where lighter non-metallic materials (floc) are separated and collected in a cyclone separator. Floc, the non-ferrous by-product of the process, is stored outdoors in a stockpile before being disposed of. Heavier metallic materials are processed through a rotary magnetic separator, which separates ferrous and non-ferrous components. These pieces are then separated into ferrous and non-ferrous fractions.

4.37. Green Steel proposes to process scrap steel on the Hampton Downs site for use as the raw material in the Green Steel Mill, with the establishment of a new steel shredder plant which replicates the process described above. Once the Hampton Downs site is operational, all material from throughout New Zealand will be diverted to it.

Industrial Monofills

4.38. As outlined in the section above on the scrap steel shredding process, a residual product from the shredding process is floc. This material is derived from the most common recycled product, end-of-life cars, and consists almost entirely of shredded upholstery from the cars see Figure 12 below. All other materials, such as engines, oil, fuel tanks, etc, must be removed before they are accepted for shredding.

Figure 12 Recovered floc material post-shredding at the process and recovery plant South Auckland

4.39. Floc cannot yet be recycled, although there is the potential for further extraction of some of the material for re-use in the future. To date, all floc produced is disposed of in municipal solid waste landfills (MSW Landfill). Once it is disposed of in an MSW Landfill, the material becomes contaminated with other material, especially organic material, and the ability to recover and reuse it in the future is lost.

4.40. To improve the future potential for recycling the floc, the project includes on-site Industrial Monofills, which will only accept floc derived from the shredding operations of Green Steel's sister company, National Steel Limited. An industrial monofill is defined as a facility that accepts waste for disposal that is generated from a single industrial process. A monofill is considered to be the most responsible and environmentally friendly way to dispose of floc as it provides for the potential to reuse the waste in the future, as recycling processes are developed for that material.

4.41. Geotechnical investigations completed by Earthtech, as referenced in Attachment 12, indicate that two sites outside the main steel plant platform are suitable for the development of a monofill. On-site areas for the proposed monofill can be found in Figure 13 below, showing their footprints, with Figures 14-15 indicating the proposed cross-section of the monofills.

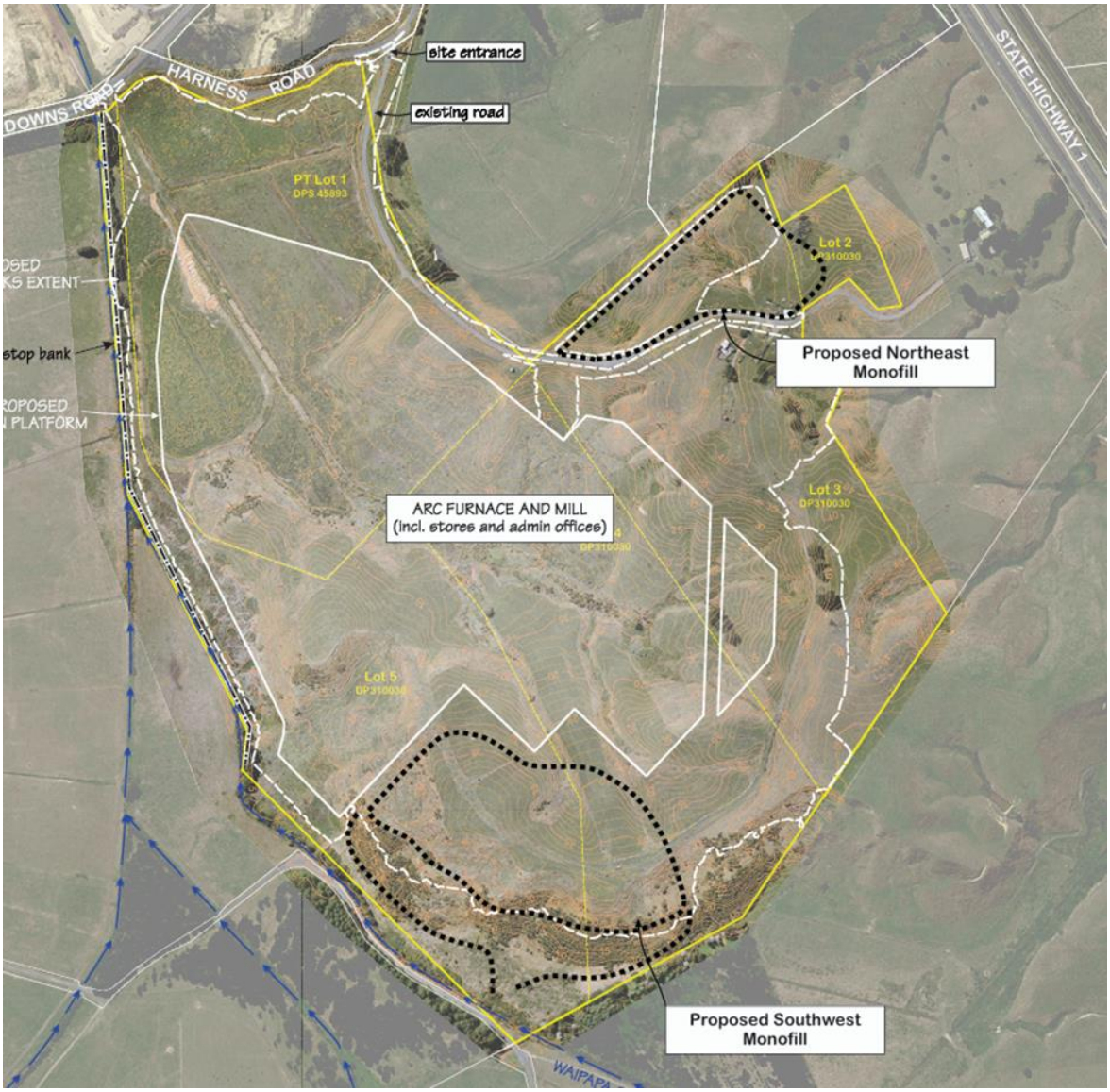


Figure 13: Proposed Monofill locations *(Source: Earthtech Report Attachment 17)*

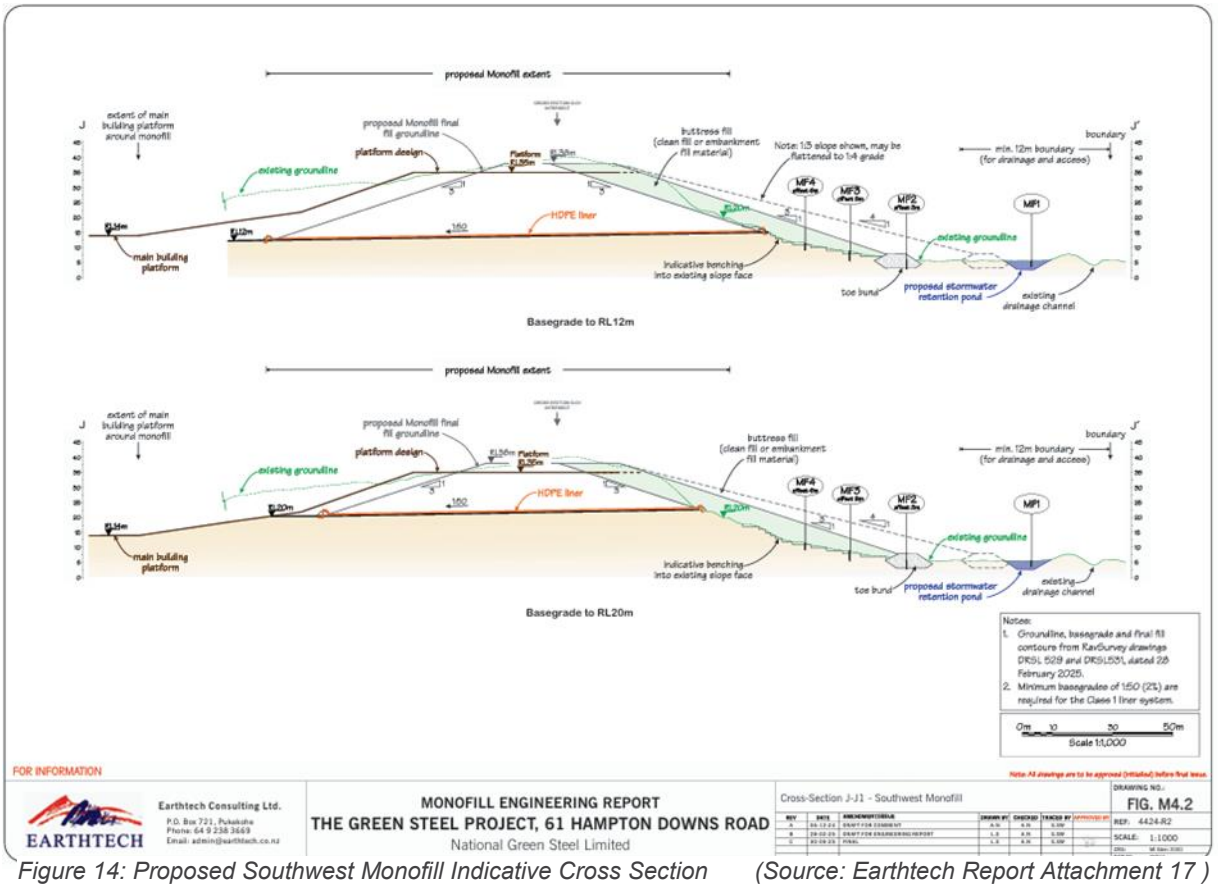


Figure 14: Proposed Southwest Monofill Indicative Cross Section (Source: Earthtech Report Attachment 17)

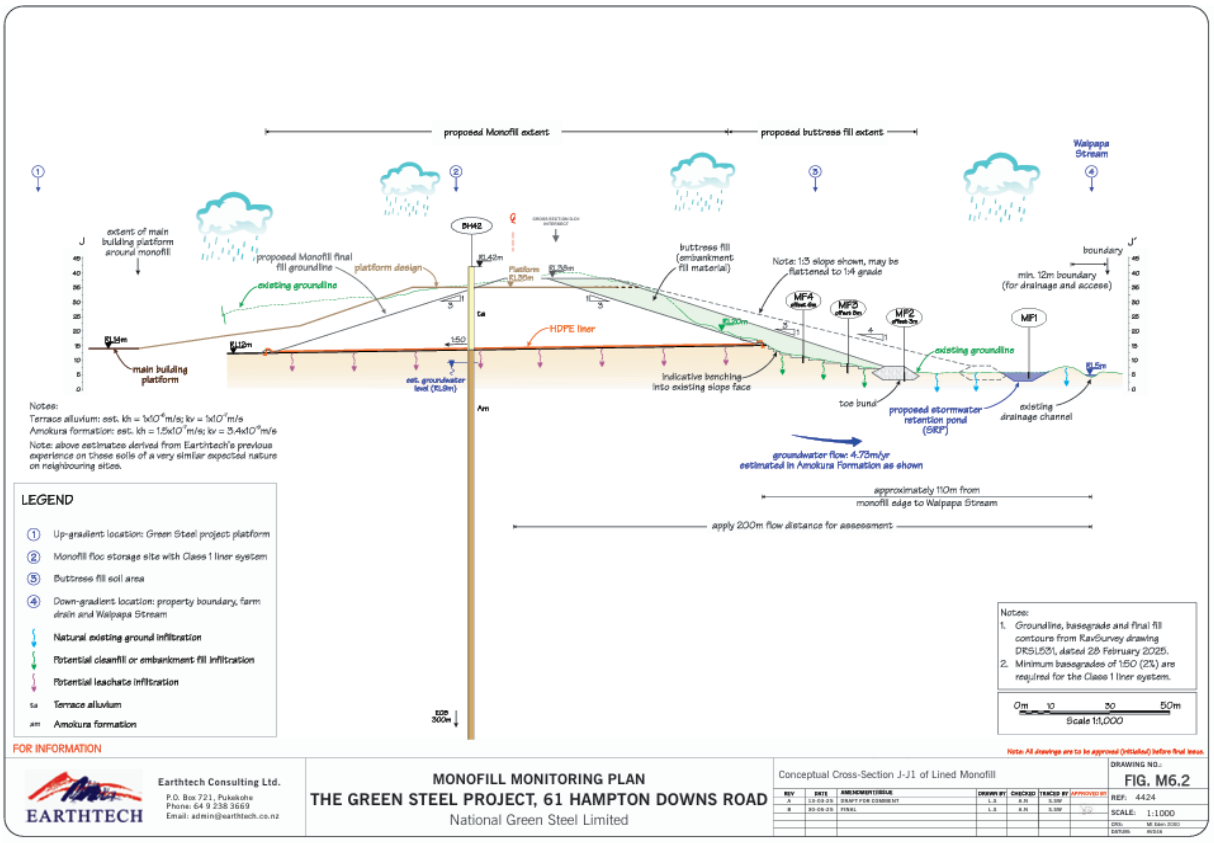


Figure 15: Proposed Northeast Monofill Indicative Cross Section (Source: Earthtech Report Attachment 17)

4.42. The proposal is not to develop both sites at once; rather, develop one site first – the southwest monofill, and if there is still no ability to recycle the material once that monofill has reached its fill capacity, then develop the northeast site.

4.43. A production rate of 200m³ of loose floc or 100 tonnes of floc per day is anticipated. This will be compacted to a density of 1 tonne/m³, leading to a compacted filling rate of 100m³ per day. The southwest site covers an area of some 6.1 hectares, providing a floc fill capacity which could be varied depending on the level of the base grade cut. A capacity of approximately 235,000m³ is provided if cut to RL20m, increasing up to approximately 556,500m³ if cut to RL12m. The existing ground level rises to RL38m.

4.44. The northeast monofill covers an area of some two hectares, providing a floc fill capacity of approximately 95,100m³. The combined capacity of the monofills is some 651,600m³, providing an estimated life of approximately 18 years, and possibly 20 years, allowing for consolidation.

4.45. Both sites are located adjacent to ridges and will require significant earthworks over time to create the fill areas – see the Proposed Cut/Fill Plan (refer to Figure 8 and Attachment 12). The southwest monofill will ultimately require 443,500m³ of cut. The northeast monofill requires 60,600m³ of cut to be removed to form the platform for the fill. This amounts to a total of 504,000m³ over the total lifetime of the monofills.

4.46. Site development will be gradual as filling proceeds in cells. A small proportion of the monofill area will be earth-worked and exposed at any one time, with the intention of trying to maintain the perimeter of the cell as much as possible and ensuring earth bunds form the perimeter of each cell. This will minimise both soil loss and visibility of the monofill. Each day, the filled area will be covered to prevent rainfall infiltration. Stormwater and sediment control devices to control flows outside the cells and to manage sediment loss from within the cells will be constructed ahead of any earthworks being undertaken.

4.47. Sediment retention ponds will be formed to control sediment in accordance with the Waikato Regional Council Guidelines (Waikato Regional Council Technical Report 2020/07: Waikato Stormwater Management Guideline, updated version May 2020, and Erosion and Sediment Control Guidelines for Soil Disturbing Activities (TR2009/02)).

4.48. An engineered subsoil drainage system will be provided below the base liner in each valley. This also provides an appropriate leakage detection system for the site, as the outlets can be continuously monitored. The subsoil drains extend beneath the compacted engineered fill through the toe embankments to a monitoring manhole on the downstream side. Subsoil water discharges from the southwest monofill will then be directed into a stormwater channel flowing into an onsite stormwater retention pond.

Operational Infrastructure

Electricity

4.49. 55MW of installed electricity load is required for the project. WEL Networks (WEL) has agreed to further investigations to provide the electricity and has confirmed their willingness to meet the capacity requirements of the project (see letter in Attachment 27). WEL has initially investigated viable options for the supply of electricity to the site but has yet to determine the most appropriate route and infrastructure. They will allocate resources for doing so once consent is granted, when they have greater certainty of the project proceeding, and when they can negotiate a supply agreement with Green Steel.

Transport and Access

4.50. The plant will rely on the use of trucks for bringing source material to the site and then trucking finished product off to the customers at the end of processing. The Waikato Expressway runs close to the site with on and off ramps in both directions, located approximately 1km away. Trucks are able to travel to and from the plant along Hampton Downs Road. The main truck entry and exit is to be located at the north-western end of the site off Hampton Downs Road (see Site Plan Attachment 6). A new access road will be formed leading from the entry up to the plant, with a number of site roads formed to gain access to all parts of the operations on site. The volumes of trucks have been calculated as being up to 150 vpd for trucks.

4.51. An access road will also be formed off Harness Road in the location of a shared Right of Way. This road will be upgraded to provide an alternative access, mainly for light vehicles such as staff and visitors to the plant. The volumes of light vehicle traffic have been calculated as being up to 400 vpd for staff and visitors. Car and truck parking areas will be provided.

4.52. Both access road entrance locations can be seen in Figure 5 above and highlighted in Figure 16 below.

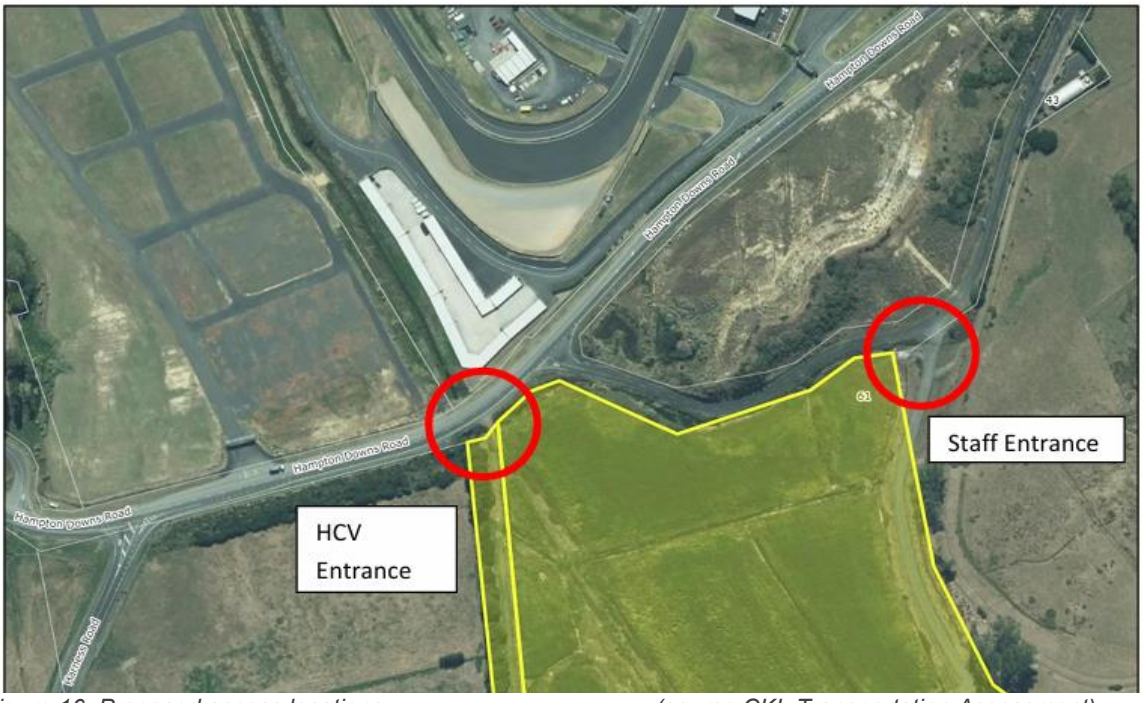


Figure 16: Proposed access locations (source CKL Transportation Assessment)

Three Waters

Water Use

4.53. The overall project requires significant amounts of water, primarily for cooling in the steel-making process. A detailed assessment of the potential options for accessing water has been undertaken. A sustainable daily water supply is required, which amounts to some 2,800m³/day, and 840,000m³/yr. Three sources for supplying water are proposed. These are:

- Water sourced from the Te Kauwhata Water Association Water Supply Scheme (TKW)
- Groundwater
- Collected and recycled stormwater.

4.54. Discussions have been undertaken with Te Kauwhata Water (TKW) to determine the availability of water from its supply scheme. The source of their water is from the Waikato River, close to the Green Steel site. TKW have indicated it has available capacity to supply Green Steel, although infrastructure upgrades (piping) will be required to access the capacity. Water available from the Te Kauwahata Association Water Supply Scheme is sufficient to supply the whole of the site demand; however, to reduce reliance and manage supply costs, Green Steel have also commissioned further investigations regarding groundwater abstraction and rainwater harvesting onsite. These are detailed below and included in Attachment 13.

4.55. In respect of groundwater, two test bores on the property have revealed there is a combined potential yield of 32m³/hr and 768m³/d from two 150mmØ production bores. From the testing and analysis undertaken, it is expected that two other feasible bore locations exist on the site, although the feasibility needs to be determined with further geophysics and test bore drilling before the development is completed. The four production bores will then target a combined yield of 1200 m³/d for use at the site.

4.56. The proposed stormwater pond at the northern end of the site has the capacity to store large volumes of stormwater. As explained below, the pond has multiple functions, one of which is to store water for reuse in the manufacturing operations. Up to 13,061m³ will be stored for reuse purposes. It is proposed to install a Stormwater Reuse Pump Station to provide water supply from the stormwater storage pond for use in the production of steel at the proposed steel processing plant. The stormwater will be pumped to a receiving vessel adjacent to the processing plant, which will be used to supply water to the manufacturing process. Stormwater runoff collected from the impervious areas of the site will be stored on-site, with additional provisions made for detention. Initial calculations using annual rainfall data would suggest that drawdown from the pond storage can provide an ongoing average supply of 420m³ of water per day, which is estimated to correlate to approximately 15% of the Steel Plant's daily water demand.

Stormwater

4.57. In respect of stormwater, the significant modification of the topography and permeability of the site provides the opportunity to design a stormwater system aimed at ensuring the peak flows and the quality of discharges are appropriately managed. A large new working

platform will be created as part of the development. All stormwater from the platform and adjacent areas will be gathered in a new stormwater network. The reticulated network will contain gross pollutant traps to treat stormwater.

4.58. Stormwater will be discharged into the newly formed pond at the northern end of the site (see Figure 17 below from drawings in Attachment 25, Aiery consultants Roading and Stormwater Management Report).

Figure 17: Showing location of the stormwater attenuation and treatment pond relative to the proposed Site Plan (blue shading) (Source Aiery Consultants Report attachment 25)

4.59. The topographical design of the site, including overland flow channels where required, will ensure that all runoff from impervious areas is directed to the pond during storm events up to and including 1% AEP. The topography of the site is shaped in order to direct flows overland toward the proposed stormwater pond, which will be provided with an emergency spillway structure.

4.60. The proposed stormwater pipe reticulation will be designed at the detailed design stage, and Aiery Consultants (Airey) recommend in their technical report Attachment 25 that this be designed to cater for stormwater flows up to and including a 2% AEP storm event, as this will align with the likely roof drainage system sizing. The Aiery report notes that the minimum requirement under the Building Code would be for the pipe reticulation to be designed for the 10% AEP storm. The benefit of designing for a higher intensity storm would be to minimise the likelihood of overland flow in larger storm events, increasing the resilience of the facility and enabling it to more readily keep operating in such events.

4.61. The pond will be constructed at the beginning of the earthworks phase and will be large and multi-functional. “Clean” stormwater from areas outside active earth working areas will be diverted through this pond once it is constructed. To ensure that there is no increase in flood risk downstream of the site resulting from the development, it is proposed to provide attenuation of the 1% AEP peak flows (including allowance for 3.8° of climate change).

Attenuation will be provided in the form of the new stormwater pond. It will provide for detention storage for flood attenuation in the event of a high-intensity rainfall event, will assist in the treatment of stormwater for quality purposes, and will provide a source of water for use in the steel manufacturing process.

4.62. The dimensions of the pond are 200m long by 50-80m wide, with a sediment forebay acting as a settling basin constructed at the incoming discharge point. The purpose of a sediment forebay is to allow sediment to settle from the incoming stormwater runoff before it is delivered to the balance of the pond.

Wastewater

4.63. The steel shredding and steel manufacturing processes, whilst using significant amounts of water, do not produce wastewater discharges. The water used in these processes is reused, after cleaning, in the case of the manufacturing plant. There will be negligible wastewater generated on the site as it will be restricted to domestic wastewater, derived from the staff bathrooms, kitchens, and other domestic uses. Environmentally friendly cleaning products will be utilised to reduce toxicity levels.

4.64. The treatment system is multi-staged. The wastewater goes through primary septic tank treatment and pre-anoxic treatment for lowering effluent strength before being treated through a number of filter pods and special treatment tanks aimed at further reducing the strength of the effluent. Ultimately, the effluent is irrigated to land at a primary disposal area (see Site Plan in Attachment 6 for location) or at the nearby reserve area. A comprehensive wastewater treatment land disposal assessment has been undertaken for the project by Ormiston Associates (Attachment 16). The onsite wastewater generated by staff facilities at the development is calculated to be up to 10,000 litres per day.

Other Operational Matters

Hours of Operation

4.65. The nature of the site is such that extended hours of operation are anticipated for the main steel plant with staff operating 3 shifts/day over a 24-hour period, which also allows for cleaning, maintenance and upgrades. However, some of the supporting activities will have limited hours of operation as follows:

- Open Scrap Yard (excluding shredders): 7am – 7pm
- Shredder and Pre-shredder: 7am – 7pm
- Monofill: 7am – 7pm

Operational Noise

4.66. An initial acoustic assessment of predicted noise associated with the operation of the Green Steel plant as undertaken by Hegley Acoustic Consultants, would suggest that the project will generally be able to achieve the daytime noise standards of the General Rural Zone as indicated below (rule R8 Operative in Part Waikato District Plan) at the notional boundary of adjoining properties. The notional boundary is a line 20 metres from any side of a residential unit or other building used for a noise-sensitive activity, or the legal boundary where this is closer to such a building.

NOISE-R8 – General Rural Zone

(a) Noise measured at the notional boundary on any other site in the GRUZ - General Rural Zone must not exceed:

(i) 50dB LAeq, 7 am to 7 pm every day.

(ii) 45dB LAeq, 7 pm to 10 pm every day.

(iii) 40dB LAeq and 65dB LAmax, 10 pm to 7 am the following day.

(b) Noise measured within any site in any zone, other than the General Rural Zone, must meet the permitted noise levels for that zone.

(c) Noise levels must be measured in accordance with the requirements of New Zealand Standard NZS 6801:2008 "Acoustics - Measurement of Environmental Sound".

(d) Noise levels must be assessed in accordance with the requirements of New Zealand Standard NZS 6802:2008 "Acoustic - Environmental noise".

4.67. When considered in conjunction with other noise generators in the immediate area, a minor non-compliance with the permitted activity standards is noted, particularly in the evening period and Saturdays, due to a change in zone provisions for two of the receiving locations. Whilst the levels of noise at these locations are not considered unreasonable, considering these aspects, a discretionary activity consent is required to exceed the noise standards. Green Steel have also engaged with the Department of Corrections concerning the level of compliance achieved at the Green Steel site boundary for the western and southern aspects of the site. These discussions are ongoing and, as part of the project, Green Steel have considered opportunities for additional noise mitigation, which will be discussed in the Assessment of Environmental Effects section below.

Site Emissions

4.68. Given the nature of the project, air discharges form part of the operational aspects for the project.

4.69. An Air Quality Assessment was undertaken by Air Quality Consulting NZ Limited (AQCNZ) to evaluate the potential of air discharges from the Green Steel Mill. The assessment supports the application for an air discharge consent under the FTAA.

4.70. Key Emission Sources identified by AQNZ are as follows

- Scrap steel processing – The process of shredding scrap steel will primarily result in the discharge of particulate matter (PM_{10} and $PM_{2.5}$).
- Steel Melt Shop – Air from the EAF, ladle furnace, and material handling systems is collected and passes through water-cooled ducts and dust storage silos before being discharged via a baghouse with a 55 m high stack - The primary emissions include: PM_{10} and $PM_{2.5}$, oxides of nitrogen (NOx), sulphur dioxide (SO2), and carbon monoxide (CO). Although this source has the potential to emit metals such as lead and zinc, these emissions are expected to be minimal. AQCNZ considers the PM_{10} and $PM_{2.5}$ guidelines sufficient to protect against health effects, provided off-site concentrations remain within these limits. While no further detailed assessment of metal emissions has been undertaken, further discussion on potential metal effects has been provided in the Air Quality assessment.

- Rolling Mill – Discharges to air from within the rolling mill building are exclusively related to the reheating furnace, which will combust gas (LFG, CNG or LPG) to heat the billets so they can be formed into structural steel sections and bars. The primary discharges from this source will be particulate matter (PM_{10} and $PM_{2.5}$), NOX, CO and SO_2.
- Oxygen Plant – The Air Separation Unit (ASU), which is situated in the oxygen plant, supplies oxygen, nitrogen, and argon for steelmaking. The ASU processes include air compression, purification, and cooling, with minor emissions limited to potential nitrogen venting and minimal leaks of inert gases.
- Construction of the Green Steel Mill – The construction of the Green Steel Mill will involve significant earthworks, which have the potential to generate air discharges, primarily in the form of nuisance dust.
- Monofill operations – The disposal of waste floc into the monofill has minimal potential to generate nuisance dust from the placement of waste floc and cover material. This is because the material is kept moist during the shredding process. While some dust could be generated by the cover process, this will be very minimal.
- Slag – Slag from steel processing will be either processed into aggregate to be used elsewhere., Otherwise, any slag not used for this purpose will be disposed of to a landfill. Any slag on the site will be stored indoors until transported to an off-site waste facility.

4.71. AQNZ Modelling Results suggest the following: predicted concentrations of PM_{10}, $PM_{2.5}$, NO_2, SO_2, and CO at all off-site locations and sensitive receptors are well below relevant health-based assessment criteria (AQNES, NZAAQG, WHO 2005). WHO 2021 guidelines were also considered; predicted concentrations also comply with these more stringent thresholds. Metal emissions (e.g., lead, zinc) are also expected to be minimal and within safe limits.

4.72. Greenhouse gas (GHG) emissions, primarily carbon dioxide (CO_2), however, to a lesser extent, methane (CH_4) and nitrous oxide (N2O), will be produced as a result of burning either LPG or CNG in the reheating furnace. When released into the atmosphere, these gases contribute to the 'greenhouse effect,' leading to climate warming. Due to the forecasted emissions from process heat fossil fuels (LPG) being greater than 2,000 tCO2 e/year, this site will be considered a high emissions site.

4.73. The primary goal of the proposal is to produce Green Steel, which generates significantly lower GHG emissions compared to traditional steelmaking. In line with this objective, Green Steel is making a concerted effort to reduce GHG emissions wherever possible. The facility will include an EAF for melting recycled steel. The EAF will operate with a capacity of 35 tonnes/hr of liquid steel. To provide Green Steel with the flexibility to include either CNG or LPG in its fuel mix, an Emissions Plan has been prepared by Lumen Limited to meet obligations associated with the National Environmental Standards for Greenhouse Gas Emissions (NES GHG) from Industrial Process Heat. The Lumen Emissions Plan also considers the Best Practicable Option for heating associated with the project and provides details of alternatives considered.

Anticipated Timeline

4.74. Should the application be granted, and in accordance with s13(4)(e) of the FTAA, construction of the project is anticipated to commence in the 2025 - 2026 construction season. The bulk earthworks will be completed in three stages as outlined above, and the earthworks are expected to be completed over one to two seasons. Following the bulk earthworks and establishment of the building platforms and once the final designs have been completed, construction of the main buildings will commence and is expected to take a further 12 months to 18 months to complete. Concurrently with the structures, the installation of the larger equipment requiring heavy lifting equipment, such as the furnaces and rolling mill mechanical plant, will be undertaken and placed within the building footprints and then enclosed. Following the completion of the building envelopes, secondary plant and ancillary infrastructure will be completed with the commissioning and testing of the plant anticipated in late 2028 – mid 2029. Timeframes included above are considered indicative only. These are subject to normal contingencies associated with design confirmation, consultant and contractor availability, unforeseen delays, bad weather, and supply chain availability for key materials and plant associated with the site.

5 Reasons for the Application

5.1. This section is provided in accordance with Schedule 5, clause 5(1)(f) of the FTAA and describes the resource consents required for the Project.

5.2. The following statutory planning documents trigger consenting requirements for the proposed works:

- Operative Waikato District Plan (ODP).
- Waikato District Plan – Operative in Part (WDP-OP).
- Waikato Regional Plan (WRP).
- National Environmental Standards

5.3. The application is for all consents required to undertake the project, including the construction and operation of the Green Steel Plant. No other resource consents have been identified as being required that are not included within this application.

Operative Waikato District Plan (ODP)

5.4. The ODP was made fully operative on 5 April 2013. The relevant zoning is Rural, and the property is within the Waikato River Catchment. There are no overlays that exist over the site which influence the project. The ODP continues to apply as the relevant rules under the WDP-OP are under appeal.

Rule Triggers under the Operative Waikato District Plan 2013:

5.5. The proposed activities for the Green Steel Plant trigger the following rules under the ODP.

Rural Zone:

Defined term Industrial activity

Means the use of land and/or buildings for the processing, manufacturing, fabricating, packing or bulk storage of goods, whether in a building or outdoors, servicing and repair activities, rural industries, electricity generation (excluding wind energy facilities) and stockpiling of coal, but excludes farming and temporary events.

Rule 25.10.2:	Establishment of new industrial activities in the rural zone is unable to meet the permitted activity and requires resource consent as a **Discretionary Activity.**
Rule 25.25.2:	Earthworks exceeding 1,000m², a cut face above 3m or 1000m³ in volume requires a resource consent as a **Discretionary Activity.**
Rule 25.31.2	Hazardous Substances Storage: New hazardous facilities require resource consent as a **Discretionary Activity**
Rule 25.49.2:	Construction of a building exceeding 10m in height requires consent as a **Discretionary Activity**
Rule 25.52.2	Construction of buildings exceeding 500m² in floor area requires resource consent as a **Discretionary Activity**.

Rule A14.A.2: Road Network - Safety and Functions. new access generating more than 200 vehicles per day requires resource consent as a **Discretionary Activity**

5.6. In summary, resource consent is required under the ODP as a **Discretionary Activity.**

Waikato District Plan – Operative in Part (WDP-OP)

5.7. Although the WDP-OP is well progressed through the appeals process, in accordance with sections 86B to 86G of the RMA, rules within the WDP-OP have legal effect, and the ODP remains operative. This means resource consent is required under both plans.

5.8. The relevant zoning is General Rural Zone (GRUZ). Overlays that exist over the site are Flood Defended Area (1% AEP), Waikato River Catchment. The site adjoins the Department of Corrections designation MCOR1 at the southern and western boundary of the site.

Rule Triggers under the Operative in Part Waikato District Plan 30 October 2024 (as updated 30 May 2025)

5.9. The proposed activities for the project trigger the following rules under the Operative in Part Waikato District Plan (WDP-OP)

Energy Transport and Infrastructure

Rule AINF R18 Any infrastructure not specifically provided for as a permitted, restricted discretionary or non-complying activity within the EIT Energy, infrastructure and transport section. The project includes a Main Receiving Sub Station MRSS platform, which will house equipment such as transformers, switchgear, and switches. While this relates directly to the project, given the high energy demand and voltage of the equipment, some of the infrastructure is likely to be managed by the Network utilities provider in this case, WEL Networks. Therefore, adopting the precautionary approach, resource consent is required as a **Discretionary Activity.**

Rule AINF R8 Any earthworks associated with infrastructure exceeding 2,500m³ for any single activity require consent as a **Restricted Discretionary Activity.**

Rule EDIS-R4 Substations and associated transformers and switching stations in the Rural Zone as outlined above, and adopting the precautionary approach requires consent as a **Discretionary Activity.**

Hazards and Risk

Rule HAZS-R2 The storage, handling or use of hazardous substances in a significant hazard facility (for metal smelting and the storage of LPG associated with the project) requires resource consent as a **Discretionary Activity.**

Natural Hazards

Rule NH-R9 Flood plain management area and Flood ponding area across all zones; Earthworks not provided for under Rules NH-R7 or NH-R8 In the GRUZ General rural zone exceeding a maximum volume of filling above natural ground level of 100m^3 per site; and a maximum cumulative volume of filling and excavation of 200m^3 per site not exceeding 0.2m fill and 0.5m cut, requires a resource consent as a **Restricted Discretionary Activity**

Rule NH-R26 Construction of a new building or new accessory building, located within 50m of the toe of a stop-bank in a defended area, requires resource consent as a **Discretionary Activity.**

Rule NH-R26 Earthworks located within 50m of the toe of a stop-bank in a defended area requires resource consent as a **Discretionary Activity.**

Rule NH-R75 Liquefaction assessment as part of geotechnical reporting for all activities requiring resource consent requires consent as a **Restricted Discretionary Activity**

Historical and Cultural Values

Rule MV-R1 Māori Values and Maatauranga Māori. All discretionary and non-complying activities in Part 2 - District-wide matters and Part 3 - Area-specific matters sections of this Plan must address:

The effects on values held by mana whenua and the appropriateness to mana whenua of any avoidance, mitigation or enhancement measures, including as identified through cultural impact/values assessments and any relevant iwi planning document. Requires a CIA to be prepared to support any resource consent for a **Discretionary or Non-complying activity**

Earthworks

Rule EW-R21 Earthworks exceeding Do not exceed a volume of more than 1000m³ and an area of more than 2000m² over in any single consecutive 12 month period; The total combined depth of any excavation (excluding drilling) or filling does not exceed 3m above or below natural ground level; and/or Take place on land with a maximum slope of 1:2 (1 vertical to 2 horizontal) requires consent as a **Restricted Discretionary Activity**

Light

Rule Light-R2 Glare and artificial light spill Illumination from glare and artificial light spill shall not exceed 10 lux measured horizontally and vertically at the notional boundary on any other site in the GRUZ - General Rural Zone; at any road boundary requires consent as a **Restricted Discretionary Activity** while compliance at notional boundaries is expected some light spill to Harness Road and Hampton Downs associated with access for safety of night operations is anticipated (subject to design and the need for a light management plan).

Noise

Rule Noise R8 Noise measured at the notional boundary on any other site in the GRUZ – General Rural Zone must not exceed:50dB LAeq, 7am to 7pm every day; 45dB LAeq, 7pm to 10pm every day; 40dB LAeq and 65dB LAmax, 10pm to 7am the following day. Noise measured within any site in any zone, other than the GRUZ - General rural zone, must meet the permitted noise levels for that zone. Noise unable to meet these provisions requires resource consent as a **Discretionary Activity.**

General Rural Zone

Defined term: Waste management

Means activities relating to the storage, disposal or minimisation or reduction of waste material and includes reuse, recycling, recovery and treatment processes.

Defined term Industrial Activity

Means an activity that manufactures, fabricates, processes, packages, distributes, repairs, stores, or disposes of materials (including raw, processed, or partly processed materials) or goods. It includes any ancillary activity to the industrial activity.

Rule GRUZ R4 A waste management facility within the rural zone outside of an Aggregate extraction area, coal mining area, or Extractive Resource Area requires resource consent as a **Discretionary Activity.**

Rule GRUZ R58 An Industrial Activity in the General Rural Zone requires resource consent as a **Non-Complying Activity**

Rule GURZ S3 Building height within the General Rural Zone is restricted to 15m or 10m within 50m of a road with chimneys not exceeding 17m requiring resource consent as a **Restricted Discretionary Activity.**

Rule GURZ S9 Building coverage shall not exceed 5,000m² on sites larger than 10ha and requires resource consent as a **Restricted Discretionary Activity.**

Transport

Rule TRPT-R1: On a site with legal access to two roads, the activity only accesses the road with the lower classification in the road hierarchy in Table 4 – Functions of roads within the Road Hierarchy and Table 5 – Road Hierarchy list and Within the GRUZ – General rural zone: (1) There is maximum 200 vehicle movements per site per day and no more than 15% of these vehicle movements are heavy vehicle movements. For aspects unable to comply these require resource consent as a **Restricted Discretionary Activity.**

5.10. In summary, resource consent is required under the WDP-OP as a **Non-Complying Activity,** being the most restrictive activity status.

Waikato Regional Plan (WRP)

5.11. The proposed activities for the project trigger the following rules under the Operative Waikato Regional Plan:

Rule 3.3.4.21 The taking of surface water relating to the use of diverted surface water (from artificial watercourses), hydraulic connections between ground water and surface water and the use of stormwater abstracted from a pond reuse of stormwater stored in the large pond (420m³/day) to be reused in the factory as cooling water requires consent as a **Restricted Discretionary Activity.**

Rule 3.3.4.24 The taking of groundwater requires consent as a **Discretionary Activity.**

Rule 3.5.7.7 The discharge of domestic sewage effluent from on-site domestic sewage treatment and disposal systems onto or into land and any subsequent discharges of contaminants into the air requires resource consent as a **Discretionary Activity**

Rule 3.5.11.8 The discharge of stormwater to water or land from a high-risk facility requires resource consent as a **Discretionary Activity**

Rule 3.6.4.9 The off-stream damming and diversion of an artificial watercourse requires consent as a **Controlled Activity.**

Rule 5.1.4.15 Soil disturbance, roading and tracking in a high-risk erosion area exceeding 1000m³ and 2ha in area requires resource consent as a **Discretionary Activity**.

Rule 5.2.5.3 The discharge of overburden that is unable to comply with the permitted activity standards within a high-risk area (floodplain) requires consent as a **Discretionary Activity.**

Rule 5.2.5.6 The discharge of cleanfill within a high-risk area (floodplain) requires consent as a **Discretionary Activity.**

Rule 5.2.7.1 The discharge of contaminants into or onto land and any subsequent discharges of water associated with a landfill require consent as a **Discretionary Activity.**

Rule 6.1.9.2. General Rule - The discharge of contaminants to air from a process activity, including metal processing exceeding 1 tonne per hour (unable to comply with rule 6.1.17.1), requires resource consent as a **Discretionary Activity.**

5.12. In summary, resource consent is required under the WRP as a **Discretionary Activity.**

National Environmental Standards

5.13. Pursuant to section 43 of the Resource Management Act 1991 are regulations that prescribe standards for environmental matters.

5.14. An assessment of all nine NES was undertaken to determine whether the project is subject to the regulations. Of the above NES the NES for Assessing and Managing Contaminants in Soil to Protect Human Health, NES for Freshwater 2020, and NES for Greenhouse Gas Emissions from Industrial Process Heat 2023 are considered relevant to the project and assessed further below. The NES for air quality was not considered relevant as discharges from the site are expected to be compliant with the Air Quality criteria, refer the Air Quality Assessment Attachment 20.

NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (NES CS)

5.15. The disturbance and removal of soil from a piece of land that is subject to the NES for Assessing and Managing Contaminants in Soil to Protect Human Health that does not meet the requirements of regulation 8(3) requires resource consent as a Restricted Discretionary Activity (regulation 10). This is due to the presence of asbestos-containing materials within a HAIL-listed area identified for a portion of the site around the existing woolshed. A Preliminary Site Investigation meeting the requirements of regulation 8(4) and a Detailed Site Investigation for the project has been provided by Williamson Land and Water and is included as Attachment 14.

NES for Freshwater 2020

5.16. An assessment of the overland flows and artificial drainage networks for the site has been undertaken as part of the Ecological Impact Assessment (EIA) by Pattle Delmore Partners Limited, as included as Attachment 22. The EIA has confirmed that the site does not relate to any natural wetland areas. For the ephemeral waterways, fish recovery and relocation will be required prior to any in-channel works if water is present at the time of construction. On the basis of this assessment, further consents under the NES freshwater are not anticipated to be necessary.

NES for Greenhouse Gas Emissions from Industrial Process Heat 2023

5.17. Under regulation 10 of the NES for Greenhouse Gas Emissions from Industrial Process Heat (NES GG), resource consent is required for the proposed use of LPG or CNG in the Rolling Mill that does not constitute a low-emissions site. Regulations 16 and 17 are relevant to the assessment of the new heating device, with Regulation 18 setting the duration of the consent to 20 years. Consent is required as a Restricted Discretionary activity.

5.18. Given the proximity of the Hampton Downs Landfill, further investigations of the use of landfill gas may be undertaken, which would not trigger the NES GG; however, this is likely to be post commissioning of the site as this will likely require additional cleaning of the gas prior to its use as a combustion fuel.

Activity Status

5.19. In summary, a suite of resource consents is required for the project and associated ancillary activities as a Discretionary Activity under the Waikato ODP, as a non-complying activity under the WDP-OP, and as a Discretionary Activity under the WRP. Authorisation is also required under the NESCS as a controlled activity and under the NES GG as a restricted discretionary activity. An assessment of the actual and potential effects on the project is included in Section 7 below

Other Approvals

5.20. Schedule 5, clause 5(1)(f) requires that an application include a description of any other resource consents, notices of requirement for designations, or alterations to designations required for the Project to which the consent application relates.

5.21. There are no other resource consents, notices of requirements or alterations to designations required for the Project to which this substantive application relates.

6 Permitted Activities

6.1. Schedule 5, clause 5(5)(a) requires that a consent application must include the following information: if a permitted activity is part of the proposal to which the consent application relates, a description that demonstrates that the activity complies with the requirements, conditions, and permissions for the permitted activity (so that a resource consent is not required for that activity under s 87A(1) of the RMA)

6.2. The permitted activities relied on for this Project include:

WDP-OP

Rule WWS-R1 (1):	Stormwater systems for new development or subdivision. The stormwater system is designed to the 1% AEP compliance with this rule is achieved
Rule LFG-R1:	Below ground pipelines for the conveyance of liquid fuels and gas conveyance which applies to all zones
Rule EDIS(1):	Below ground distribution lines conveyance which applies to all zones
Rule TRPT:	Transportation Table 2 - Minimum sight distances
Rule TRPT:	Transportation Table 9 – Carparking dimensions

WRP

Rule 5.2.5.1	Permitted Activity Rule – Overburden Disposal Outside of High-Risk Locations
Rule 5.3.4.6	Permitted Activity Rule – Discharges from Remediation of Contaminated Land
Rule 3.6.4.4	Permitted Activity Rule – Small Dams and Damming Water, (Water courses within the site are considered ephemeral or artificial)

7 Assessment of Environmental Effects

7.1. This section provides an assessment of the actual and potential effects of the project in accordance with Schedule 5, clauses 5(4),6 and 7 of the FTAA. The project has sought to avoid adverse effects as far as practicable. Where adverse effects cannot be avoided, measures are proposed to remedy or mitigate these effects. A suite of draft conditions is also proposed in Attachment 7, should the application be granted, which considers the mitigation and monitoring required as part of the project.

Existing Environment – Environment Against Which the Project is Assessed.

7.2. The existing receiving environment is considered to be an active and heavily modified environment as described in Section 3 of this report. The immediate local environment is mixed use, with larger-scale activities forming an established enclave of non-rural activities. There is a motorsports park adjacent to the project site, a zoned but vacant industrial/ commercial precinct, a corrections facility adjoining the southern boundary, an operating regional landfill to the east, and the Waikato Expressway immediately to the west.

7.3. These established land uses have modified the overall character of the area and collectively result in an area where the level of activity and traffic movements associated with each of the sites is more than would be typically associated with the rural environment. Therefore, it is concluded that the location of the project site is not a standard rural environment.

7.4. In selecting the site for a project of this scale, due consideration has been given to obtaining a sufficiently large site to accommodate the expansive proposed footprint for the project. The level of modification proposed by the project and the consents sought as part of the project to undertake bulk earthworks and the establishment of platform areas within an altered site is also considered below.

7.5. By virtue of the topography of the immediate area and the presence of large-scale activities identified above, the effects on rural dwellings and other sensitive receiving environments are limited.

Positive Effects

7.6. The following section summarises the positive effects of the project.

7.7. The project is included in Schedule 2 of the FTAA, recognising its national and regional significance. The project will result in significant national benefits by producing steel in a cleaner, more sustainable way, and will have a positive impact on the New Zealand economy.

7.8. The overarching project objective is to make steel production more sustainable in New Zealand. This will involve the development of a steel ‘mini mill’ using recycled scrap metal, vs iron ore or iron sands, as the basic input. The project will use EAF technology to produce 200,000 tonnes of high-quality steel annually, with a reliance on more sustainable electricity as the main energy source for heating in the plant. Other adaptations through the design of the plant will also contribute to processing efficiencies.

7.9. The project is designed to reduce emissions by at least 75% per tonne of steel compared to conventional steelmaking methods using blast furnaces, thus reducing the reliance on fossil fuels and supporting New Zealand's and global climate goals while also playing an important role in New Zealand's transition to a circular economy.

7.10. In addition to the lower emissions from the production process itself, the project will also avoid the emissions associated with shipping and transporting imported steel to New Zealand. Currently, structural steel is imported. By displacing up to 200,000 tonnes of structural steel imports annually, the project will further reduce emissions from international shipping and land transport by reducing imports and reducing New Zealand's dependence on imported steel.

7.11. The Castalia economic analysis (Attachment 11) and its further discussion below in relation to economic considerations identify a dual benefit: the project has the potential to significantly reduce New Zealand's reliance on high-emission steel imports while also supporting a more sustainable domestic steel production system. It would achieve this by contributing meaningfully to the reconfiguration of global iron and steel production tailored to New Zealand's context.

7.12. Establishing a new greenfield steel plant using NZ scrap steel aligns with the circular economy by recycling waste into new products. Green Steel already collects and processes scrap metal for export. It gathers materials from public drop-offs, industrial suppliers, councils, and recycling programs across Auckland, Hamilton, Putaruru, Wellington, and Christchurch. These collected materials are currently sorted and transported to Auckland for shredding and subsequent export. A significant benefit of the project is that the new plant will locally process previously exported materials.

7.13. Locally, the project aims to create 200 new direct jobs in the Waikato region, boosting local economic growth. The construction phase of the project will also result in various contractors being engaged to undertake the civil aspects of the project to establish the plant and associated facilities.

Social and Economic Effects

7.14. This section considers any effects on the people in the neighbourhood and, if relevant, the wider community, including any social, economic, or cultural effects clause 7(a) of Schedule 5.

7.15. The Castalia EIA (Attachment 11) assesses the Cost Benefit Analysis (CBA) of the project by considering the economic aspects of relevance, including financial returns, employment impacts, monetisation of the emissions reductions achieved via the plant and the removal of rural lands from production. The report also considers the key sensitivities which may affect viability, and the counterfactual scenario of the project not proceeding.

7.16. The Castalia EIA considers that the project is projected to deliver economic, social, and environmental benefits and that it addresses critical environmental and economic challenges, including reducing emissions, strengthening New Zealand's steel industry, and supporting regional economic development. Key aspects of the EIA are summarised below.

7.17. The project will enhance steel production capacity within New Zealand in an environmentally efficient way, including by improving the efficiency of recycling steel products through the reduction of exports of shredded steel and avoiding disposal to landfill.

7.18. The project also provides long-term economic benefits, including significant emissions savings, as the project will cut carbon emissions by at least 75% compared to traditional steelmaking. The EAF process generates only about 0.5 tonnes of CO_2 per tonne of steel. In contrast, traditional steelmaking methods, such as the use of blast furnaces and basic oxygen furnaces, predominantly

rely on raw materials like iron ore and coal, resulting in high emissions. These conventional methods emit approximately 1.8 to 3.0 tonnes of CO_2 per tonne of steel produced. By processing scrap steel in New Zealand rather than exporting it, the project will reduce international shipping emissions. This reduction comes from both decreasing scrap steel exports and replacing imported steel with locally produced alternatives.

7.19. The initial investigation, consents and build costs for establishing a new greenfield facility, along with the advanced technologies adopted in the plant design to minimise the project's overall environmental impact, are identified as being very high. The project is anticipated to be commissioned within 2-3 years and increase to peak production within 5 years post establishment, providing long-term financial benefits to the applicant.

7.20. Castalia also considers that the project remains economically viable across a range of scenarios and sensitivity tests applied in the assessment.

7.21. In relation to the regional economy, the report highlights employment-related benefits of 200 direct jobs in the Waikato Region. These jobs are expected to boost local economic growth and require a range of skills to operate and oversee the production through the plant. Indirectly, there is also a wider benefit of the operations associated with the required supporting and maintenance services also required. The project also achieves synergies with the other National Steel operations at a number of locations, including Auckland, Wellington and Christchurch.

7.22. The economic cost of losing this 53 ha of farmland is relatively small at circa $855,000.

Evaluation

7.23. Having regard to the Castalia EIA, it is clear that the project will deliver significant economic benefits at both regional and national levels. Producing and recycling steel locally will reduce reliance on imports and improve New Zealand’s trade balance. The project also contributes to the global economy through the more efficient management of wastes and reduction in emissions, and a lesser environmental impact using EAF technology for the steel production proposed by the project. We therefore conclude that the economic effects of the proposal are likely to be positive and not likely to result in any adverse effects.

Cultural Effects

7.24. This section considers any effects on the people in the neighbourhood and, if relevant, the wider community, including any social, economic, or cultural effects (clause 7(a) of Schedule 5) and any effect on natural and physical resources that have aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations (clause 7(d) of Schedule 5).

7.25. The Ahurea Arotake - Cultural Impact Assessment (CIA) has been prepared by Nga Muka Development Trust (dated 28 April 2025), which is included with the application as Attachment 8 should be read in conjunction with the key information outlined below.

7.26. Ngā Muka Development Trust was established in 1987 under the Tainui Māori Trust Board (former Iwi Authority). Ngā Muka is a regional development mandated tribal entity and, as such, is the representative arm of five marae, namely, Horahora, Maurea, Waikare, Okaerea and Taniwha. These maraes hold the ancestral and cultural connections to the land designated as the site for the project.

7.27. Ngā Muka is a regional development tribal entity committed to protecting the taiao (environment) and mauri (life force) of tāonga tuku iho (history, cultural artefacts, indigenous species and sites of

significance) as well as advancing the cultural, social and economic aspirations of hapū, marae and wider community in an ethical and culturally safe manner. Given the constituency of Ngā Muka, this CIA Assessment of Environmental Effects (AEE) is also made on behalf of the uri of Ngāti Hine, Ngāti Naho, Ngāti Pou, Ngāti Mahuta, Ngāti Whāwhātkia and Waikato Tainui nui tonu. This is further evidenced by supporting correspondence received from Waikato Tainui within Attachment 8.

7.28. The purpose of the CIA is to assess the cultural, historical, environmental, and social implications of the project, articulate the real or perceived risks and opportunities of this consent application by Green Steel and to ensure that the values and aspirations of mana whenua are upheld throughout the consent and development process.

7.29. The CIA is the result of a lengthy engagement process between Green Steel and Mana Whenua, the indigenous people of the land (otherwise known as 'Ngā Muka' i.e. the Ngā Muka Development Trust). The CIA is summarised in this section to provide an overview of the cultural values of the whenua within this part of the rohe.

7.30. Engagement with Ngā Muka in relation to the project has been ongoing and collaborative, with Green Steel having engaged and met with representatives of Ngā Muka on a number of occasions to discuss the merits of its project and to consider the concerns and interests of Ngā Muka with a view to building a long term relationship with mana whenua given the long-term life of the proposed green steel mill.

Cultural and Historical Context

7.31. The site is located within an area of profound cultural significance and the area is known as Manawa-ā-whenua ((heart of the land), referring to the interconnected Waipuna (water table) that links Waikato te awa (Waikato River), Lake Waikare, Lake Whangape, Repo (wetlands) including Mangatāwhiri Whangamarino, and puna wai (springs). The area is also associated with several taniwha (metaphysical being and spiritual guardians), including Waiwaiā Te Ia Roa and Karutahi.

7.32. The site is also historically significant due to its proximity to key battles of the Waikato Land Wars, including the Battle of Meremere and the Battle of Rangiriri. These events led to the confiscation of over 1.2 million acres of Māori land and left a lasting legacy of war, displacement and loss of life.

Assessment

7.33. Ngā Muka has a holistic approach that ensures that both spiritual and physical dimensions of the environment are considered.

7.34. The various technical aspects of the project and associated assessments have been assessed by Ngā Muka. All reports and supporting information provided by Green Steel have been considered and are appropriate and supported by Ngā Muka. They are rated highly with all technical assessments scoring very well against the CIA objectives for the environmental effects. This includes effects to the Waikato River, and on cultural and economic outcomes.

7.35. The CIA also references key iwi documents being, the Waikato-Tainui Raupatu Settlement Act 1995 and Waikato River Settlement Act 2010, Te Ture Whaimana o Te Awa o Waikato (Vision and Strategy for the Waikato River) (Te Ture Whaimana / Vision and Strategy), Tai Tumu, Tai Pari, Tai Ao (Waikato Tainui Environmental Management Plan). These documents are addressed in more detail below in section 10 of this report.

7.36. Te Ture Whaimana / Vision and Strategy for the Waikato River responds to four key four

fundamental issues:

- The degradation of the Waikato River and the ability of Waikato River iwi to exercise kaitiakitanga or conduct their tikanga and kawa.
- The relationships and aspirations of communities with the Waikato River.
- The cumulative effects of physical intervention, land use and subsurface hydrological changes on the natural processes of the Waikato River.
- The time and commitment required to restore and protect the health and wellbeing of the Waikato River.

7.37. The CIA considers that the project aligns with the principles of Te Ture Whaimana / Vision and Strategy, with no immediate anticipated adverse effects on the health and wellbeing of the Waikato River. Green Steel has committed to best practice in stormwater and wastewater management, including treatment and discharge to land with an achievable goal of no negative effects upon the health and well-being of the Waikato River. This will be achieved in part with good design of sediment control, stormwater management and onsite wastewater treatment to land.

7.38. In relation to the Waikato Tainui Environment Plan Tai Timu Tai Pari Tai Ao, Green Steel have actively engaged with Ngā Muka regarding the management of stormwater diversions, treatment solutions, and discharges during the development phase of this project. These discussions are ongoing. They have been positive and progressive, especially in regard to section 2 of the Environmental Management Plan – 'Tai Tumu, Tai Pari, Tai Ao' and section 3.2 of the National Policy Statement for Freshwater Management – 'Te Mana O Te Wai'.

7.39. Ngā Muka also indicated they are encouraged by Green Steel's assurance that all stormwater from earthworked areas is treated before being discharged, and stormwater generated on the site once development is completed will be treated through either an engineered wetland or other treatment device to ensure there are no adverse effects upon downstream, adjacent or subterranean water bodies.

7.40. The CIA also considers the project against Te Ara Whakatupuranga 2050 (Waikato Tainui Long-Term Development Plan) and concludes that the project supports the outcomes of Te Ara Whakatupuranga 2050, including engagement, employment opportunities, economic development for the North Waikato, and environmental sustainability through the use of EAF technology. Green Steel will also generate a circular green economy that complements the objectives of Te Ara Whakatupuranga 2050.

Summary of the CIA

7.41. Ngā Muka has provided its support for the Green Steel Project subject to the implementation of a Cultural Management Plan endorsed by Ngā Muka to overlay the design and construction phase.

7.42. The requirement to produce a Cultural Management Plan in conjunction with Ngā Muka has been included as a proposed condition of consent.

Evaluation

7.43. We consider that the CIA reflects an agreed position between Green Steel and Ngā Muka and that the cultural effect of the project has been appropriately assessed by Ngā Muka, who have the appropriate mandate to offer such a CIA and who are supportive of the Green Steel project proceeding.

7.44. As the relationship is ongoing between Green Steel and Ngā Muka, Green Steel have also agreed to a number of conditions, set out in the CIA, being applied to the resource consent if granted.

These include a powhiri before construction, incorporation of a cultural induction process for the construction phase, the engagement of a Ngā Muka cultural monitor, development of a Cultural Management Plan, agreed accidental discovery protocols, and the implementation of mātauranga Māori monitoring of air and water to be completed on an ongoing basis. These aspects have been appropriately reflected in the conditions of consent which are included in Attachment 7.

Natural Hazards - Geological

7.45. This section considers any physical effects on the locality, including landscape and visual effects (clause 7(b) of Schedule 5) and any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations (clause 7(g) of Schedule 5).

7.46. A Preliminary Geotechnical Assessment was undertaken by Earthtech Consulting Ltd (dated 28 May 2025) (Earthtech geotechnical report). The assessment informs the feasibility of constructing a steel smelter and associated infrastructure on the site. The key aspects of the report are summarised briefly below and are contained in Attachment 12 which should be referred to for the engineering context.

7.47. The key landforms for the site include the northern portion of the site being defined by lower-lying flat ground at approximately RL3.5m, stepping up to higher ground in the central area varying in elevation from approximately RL7.5m to RL10m, then stepping up to an area of gently sloping ground varying in elevation from approximately RL12m to RL18m. The ground then rises moderately to the south, southeast and southwest at an approximate overall grade of 16° to 20°, forming a peripheral horseshoe ridge around the proposed development. Several existing flow paths originate from the ridgeline around the property, draining in a northerly direction. Additionally, several existing man-made farm drains transect the lower-lying ground.

7.48. Geological features are summarised in Figure 2.1 of the geotechnical report (report appendices), which includes the locations of initial site investigations, including Cone Penetration Testing (CPTs), hand augers and test pits. The Earthtech geotechnical report details these investigations. Figure 2.1 is replicated below as Figure 18.

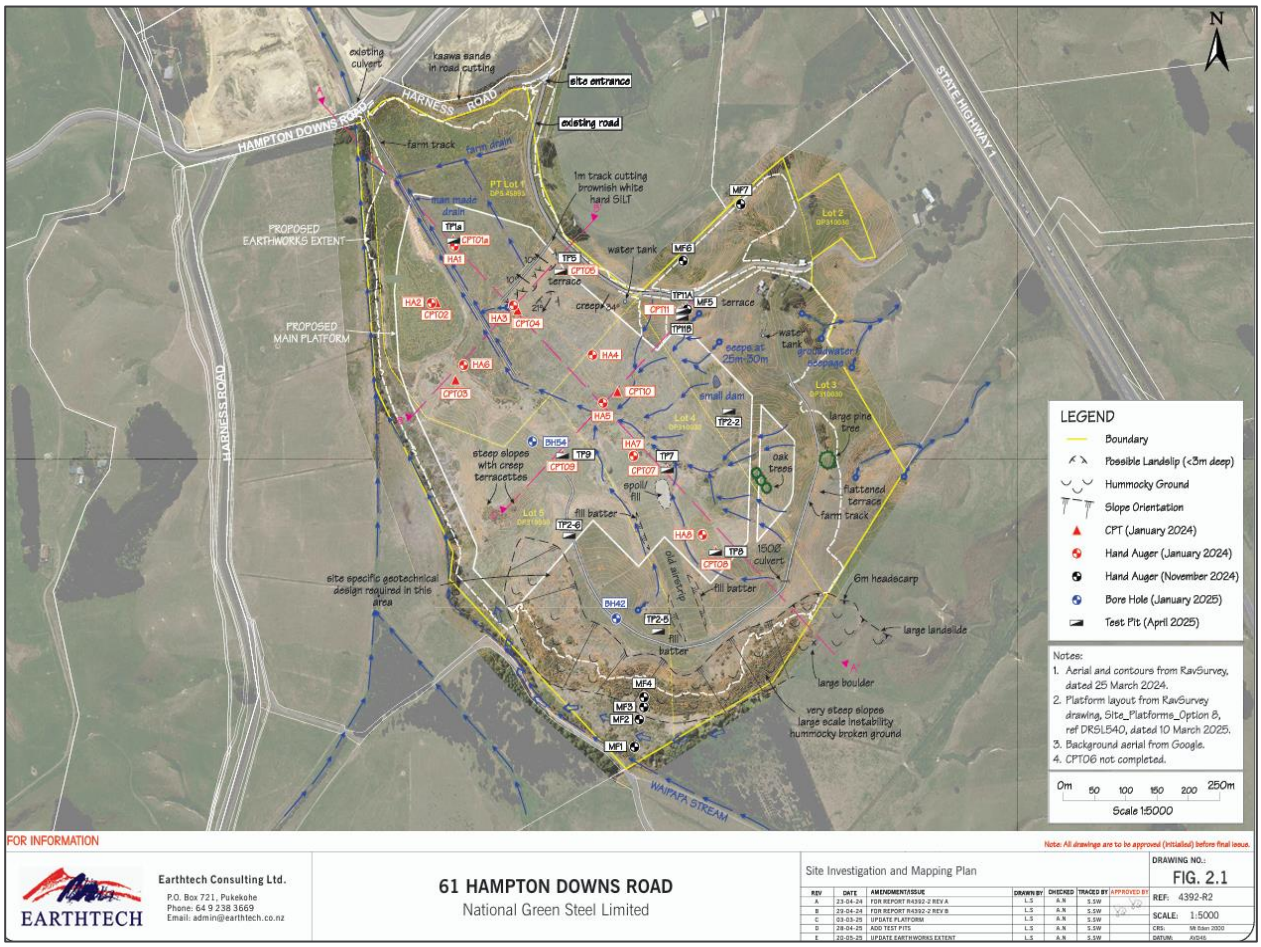


Figure 18: Earthtech Geotechnical investigations and Mapping plan

7.49. The Earthtech report provides an overview of the geological features associated with the site. Please refer to the report for details; however, these generally comprise:

- Topsoil (0.2–0.4 m thick)
- Terrace and stream alluvium (clayey silts, sands, and peat)
- Rhyolitic Terrace Deposits– Terrace Alluvium (Materials can be highly variable and prone to some settlement under load. Further testing required ahead of detailed design.)
- Hamilton-Kauroa Ash (suitable for engineered fill)
- Karapiro Formation (the material is generally a sensitive silt; cut to waste or use with caution.)
- Amokura and Kaawa Formations (potentially suitable for fill or foundations)

7.50. Earthworks associated with the project will involve large-scale cut and fill operations to establish platforms with estimated volumes of Cut: 1,918,000 m³ and Fill: 1,935,120 m³. Indicative cut and fill depths have been identified in Figure 8 of this report (and included within appendices to the Earthtech report). Preliminary Design for cut and fill slopes recommends a 1V:3H batter to maintain slope stability unless retained.

7.51. The lower portions of the site are subject to settlement and organic soils, and some peats are present with a shallow water table and will require undercutting and or preloading (requiring specific design).

7.52. Groundwater was encountered at depths of 0.5–4.5 m in some locations in the lower portion of the site and will need to be managed during construction. Groundwater seepages were observed between RL25m and RL35m. The Earthtech report also recommends monitoring and managing

groundwater and stormwater during construction. Subsoil drainage will be installed beneath building platforms.

7.53. All terrace deposits are potentially compressible and need to be confirmed for strength and depth. Most terrace alluvium and ash soils are suitable for engineered fill with minor drying.

7.54. The initial observations of the materials encountered would suggest suitability for use as engineered fill; however, they are also noted to be variable across the site, and further geotechnical and laboratory testing is required to confirm the suitability of materials. Kaawa sands and Amokura Formation materials (both weathered and unweathered) are preferred for bulk fill.

7.55. The Earthtech geotechnical report considers that for the areas of cut, further site-specific investigation and geotechnical design are necessary to establish suitable platform arrangements. Further geotechnical investigations, including boreholes for soil profiling and lab testing, the installation of piezometers, and confirmation of soil strength and settlement characteristics, will be necessary to inform the detailed design for the project.

7.56. The report also identifies opportunities to apply geosynthetics (e.g. geogrids) to enhance fill performance and potentially reduce the cost of earthworks and soil foundations. Highly loaded structures can also be founded on bored piles, which is considered commensurate with the underlying Amokura Formation bedrock geology expected at the site.

7.57. With respect to land instability hazards, the Earthtech geotechnical report indicates no instability was identified within the main development area, though some slopes outside the horseshoe show signs of historic movement, particularly the southern slopes to the rear of the subject property, which are steep with notable slip movement in parts.

7.58. The Earthtech geotechnical report considers that the liquefaction risks associated with the site are generally low across the site.

7.59. The Earth Geotechnical report considers the seismic context and design for the site as follows: The site is classified subsoil class C in terms of NZS1170:5, and seismic Importance Level 2 has been adopted for the proposed development with a 100-year design life – for ordinary consequences of failure presenting a low degree of hazard to life and other property.

7.60. Peak Ground Accelerations (PGAs) and magnitudes for use in seismic design have been adopted from Earthquake Geotechnical Engineering Practice Module 1 (NZGS, 2021) for the Huntly area, this being the closest location (Table A1 of Appendix A, NZGS, 2021). This includes current guidance on PGA and magnitude values for use in geotechnical design with respect to recent updates to the New Zealand Seismic Hazard Model. There are no active fault lines running through the site or near the property. The seismic design parameters for the site are as follows:

Design Event	PGA	Magnitude
Serviceability Limit State, SLS (1/25*yr*)	0.06*g*	5.8
Ultimate Limit State, ULS (1/500*yr*)*	0.24*g*	5.8

* Governed by minimum design criteria.

Evaluation

7.61. Having considered the Earthtech geotechnical report, we are satisfied that there are no significant natural geological hazards identified for the site.

7.62. We also acknowledge the conclusions of the report that the site is considered geotechnically suitable for the proposed development, provided that the recommendations are implemented and

further geotechnical investigations are completed prior to detailed design. We are also of the view that the engineering design proposed for the site can be suitably engineered to avoid adverse effects primarily associated with slope stability, and the management of ground and surface waters across the site. The effects of these aspects are considered further in the sections below.

Natural Hazards - Flooding

7.63. This section considers any physical effects on the locality, including landscape and visual effects (clause 7(b) of Schedule 5) and any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations (clause 7(g) of Schedule 5).

7.64. The site is located within the 1% AEP Defended Area as shown on the Waikato Regional Council GIS Viewer. Refer to Figure 19 for details. The flooding area is confined to the flat, low-lying areas of the site in the northern portion and along the eastern boundary.

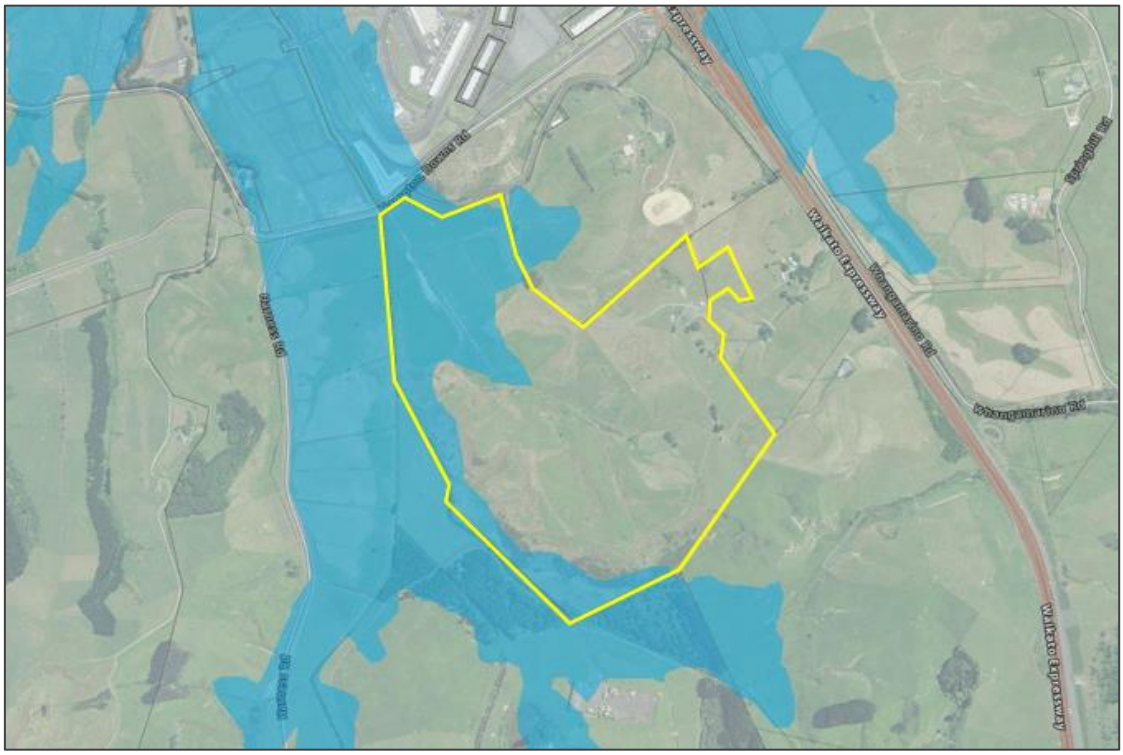


Figure 19: Map of 1% AEP flooding for the site (Airey stormwater report /WRC GIS)

7.65. A Roading and Stormwater Management Report has been prepared by Airey Consultants Limited, dated 23 May 2025 and attached as Attachment 25. This report considers the flooding hazard and identifies the following key aspects.

7.66. The 1% AEP flood level encroaching onto the site is located at an elevation of approximately RL 5.0m. The steel processing plant will have at a minimum, 9.0m of freeboard above the flood level and will be constructed with a finished floor level of RL 14.0m. Designated platform areas around the site will be used for vehicle parking and material storage. There will be no loose materials or vehicles stored within the floodplain, as these areas will be constructed with a minimum finished level of RL 14.0m. All vehicle parking and material storage areas will be located with sufficient freeboard above flood levels.

7.67. The lowest part of the site will be the accessways servicing the Steel Processing Plant and will be located above the floodplain. Accessway 1 will be constructed with a minimum freeboard of 1.66m, and Accessway 2 with a minimum freeboard of 0.63m above the floodplain. The floodplain covers a portion of Hampton Downs Road where access to Accessway 2 is located. Safe vehicle egress in a flood event will be achieved from the site via Accessway 1, and by travelling east along

Harness Road, which is located outside of the floodplain.

Evaluation

7.68. The effects of flooding on public safety associated with the operation of the site are not considered to present a serious risk

7.69. Airey also identifies that 1% AEP (including allowance for 3.8° of climate change) stormwater attenuation is proposed for the entire site. There will be no increase in stormwater flows exiting the site during a 1% AEP storm event. Attenuation will be provided in the form of a new stormwater pond. We consider that the anticipated future development within the site will not impact the floodplain or result in an increase in flood levels upstream or downstream of the site. Consequently, there will be no increase in the risk of inundation of buildings and properties upstream or downstream of the site. Therefore, there will be no additional flood risk on any surrounding properties of the site as a result of the project.

7.70. On the basis of this assessment, we consider that the effects of flood hazards are less than minor and are appropriately managed for the project.

Construction Effects – Earthworks, Environmental Controls

7.71. This section considers the physical effects on the locality, including landscape and visual effects (clause 7(b) of Schedule 5)

7.72. A draft Earthworks Management and Erosion and Sediment Control Plan (EMP/ESCP) was prepared by Earthtech (dated 23 May 2025) and included as Attachment 19. The plan outlines the approach to managing the earthworks and ensuring environmental protection during construction. Earthworks will require careful engineering and management with the provision of strategically positioned stormwater retention and settlement/stilling pond(s) to minimise sediment loss from the earthwork's catchment areas and the site overall.

Earthworks Overview

7.73. As outlined in section 3, the project involves bulk earthworks across approximately 44.7 ha of the 53.7 ha site. Estimated volumes include Cut: 1.91 million m³ Fill: 1.93 million m³, including Monofill excavation of 504,100 m³.

7.74. The site includes a mix of peat, ash, terrace alluvium, and Amokura soils. No acid sulphide soils have been identified in preliminary investigations however, their possible presence cannot be ruled out. These soils will be managed separately depending on their location relative to the earthworks proposed in accordance with the protocols established by the Earthtech EMP/ESCP.

7.75. Under the Earthtech EMP/ESCP the earthworks are proposed to be staged:

- Stage 1: Northern platform, SW monofill, and EAF building platform (18.9ha)
- Stage 2: Southern cuts and central platform (17.0ha)
- Stage 3: Peripheral platforms (16.7ha)

7.76. Earthworks operations have been deliberately planned and strategically staged (Stages 1, 2, 3 and monofill development), with each stage divided into separate operational catchments to minimise the open areas at any given time and to provide suitable environmental controls and construction stormwater management devices for each area.

7.77. Bulk earthworks for the site are primarily planned to occur over earthworks seasons, ensuring optimisation of soil conditioning (i.e. drying, blending and stockpiling) for placement as suitable fill material. The placement of preloads will be managed across the site versus the time and level of compaction and settlement required. Between the stages identified above, earthworks areas will be progressively stabilised

7.78. The erosion sediment control techniques and practices proposed by Earthtech have been designed to be site-specific and are in line with the Waikato Regional Council Erosion and sediment control guidelines for soil disturbing activities (TR2009/02). These are provided in this Erosion and Sediment Control Plan (ESCP) included in Attachment 19.

7.79. The total proposed development, as previously mentioned, is situated largely within a single rainfall catchment, as an inner horseshoe-like shaped area on the northern side of a peripheral ridgeline. Stormwater flows can be suitably channelled around the site by strategically located contour drains. The entire earthworks development area is to be bunded to divert clean water and dirty water flows, thus providing appropriate separation and containment of dirty water. Clean and dirty water flows are separated and managed through contour drains, flumes, and decanting bunds.

7.80. The Earthtech EMP/ESCP identifies the Earthworks Catchment Areas. The site has been divided into several proposed catchment areas, with dedicated sediment retention ponds and diversion bunds as shown in *Figure 7.2 and Table 3* of the report, which are also repeated below as Figures 20 and 21. Each catchment area is strategically located and bordered to control runoff waters from the proposed earthworks areas. Additionally, the areas are practically formed to maximise earthworks volumes whilst minimising the surface area affected. Stormwater and sediment control details of each catchment area are shown in *Figures 7.2 through 7.7* of the EMP/ESCP report appendices and are not repeated in detail here.

Stage	Catchment Area Name	Catchment Area Description	Earthworks Catchment Area (m^2)	Catchment Area (ha)	Est. Max 10% AEP Vol. 24hrs (m^3)
1	E1a	Lower Fill	60,300	6.0	6,012
	E1b	Lower Fill and Cut	61,500	6.2	6,132
	E1c	Mid Fill and Cut	66,700	6.7	6,650
	EMb	SW Monofill (inner)	41,500	4.2	4,138
		Stage 1 Totals	**230,000**	**23.0**	**22,931**
2	E2a	Lower Fill	61,600	6.2	6,142
	E2b	Lower Fill and Cut	55,200	5.5	5,503
	EMb (portion)	SW Monofill (inner)	15,900	1.6	1,585
		Stage 2 Totals	**132,700**	**13.3**	**13,230**
3	E3a	Peripheral Platform	33,100	3.3	3,300
	E3b	Peripheral Platform	20,600	2.1	2,054
	EMb (portion)	SW Monofill (inner)	15,900	1.6	1,585
		Stage 3 Totals	**69,600**	**7.0**	**6,939**
Monofill Only	EMa	NE Monofill	20,390	2.0	2,033
	EMb	SW Monofill (monofill inner)	41,500	4.2	4,138
	EMc	SW Monofill (monofill buttress)	18,700	1.9	1,864
		Monofill Totals	**80,590**	**8.1**	**8,035**

Figure 21: Earthtech Proposed ESCP catchment areas

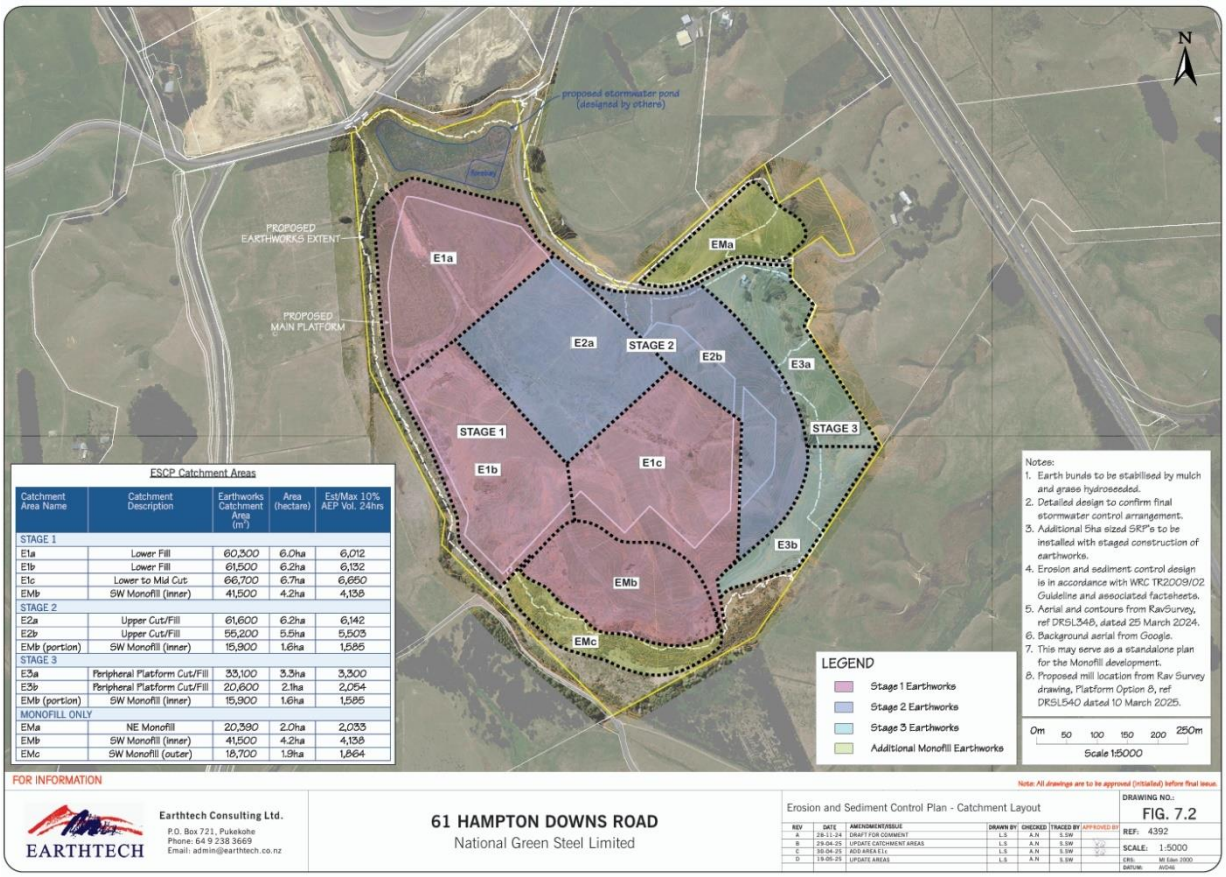


Figure 20: Earthtech ESCP catchment layout plan – refer Attachment 19

7.81. Earthtech identify the following mitigation measures as summarised below to minimise sediment losses during the construction phase; these are included in detail within the ESCP:

- Staged construction.
- Use of a pre-construction integrated Earthworks Management and Erosion and Sediment Control Plan to inform the contractor's ESCP.
- The Waipapa Stream running along the western boundary of the property (to the southwest section of the property) is currently protected by fenced riparian planting, and outside this area by a stop bank. The stop bank will be retained with no earthworks occurring on it, and where there is no stop bank, no earthworks will occur within 10m of the riparian fenced area.
- Clean water will be diverted and conveyed around the site along lined contour drains and down chutes or flumes where required.
- There are large areas of slope on the property, which are to be cut to moderate grades. Top-of-slope diversion drainage and cutting of contour drains along the slopes will be essential on this site.
- Groundwater flow emanating from the side slopes is to be drained by subsoil drainage systems and conveyed to clean water discharge. Subsoil drainage is to be constructed in synchronisation with the earthworks.
- A "Day 1 Plan" prior to construction commencing outlines initial enabling works and sediment controls to be installed.
- All earth-washed areas will be self-contained by earth diversion and containment bunds.
- The use of erosion and sediment control devices includes decanting earth bunds, clean water and dirty water diversion bunds and drains, and silt control fences. Several sediment retention ponds (SRPs) are also to be implemented within the designated catchment areas for this project.
- Final cut areas protected or stabilised by topsoiling or hay mulching and hydroseeded as the work progresses. Geotextiles (geojute, purpose-manufactured drain liner geo-cloths, polyester meshes, etc.) are to be used where necessary to protect slopes ahead of plantings.
- All other exposed earth areas will be suitably stabilised by way of hay mulching and hydroseeding, or topsoil and planting or re-grassing immediately, and placement of erosion protection (riprap on geofabric) where required immediately after excavation.
- Regular monitoring and adaptive management.
- Dust suppression measures will be implemented as required, and these will be set out in the Construction Management Plan (CMP) and Dust Management Plan (DMP) to be prepared.
- A single site access is proposed during the earthworks, through an access point off Hampton Downs Road. Tracking onto local roads will be avoided through the cleaning of machinery/ truck wheels.
- Weekly inspections and post-rainfall checks (20 mm+) are required.
- Heavy rainfall response includes bund reinforcement and diversion to stormwater ponds.

Evaluation

7.82. The Earthtech EMP/ESCP demonstrates that the proposed earthworks can be managed effectively with minimal environmental impact. Sediment loss from the site can be expected to be minimal through adherence to the EMP and ESCP within the designated catchment areas. The plan aligns with Waikato Regional Council guidelines for soil disturbance activities and includes robust controls for erosion, sediment, and stormwater. With adherence to the plan, the earthworks are expected to have no more than minor adverse effects on the environment.

Contaminated Soils

7.83. This section considers any discharge of contaminants into the environment and options for the treatment and disposal of contaminants: (clause 7(e) of Schedule 5).

7.84. As part of the preliminary site investigations, Williamson Land and Water Advisory has undertaken a Preliminary and Detailed Site Investigation (PSI/DSI) for the presence of Contaminated soils (dated 26 February 2025) (PSI / DSI), included as Attachment 14.

7.85. The PSI/DSI includes an assessment of the NES for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) and confirms that the site has been used primarily for pastoral farming since at least 1942. Structures, including sheds and yards, were added between the 1940s and 1980s. The following potentially Hazardous Activities and Industries List (HAIL) activities were identified:

- A1: Agrichemical storage and use
- A8: Livestock dip/spray operations
- E1: Buildings with asbestos-containing materials (ACM)
- I: Potential release of hazardous substances

7.86. The PSI / DSI indicated that the main area of the site is not considered a HAIL area and is not subject to NESCS controls. The NESCS applies only to the piece of land around the wool shed/ farm buildings, where it identified the need for soil sampling and testing for potential contaminants. Soil sampling was conducted around farm buildings and yards. Key findings of the soil sampling identified that:

- No organochlorine pesticides were detected.
- Heavy metals (arsenic, lead, zinc) were found above background levels in some areas, but do not exceed human health or ecological criteria.

7.87. Asbestos fibres were detected in topsoil around the wool shed, exceeding human health thresholds. Due to confirmed asbestos contamination (HAIL E1), soil disturbance in this area would exceed permitted thresholds, triggering the need for Restricted Discretionary consent under Regulation 10 of the NESCS. No additional consents are required under the WRP, as no remediation is needed for environmental protection purposes. Asbestos in soil around the wool shed presents a potential health risk to construction workers and future site users.

7.88. Risk mitigation is required through the removal or encapsulation of affected soil. The asbestos remediation is governed by the NESCS and the Health and Safety at Work (Asbestos) Regulations 2016. Class B Works controls are required for asbestos-impacted soil to excavate and dispose of the soil at a licensed facility. The removal of the building materials with ACM will also need to be managed by a licensed and suitably experienced person(s).

7.89. A Site Management Plan (SMP), which outlines procedures for the safe handling of Asbestos Containing Materials (ACM), has been prepared, which includes recommendations for the handling, disposal, and site validation and is also supported by recommended conditions of consent. Soils not impacted by asbestos or metals can be reused or disposed of as cleanfill.

Evaluation

7.90. Based on this assessment, the area of E1 Hail listings and ACM with soils is restricted to the immediate area around the woolshed. Provided that the appropriate mitigation measures are implemented through the removal of the materials, including contaminated soils and ACM building materials, we are comfortable that the ACM can be remediated via removal and disposal at an authorised facility. Once site validation and testing are completed, there is no residual risk to the future users of the site, and therefore, the effects of the soil contamination are no more than minor.

Archaeological Effects

7.91. This section considers any effect on natural and physical resources that have aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations (clause 7(d) of Schedule 5).

7.92. An archaeological assessment of the site has been undertaken by Clough and Associates (dated December 2024 included as Attachment 10. The report considers the archaeological context for the site and the wider area. The report provides the following information in relation to Archaeology. The wider Hampton Downs area has a rich Māori and European history, including proximity to sites associated with the New Zealand Wars. No recorded archaeological sites exist within or immediately adjacent to the project area. The nearest site (S13/189) is ~500m southeast and is a findspot of an adze in imported fill. The wider area is under-surveyed, but no direct evidence of pre-1900 Māori or European occupation was found on-site, and no evidence of archaeological features were found during this assessment.

7.93. An archaeological site inspection was conducted in November 2024 by Clough and Associates, which included visual inspection, probing, and test pitting across four main zones of the property. The central and northern areas have been heavily modified (e.g., former runway construction, cultivation). Test pits revealed consistent stratigraphy with no cultural material. No archaeological features or deposits were identified. No archaeological sites were identified; therefore, no authority is required under the Heritage New Zealand Pouhere Taonga Act or as part of the FTAA process. No archaeological monitoring or protection conditions are recommended, though an accidental discovery condition is recommended.

Evaluation

7.94. Based on this assessment, we consider that there are no constraints on development from an archaeological perspective and the project does not have any adverse effects on known archaeological sites. Accidental discovery protocols are proposed in the consent conditions.

Landscape and Visual Effects

7.95. This section considers any physical effect on the locality, including landscape and visual effects: (clause 7(b) of Schedule 5.

7.96. A Landscape and Visual Effects Assessment (LVA) was undertaken by Greenwood Associates (dated 26 May 2025), attached as Attachment 9. The LVA considered the physical landscape effects, visual amenity impacts, and effects on landscape character, by the Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines (2022). The report is summarised

below.

Assessment of Rural Character

7.97. The LVA describes the wider area as surrounded by a mix of rural land and large-scale infrastructure, including the Hampton Downs Motorsport Park, Springhill Corrections Facility, a regional landfill, and SH1.

7.98. For the rural components, the surrounding landscape consists of a typical New Zealand rural landscape with rolling hills and flat plains broken up by groups of native planting, fence lines and water channels. Sporadic elements of residential and ancillary built form and denser pockets of residential built form (lifestyle properties) sit within the landscape.

7.99. The infrastructure elements are described in terms of the visual connection to the site and the context of these features. SH1 (the expressway) is partially visible from the site, as is a portion of the Hampton Downs Motorsport Park. Portions of the racetrack are visible from within the site. The Springhill Corrections Facility sits to the south of the site, although it cannot be easily seen from within the boundaries of the site due to the southern ridge and landscape planting on the northern portion of the Corrections' site. Slightly farther afield to the west, a private landfill sits within the landscape; however, this is also not visible from the site. In addition to the named facilities above, an industrial park is located to the north-west of the site (neighbouring the Hampton Downs Motorsport Park). This park is currently vacant but has the infrastructure (roads, building platforms, etc) set up to receive industrial-style form.

7.100. The LVA describes the site as a site located within the General Rural Zone. The site itself is currently undeveloped pastureland with rolling topography, scattered vegetation, and watercourses. The northern portions of the site sit within a flat plain that is bordered by a water race at its western extents, with a series of watercourses crisscrossing over the landscape. This portion of land sits at a lower elevation than the adjoining Hampton Downs Road loop. The mid portions of the site rise up from this plain and then slope back down to form another flat portion that is ringed by a series of mounds/knolls that collectively form the southern edge of the site. A series of panoramic images of the site has been provided with the LVA.

7.101. The LVA considers the dominant natural element within the site is the rolling landscape and the interface between both flat plains and the various mounds/knolls across the landscape as reflective of the wider landscape patterning.

7.102. The project includes a 21.2ha steel manufacturing plant platform, with associated earthworks extending over 48.7 ha. Extensive earthworks will modify the natural landform to create a level platform at RL +14 m. The project will result in significant landform modification, replacing natural rolling topography with engineered platforms and batter slopes. The physical effects on the landscape are assessed as Moderate, due to the scale of modification and the level of temporary effects. Native planting is proposed on engineered slopes to soften visual effects and provide mitigation, providing a backdrop to the southern portion of the site. The purpose of the proposed planting is not to provide screening to the proposed steel manufacturing plant (as this is not possible due to the height of some elements), but rather to provide additional vegetation across the landscape. The level of physical effects on the site required to accommodate the project is assessed by the LVA to be Moderate.

7.103. The total approximate area of the proposed steel manufacturing plant is approximately 21.2ha (excluding outer platforms), which accounts for approximately 39.5% of the total site area. Key built elements include the Steel Melt Shop (35 m high), Rolling Mill (20 m), and two chimney stacks (up to 56 m). The LVA also includes the following information as to the heights of the proposed

structures associated with the Site. Within the context of the General Rural Zone, a number of the buildings and the chimney stack will exceed the 15m height anticipated by the permitted activity standards for the zone.

Table 3: Anticipated heights for buildings associated with the project

Proposed Steel manufacturing plant	
Description	Height
Steel Melt Shop Building	35m
Rolling Mill	20m
Admin Building	7m
Canteen	7m
HSE Centre	4m
Central Store	6m
Stack (Chimney – two numbers)	55m (Steel melt shop) / 56m (Reheating furnace)
Over Head Water Tank	30m

- Steel melt shop building (RL + 49m) – The upper portions of the roof profile will likely be visible through the wider landscape, although its position at the southern edge of the proposal will afford it more obscuration from the surrounding landforms (both natural and modified) than if it was located at the northern extents of the building platform.
- Rolling mill (RL +34m) – Like the steel melt shop, the upper portions of the roof profile will be visible through the wider landscape, albeit to a lesser degree and will sit lower than the high points of the site.
- Chimney Stacks (RL + 69m / +70m) – These upper portions of these structures will be visible across the wider landscape.
- Overhead Water Tank (+44m), the tank portion of this structure will be visible through the landscape, although it is a less bulky structure than those listed above.

7.104. The LVA assessment considers the site itself exhibits strong visible characteristics of a rural landscape yet modified by existing landuse and describes the landscape character as:, 'in defining a landscape character of both the site and the surrounding landscape presents a dichotomy as a number of natural and cultural landscape elements that can be readily associated with a traditional rural landscape character such as a rolling landscape, remnant patches of native forest, shrub planting associated with both natural and manufactured riparian corridors, presence of livestock and shelter belts whereas the wider landscape also contains elements that are not considered part of a traditional rural setting including a corrections facility, a landfill, a racetrack and a multi-lane highway. These elements are of such a scale that they generate sensory experiences, namely noise generated from traffic movements and motorsport activity. In the case of the Motorsport Park, it is also a visually dominant element within the landscape due to its contrasting appearance within the landscape.

7.105. The effects on landscape character in the LVA are assessed as Moderate.

Evaluation of Rural Character

7.106. Therefore, in terms of defining the landscape character of the site, taking into account the physical and sensory qualities of the wider landscape as described by the LVA, we are of the opinion that the landscape character can be broadly defined as being of a rural character with a strong sense of place derived from the sensory experiences created by the presence of the nearby facilities and infrastructure.

7.107. In terms of the ability of the landscape to absorb or integrate the project, the LVA also indicates that 'the subject site is currently well nestled within the landscape due to the prevailing topography in a way that is indiscernible from the wider rolling landscape and has limited exposure to the wider landscape. The presence of nearby infrastructure creates a sense of expectation of industrial activity: these surrounding non-traditional rural activities provide a sense of absorption of the project in terms of effects on the prevailing landscape character values than if it was present in a more traditionally rural area and surrounded by traditional agricultural and horticultural activities as well as rural lifestyle properties'.

Assessment of Visual Absorption

7.108. The various platforms at the southern edge will integrate with the existing rolling landscape in terms of levels, and this is illustrated Figure 22 below which provides a diagrammatic 3D view of the proposed contouring in conjunction with the existing landform (note that there is a variation in the below from the above plan, with the variation occurring at the 'monofill' area. However, for the 3D view, the figure is appropriate as it provides a 'look and feel' of how the proposal will sit within the landscape from a 3D perspective.'

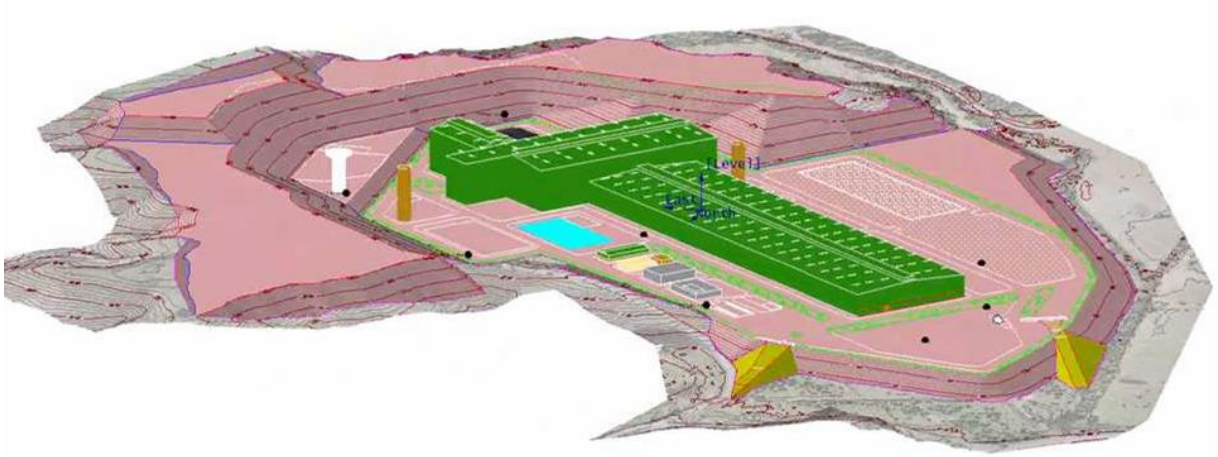


Figure 22: Diagrammatic view of the proposed steel manufacturing plant layout with proposed land modification against existing landform (Source: Earthtech preliminary Geotechnical Report, refer Attachment 12)

7.109. The LVA also identifies that the following approximate maximum heights can be applied to the surrounding landscape:

- Mound between Hampton Downs Road and Harness Road + 22m
- Harness Road (to North-East of site) + 22m
- Hampton Downs Car Park (at Hampton Downs Road) + 21m
- Maximum height of site at south boundary + 40m

7.110. Five public viewpoints were assessed, with effects on visual ranging from Very Low to Moderate:

- V01 (Harness Road): Low-Moderate
- V02 (Hampton Downs Road): Moderate
- V03 (Harness Road high point): Low-Moderate
- V04 (Springhill Road): Low
- V05 (SH1): Very Low

Overall, visual amenity effects from the public realm are assessed as Low-Moderate.

Assessment of the Visual Effects

7.111. Five private viewpoints were assessed, with effects on visual amenity ranging from Very Low to Moderate

7.112. The LVA considers that the viewpoints 04 and 02 are considered representative of the private realm in the surrounding area and therefore present a similar level of visual effects:

- There are several dwellings on Springhill Road (namely 335, 336, 347, 376, 377, 389 and 400 Springhill Road) that will have views of the upper portions of the plant. These are similar to the viewpoint analysis undertaken for viewpoint 4 and are considered to have a Low visual amenity effect.
- The site will also be visible from within 136 Hampton Downs Road, and these views are similar to the viewpoint analysis undertaken for viewpoint 2. These are considered to have a Moderate visual amenity effect.

7.113. The LVA concludes that '*the proposal will see the establishment of a steel manufacturing plant within a landscape that, whilst containing natural features and elements of activity that can be associated with a traditional rural character, contains a number of large pieces of infrastructure that facilitate activities not typically associated with a traditional rural character. This, therefore, creates a 'sense of place' that provides a degree of mitigation that reduces the potential level of effect on both visual amenity and the local landscape character values brought about the change to the landscape of the presence of the steel manufacturing plant on both visual amenity and the local landscape character values. In order to accommodate the proposed steel manufacturing plant, the landscape within the site must be modified in such a manner that the overland water flow is diverted around the edges of the site towards the on-site engineered water channels. The landform surrounding the site will change, in terms of visual appearance, from a naturalistic rolling landscape to an engineered landscape. The applicant will be planting these 'engineered' portions of the landscape, which will assist in mitigating effects on visual amenity by softening the harder 'engineered' edges within the landscape Overall, for the reasons outlined in detail in this report, we consider that the level of cumulative adverse landscape effects generated by the proposal will be* ***Moderate****'.*

Evaluation of Visual Effects

7.114. Having considered the LVA and associated conclusions of the assessment, we are guided by this assessment and consider that the report is a suitable representation of the likely actual and potential effects in relation to the visual aspects of the site and in relation to rural character.

7.115. The project represents a substantial level of modification of the physical landform and brings a strong visual change to the site by introducing a large-scale industrial processing plant onto an otherwise rural site. This degree of change is not considered uncommon for a green field development under a resource consent; however, the scale of the project is such that the height and bulk of the buildings in this case will be notable. The site has been designed to internalise a significant portion of the processing activity, which is considered to mitigate the overall effect. The area surrounding the site is modified by other land use, and we agree that this does, in part, provide some modification of the character for the wider area. That said, there is still a more than minor effect on the character of the area based on the NZIA Landscape Assessment Guidelines assessment classification matrix.

7.116. The visibility of the site is relatively restricted, and the LVA suggests that the main views of the site are from the north and northwest of the site in discrete locations.

7.117. Based on the LVA, we agree that there is an affect to visual amenity effect associated with the project from the viewpoint 2, which is described in the LVA as being moderate. The project on the subject site is not expected to dominate from a visual perspective, and the views of the project are not obtrusive or significant given its receiving context.

7.118. When considering the visual amenity effects, the site is somewhat unusual in that some of the buildings' bulk will be in part offset by the ability of the site to absorb some of the visual effects. This is due to the higher modified topography associated with the horseshoe ridge in the southern portion of the site.

7.119. A draft landscape planting plan has been prepared by Peers Brown Miller (Attachment 26) and is proposed to be implemented following the completion of the bulk earthworks and site development. This will provide a level of mitigation associated with the project. The landscaping is not intended as screening but will act to soften the proposed development and assist with the integration of the facility within the surrounding landscape context.

Transport Effects

7.120. This section considers any physical effect on the locality, including landscape and visual effects (clause 7(b) of Schedule 5).

7.121. A Transportation Assessment Report (TAR) has been prepared by CKL (dated 23 May 2025), attached as Attachment 24. This report evaluates the transportation impacts of the project, including traffic generation, access, and parking.

Traffic Generation

7.122. The key aspects of the TAR identify that the site will operate 24/7 with 200 staff across three shifts. The estimated daily traffic of ~500 vehicles per day (vpd) will relate to the staff movements for the site.

7.123. For heavy construction vehicle (HCV) movements, up to 50 HCVs are expected across two shifts or 16 hours. Truck arrivals are expected to be distributed evenly across this 16-hour period, which equates to three to four HCVs or six to eight HCV movements per hour. The 50 HCVs or 100 HCV movements per day are expected to occur within a 16-hour window.

7.124. Estimated peak hour traffic is 166–168 vehicles per hour (vph). This exceeds the General Rural zone threshold of 200 vpd and 15% HCVs. However, CKL have advised that this is within the carrying capacity of Hampton Downs Road. Crash analysis assessed by CKL shows no significant safety concerns near the site.

Adequacy and function of the parking and access provisions

7.125. Three accessways are proposed, which comply with the separation distance and sight line visibility

requirements from both entrances under the ODP and WDP-OP:

- Accessway 1: Staff entrance via Hampton Downs Road Loop, shared with 23 and 61B Hampton Downs Road. Upgrade to initial section 6m formed width within 10m corridor, with give-way markings and signage.
- Accessway 2: HCV entrance via Hampton Downs Road. 8m formed width, upgraded to RITS-compliant heavy commercial crossing.
- Accessway 3: Internal access to the eastern monofill, also serving 61B Hampton Downs Road. 3m formed width within a 6m corridor, with a passing bay for safe interaction between residential and HCV traffic accessing the monofill site.

7.126. On-site carparking will be provided for 100 car parks, including 2 accessible spaces and 10 cycle parks. Parking dimensions comply with ODP standards, which are effectively operative.

7.127. The CKL report considers that the proposed development is not expected to adversely affect the surrounding transportation network.

Roading

7.128. In the Stormwater and Roading Assessment, prepared by Airey Consultants Ltd, dated 23 May 2025, and included as Attachment 25, consideration is given to the current condition of the Harness Road carriageway, which is also narrow with some relatively tight corners. This means that it is not generally suitable for truck traffic. Airey recommends that all truck traffic to and from the plant access the site directly from Hampton Downs Road.

7.129. The report also evaluates Hampton Downs Road, which is a higher-order road and is identified as a primary collector road. In its current condition, it is suitable for large trucks, noting that it currently provides access to Hampton Downs Motorsport Park, Springhill Corrections Facility and Hampton Downs Landfill. All of these facilities (particularly the landfill) generate substantial truck traffic. However, Airey considers that the impact of the extra truck traffic associated with the proposed steel plant will not be sufficient to necessitate an upgrade of the road pavement. This condition assessment is considered consistent with the intended use of the proposed site accessways and therefore further upgrades of the local road network (beyond formed accessways) are not proposed at this time.

Evaluation

7.130. Subject to recommended upgrades to accessways and parking provisions, and based on the TAR provided by CKL, we consider that the traffic effects of the project are acceptable, less than minor and that the level of traffic generated from the site is not out of context with the existing uses of Hampton Downs Road.

7.131. We also understand that Green Steel has consulted with the Motorsport Park and that discussions are ongoing regarding the management of traffic for the site during motorsport events. The Panel will be updated as consultation continues. Refer to the Consultation Summary in Attachment 4.

Ecological Effects

7.132. This section considers any effect on ecosystems, including effects on plants or animals and physical disturbance of habitats in the vicinity (clause 7(c) of Schedule 5).

7.133. An Ecological Impact Assessment Report has been prepared by Pattle Delamore Partners Ltd (dated 22 May 2025), as Attachment 22 (EcIA). The key findings of the assessment are

summarised below.

7.134. The site is dominated by pasture and exotic vegetation, with no indigenous ecosystems remaining. The Waipapa Stream runs along the western boundary and is fenced and riparian planted within the site; however is quite degraded downstream. The Waipapa Stream is classified as a modified waterway, which is considered as surface water under the WRP, with low value, poor habitat scores, low aquatic vegetation and very low invertebrate values. No earthworks are proposed within 10 m of the Waipapa Stream or in relation to its stop bank within the site.

7.135. A detailed Erosion and Sediment Control Plan will manage the construction phase and will minimise any discharges of sediment to waterways. A permanent stormwater retention pond in the northern section of the site and a constructed wetland are expected to improve water quality discharging from the site.

7.136. No wetlands were identified on-site under the NPS-FM 2020 definition, with wetted areas dominated by exotic pasture species and therefore not classified as wetlands.

7.137. The Terrestrial Ecology habitat within the site is very limited, with no habitat of note that would support lizards or bats due to extensive grazing and cropping of the site. Avian species observed through the site were in low numbers and mainly exotic with the exception of pukeko which are considered naturalised. Only one At-Risk species (red-billed gull) was observed. The EcIA concludes there is no significant loss of indigenous habitat, as the site is already highly modified.

7.138. A subsequent freshwater fish survey was also undertaken by Awa Ecology (dated 4 June 2025), included as Attachment 23 with a particular emphasis on the presence or absence of black mudfish (Neochanna diversus) in the ephemeral waterways on the site. There are several known records of black mudfish in the surrounding area, and the species is often associated with drainage habitats underlain by peat soils, similar to those present at the site, which suggests that they might also be present in this location.

7.139. The assessment by Awa Ecology involved the setting of nets and traps overnight on 3rd June 2025. Gambusia (mosquito fish) and a single shortfin eel were captured but no black mud fish were found to be present. As gambusia and shortfin eels are known to compete with and prey on black mudfish, it is unlikely that black mudfish are present at this location. The presence of the shortfin eel, an indigenous species, indicates that fish recovery and relocation will be required before any in-channel works if water is present. Fish recovery and relocation may not be required if the watercourses are dry at the time of works

Evaluation

7.140. Based on the above assessments, we are satisfied that the ecological effects of the project are considered low to negligible, with potential for moderate positive outcomes in water quality due to onsite stormwater management and habitat enhancement arising from the additional landscape planting proposed by the project.

Noise and Vibration Effects

7.141. This section considers any unreasonable emission of noise (clause 7(f) of Schedule 5).

7.142. A Noise and Vibration Effects Assessment Report (N&VA) (dated 11 June 2025 with an updating letter dated 1 July 2025), included as Attachment 21, was prepared by Hegley Acoustic Consultants. The report evaluates the potential noise and vibration impacts from both the construction and operation of the project. It includes predictive modelling, compliance

assessments against the Waikato District Plan (WDP), and recommendations for mitigation, with further recommendations for mitigation included in the updating letter.

Construction Noise

7.143. An assessment of construction noise associated with the bulk earthworks and formation of building platform areas, as well as the construction of the building, has been provided. Construction will span two earthworks seasons (October–April), involving significant cut-and-fill operations and potential piling for structural foundations. Construction noise associated with heavy construction activities, such as earthmoving and building fabrication, will be limited to the daytime period (7.30am to 6.00pm Monday to Saturday), which is governed by NZS 6803:1999, with daytime limits of 70 dB LAeq and 85 dB LAFmax. Noise from the proposed activities was calculated for the surrounding sites using the Predictor noise modelling software.

7.144. Predictor is a three-dimensional modelling tool in which a full-scale model of the project and surrounding area is developed including distance from the site to sensitive receivers, overlaid with any topography or vegetative aspects that would affect the transfer of noise and noise levels from individual items of plant used. Predicted construction noise at all assessed receivers is predicted to be well below the WDP limits which are considered effectively operative. The highest predicted level is 53 dB LAeq at the prison block (Receiver R4), which is still considered reasonable. A plan of the receiver location is included as Figure 23 with predicted noise levels in Figure 24. Calculations resulted in a range of noise levels with only the uppermost being used for this assessment and as such the assessment is considered conservative.

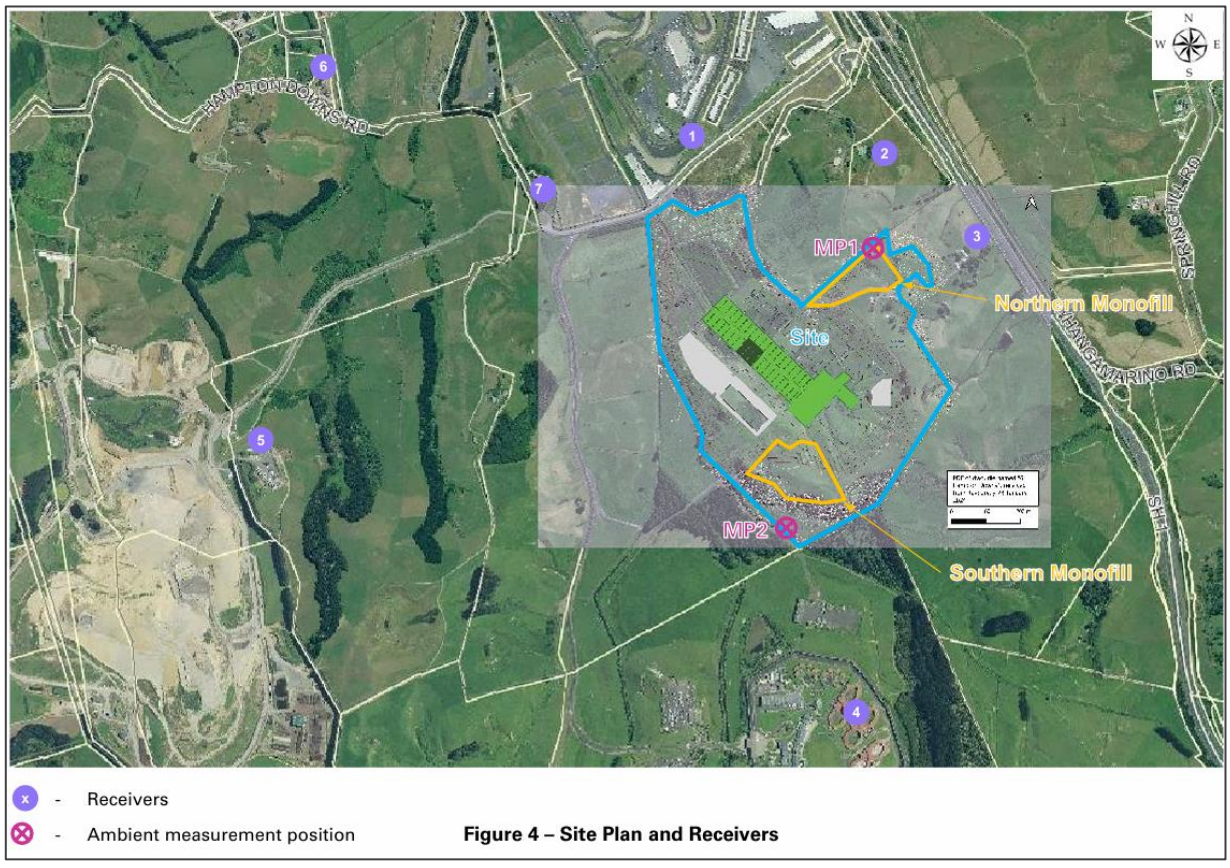


Figure 23: Hegley Identified Noise receivers and monitoring locations

Receiver, Fig 4	Address	Construction Noise Level, dB L_{Aeq}	
		Earth Moving	Piling
R1	Hampton Downs Raceway Apartments	46 - 50	36 - 40
R2	23 Hampton Downs	46 - 50	31 - 35
R3	61B Hampton Downs	46 - 50	21 - 25
R4	113 Hampton Downs Road (Prison block)	46 - 50	26 - 30
R5	135 Hampton Downs Road (Landfill offices)	31 - 35	21 - 25
R6	5 Chris Amon Drive	31 - 35	21 - 25
R7	136 Hampton Downs Road	46 - 50	36 - 40

Figure 24: Predicted Construction Noise at receiving locations (Source: Hegley Acoustic Consultants)

7.145. On the basis of the assessment of construction noise effects, I am comfortable that these are considered minor and compliant and unlikely to result in any adverse effects.

Vibration

7.146. The noise and vibration assessment considers that vibration effects will be negligible, and as such, no further assessment is provided.

Operational Noise Assessment

7.147. Ambient noise monitoring indicates that existing sound levels are dominated by SH1 and the motorsport park.

7.148. The operation of the site will include several potential noise sources including

- The use of trucks that will import scrap steel to site,
- Loaders and excavators with grapples,
- Pre shredding of recycled steel shredding,
- The electric arc furnace and a ladle furnace in the steel melt shop during steel production.
- The rolling mill then presses and forms the steel into structural steel.
- Forklifts are used on-site to move goods.
- Management of the on-site monofill disposal of residual floc material using loaders, trucks and a bulldozer is also identified as contributing to the noise from the project.

7.149. These activities are then used to consider sound power levels for machinery and mechanical plant and reverberant noise for those aspects housed within the proposed buildings.

Operating Hours:

7.150. The nature of the site is such that extended hours of operation are anticipated with staff operating 3 shifts/day over a 24 hour period with some limits on parts of the operation as follows::

- Open Scrap Yard (excluding shredders): 7am – 7pm.[1]
- Shredder and Pre-shredder: 7am – 7pm
- Steel Melt Shop & Rolling Mill 24 hours
- Monofill: 7am – 7pm
- Forklifts and Loaders 7am – 7pm

7.151. Potentially affected receivers identified above in Figure 25 have been assessed by Hegley Acoustic Consultants under the operational noise scenario for the site, with adjustments made to reflect the notional boundary of each of the receivers

Noise Rules and Limits

7.152. The Hegley Acoustic Consultants' noise assessment considers the location of each of the receivers with respect to the compliance levels as indicated by the WDP-OP, which is effectively operative. Most receivers are in the General Rural Zone, with some in the Motorsport and Recreation Precincts (P15 and P17) and the Corrections Zone. A summary table of the noise limits for each is included below as Table 4

Table 4: Summary table of the applicable noise standards

Noise Limit	Gen Rual Zone, (R8) and Corrections Zone (R26)	Motorsport and Recreation Zone	
		Precinct 17 (R35)	Precinct 15 (R37)
	Receivers 2 – 7	Receiver 1	Receiver 8
50dB L_{Aeq}	7am – 7pm	7am – 6pm	7am – 7pm[1]
45dB L_{Aeq}	7pm – 10pm	6pm – 10pm	NA
40dB L_{Aeq} / 65dB L_{AFmax}	10pm – 7am	10pm – 7am	All other times[2]

1. Applies Monday to Friday. On Saturdays, 7am – 6pm.
2. In precinct 15, the L_{AFmax} limit increases to 75dB.

7.153. For the assessment, some design mitigations have been discussed with Green Steel and adopted by Hegley Acoustic Consultants for the following:

- Shredder enclosure - a concrete enclosure for the shredder with limited openings.
- Steel Melt Shop - full enclosure with high-performance acoustic façades (Rw 52 or better).

[1] The letter from Hegley Acoustic Consulting dated 1July 2025 in response to Corrections' report amended the scrap yard hours of operation to daytime / early evening use only and includes additional bunding.

- Rolling Mill - maintain closed doors during operation, as well as avoid tonal reversing alarms on mobile equipment

- Reducing hours of operation for the shredder

Operational Predicted Noise Levels

7.154. Table 5 below provides the Hegley Acoustic Consultants' assessment of the predicted noise levels for the project (based on the modelling undertaken) when assessed at the receiving notional boundaries (refer to N&VA for noise contours for the three periods modelled). The modelling predicts operational noise levels are generally compliant, with some minor exceedances noted in the evening period. These results are replicated in Table 5 below.

Table 5 :Noise Rating table at receiving locations, including compliance colouring of the cells

Receiver, Fig 4	Address	Rating Level			
		Day	Evening	Night	
		dB L_{Aeq}	dB L_{Aeq}	dB L_{Aeq}	dB L_{AFmax}
R1	Hampton Downs Raceway Apartments	49	42	40	48
R2	23 Hampton Downs	41	37	38	46
R3	61B Hampton Downs	40	36	36	44
R4	113 Hampton Downs Road (Prison block)	46	41	37	45
R5	135 Hampton Downs Road (Landfill offices)	42	35	31	39
R6	5 Chris Amon Drive	37	33	28	36
R7	136 Hampton Downs Road	50	44	38	46

Full compliance
Partial compliance
Non-compliance

7.155. Most receivers (R2–R6) fully comply with WDP noise limits, with minor exceedances at:

- R1 (Raceway Apartments): 4 dB exceedance during 6–7 PM (evening period) and
- R7 (Precinct 15): 4 dB exceedance in the evening due to the lower threshold and 10 dB on Sundays.

7.156. These exceedances are considered by Hegley Acoustic Consultants to be reasonable due to the context and existing ambient noise levels.

7.157. The Hegley Acoustic Consultants' assessment also considers the cumulative noise effects of the operation in conjunction with both the Hampton Downs Landfill and Hampton Downs Motorsport Park. These aspects are summarised below

With Hampton Downs Landfill:

- Slight exceedance (1 dB) at R4 during the day, considered negligible.
- R6 and R7 remain compliant or have a slight exceedance in the evening.

With Hampton Downs Motorsport Park:

- When operating at 65 dB LAeq, the Motorsport Park dominates at all receivers.
- At 55 dB LAeq, cumulative effects are minor and mostly controlled by the Motorsport Park
- At 50 dB LAeq, only R4 shows a slight cumulative increase, still within acceptable limits.

7.158. Based on predicted noise levels, Green Steel also undertook consultation with the Department of Corrections concerning the Springfield Correctional Facility (Springhill). Springhill (Receiver 4) is the neighbouring party to the west and south of the subject site. The Department of Corrections engaged Styles Group to provide acoustic advice and undertake a review of the Hegley Acoustics N&VA. The review identified some concerns with the noise associated with operational aspects at the site, particularly in relation to future receiving environments within the Corrections site. For the Department of Corrections land to the west, initial modelling showed predicted noise to be at 55dB L_{Aeq}.

7.159. Based on this feedback, Green Steel has considered whether there was any additional mitigation measures which could be implemented at the source to reduce the effects of noise, and as such in consultation with Hegley Acoustic Consultants considered an additional 6m high acoustic bund situated adjacent to the western side of the shredder and scrapyard and requested that Hegley Acoustic Consultants re-run the noise model. This information is included within the 1 July Letter appended to the Hegley Acoustic Consultants N&VA. With the bund included, there was a discernible difference in the daytime noise as modelled, and as such, the additional mitigation now forms part of the proposed site development, with the updated noise contours included below in Figures 25 and 26.

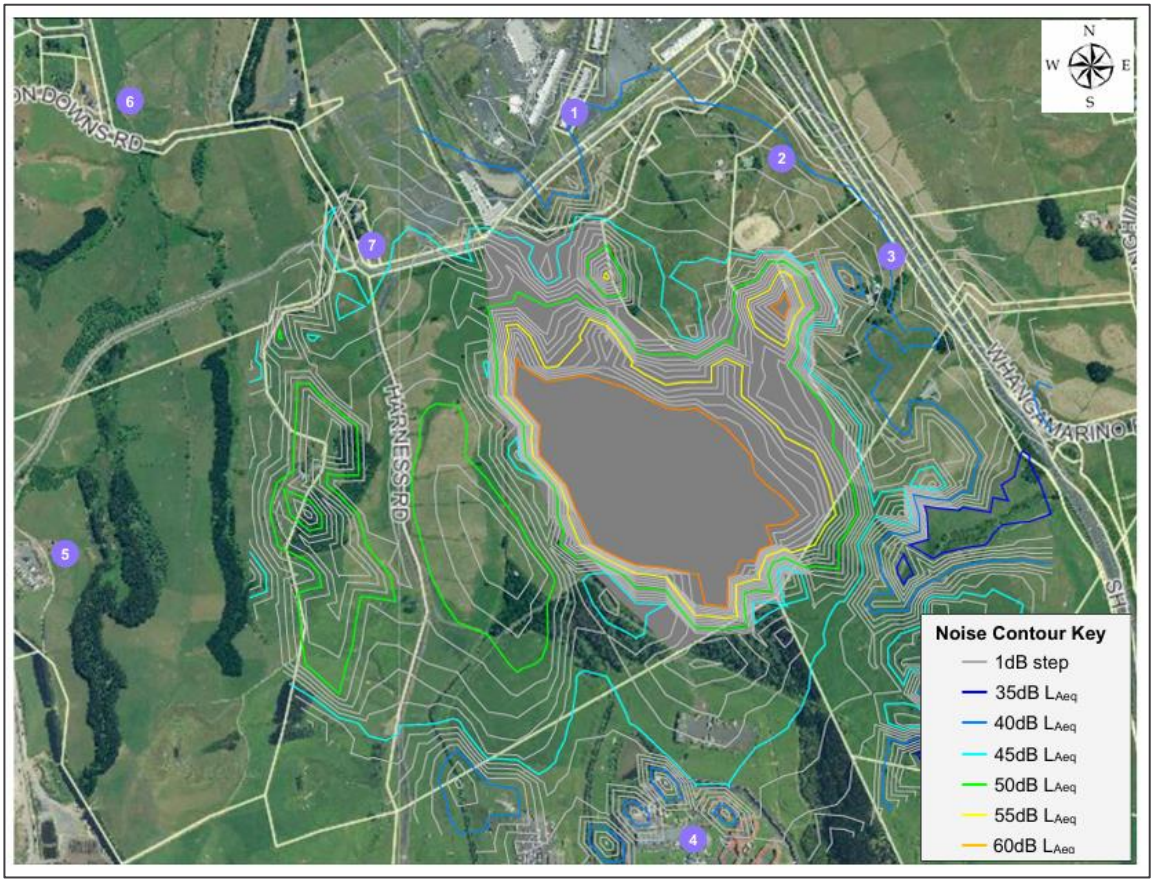


Figure 25: Revised Hegley Acoustics Predicted Daytime Noise contours

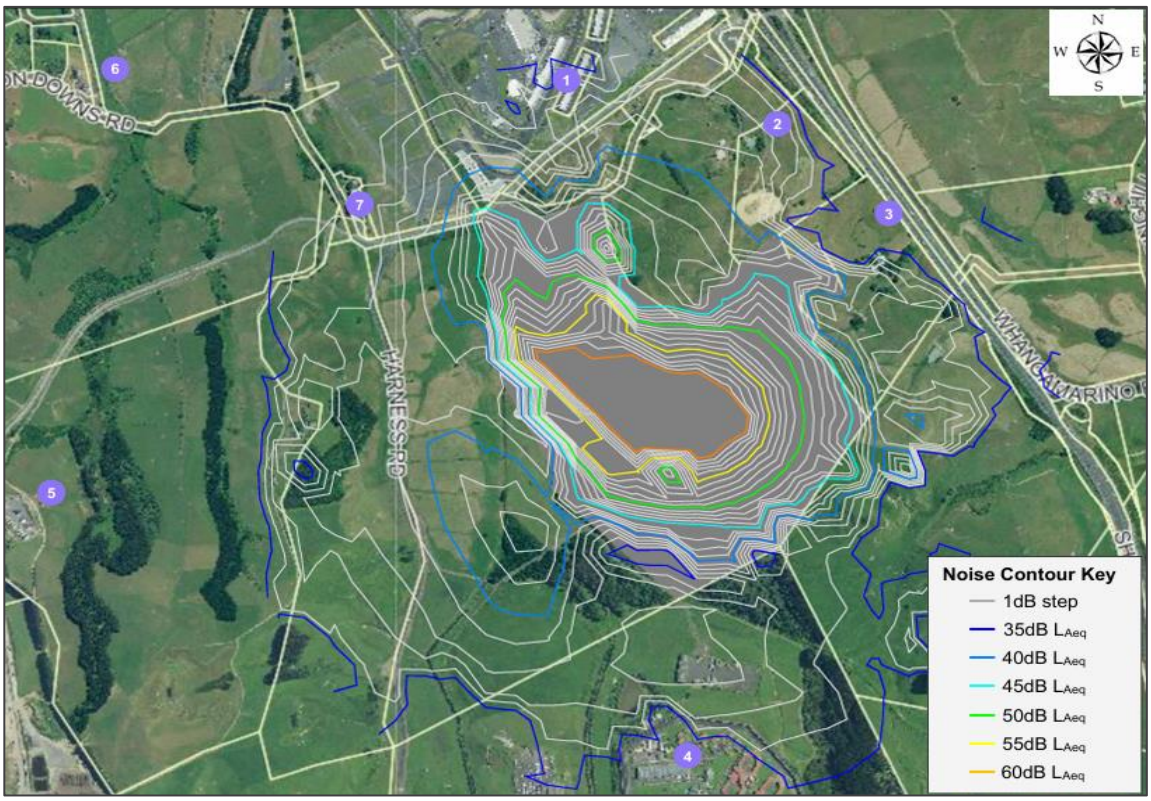


Figure 26: Revised Hegley Acoustic Predicted Evening and Nighttime Noise Contours

7.160. As outlined in the Hegley Acoustic Consultants letter, with the additional noise mitigation included and the changes to the noise model, the predicted rating levels at the individual receivers have been updated in the following table. The model updates have included the solid wall abutting the existing prison building (receiver 4), which had been omitted by the initial assessment. The updated table is reported below.

Table 6:Updated Noise Rating table at receiving locations with additional bunding

Receiver, Fig 4	Address	Rating Level (Levels in brackets show difference compared to Table 7 of the ANVE)		
		Day	Evening/Night	
		dB L_{Aeq}	dB L_{Aeq}	dB L_{AFmax}
R1	Hampton Downs Motor Sport Apartments	42 (-7)	40 (0)	48 (0)
R2	23 Hampton Downs	41 (0)	38 (0)	46 (0)
R3	61B Hampton Downs	40 (0)	36 (0)	44 (0)
R4	113 Hampton Downs Road (Prison block)	38 (-8)	34 (-3)	42 (-3)
R5	135 Hampton Downs Road (Landfill offices)	41 (-1)	30 (-1)	38 (-1)
R6	5 Chris Amon Drive	36 (-1)	28 (0)	36 (0)
R7	136 Hampton Downs Road	44 (-6)	36 (-2)	44 (-2)

Full compliance
Partial compliance
Non-compliance

7.161. Overall, the Hegley Acoustic Consultants' assessment concludes that the construction noise is compliant and operational noise levels are largely compliant with the WDP-OP limits. Where minor exceedances occur, they are limited in duration and are contextually reasonable being only perceptible at one of the receivers (R7) for a short period in the evening and during the day on Sunday. Mitigation measures are effective and feasible in the context of the site. Cumulative and ambient noise assessments confirm that the proposal will not significantly degrade the existing or future acoustic environment.

Evaluation

7.162. Based on this assessment of noise and as demonstrated, we agree with the report findings (as summarised above), that with the proposed mitigation measures in place, the noise effects of the proposal are reasonable in the context of the receiving environment. Apart from a minor non-compliance in the evening (between 6pm and 7pm) in one location to the north of the site, the proposal is otherwise compliant with the WDP-OP which is considered effectively operative for the daytime period and can comply for the nighttime operations. The proposal is generally compliant with the WDP noise standards under the WDP-OP; therefore, in our view, the potential effects of noise are less than minor at existing sensitive receiving locations.

7.163. Given the potential for additional mitigation along the western edge of the site, a suitable condition is recommended concerning an Operational Noise Mitigation Management Plan, which shall confirm the mitigation proposed in the noise and vibration assessment.

Air Quality

7.164. This section considers any discharge of contaminants into the environment and options for the treatment and disposal of contaminants:(clause 7(e) of Schedule 5).

7.165. An Air Quality Assessment was undertaken by Air Quality Consulting NZ Limited (AQCNZ) dated 23 May 2025, included as Attachment 20 to evaluate the potential effects of air discharges from the proposed Green Steel Mill. The assessment supports the application for an air discharge consent for the site.

7.166. Key Emission Sources from the Site include

- Steel Melt Shop: Emissions include PM_{10}, $PM_{2.5}$, NO_x, SO_2, and CO, discharged via a 55 m stack.
- Rolling Mill: Combustion emissions from the reheating furnace (PM_{10}, $PM_{2.5}$, NO_x, SO_2, CO) discharged via a 56 m stack.
- Shredder: Particulate emissions controlled via wet scrubbers and cyclone separators.
- Construction and Monofill Activities: Potential for nuisance dust, mitigated through best practice dust control measures.

7.167. Emissions from the Steel Melt Shop will be managed through several control measures, including the high-efficiency bag filters, water coolers and dust collection systems, all of which significantly reduce particulate and gaseous emissions. Additionally, Green Steel will control emissions through strategies such as furnace temperature management, limiting sulphur content in raw materials, optimising oxygen injection, and implementing advanced control systems.

7.168. In addition to the emission controls identified in the technical assessment, the stack has been designed, based on a series of atmospheric dispersion modelling studies, to discharge any remaining pollutants at a height of 55 and 56 metres respectively for the two stacks. This ensures

effective dispersion considering the surrounding terrain and minimises downwash from nearby buildings.

7.169. Air Quality NZ have undertaken atmospheric dispersion modelling, which was conducted using CALMET and CALPUFF models in accordance with the Ministry for the Environment (MfE) Good Practice Guides and which has modelled the emissions from key sources.

7.170. The outcomes of the modelling predicted concentrations of PM_{10}, $PM_{2.5}$, NO_2, SO_2, and CO at all off-site locations and noted that sensitive receptors are well below relevant health-based assessment criteria (AQNES, NZAAQG, WHO 2005). WHO 2021 guidelines were also considered; predicted concentrations comply with these more stringent thresholds. Metal emissions (e.g., lead and zinc) are expected to be minimal and within safe limits. The greenhouse gas emissions from the combustion of LPG is considered separately below.

7.171. Construction and monofill dust emissions are unlikely to cause nuisance effects due to:

- Large buffer distances to sensitive receptors.
- Implementation of robust dust suppression measures (e.g., water carts, stockpile management, daily cover).
- Effects from combustion emissions during construction which are considered negligible.

7.172. The Air Quality assessment concludes that:

- Air discharges from the Green Steel Mill will have an allowable level of effects on human health and the environment.
- Dust and nuisance effects from construction and monofill operations are low, provided mitigation measures are implemented.

Evaluation

7.173. The Air Quality NZ assessment has indicated that the project complies with all relevant air quality standards and guidelines, and on this basis, the actual effects of discharge to air from the site are acceptable. Monitoring conditions have been included within the conditions.

Greenhouse Gas

7.174. This section considers any discharge of contaminants into the environment and options for the treatment and disposal of contaminants (clause 7(e) of Schedule 5).

7.175. The project seeks to reduce the emissions from the steel processing plant through the adoption of Electric Arc Furnace (EAF) technology to produce low-carbon structural steel from scrap metal. The steelmaking process using scrap metal involves several key stages, including shredding, melting in an EAF, continuous casting, rolling, and the use of an oxygen plant to enhance efficiency:

7.176. An emissions plan for the project has been prepared by Lumen Ltd (dated 21 May 2025), included as Attachment 29. The emissions plan considers the best practicable option (BPO) for minimising greenhouse gas (GHG) emissions from process heat, in compliance with the NES for Greenhouse Gas Emissions from Industrial Process Heat (NES-GG), under the proposed operating conditions. The emissions plan has been considered at a site level rather than an equipment level due to the complexity of the proposed site and the interconnected nature of the process heat equipment.

7.177. The Lumen emissions plan identifies that all major equipment in the proposed process, except for the medium section-cum-bar mill, will operate on electricity. The shredder, electric arc furnace, billet caster, and oxygen plant are all electrically powered, ensuring efficient and environmentally friendly operation. Electricity-powered equipment (e.g. EAF, caster, shredder) is excluded from emissions calculations due to the use of New Zealand's electricity grid, which has a high share of renewable energy generation. However, the Equaliser Furnace (used to reheat material for the medium section-cum-bar mill) will be an LPG-fired system, chosen specifically for its superior controllability in achieving precise temperature profiles during reheating and rolling. This is considered critical for maintaining the desired mechanical properties of the final steel products.

7.178. The plant will process over 200,000 tonnes of scrap metal per year that would otherwise have been exported to Asia, significantly reducing sea freight-related carbon emissions. At an estimated 160 kg CO_2 per tonne of sea freight-related emissions, avoiding the export of this scrap metal prevents 43,000 tonnes of CO_2 emissions per year. Additionally, with the final product exceeding 200,000 tonnes of steel per year, approximately 40,000 tonnes of emissions per year will be avoided by eliminating the need to import steel from countries like India. The combination of reduced scrap metal exports and decreased steel imports results in a total emissions reduction of approximately 83,000 tonnes of CO_2 per year.

7.179. Beyond emissions savings, this initiative supports New Zealand's decarbonisation goals and strengthens the country's circular economy by maximising resource efficiency. By keeping the entire process local, the project not only benefits the environment but also creates opportunities for job growth, industry resilience, and economic development in the steel sector.

7.180. In Table 7 below, Lumen has identified the expected fossil fuel energy consumption and associated emissions and related these to carbon emissions for 12 months of operation for the major process heat devices based on target production levels without accounting for energy efficiency initiatives.

Table 7: Lumen Summary of projected fossil fuel energy consumption and carbon emissions

Heat Device	Energy Type	Annual Consumption kWh/year	Annual Emissions tCO2/year
Equalising Furnace	LPG	107,000,000	22,900

Note: the LPG consumption of 107GWh would equate to about 7,700 tonnes of LPG per year.

7.181. Lumen has identified the BPO as hot charging (direct rolling), which entails billets being transferred directly from the caster to the rolling mill at high temperature, thereby reducing or eliminating the need for reheating.

- Annual emissions savings: 19,000 tCO_2-e
- Post-BPO emissions: 3,900 tCO_2-e/year
- Emissions reduction: ~83%

This BPO measure is included in the facility's design and will be implemented from the outset.

7.182. National Green Steel will continue to monitor and evaluate additional opportunities during the consent period, including potential further investigation into the viability of the use of an alternative fuel, being Landfill gas.

Evaluation

7.183. The Lumen Emissions plan meets NES-GG requirements (Regulations 14–16). The project represents significant savings of GHG. The assessment indicates positive emissions savings with the reduction in international transportation of both shredded recycled steel (exports) and structural steel (imports). Although not quantified, the potential savings of CO_2 also relate to the extensive use of electricity on the site for the electric arc furnace technology, as well as further proposed reductions through the proposed implementation of the BPO as part of the design at the outset of the project. In this case, emissions targets and BPO are considered to be well aligned with national climate policy.

Hazardous Substances

7.184. This section considers any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations (clause 7(g) of Schedule 5).

7.185. Williamson Water & Land Advisory Ltd (WWLA) has prepared a hazardous substances assessment (dated 13 May 2025), included as Attachment 15, which outlines the key hazardous substances and storage for the site and provides an assessment of the risks. Volumes of hazardous materials to be stored include:

- LPG 25,500 kg (bulk storage tank)
- Diesel: 2,000 L (above-ground skid tank).
- Oxygen: 16,000 m³ (two 50 m³ buffer tanks and one 20,000 L liquid tank).
- Non-hazardous solid waste: Slag, scale, sludge, and dust (partially recycled, remainder landfilled).

7.186. WWLA has advised that storage of all hazardous substances situated within the site will meet the regulations identified below, including secondary containment (bunding or double-skinned tanks), covered and bunded areas for intermediate bulk containers (IBCs). Stormwater diversion is also proposed for on-site treatment in any high-risk areas.

7.187. Under the WDP-OP the facility qualifies as a Significant Hazard Facility due to LPG volumes and is considered a discretionary activity under Rule HAZS-R2. Hazardous substances located on the site will be placed more than 50 metres from the nearest water body and 50 metres from the nearest boundary. The facility will treat stormwater from areas where liquid hazardous substances are stored to a standard suitable for discharge to the receiving environment. A full Environmental Management Plan (EMP) will be required as a condition of consent.

7.188. Health and Safety at Work (Hazardous Substances) Regulations 2017 also apply and will require a Location Compliance Certificate. This is issued by a Compliance Certifier, which provides independent confirmation that a variety of suitable controls around hazardous substances are in place. These controls include emergency management (including spill response), control of ignition sources, worker training and information provision, secondary containment, fire detection and response, notification to WorkSafe, compliance with minimum separation distances from protected and public places, and the establishment of hazardous atmosphere zones. These controls are intended to either prevent the unintended release of the substances or reduce the effects on people and the wider environment if a release were to occur.

7.189. The WWLA assessment includes a preliminary risk assessment, which broadly considers:

- Likelihood of release: Low, due to specific engineering and management controls.
- Consequence of release: Low to moderate, with limited off-site exposure pathways.

- Environmental risk: Substances are acutely toxic to aquatic life but degrade quickly and are unlikely to bioaccumulate.

Evaluation

7.190. As described in the preceding sections, the facility will be designed to ensure that the effects of discharges of hazardous substances to air, land or water are no more than minor. Design factors will include:

- Location of hazardous substances centrally within the facility, with the greatest setback from the site boundaries, where possible.
- Appropriate segregation and separation of incompatible substances and processes.
- Secondary containment will be provided for all bulk hazardous substances.
- Stormwater generated in areas where hazardous substances are stored or used will be collected and diverted for treatment through the wastewater treatment system.
- Dedicated unloading areas with unloading of bulk liquids using closed systems designed to minimise the risk of material loss

7.191. Having considered the WWLA assessment, we consider that the effects associated with the storage of Hazardous Substances can be effectively mitigated. With proposed controls and compliance certification, the risk to people, property, and the environment is low. As such, the effects of hazardous substances on the subject site are acceptable, provided that an Environmental Management Plan (EMP)is submitted to WDC for certification of the plan before the operation of the site. A suitable condition to this effect is recommended.

Stormwater

7.192. This section considers any discharge of contaminants into the environment and options for the treatment and disposal of contaminants (clause 7(e) of Schedule 5).

7.193. A Roading and Stormwater Management report has been prepared by Airey Consultants Ltd dated 23 May 2025, included as Attachment 25 (Airey Report) This report outlines the civil engineering and infrastructure design for the proposed steel processing plant, focusing on roading, access, and stormwater management. It supports the resource consent application for the development.

7.194. Key aspects of the Airey report are summarised below. As described in the earlier natural hazards section of this report, the site is zoned General Rural and lies within a 1% AEP Defended Flood Area. Flood risk is mitigated through site elevation and stormwater attenuation to the 1%AEP level, ensuring no increase in downstream flood risk. Finished floor levels and platform areas are designed with a minimum of 9 m freeboard above flood levels (RL 14.0 m).

7.195. The plant will be provided with a lined stormwater pond to collect runoff from all impervious areas within the site, which will be designed to attenuate 1% AEP peak flows. The pond has a total capacity of 22,891 m³, including: 6,600 m³ detention storage 3,000 m³ reuse storage and 3,200 m³ dead storage. The pond will be provided with an outlet structure designed to ensure peak flows from the site do not exceed pre-development flows, for the 1% AEP storm event, with surplus stormwater discharged from the site. The pond will also be provided with an emergency spillway sized for the 0.5% AEP storm event, in the event the 1% AEP outlet becomes blocked. Runoff from the roof areas will be captured and discharged via a private stormwater pipe network to the stormwater pond. Catch pits will be used to capture runoff from the proposed roading areas and will discharge to the pond via a private stormwater pipe network. A portion of the captured stormwater will be pumped back to the steel plant for reuse.

7.196. On-site stormwater treatment includes gross pollutant traps (e.g., vortex separators), a forebay in the pond for sedimentation, grassed swales for perimeter roads and membrane filtration for runoff from the open scrap yard. Roof runoff is not expected to require treatment, assuming non-contaminant-generating materials are used.

7.197. It is proposed to install a Stormwater Reuse Pump Station to provide water supply from the stormwater storage pond for use in the production of steel from the plant. Stormwater runoff collected from the impervious areas of the site will provide an average supply of 420m³ of water per day. This relies on water being stored in the onsite pond, which is expected to accommodate nearly a month's supply. 420m³ is approximately 15% of the plant's daily water demand. The reuse system includes dual pumps and a rising main to a receiving vessel in the plant.

7.198. The internal site roads will generally be designed to direct stormwater northward to the stormwater pond. In-depth design (including surface grading) of internal roading will be undertaken at the detailed design stage. Airey anticipates that a 'sawtooth' grading will be required due to the large size of the rolling mill building. In particular, the area parallel to the building will be shaped to include a series of peaks and troughs, with peaks decreasing in height from south to north.

7.199. Airey considers that the proposed roading and stormwater infrastructure is appropriate for the development and complies with relevant council and industry standards. The design ensures no adverse effects on flooding, water quality, or downstream infrastructure.

Evaluation

7.200. We agree that the proposed stormwater system and preliminary internal roading design are appropriate for the scale of the development. Water reuse from the stormwater ponds as rainwater harvesting also provides Green Steel with a dual onsite supply, together with groundwater abstraction as described below and reduces the balance of the operational demand for water. Based on the assessment provided by Airey we consider that the effects associated with stormwater for the development of the site are less than minor. A stormwater management plan is recommended as part of the detailed design.

Ground Water Abstraction

7.201. This section considers the physical effects on the locality (clause 7(b) of Schedule 5) with specific reference to groundwater.

7.202. A Hydrogeological Assessment has been prepared by Stantec (dated 6 June 2025), included as Attachment 34. The report considers the effects of a proposed groundwater take of 1,000 m³/day. The water is primarily required for cooling processes in the steel manufacturing facility. The assessment is based on hydrogeological investigations and modelling, including data from Earthtech Consulting and publicly available geological and hydrological sources.

7.203. The site is underlain by the Waitematā Sandstone Aquifer, a confined fractured aquifer composed of interbedded sandstone and mudstone. Groundwater flow is primarily horizontal through fractures and permeable sandstone layers, with mudstone acting as aquitards.

7.204. Two test bores (BH42 and BH54) indicate a combined yield of 768 m³/day. When extrapolated to four production bores, the potential yield is 1,540 m³/day with up to 1000m³ considered by the Stantec hydrogeological assessment in terms of the potential effects associated with the abstraction, which is detailed below.

7.205. Surface waterways in the immediate area include the Waipapa Stream, which is situated along the Western boundary of the site and lies 220m from the nearest borehole. The Waikato River, which is 3.2 km away, is not expected to be affected by the abstraction.

7.206. Four other groundwater bores are located within 1 km of the site, but limited data is available on their use; these generally target a shallow aquifer 10-13m blg.

7.207. There is limited information available regarding the location and extent of the fracture network within the Waitematā Sandstone Aquifer at the site. The nature of fractured aquifers means that the actual transmissivity, yield, and drawdown could vary greatly depending on the fracture system beneath the site.

7.208. Stantec have modelled two scenarios for the groundwater abstraction at the site.

Scenario 1: Four bores with a combined pumping rate of 1000 m3/day (as proposed by the client).

Although these bores will be spread out, Stantec has modelled this as being pumped from one point. This is to assess the combined take impacts on other users within a 1 km distance of the site boundary.

Scenario 2: One individual bore pumping 500 m3/day.

This reviews the impacts of the current bores on site and potential interference between the two bores (approximately 300m distance apart).

The results of the drawdown calculations for each scenario are summarised below in Table 8.

Table 8: Stantec modelled drawdown for Groundwater abstraction

	Drawdown (m)			
	Scenario 1		Scenario 2	
Distance (m)	1 Day	1 Week	1 Day	1 Week
100	9.8	21.8	5.0	11.0
300	0.9	8.4	0.4	4.2
1000	0.0	0.3	0.0	0.1

Results of continuous pumping with time are considered conservative, given the type of calculation used does not consider recharge.

7.209. The report also provides modelling outputs from the likely stream depletion analysis, showing that after seven days, 3% of the pumping rate will be from the Waipapa Stream. After 150 days 25% of the pumping rate will be from the Waipapa Stream. However, it should be noted that this assessment assumes that only one borehole (the closest bore to the stream) is being used to supply the entire pumping rate. Four boreholes are proposed within the project, supplying the pumping rate, which will decrease the stream depletion impact as the boreholes will be spread out. The assessment also assumes that the boreholes will be operating at the maximum pumping rate the entire time whereas in reality, this is not likely to be the case. As assessed, the results show that the stream depletion impacts are minor. These results are summarised in Table 9 below.

Table 9: Stantech stream depletion summary from model

Time (days)	Stream depletion	Stream depletion (L/s)
7	3%	0
30	8%	1
150	25%	3
365	40%	4

7.210. The results of the drawdown calculations, as presented by Stantec, show that there is minimal impact due to the proposed pumping on the nearby boreholes. The results of Scenario 2 show that after one day of continuous pumping, the drawdown impact on each of the pumping wells due to interference is 0.4 m. After a week of continuous pumping, the drawdown is 4.2 m.

7.211. The drawdown impact on each of the pumping wells due to interference is considered to be minimal. The results of the stream depletion assessment show that the effects are expected to be moderate (Table 8). The Stantec report concludes that the proposed take, based on modelling calculations, shows that the impacts of the proposed take of 1000 m³/day on other users and nearby surface water bodies are minor. Further testing is recommended to refine sustainable take rates and confirm aquifer recharge characteristics. This includes step testing and a constant rate pumping test over three days or more, which will determine the instantaneous abstraction rates.

Evaluation

7.212. Based on the initial report by Earthtech and Stantec, it is considered that the effects of the groundwater abstraction proposed are likely to be acceptable when spread across the current two bores and an additional two production bores on the site. Groundwater abstraction will offset the site water demand; however, if additional bores are not able to be established, the total abstraction rate could then be modified and additional reliance placed on the water from the TKW irrigation scheme as indicated in the earlier sections of this report (this supply has existing allocations which could supply Green Steel without further consents). Further monitoring of drawdown and recharge effects during additional testing is also considered appropriate at the time of establishment of the remaining production bores.

Wastewater

7.213. This section considers any discharge of contaminants into the environment and options for the treatment and disposal of contaminants (clause 7(e) of Schedule 5).

7.214. On-site wastewater treatment and land disposal are proposed for the site and have been considered in the technical assessment prepared by Ormiston Associates Ltd (Ormiston) (dated May 2025), included as Attachment 16. The Ormiston report supports the establishment of a domestic wastewater treatment system and land disposal system for staff facilities at the plant. It excludes industrial wastewater. The disposal to land requires a discretionary activity consent under the WRP Rule 3.5.7.7 due to volume exceeding 3,000 L/day.

7.215. The Ormiston report provides an overview of the proposed system, which is based on the Innoflow Technologies Advantex recirculating textile-packed bed reactor (rtPBR), a proven solution for high-strength domestic wastewater in industrial settings. The proposed on-site domestic wastewater treatment and land disposal methodology is in use at many commercial and industrial facilities across New Zealand and is a proven and reliable solution.

7.216. The design is intended to treat domestic wastewater. Peak daily flow of the system has been calculated to be 10,000L based on 200 staff at 50L/person/day. Wastewater is generated from the staff kitchen (with grease trap), toilets, and showers.

7.217. The key features of the proposed wastewater system are identified as:

- Grease Trap: 6,000 L for kitchen wastewater.
- Primary Treatment: 25,000 L septic tank.
- Secondary Treatment: Two-stage Advantex textile filter system:
- Stage 1: AX200 (2 x AX100 pods)
- Stage 2: AX40 (2 x AX20 pods)

7.218. Monitoring of the system once installed can be undertaken by remote telemetry, a water meter with ±5% accuracy, and high-water level alarms.

7.219. Soil conditions across the proposed land disposal area indicate the presence of category 4 & 5 soils (AS/NZS1547:20121), these are suitable to support on-site wastewater disposal to land.

The land disposal system comprises subsurface Pressure Compensating Dripper Irrigation (PCDI). Loading Rate: 3 L/m²/day (Category 5 soil — most restrictive encountered) across a Primary Disposal Area of 3,334 m² of the site situated on a ridge crest. The reserve field area is 100% of the primary area (3,334 m²), which is available on the site immediately adjacent to the primary

field.

7.220. The system provided the following Effluent Quality Targets:

- BOD_5 < 20 mg/L
- TSS < 30 mg/L

Evaluation

7.221. The discharge area is suitably separated from surface water including 240 m from the nearest permanent watercourse and 15 m from ephemeral streams, which is compliant with AS/NZS 1547:2012. There is a separation distance of 1.2 m from ground water and the nearest bore is greater than 300m away. There are no expected odour or public health risks and the system is remote and subsurface. Any cumulative effects relate to a nitrogen loading of ~7 kgTN/ha/year, which is significantly lower than a farming baseline of 150 kgTN/ha/year.

7.222. The proposed wastewater system is robust, environmentally sound, and well-suited to the site. It is expected to have negligible effects on the environment and complies with all relevant planning and environmental standards.

Monofill Assessment

7.223. This section considers any discharge of contaminants into the environment and options for the treatment and disposal of contaminants (clause 7(e) of Schedule 5) in relation to the monofills.

7.224. For the two proposed monofill sites at the Green Steel facility, a preliminary Geotechnical Assessment was undertaken by Earthtech Consulting Ltd, included as Attachment 17. The monofills are intended for the engineered storage of floc waste from end-of-life vehicle (ELV) processing, with the potential for future resource recovery of the floc material. The proposed monofill sites support Green Steel's circular economy goals by storing floc waste for future reuse.

7.225. The monofil sites are designed to meet Class 1 landfill standards, including full liners, leachate collection, and capping systems. Two monofill sites are proposed as indicated below. Both sites are within self-contained catchments, isolated from the main development area.:

Southwest Monofill: Located on a sloped area requiring significant earthworks and slope stabilisation.

Northeast Monofill: Located in a valley, requiring cut and fill and a toe buttress for stability.

Ground Conditions

7.226. Earthtech's initial site investigations included CPTs, test pits, hand augers, and shear strength testing. Soils encountered across the site include:

- Amokura Formation (bedrock)
- Terrace and stream alluvium
- Hamilton-Kauroa Ash
- Kaawa sands (possible)
- No acid sulphate soils were found, but management protocols are in place if encountered.

Earthworks and Drainage

7.227. Earthworks will be staged and integrated with the main site development to establish the initial platform areas. Subsoil drains will be installed beneath liners and buttress fills. Stormwater will be managed via contour drains, sediment retention ponds, and erosion control measures.

Stability and Seismic Analysis

7.228. Stability modelling using SLOPE/W software confirmed that both monofill sites are stable under static and seismic conditions. Factors of Safety (FoS) exceed minimum thresholds for both Serviceability and Ultimate Limit States. Slope stabilisation options include: Recompacted fill, Buttress fill or Setbacks from unstable slopes

Leachate Management and Monofill Controls

7.229. The monofills will be designed, constructed and operated as per standard Mixed Solid Waste Landfills. Extensive earthworks are proposed to accommodate the monofills on a safe and stable site. The leachate liner system selected will be a Class 1 base liner system as set out in the Technical Guidelines produced by WasteMINZ. The liner will contain and collect leachate emissions and prevent any leakage. The diagram in Figures 28 and 29 below generally demonstrates the lining system.

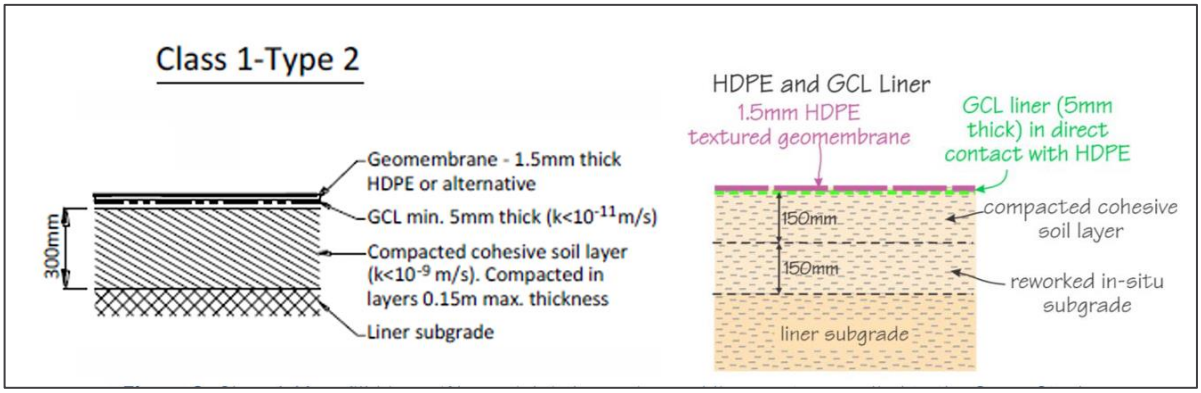


Figure 28: Schematic of Monofill Liner barrier system proposed for Green Steel (source Earthtech)

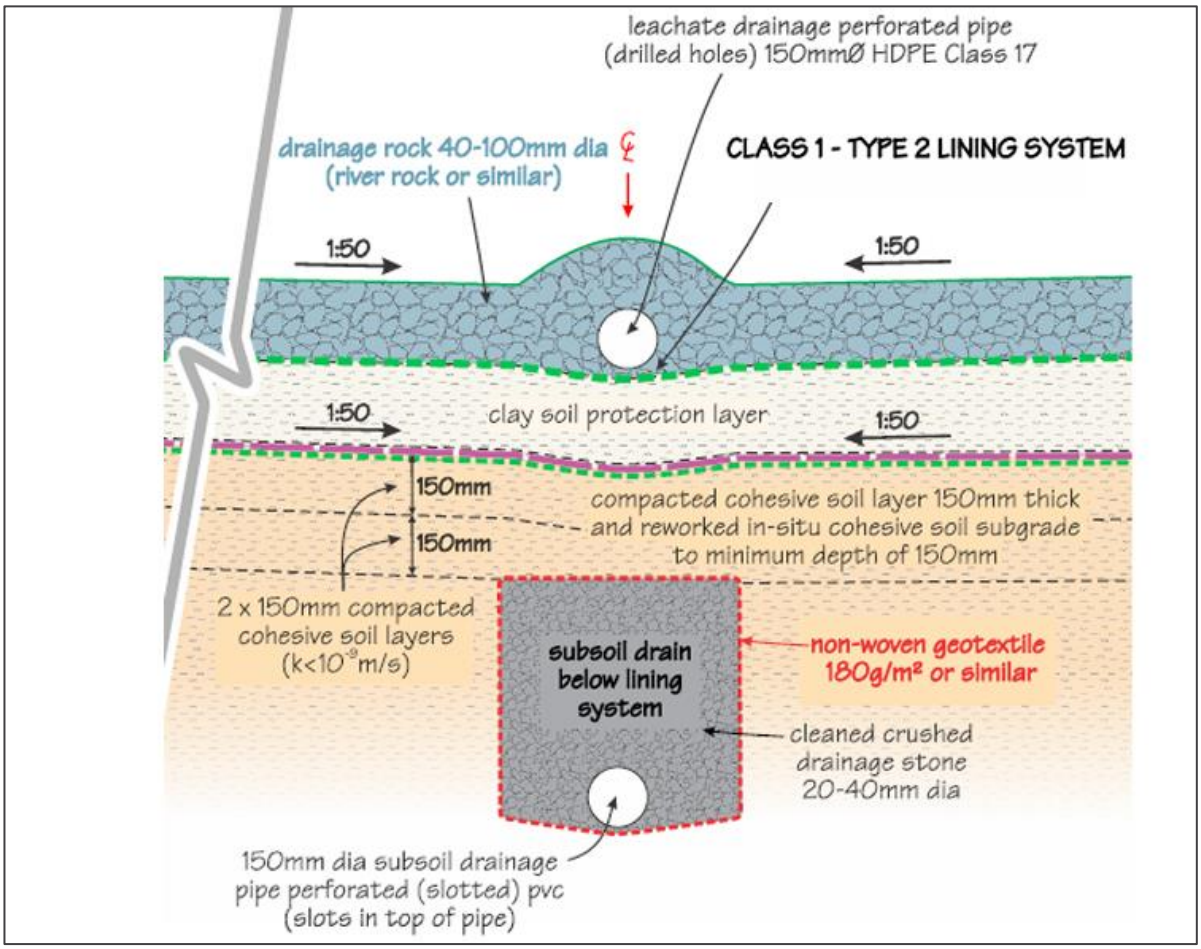


Figure 27: Class 1 monofil Liner (above Right) the engineered system to be applied to the Green Stell Momofill and above left the guidance example from WasteMinz 2023

7.230. Leachate flow is created by rainfall infiltrating cover and capping materials and slowly trickling down through the waste to collect in the purpose-designed leachate collection layer, which sits directly on top of the landfill liner as described below and indicated in Figure 17 above. Daily leachate flow is affected by the likes of daily rainfall and evaporation, the surface area of exposed waste, cover and capping layers which deflect the rainfall, absorptive capacity (or loss) of the waste, and diversion controls in place to divert clean run-off.

7.231. Leachate drainage and management will include the installation of simple drainage lines (HDPE 150mmØ perforated pipes) along the length of each valley to an outlet and a discharge chamber below the toe bund. This system will allow for full control and collection for offsite removal of the leachate. Lysimeter studies have established the anticipated quantity and quality characteristics of the leachate as indicated in Attachment 18.

7.232. The Earthtech Monofill Engineering Report (section 6.2) estimates the leachate production over various stages of the monofill development and is replicated in Table 10 below.

Table 10 Leachate production best estimates calculated on a high-end (1.4m) of annual average rainfall (Source: Earthtech Monofill Monitoring Plan and Evaluation of Surface and Groundwater Effects report)

Monofill Stage	Total Area	Unit	Operational 20%	Volume	Intermediate Cover 12%	Volume	Final Cover 7%	Volume	Total Est. Leachate Production
			Area (ha)	(m^3/day)	Area (ha)	(m^3/day)	Area (ha)	(m^3/day)	(m^3/day)
Stage 1a (SW Monofill)	50 x 100 Area =								
	5,000	m^2							
	0.5	*ha*	0.5	3.8	-	0	-	0	**3.8**
Stages 1 & 2 (SW Monofill)	27,000	m^2							
	2.7	*ha*	0.5	3.8	1.2	5.5	1.0	2.7	**12.0**
Stages 3 & 4 (SW Monofill)	2.7 +1.45 =								
	4.15	*ha*	0.5	3.8	1.55	7.1	2.1	5.6	**16.6**
Stages 1 & 2 (NE Monofill)	0.5 + 1.54 =								
	2.04	*ha*	0.5	3.8	1.04	4.8	0.5	1.3	**10.0**
Long Term (All Monofill Stages)	6.2	*ha*	0	0.0	0	0.0	6.2	16.7	**16.7**

7.233. Once both monofills are developed the maximum rate of leachate production is estimated to be 16.7m³ per day. The sites are designed to accommodate as follows:

a) Year 1 – 6m³/day with peak of 12m³/day over three days
- Year 5 – 14m³/day with peak of 20m³/day over three days
- Year 10 – 20m³/day with peak of 25m³/day over three days
- Long-term flow rate estimates at 15 to 17m³/day

7.234. Leachate quality will be distinctly different to Municipal Solid Waste landfill leachate as there will be no, or extremely low effects from biological breakdown of the wastes. Lysimeter trials undertaken (see Appendix C in Attachment 18) conclude the leachate quality is within the limits of a 'Clean Fill' type waste.

Evaluation

7.235. The sites are considered suitable for long-term monofill use with appropriate engineering controls. Detailed site-specific investigations, including boreholes and lab testing, are required before final design. Leachate from the monofills is expected to fully contained and suitable engineering has been adopted to avoid contamination of the wider environment A Monofill Management Plan will be developed to guide operations and is included as a condition.

Summary Assessment of Effects on the Environment

7.236. As outlined in the preceding sections of this AEE and having considered the technical information available, we are comfortable that the effects of the project are, on balance, acceptable and appropriate in the context of this location. The project has significant positive effects in terms of contributing to a circular economy by reducing emissions associated with steel production.

7.237. In relation to adverse effects on the environment, we conclude that the majority of the effects of the Green Steel Project will result in a level of effects which are acceptable and can be mitigated. Aggregational aspects and cumulative effects have been considered, particularly concerning traffic and noise, and these can be managed appropriately at this site. The technologies adopted for the project also demonstrate that it can be undertaken in an environmentally efficient way, with a significant reduction in emissions. The exception is in relation to the effects on rural character and the visual effects, which have been identified to be moderate due to the scale of the industrial site within the rural zone. In relation to the visual aspects, the scale of the activity is large and represents a change for the receiving environment from rural to industrial; however, based on the technical assessments, it can be accommodated into an area which has been modified. The project is not considered to be dominating or intrusive, the views of the site are restricted, and the landform of the site can absorb the bulk of the buildings proposed.

8 Statutory Framework

8.1. This section sets out the applicable statutory framework for determining the application for resource consent. Schedule 5, clause 17 of the FTAA provides that, for the purposes of s81, when considering a consent application and setting conditions, the Panel must take into account, giving the greatest weight to paragraph a):

a) The purpose of the FTAA.

b) The provisions of Parts 2, 6, and 8 to 10 of the RMA that direct decision making on an application for a resource consent (but excluding section 104D); and

c) The relevant provisions of other legislation that direct decision making under the RMA.

Purpose of the FTAA

8.2. The purpose of the FTAA is set out in s 3 as follows:

> ***3 Purpose***
>
> *The purpose of this Act is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.*

8.3. The project is consistent with the purpose of the FTAA for the reasons set out below. As demonstrated, the Project has very clear, significant regional and national benefits.

8.4. The project aims to establish sustainable steel production in New Zealand. This will be achieved through the development of a steel 'mini mill' that uses recycled scrap metal—as opposed to iron ore or iron sands—as its primary input. The mill will employ EAF technology to produce high-quality structural steel with a significantly lower carbon footprint compared to current steel processing methods in New Zealand. A scrap steel shredding plant will be co-located with the mill, sourcing material from across the country. The facility is expected to produce approximately 200,000 tonnes of various steel grades for use in national construction.

8.5. The project has the potential to address critical environmental and economic challenges, including a substantial reduction in emissions associated with structural steel production, as well as enhanced resilience and competitiveness within New Zealand's steel industry.

8.6. The project aligns with New Zealand's Waste Strategy (MfE, March 2023), which advocates for a national transition to a circular economy. The strategy calls for robust systems and infrastructure to support widespread reuse, repair, and recycling. This project supports that vision by providing a sustainable, long-term domestic processing pathway for recycled steel by replacing the historic dependence on exporting shredded steel and importing structural steel.

8.7. The key economic benefits of the Green Steel project are outlined earlier in this report, including the summary, project description, and Castalia's assessment of positive and economic effects.

8.8. The project will also contribute to regional economic development by creating up to 200 jobs in the northern Waikato region.

8.9. Given the scale of the development and the range of consents required, the project is well suited to the FTAA process. This pathway is regarded as a more efficient and appropriate mechanism for facilitating and delivering significant industrial developments than the conventional Resource Management Act (RMA) framework.

Part 2 of the RMA

8.10. Clause 17(2)(a) provides that for the purpose of applying any provisions in clause 17(1), a reference to the RMA to Part 2 of that Act must be read as a reference to ss 5, 6 and 7 of that Act.

8.11. The relevant provisions of Part of the RMA are set out below:

5 Purpose

(1) *The purpose of this Act is to promote the sustainable management of natural and physical resources.*

(2) *In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while*

a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

6 Matters of National Importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:

b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:

e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

f) the protection of historic heritage from inappropriate subdivision, use, and development:

g) the protection of protected customary rights:

h) the management of significant risks from natural hazards.

7 Other Matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—

a) kaitiakitanga:
(aa) the ethic of stewardship:

b) the efficient use and development of natural and physical resources:
(ba) the efficiency of the end use of energy:

c) the maintenance and enhancement of amenity values:

d) intrinsic values of ecosystems:

e) [Repealed]

f) maintenance and enhancement of the quality of the environment:

g) any finite characteristics of natural and physical resources:

h) the protection of the habitat of trout and salmon:

i) the effects of climate change:

j) the benefits to be derived from the use and development of renewable energy.

Section 5, RMA Discussion

8.12. Section 5 in Part 2 of the RMA identifies the purpose as being the sustainable management of natural and physical resources. The substantive application is considered to be consistent with this purpose for the reasons set out below. At the same time, the project seeks to address the matters listed in (a) to (c) of section 5 of the RMA. In particular, the project seeks to enable the well-being (social and economic) of the population in the Waikato and New Zealand, by creating additional job opportunities (up to 200 jobs) and by reusing recycled steel to manufacture structural steel for use within New Zealand. The minimisation of waste and movement to a circular economy approach is an aspect which supports future generations.

8.13. This project is also designed to reduce emissions by at least 75 percent per tonne of steel compared to conventional steelmaking methods using blast furnaces, thus reducing the reliance of fossil fuels and supporting New Zealand's and global climate goals.

8.14. The preceding analysis has established that the project has very clear regional and national benefits and is also necessary. There is existing and future demand for steel within New Zealand which in turn will reduce the amount of imported steel with its associated GHG emission reductions associated with the transportation of steel to New Zealand. The demand for steel supports other sectors of the economy particularly the construction industry which all new large-scale development is heavily dependent upon.

8.15. The project can be achieved in the location proposed without significant adverse effects to the environment as has been demonstrated in section 7 of this report.

Section 6, RMA Discussion

8.16. With reference to the matters of national importance and the assessment undertaken in section 10, the following comments are made:

8.17. The proposal will not adversely affect the natural character of the surrounding environment (s6(a)). The activity will not have any direct or indirect effects on the coastal environment or any significant waterways and no areas of high natural character have been identified in the immediate area. The rural character is described in earlier sections of this report as being modified.

8.18. The subject site is not identified as containing any outstanding natural features or landscapes (s6(b)). The receiving rural context is not identified as significant or particularly representative of a pristine rural landscape, nor are there any outstanding or significant landforms which would require additional consideration in relation to further protection under section 6. The proposed location of the site is set in the General Rural Zone; however, the project will be situated near other significant land uses in a modified contextually receiving environment. The visual effects of the project have been considered and assessed as acceptable.

8.19. The subject site is not identified as containing any significant indigenous vegetation and significant habitats of indigenous fauna (s6(c)).

8.20. The proposal does not seek to alter the extent to which the public can access the public realm near waterways or the coast (s6(d)).

8.21. The proposal will not adversely affect any identified ancestral lands, water, sites, waahi tapu, and other taonga (s6(e)); the project is supported by a comprehensive Cultural Impact Assessment Ahurea Arotake prepared by Ngā Muka Development Trust.

8.22. The proposal will protect identified historic heritage from inappropriate subdivision, use, and development on the basis that there is no known historic heritage item within the vicinity of the project that may be affected by it (s6(f)). An archaeological assessment has been undertaken for the site, which confirms the absence of any features on the site and accidental discovery protocols will be adopted.

Section 7, RMA Discussion

8.23. With reference to s7(a) and (aa), the project is considered to have regard to kaitiakitanga and the ethic of stewardship, particularly through Green Steel's engagement and consultation with mana whenua for this rohe. The consultation represents the start of a relationship with Green Steel committed to the continued involvement of Ngā Muka into future phases of the development including but not limited to; a powhiri prior to construction, incorporation of a cultural induction process for the construction phase, the engagement of a Ngā Muka cultural monitor, development of a Cultural Management Plan, agreed accidental discovery protocols, and the implementation of mātauranga māori monitoring of air and water to be completed on an ongoing basis.

8.24. The project is considered to represent the efficient use, development and management of natural and physical resources, given it will facilitate the manufacture of steel by recycling scrap metal and materials for use within New Zealand (s7(b)).

8.25. The project utilises electricity-powered equipment (e.g. electric arc furnace, caster, shredder) which represents a significant reduction in emissions from a full reliance on fossil fuels for the generation of heat and is a sustainable and very efficient alternative. This is considered to be positive overall in relation to s7(bb).

8.26. Regarding s 7(c) and (f) the analysis in Section 7 of this report sets out the reasons why the Project maintains and enhances amenity values and the quality of the environment.

8.27. The effects of the Project on the intrinsic values of ecosystems have been undertaken (s7(d)) and have been assessed in Section 17 to be minor and localised with no significant ecosystems affected by the proposal.

8.28. Regarding s 7(g), the land and water within the subject area of the Project is a finite resource .For the reasons discussed, the Project is considered an efficient use and development of the physical land and water, including the reuse of stormwater from impervious surfaces which has the capacity to accommodate the proposed development in a sustainable manner.

8.29. Regarding s7(h) there are no significant waterways affected by the proposed development and suitable exclusion zones and considerations have also been given to the Waipapa stream as a small tributary which runs adjacent to the site.

8.30. In regard to ss 7(i) where relevant the effects of climate change have been considered in design aspects for the sizing of infrastructure and consideration of modelling aspects on which the design has been based.

8.31. 55MW of installed electricity load is required for the project and has been selected for the operation of key smelting infrastructure as part of the project, replacing a large consumption of fossil fuels. The project will be grid-tied and therefore continued expansion of sustainable and renewable energy within the supply will be of particular relevance to the project.

Conclusion on Part 2

8.32. Overall, and for the reasons stated above, the Project is considered to accord with the purpose and principles of the RMA, as stated in ss 5 to 7.

Part 6, RMA

8.33. Because s17(1) refers to Part 6 of the RMA, the Panel is required to assess the project under s104 and s104B of the RMA for non-complying activities (without reference to s104D). It is noted that ss 108 and 108A of the RMA also apply when setting conditions of resource consent for this project. Clause 17(6) provides that for the purposes of clause 17(1), these RMA provisions must be read with all necessary modifications, including that a reference to a consent authority must be read as a reference to a Panel.

8.34. As s104D does not apply the activity must be assessed only under s104. The approval may only be declined in accordance with s85 of the FTAA.

Section 104(1) RMA Discussion

8.35. Section 104(1) of the RMA sets out the matters the Panel must, subject to Part 2 and section 77M, have regard to:

S104 Consideration of applications

(1) *When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2 and section 77M, have regard to–*

(a) any actual and potential effects on the environment of allowing the activity; and

(ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and

(b) any relevant provisions of—

(i) a national environmental standard:

(ii) other regulations:

(iii) a national policy statement:

(iv) a New Zealand coastal policy statement:

(v) a regional policy statement or proposed regional policy statement:

(vi) a plan or proposed plan; and

(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

(2) When forming an opinion for the purposes of subsection (1)(a), a consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect.

(2A) When considering an application affected by section 124 or 165ZH(1)(c), the consent authority must have regard to the value of the investment of the existing consent holder.

(2B) When considering a resource consent application for an activity in an area within the scope of a planning document prepared by a customary marine title group under section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011, a consent authority must have regard to any resource management matters set out in that planning document.

(2C) Subsection (2B) applies until such time as the regional council, in the case of a consent authority that is a regional council, has completed its obligations in relation to its regional planning documents under section 93 of the Marine and Coastal Area (Takutai Moana) Act 2011.

(2D) When considering a resource consent application that relates to a wastewater network, as defined in section 5 of the Water Services Act 2021, a consent authority—

(a) must not grant the consent contrary to a wastewater environmental performance standard made under section 138 of that Act; and

(b) must include, as a condition of granting the consent, requirements that are no less restrictive than is necessary to give effect to the wastewater environmental performance standard.

(2E) When considering a resource consent application that relates to a stormwater network, as defined in section 5 of the Water Services Act 2021, a consent authority—

(a) must not grant the consent contrary to a stormwater environmental performance standard made under section 139A of that Act; and

(b) must include, as a condition of granting the consent, requirements that are no less restrictive than is necessary to give effect to the stormwater environmental performance standard.

(2F) When considering an application and any submissions received, a consent authority must not have regard to clause 1.3(5) or 2.1 of the NPSFM 2020 (which relates to the hierarchy of obligations in the NPSFM 2020).

(2G) Subsection (2F) applies despite subsection (1)(b)(iii) and any other provision of this Act.

(3) A consent authority must not, —

(a) when considering an application, have regard to—

(i) trade competition or the effects of trade competition; or

(ii) any effect on a person who has given written approval to the application:

(b) [Repealed]

(c) grant a resource consent contrary to—

(i) section 107, 107A, or 217:

(ii) an Order in Council in force under section 152:

(iii) any regulations:

(iv) wāhi tapu conditions included in a customary marine title order or agreement:

(v) section 55(2) of the Marine and Coastal Area (Takutai Moana) Act 2011:

(d) grant a resource consent if the application should have been notified and was not.

(3A) See also section 103(3) of the Urban Development Act 2020 (which relates to resource consents in project areas in transitional periods for specified development projects (as those terms are defined in section 9 of that Act)).

(4) A consent authority considering an application must ignore subsection (3)(a)(ii) if the person withdraws the approval in a written notice received by the consent authority before the date of the hearing, if there is one, or, if there is not, before the application is determined.

(5) A consent authority may grant a resource consent on the basis that the activity is a controlled activity, a restricted discretionary activity, a discretionary activity, or a non-complying activity, regardless of what type of activity the application was expressed to be for.

(6) A consent authority may decline an application for a resource consent on the grounds that it has inadequate information to determine the application.

(7) In making an assessment on the adequacy of the information, the consent authority must have regard to whether any request made of the applicant for further information or reports resulted in further information or any report being available.

8.36. Concerning ss 104(1) (a), (aa), an assessment of environmental effects is included in section 7 of this report, which concludes that the activity has a moderate level of effects that are appropriate and can be mitigated, with the exception of the effects of the project on rural character. This view is supported by a range of technical assessments, which have been commissioned for the project and which form part of this substantive application.

8.37. The aspects of ss 104(1)(b) and (c) are included in the following sections of this report.

8.38. In relation to ss 104(2) permitted activities relevant to the application have been included in Section 6 of this report.

8.39. In relation to sections ss104 (2)(A) to (2)(F), these are not considered relevant to the assessment of this application.

8.40. Section 104(3)(c) of the RMA provides that resource consent must not be granted contrary to: The Project is not subject to any of the other matters that s104(3)(c) of the RMA is concerned with. Section 107 is considered below.

8.41. The remaining s104 (3A)-s104(7) are noted however, do not require specific commentary.

Section 104B Discussion

8.42. As a Discretionary/Non-complying Activity after considering the application, s104B of the RMA enables the Panel to grant or refuse the application, and if it grants the application, to impose conditions under s108 of the RMA. The conditions proposed as part of this application (included at Attachment 7) are considered appropriate to avoid, remedy, or mitigate the adverse effects of the project on the environment.

Section 105 RMA Discussion

8.43. Section 105 of the RMA states that if an application is for a discharge permit or coastal permit to do something that would contravene s 15 of the RMA, in addition to the matters in s 104(1), regard is required to be had to:

- the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
- the applicant's reasons for the proposed choice; and
- any possible alternative methods of discharge, including discharge into any other receiving environment.

8.44. The analysis contained in section 7 confirms that the effects of the discharges (to air, to land to water, and to land in circumstances that will enter water) that will occur as a result of the project will be acceptable, and a necessary consequence of the project.

8.45. The project effectively manages temporary effects during construction through a comprehensive Erosion and Sediment Control Plan, which will minimise the potential loss of sediment and also controls dust during earthworks. Section 7 of the report also considers the temporary effects of the project and associated discharges to land, and ultimately water, in sufficient detail to understand the effects which are considered acceptable and consistent with WRC best practice guidelines.

8.46. In relation to stormwater, the project, through the proposed design, will manage stormwater to pre-development flows and considers opportunities for treatment and improvements in water quality through a high standard of onsite treatment, which is reflective of the project's location in the Waikato River catchment. The reduction and reuse of stormwater through a rainwater harvest design are also considered positive outcomes for the project, both in terms of discharges and water takes.

8.47. Air discharges for the site as modelled for predicted concentrations of PM_{10}, $PM_{2.5}$, NO_2, SO_2, and CO at all off-site locations and noted that sensitive receptors are well below relevant health-based assessment criteria (AQNES, NZAAQG, WHO 2005). WHO 2021 guidelines were also considered; predicted concentrations comply with these more stringent thresholds. As such, emissions from the site have been significantly reduced through the selection of EAF technologies and the use of electricity for the combustion heat generation

8.48. Consistent with s105 of the RMA, the proposed method of discharge associated with greenhouse gases is considered to represent the BPO and is the most appropriate in the receiving environment.

8.49. On the basis of the above and the assessment provided via technical reports, the design decisions made by Green Steel are appropriate in the context of the site and minimise discharges to the environment and the adverse effects of the project on water quality and air quality.

Section 107 RMA Discussion

8.50. Section 107(1) of the RMA provides that a discharge permit must not be granted if, after reasonable mixing, the contaminant or water discharged is likely to give rise to one or more of the following effects on receiving waters:

(c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:

(d) any conspicuous change in the colour or visual clarity:

(e) any emission of objectionable odour:

(f) the rendering of fresh water unsuitable for consumption by farm animals:

(g) any significant adverse effects on aquatic life.

8.51. For the reasons set out within the section 7 of this report, it is considered that the project will not result in any of the effects on the environment that ss107(1)(c)-(g) of the RMA is concerned with.

8.52. Relative to the issue of alternatives, the preceding analysis confirms that there are no alternative options necessary given the level of effects anticipated by the project.

Parts 8 – 10 of the RMA

8.53. Parts 8 to 10 of the RMA are not relevant to the consideration of the project.

Section 108 - Consent Conditions

8.54. When setting conditions on a consent, the provisions of Parts 9 and 10 of the RMA relevant to setting conditions on a resource consent apply. The proposed conditions of consent are sufficient to prevent or reduce the actual or potential effects of the activity and proposed conditions are included in Attachment 7.

9 Planning Framework

9.1. This section of the application is provided in accordance with Schedule 5, clause 5(1)(h), (2) and (3), which requires an assessment against the following documents:

- A national environmental standard.
- Other regulations made under the RMA
- A national policy statement.
- A New Zealand coastal policy statement.
- A regional policy statement or proposed regional policy statement.
- A plan or proposed plan.
- A planning document recognised by a relevant iwi authority and lodged with a local authority.

9.2. The project has been considered against the above documents in the following sections of this report.

National Environmental Standards

9.3. Consideration of the relevant NES provisions has been provided in Section 5 of this report above in relation to consent triggers for the project.

Other Regulations made under the RMA.

9.4. There are no other regulations made under the RMA that are relevant to the consideration of the project.

National Policy Statements

National Policy Statement for Highly Productive Land 2022

9.5. The National Policy Statement for Highly Productive Land (the NPS-HPL) came into force on 17 October 2022, with an amendment coming into force on 14 September 2024. The purpose of the NPS-HPL is to direct housing development away from highly productive land (where possible) and prevent the inappropriate subdivision, use and development to ensure the availability of highly productive land (HPL) for food and fibre production.

9.6. Under clause 1.3 of the NPS-HPL, 'highly productive land' is land that has been mapped in accordance with clause 3.4 and is included in an operative regional policy statement. Clause 3.4 requires that highly productive land is in a General Rural Zone; is predominantly Land Use Capability (LUC) Class 1, 2 or 3; and forms a large and geographically cohesive area. At the time of lodging this resource consent application, WRC is yet to map HPL in line with the NPS-HPL requirements. However, based on the requirements of clause 3.4 and the mapping tool from Manaaki Whenua (classifying the Site as a LUC Class 4 and 6), the provisions do not apply to this site.

National Policy Statement for Freshwater 2020

9.7. The National Policy Statement for Freshwater Management 2020 (NPS-FM) which came into force on 3 September 2020 sets out the objectives and policies for freshwater management under the RMA.

9.8. Through the 2020 amendments to the NPS-FM, the environmental bottom lines have been revised seeking a step-change in water quality. The NPS-FM requires local authorities to recognise the national significance of freshwater for all New Zealanders

9.9. The main objective of the NPS-FM is to ensure that natural and physical resources are managed in a way that prioritises:

(a) First, the health and well-being of water bodies and freshwater ecosystems.

(b) Second, the health needs of people (such as drinking water).

(c) Third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

9.10. Whilst the hierarchy does not apply under the FTAA, consideration has been given to the objectives and policies below

9.11. The NPS-FM also introduces the concept of Te Mana o Te Wai – health and well-being (or mana) of water. Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health / mauri of freshwater provides for the health and well-being of the wider environment. The NPS-FM envisages that through engagement and discussion, regional councils, communities and tangata whenua will determine how Te Mana o te Wai is applied locally in freshwater management. The NPS-FM sets out how Te Mana o te Wai encompasses Māori and western principles of:

- mana whakahaere / governance,
- kaitiakitanga / stewardship,
- maanakitanga / care and respect.

9.12. The following policies are considered relevant to the proposal:

Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.

Policy 2: Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.

Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Policy 5: Freshwater is managed (including through a National Objectives Framework) to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.

Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.

Policy 9: The habitats of indigenous freshwater species are protected.

Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.

9.13. Through the design for the project, appropriate mitigation measures are to be put in place to manage water quality. Measures during temporary earthworks include erosion and sediment control measures during the construction phase. Measures to be put in place to manage long term effects from the project include the treatment and reuse of stormwater from within the site and screening to remove any gross particulates. Wastewater discharges are also proposed to be manged onsite and the disposal areas are well separated from any other watercourse.

9.14. Early and meaningful engagement with iwi has occurred in relation to the project.

9.15. The allocation of the water take applied for is appropriate for the nature and scale of the activity and is considered an efficient use of the resource. It will be managed in conjunction with stormwater reuse, ground water abstraction and surface water via a water scheme and existing allocation.

9.16. In summary, the project is considered consistent with the objectives and policies of the NPS-FM.

Waikato Regional Policy Statement

9.17. Consideration of the relevant provisions of the Waikato Policy statement has been provided in Attachment 33.

Waikato Regional Plan

9.18. Consideration of the relevant rules of the Waikato Regional Plan are identified in Section 5 of this report with the Objectives and Polices of the Waikato Regional Plan being assessed as a separate Attachment, which has been provided in Attachment 33.

Waikato District Plan (Operative and Proposed - Operative in Part)

9.19. Consideration of the relevant rules of the Operative and Operative in Part District Plan are identified in Section 5 of this report with the Objectives and Polices of both plans being assessed as a separate Attachment, which has been provided in Attachment 33. In accordance with clause 5(3) of Schedule 5 there are no other requirements, conditions, or permissions in any rules or other requirements in any of the documents in section 9 of this report that have not been addressed.

10 Treaty Settlements

10.1. The FTAA includes a range of obligations relating to Treaty settlements and recognised customary rights. Section 7 requires all persons performing and exercising functions, powers and duties under the Act to act in a manner that is consistent with the obligations arising under exiting Treaty settlements and customary rights recognised under the Marine and Coastal Area (Takutai Moana) Act 2011 and the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019.

10.2. Further, section 82 of the FTAA provides that where the settlement or Act requires consideration of any document, the document must be given the same or equivalent effect through the decision-making as it would have under the Act.

Waikato Raupatu Claims Settlement Act

10.3. The following Treaty Settlements are relevant to the project area:

Waikato Raupatu Claims Settlement Act 1995

10.4. The Waikato Raupatu Claims Settlement Act 1995 ("Waikato-Tainui Lands Act") is the settlement of historical grievances between the Crown and Waikato-Tainui, specifically the confiscation (raupatu) of land and natural resources.

10.5. The Waikato-Tainui Lands Act sets out an apology, the return of land and cash payments, and formally establishes Waikato-Tainui (the organisation) to represent iwi matters.

Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010

10.6. In 2010, the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 ("Waikato River Act") came into force enacting into law the requirement to:

- recognise the significance of the Waikato River to Waikato-Tainui.
- recognise the Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato.
- establish and grant functions and powers to the Waikato River Authority.
- establish the Waikato River Clean-up Trust.
- recognise certain customary activities of Waikato-Tainui.
- provide co-management arrangements for the Waikato River.
- provide redress to Waikato-Tainui relating to certain assets; and
- recognise redress to Waikato-Tainui under the Kiingitanga Accord and other accords provided for in the schedule of the Kiingitanga Accord.

10.7. Under s11 of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 and other river "settlement" legislation, the Vision and Strategy or Te Ture Whaimana o Te Awa o Waikato (Te Ture Whaimana/Vision and Strategy) is deemed to be part of the Waikato Regional Policy Statement (RPS). When considering any application for resource consent, under s104(1)(b), the Council must "have regard to" the RPS and Joint Management Agreements that Waikato-Tainui have with the Waikato Regional Council and Waikato District Council.

Te Ture Whaimana / Vision and Strategy

10.8. Section 5 of the Waikato River Act states that "the vision and strategy is intended by Parliament to be the primary direction-setting document for the Waikato River and activities within its catchment affecting the Waikato River". Te Ture Whaimana o Te Awa o Waikato has significant statutory weight as it forms part of the Waikato Regional Policy Statement and prevails where there is any inconsistency with any other national policy statement or national planning standard.

10.9. The Project site is located within the statutory area of Te Ture Whaimana/Vision and Strategy.

10.10. The Vision Statement for the Waikato River, as set out in Te Ture Whaimana/Vision and Strategy, is:

Our 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.

10.11. Te Ture Whaimana/Vision and Strategy, recognises, and responds to, four fundamental issues for the Waikato River:

- The degradation of the Waikato River and its catchment has severely compromised Waikato River iwi in their ability to exercise mana whakahaere or conduct their tikanga and kawa.
- Over time, human activities along the Waikato River and land uses through its catchments have degraded the Waikato River and reduced the relationships and aspirations of communities with the Waikato River.
- The natural processes of the Waikato River have been altered over time by physical intervention, land use and subsurface hydrological changes. The cumulative effects of these uses have degraded the Waikato River; and
- It will take commitment and time to restore and protect the health and wellbeing of the Waikato River.

10.12. The Waikato River Settlement (set out in the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010), requires activities in the catchment that affect the Waikato River to have particular regard to Te Ture Whaimana/Vision and Strategy. Green Steel is committed to working with the representatives of Waikato-Tainui - Ngaa Muka Development Trust to ensure its activities do not adversely affect the Waikato River. Following consultation Ngaa Muka Development Trust has prepared a CIA which supports the intent of the project and confirms alignment with Te Ture Whaimana/Vision and Strategy.

10.13. This is also supported by the technical assessments undertaken as part of the project together with the assessment under section 7 of this report which demonstrate that the project is consistent with Te Ture Whaimana/Vision and Strategy. The project is considered to contribute to the restoration of the Waikato River, including protecting its health and wellbeing.

Joint Management Agreements

10.14. The Waikato Regional Council and the Waikato District Council have Joint Management Agreements (JMAs) in place with Waikato-Tainui with respect to the Waikato River and activities within its catchment affecting the river.

10.15. The JMAs provide Waikato-Tainui the opportunity to sit at the table with local authorities and participate in local government activities so far as they relate to the Waikato River.

10.16. The scope of the JMAs relates to the exercise of the following functions, powers and duties under the Resource Management Act 1991:

- monitoring and enforcement;
- preparation, review, change, or variation of a Resource Management Act 1991 planning document;
- duties, functions, or powers under Part 6 of the Resource Management Act 1991 in relation to applications for resource consents; and
- processes relating to customary activities.

10.17. The project is subject to the agreed JMA process for the consideration of resource consent applications.

Recognition Agreements

10.18. The project site is inland and not within the coastal marine environment; accordingly, there are no recognition agreements under either the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou or under the Marine and Coastal Area Act 2011 relevant to or associated with the site.

Waikato-Tainui Environmental Management Plan Tai Tumu Tai Pari Tai Ao

10.19. The Waikato-Tainui Environmental Plan (Tai Tumu, Tai Pari, Tai Ao) is a strategic document developed under the Whakatupuranga 2050 framework. It articulates Waikato-Tainui's vision for environmental restoration and sustainable management of natural resources within their rohe (tribal area), particularly in relation to the Waikato River and its catchment.

> *The overarching purpose of Tai Tumu, Tai Pari, Tai Ao is to provide a map or pathway that will return the Waikato-Tainui rohe to the modern-day equivalent of the environmental state that it was in when Kiingi Taawhiao composed his maimai aroha.*

10.20. This purpose reflects Waikato-Tainui's deep cultural, spiritual, and historical connection to the environment, particularly the Waikato River. It emphasises restoration, intergenerational responsibility, and the integration of tikanga Māori into environmental management.

10.21. The plan also guides Waikato-Tainui engagement in environmental and resource management to ensure that all development aligns with tribal values, aspirations, and Te Ture Whaimana/Vision and Strategy for the Waikato River. The plan also empowers marae, hapū, and iwi in environmental decision-making.

10.22. The following objectives and policies are considered relevant to the project

Objective 4.1	*To restore and protect the health and wellbeing of the Waikato River and its catchment."*
Policy 4.1.1:	*All activities must demonstrate how they will protect and enhance the health and wellbeing of the Waikato River.*
Policy 4.2.3:	*Industrial developments must avoid, remedy, or mitigate adverse effects on water bodies, wetlands, and culturally significant sites.*

Comments	The project has given particular regard to Te Ture Whaimana/Vision and Strategy and protecting the health/mauri of the awa. It has approached the project in a way that aligns well with the above. All temporary construction effects during bulk earthworks will adopt site-specific environmental controls identified by a comprehensive ESCP. Earthworks will also be staged and completed using discrete sub-catchments to manage effects onsite. This will minimise the loss of sediment and control stormwater discharges from the site during the establishment phase. As part of the design for the site all stormwater will be treated with the removal of any gross pollutants and significant volumes retained onsite. Discharges will be restricted to the equivalent predevelopment flows. The project seeks to capture and reuse stormwater as part of the process. Green Steel are also working with Nga Muka to develop a monitoring process which includes mātauranga māori monitoring of air and water.
Objective 5.1	*To ensure land use and development is sustainable and consistent with Waikato-Tainui values."*
Policy 5.1.2	*Require cultural impact assessments (CIA) for developments with potential effects on Waikato-Tainui values.*
Comments	Early engagement has been ongoing for over a year prior to the substantive application as the views of iwi and mana whenua are acknowledged as of significant importance to the Green Steel Project. The project is supported by a comprehensive CIA – which has been prepared by Ngā Muka Development Trust who have also discussed the project with Waikato Tainui.
Objective 6.3	*To ensure that water quality and quantity are maintained or enhanced.*
Policy 6.3.1	*Encourage the use of best practice environmental management and innovation in industrial design and operation.*
Comments	Careful consideration has been adopted in preliminary designs to ensure potential effects from site discharges to land and to water are appropriately designed and managed. Despite being a process manufacturing site, the overall objective of the site, is to achieve a sustainable outcome which also extends to achieving a very high standard of water quality, and avoiding, remedying or mitigating adverse effects.
Objective 10.5.1	*Resource management, use and activities within the Waikato-Tainui rohe are consistent with the vision, mission, values and strategic objectives of Whakatupuranga 2050.*
Policy 10.5.1.1	*Ensure that resource management, use and activities are aligned with Waikato-Tainui's strategic direction.*
Comments	Alignment with Whakatupuranga 2050 has been assessed as part of the CIA and the project is considered to be strong in relation to its environmentally conscious circular economy aspects. The project will also provide for employment opportunities in the North Waikato.
Objective 15.3.2	*Cultural, spiritual and ecological features of the Waikato landscape that are significant to Waikato-Tainui are protected and enhanced to improve the mauri of the land.*
Policy 15.3.2.1	*Ensure greater protection and enhancement of significant cultural, spiritual and ecological features.*
Comments	No sites of significance are noted for the site, however, the connection between mana whenua and Manawa-ā-whenua is acknowledged.
Objective 19.4.4	*Requiring that water allocation is consistent with restoring and protecting the health and wellbeing of water bodies within the rohe of Waikato-Tainui.*

Policy 19.4.4.1 *Requires that any water allocation framework operates under consistent principles, is equitable and efficient and restores and protects the health and wellbeing of Waikato-Tainui water bodies.*

10.23. Overall, the project is considered to be consistent with Tai Tumu, Tai Pari, Tai Ao.

11 Consultation and Engagement Summary

11.1. A full and comprehensive summary of the consultation and engagement undertaken by Green Steel is included in Attachment 4.

12 Conclusion

12.1. The preceding analysis has demonstrated that the project will facilitate the delivery of major steel production with significant regional and national benefits. The purpose of the FTAA is therefore achieved.

12.2. The project has also been assessed as consistent with the provisions of Parts 2, 3, 6, and 8 to 10 of the RMA and those provisions that direct decision making on an application for resource consent. The project is therefore considered to represent an efficient and effective use of the land that meets the foreseeable needs of future generations, with substantial long term social and economic benefits in a manner that will avoid, remedy or mitigate the adverse effects on the environment. The purpose of the RMA is therefore achieved.

12.3. There are no relevant provisions of any other legislation that direct decision making under the RMA.

12.4. An Assessment of Environmental Effects has been provided in section 7 of this report concluding that the effects of the project will result in significant positive effects in relation to the recycling and circular economy aspects and can demonstrate a highly efficient process for the manufacturing of steel with low emissions. With respect to effects on the environment a Moderate level of effects has been identified that is considered appropriate and can be mitigated, with the exception of the effects to the rural character, which have been appropriately assessed. The project has significant positive effects in terms of achieving a circular economy and reducing emissions associated with steel production. The scale of the activity is large and represents a change for the receiving environment however based on the technical assessments can be accommodated into an area which has been modified.

12.5. A comprehensive assessment of the project has been provided by subject matter experts for the full range of activities to be undertaken as part of this consent and these have been included in technical assessments which are attached to this application.

12.6. Subject to the conditions of consent that are proposed within this Application, it is appropriate to grant resource consent to the project.

List of Attachments

Attachment	Description
Attachment 1	FTAA Application Forms/ checklist against the requirements of ss43 and 44 of the FTAA
Attachment 2	List of all persons and groups identified in s 29 of the FTAA
Attachment 3	s30 FTAA written notice from Waikato Dc and Waikato RC
Attachment 4	Consultation Summary, prepared by Shearer Consulting dated 16 June 2025
Attachment 5	Records of Title- company extracts.
Attachment 6	Site Plan and 3D Plant view prepared by Earthtech
Attachment 7	Proposed conditions of consent
Attachment 8	Cultural Impact Assessment, prepared by Nga Muka Development Trust, dated 28 April 2025
Attachment 9	Landscape Assessment report, prepared by Greenwood Associates, dated 26 May 2025
Attachment 10	Archaeological Assessment, prepared by Clough and Associates, dated December 2024
Attachment 11	Economic Assessment, prepared by Castalia Limited, dated March 2025
Attachment 12	Preliminary Geotechnical Assessment, prepared by Earthtech, dated 28 May 2025
Attachment 13	Water Take and Supply Plan, prepared by Earthtech, dated 23 May 2025
Attachment 14	Ground Contamination Assessment, prepared by Williamson Land and Water Advisory, dated 26 February 2025
Attachment 15	Hazardous Substances Report, prepared by Williamson Land and Water Advisory, dated 13 May 2025
Attachment 16	On-site wastewater treatment and disposal system, prepared by Ormiston Associates Ltd, dated May 2025
Attachment 17	Monofill Engineering Report, prepared by Earthtech, dated 29 May 2025
Attachment 18	Monofill Monitoring Report, prepared by Earthtech, dated 30 May 2025
Attachment 19	Earthworks Management Plan and ESCP, prepared by Earthtech, dated 23 May 2025

Attachment 20	Air Quality Assessment, prepared by Air Quality Consulting NZ Limited, dated 21 May 2025
Attachment 21	Acoustic Assessment, prepared by Hegley Acoustics, dated 11 June 2025, Letter dated 1 July 2025
Attachment 22	Ecology Assessment, prepared by Pattle Delamore Partners, dated 22 May 2025
Attachment 23	Assessment of fish/mudfish, prepared by AWA Consultants, dated 4 June 2025
Attachment 24	Transportation Assessment, prepared by CKL, dated 23 May 2025
Attachment 25	Engineering Services Assessment, Stormwater and Roading, prepared by Aiery, dated 23 May 2025
Attachment 26	Landscaping Planting Plan, prepared by Peers Brown Miller (PBM), dated 21 May 2025
Attachment 27	Electricity supply – WEL Networks correspondence, dated 19 May 2025
Attachment 28	Hydrogeological Assessment, prepared by Stantec, dated 6 June 2025
Attachment 29	Emissions Reduction Plan, prepared by Lumen, dated 03 April 2025
Attachment 30	Waikato Regional Council feedback
Attachment 31	Waikato District Council feedback
Attachment 32	Copy of FTAA referral request
Attachment 33	District and Regional Plans, Objectives and Policies Assessment

Kinetic Environmental Consulting Limited

PO Box 9413
Waikato Mail Centre
Hamilton 3240
New Zealand

kineticenvironmental.co.nz