Development Consent

Section 4.38 of the Environmental Planning and Assessment Act 1979

As delegate of the Minister for Planning and Public Spaces under delegation executed on 9 March 2020, I approve the Development Application referred to in Schedule 1, subject to the conditions specified in Schedule 2.

These conditions are required to:

- prevent, minimise, or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development

Anthea Sargeant

Executive Director

Regions, Industry and Key Sites

Sydney 7/5/2020 File: SSD 9302

SCHEDULE 1

Application Number: SSD 9302

Applicant: Viva Energy Australia Pty Ltd

Consent Authority: Minister for Planning and Public Spaces

Site: Part Lot 100, DP1168951, Durham Street, Rosehill

Development: Remediation of contaminated soils and management of

contaminated groundwater in targeted locations within the Western Area, to enable future commercial and industrial land

uses, as shown in Appendix 1

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DEFINITIONS

	DEFINITIONS
Applicant	Viva Energy Australia Pty Ltd, or any person carrying out any development to which this consent applies
BCA	Building Code of Australia
BCD	Biodiversity and Conservation Division of the Department
CLM Act	Contaminated Land Management Act, 1997
Conditions of this consent	Conditions contained in Schedule 2 of this document
Contaminated Material	Contaminated material means material that is located in, on or under the Site that contains substances at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.
Council	Parramatta City Council
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Demobilisation	Removal of plant and equipment, dismantling the direct thermal desorption unit and stabilisation plant, removal of offices and temporary structures and land forming
Department	NSW Department of Planning, Industry and Environment
Detailed RAP	The Remedial Action Plan for the development, prepared in accordance with the CLM Act and the conditions of this consent
Development	The development described in the EIS and RtS, including the works comprising the remediation of the Western Area of the former Clyde Refinery to enable future commercial or industrial use, as modified by the conditions of this consent.
Development layout	The plans at Appendix 1 of this consent
ECE	Emission control enclosure, designed, operated and maintained under negative pressure and serviced by an emission control system agreed to by the EPA
EES	Environment, Energy and Science Group of the Department
EIS	The Environmental Impact Statement titled <i>Viva Clyde Western Area Remediation Project Environmental Impact Statement</i> , prepared by AECOM dated January 2019, submitted with the application for consent for the development, including any additional information provided by the Applicant in support of the application
ENM	Excavated Natural Material
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
EPA	NSW Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6 pm to 10 pm
Heritage	Encompasses both Aboriginal and historic heritage including sites that predate European settlement, and a shared history since European settlement
Heritage item	An item as defined under the <i>Heritage Act 1977</i> , and assessed as being of local, State and/ or National heritage significance, and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i> , the World Heritage List, or the National Heritage List or Commonwealth Heritage List under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth), or anything identified as a heritage item under the conditions of this consent
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance Note: "material harm" is defined in this consent
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act

Material harm	 Is harm that: involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or results in actual or potential loss or property damage of an amount, or amounts
	in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)
Minister	NSW Minister for Planning and Public Spaces (or delegate)
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Monitoring	Any monitoring required under this consent must be undertaken in accordance with section 9.40 of the EP&A Act
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
Planning Secretary	The Secretary of the Department of Planning, Industry and Environment, or nominee
POEO Act	Protection of the Environment Operations Act 1997
Preparation works	Includes the following activities:
	 installation of fencing and exclusion zones temporary gatehouse and site offices, parking and footpath demarcation installation of decontamination equipment and wheel wash erosion and sediment controls service location for live services and utilities
Reasonable	Means applying judgement in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements.
Remediation works	Includes the following activities:
	 removal of redundant infrastructure and waste remediation of contaminated material using various remediation technologies, including in-area soil mixing, landfarming, stabilisation, thermal desorption, biopiling, off-site disposal, on-site management, groundwater monitoring wastewater treatment
RtS	The Applicant's Response to Submissions titled <i>Viva Clyde Western Area Remediation Project Response to Submissions</i> , prepared by AECOM dated October 2019, received in relation to the application for consent for the development under the EP&A Act
RMS	NSW Roads and Maritime Services
Sensitive receivers	A location where people are likely to work, occupy or reside, including a dwelling, school, hospital, office or public recreational area.
Site	The land defined in Schedule 1.
Site Auditor	As defined in section 4 of the Contaminated Land Management Act 1997
Site Audit Report	As defined in section 4 of the Contaminated Land Management Act 1997
Site Audit Statement	As defined in section 4 of the Contaminated Land Management Act 1997
TfNSW	Transport for New South Wales
VENM	Virgin Excavated Natural Material
Viva Energy Clyde Terminal	The fuel storage and distribution terminal operated by Viva Energy Australia Pty Ltd, located in the eastern area of the former Clyde Refinery
Waste	Has the same meaning as the definition of the term in the Dictionary to the POEO Act
Western Area	The Western Area of the former Clyde Refinery, where the development is proposed, shown in green edging on the figure in Appendix 1
Year	A period of 12 consecutive months

SCHEDULE 2

PART A ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

A1. In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the development.

TERMS OF CONSENT

- A2. The development may only be carried out:
 - (a) in compliance with the conditions of this consent;
 - (b) in accordance with all written directions of the Planning Secretary;
 - (c) in accordance with the EIS and RtS;
 - (d) in accordance with the Detailed RAP;
 - (e) in accordance with the Development Layout in Appendix 1. and
 - (f) in accordance with the management and mitigation measures in Appendix 2.
- A3. Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to:
 - (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and
 - (b) the implementation of any actions or measures contained in any such document referred to in condition A3(a).
- A4. The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in condition A2(c). In the event of an inconsistency, ambiguity or conflict between any of the documents listed in condition A2(c), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.

Note: For the purposes of this condition, there will be an inconsistency between documents if it is not possible to comply with both documents, or in the case of a condition of consent or direction of the Planning Secretary, and a document, if it is not possible to comply with both the condition or direction, and the document.

LIMITS OF CONSENT

Lapsing

A5. This consent lapses five years after the date from which it operates, unless the development has physically commenced on the land to which the consent applies before that date.

Waste

A6. The Applicant must not receive more than 5,000 cubic metres (m³) of contaminated material from off-site for remediation on-site, unless otherwise agreed with the Planning Secretary.

NOTIFICATION OF COMMENCEMENT

- A7. The date of commencement of each of the following phases of the development must be notified to the Department in writing, at least one month before that date:
 - (a) preparation works;
 - (b) remediation works;
 - (c) demobilisation.

EVIDENCE OF CONSULTATION

- A8. Where conditions of this consent require consultation with an identified party, the Applicant must:
 - (a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval;
 and
 - (b) provide details of the consultation undertaken including:
 - (i) the outcome of that consultation, matters resolved and unresolved; and
 - (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.

STAGING, COMBINING AND UPDATING STRATEGIES, PLANS OR PROGRAMS

- A9. With the approval of the Planning Secretary, the Applicant may:
 - (a) prepare and submit any strategy, plan, report or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan, report or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);
 - (b) combine any strategy, plan, report or program required by this consent (if a clear relationship is demonstrated between the strategies, plans, reports or programs that are proposed to be combined); and
 - (c) update any strategy, plan, report or program required by this consent (to ensure the strategies, plans. reports and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).
- A10. If the Planning Secretary agrees, a strategy, plan, report or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.
- A11. If approved by the Planning Secretary, updated strategies, plans, reports or programs supersede the previous versions of them and must be implemented in accordance with the condition that requires the strategy, plan, report or program.

PROTECTION OF PUBLIC INFRASTRUCTURE

- A12. Before the commencement of preparation works, the Applicant must:
 - (a) consult with the relevant owner and provider of services that are likely to be affected by the development to make suitable arrangements for access to, diversion, protection and support of the affected infrastructure;
 - (b) prepare a dilapidation report identifying the condition of all public infrastructure in the vicinity of the development (including roads, gutters and footpaths); and
 - (c) submit a copy of the dilapidation report to the Planning Secretary and Council.
- A13. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:
 - (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by carrying out the development; and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

DEMOLITION

A14. All demolition must be carried out in accordance with Australian Standard AS 2601-2001 The Demolition of Structures (Standards Australia, 2001).

STRUCTURAL ADEQUACY

A15. All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development, must be constructed in accordance with the relevant requirements of the BCA.

Notes:

- Under Part 6 of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the development.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.

COMPLIANCE

A16. The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.

OPERATION OF PLANT AND EQUIPMENT

- A17. All plant and equipment used for the development, or to monitor the performance of the development must be:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

UTILITIES AND SERVICES

A18. Before the construction of any utility works associated with the development, the Applicant must obtain relevant approvals from service providers.

APPLICABILITY OF GUIDELINES

- A19. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.
- A20. However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.

ADVISORY NOTES

AN1. All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes any obligation to obtain, renew or comply with such licences, permits, approvals and consents.

PART B SPECIFIC ENVIRONMENTAL CONDITIONS

REMEDIATION

Detailed Remediation Action Plan (RAP)

- B1. Prior to the commencement of preparation works, the Applicant must prepare a Detailed RAP for the development, in consultation with the EPA and to the satisfaction of the Site Auditor and the Planning Secretary. The Detailed RAP must:
 - (a) be prepared by a suitably qualified and experienced person in accordance with Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites (OEH, 2011);
 - (b) be reviewed by the Site Auditor in accordance with the requirements of condition B3;
 - (c) be approved by the Site Auditor and Planning Secretary, prior to the commencement of preparation works;
 - (d) be submitted to the EPA for reference once approved and prior to the commencement of preparation works;
 - (e) detail all final remediation methods and technologies including layouts and design;
 - (f) detail the decision protocol for determining which remediation method applies to different materials;
 - (g) incorporate the recommendations of the Air Emissions Verification Report approved in accordance with condition B15;
 - (h) include triggers for contingency actions and alternate treatment methods to ensure the remediation objectives are achieved; and
 - detail all procedures and plans to be implemented to reduce risks to an acceptable level for the proposed final land use.

B2. The Applicant must:

- (a) not commence preparation works until the Detailed RAP is approved by the Planning Secretary; and
- (b) implement the most recent version of the Detailed RAP approved by the Planning Secretary for the duration of the development.

Site Auditor

- B3. Prior to the commencement of preparation works, the Applicant must submit to the EPA and the Planning Secretary, a Site Audit Statement, prepared in accordance with the NSW Contaminated Land Management Guidelines for the NSW Site Auditor Scheme 2017, which demonstrates that the Western Area, if remediated in accordance with the Detailed RAP, will meet the remediation objectives of the Conceptual RAP to remove the risk of contamination from the land adversely affecting human health and the environment.
- B4. The Applicant must remediate the Western Area in accordance with the Detailed RAP prepared in accordance with condition B1, to the satisfaction of the Site Auditor. If any amendments are required to the Detailed RAP, the amendments must be approved by the Site Auditor.

Remediation Works

B5. The Applicant must carry out the remediation works using suitably qualified and experienced contractor(s).

Validation Report

B6. Within six months of the completion of demobilisation, or as otherwise agreed with the Planning Secretary, the Site Auditor must submit a Validation Report to the EPA, Council and the Planning Secretary. The report must be prepared in accordance with relevant guidelines produced or approved under the CLM Act.

Site Audit Report and Site Audit Statement

- B7. Within 12 months of the completion of demobilisation, or as otherwise agreed with the Planning Secretary, the Site Auditor must submit a Site Audit Report and Section A, Site Audit Statement to the EPA, Council and the Planning Secretary. The reports must be prepared in accordance with relevant guidelines produced or approved under the CLM Act and must confirm:
 - (a) the remedial works approved under this consent have been completed in accordance with the remediation objectives listed in the Detailed RAP;
 - (b) the risks to human health and the environment have been addressed in accordance with the objectives of the Detailed RAP.

Long Term Environmental Management Plan

- B8. Prior to the finalisation of the Site Audit Statement and Site Audit Report, required by Condition B6, the Applicant must prepare a Long Term Environmental Management Plan (LTEMP) for the development, to the satisfaction of the Site Auditor and the Planning Secretary.
- B9. The LTEMP must:

- (a) be prepared in consultation with Council and the EPA;
- (b) identify where the LTEMP applies and who is responsible for implementing the LTEMP;
- (c) detail how the LTEMP will be implemented, including corrective actions and reporting requirements;
- (d) recommend any systems/controls to be implemented to minimise the potential for any material harm;
- (e) include a groundwater monitoring program to verify natural attenuation is occurring over time, consistent with the requirements of condition B21;
- (f) include biodiversity management measures for the Green and Golden Bell Frog, consistent with the Revised Plan of Management: Restoration of Green and Golden Bell Frog Habitat, Clyde Terminal, January 2019, or its latest version:
- (g) detail procedures for managing and monitoring any remaining contamination, including triggers that would indicate if further management or remediation is required;
- (h) detail procedures for managing and monitoring any remaining contamination that has potential for off-site migration so that it does not present an unacceptable risk to either the on-site or off-site environment;
- include measures to be implemented if any parts of the remediated area are required to be physically disturbed;
- (j) describe any required planning controls for future development that may interact with any remaining contamination at depth;
- incorporate a programme for ongoing monitoring and review to ensure that the LTEMP remains contemporary with relevant environmental standards;
- (I) include mechanisms to report results to Council and the EPA;
- (m) be written in plain language to be understood by all personnel involved in the maintenance activities on the site.
- B10. Upon completion of the Site Audit Statement and Site Audit Report, the Applicant must:
 - (a) implement the approved LTEMP;
 - (b) provide evidence to the Planning Secretary that the LTEMP is listed on the relevant planning certificate for the land, issued under section 10.7 of the EP&A Act.

HUMAN HEALTH

B11. The Applicant shall ensure the development is carried out in accordance with NSW Work Health and Safety Regulation 2017 and the requirements of SafeWork NSW.

AIR QUALITY AND ODOUR

Limits

- B12. The Applicant must install and operate equipment to ensure the development complies with all air quality criteria, limits and monitoring requirements as specified in the EPL for the development.
- B13. The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).

Dust Minimisation

- B14. The Applicant must take all reasonable steps to minimise dust generated by the development, including minimising emissions from:
 - (a) site excavations:
 - (b) stockpiles;
 - (c) handling, processing and treatment of materials;
 - (d) transport of materials; and
 - (e) reinstatement work.

Air Emissions Verification Report

- B15. Prior to the commencement of preparation works, the Applicant must prepare an Air Emissions Verification Report (AEVR) to the satisfaction of the Planning Secretary. The AEVR must:
 - (a) be prepared by a suitably qualified and experienced person(s);
 - (b) be prepared in consultation with the EPA and the Site Auditor;
 - address or respond to any comments, advice or recommendations obtained from the EPA during the consultation process;
 - (d) be approved by the Planning Secretary, prior to the commencement of preparation works;

- (e) incorporate findings from the Remedial Site Investigation, Human Health and Ecological Risk Assessment and Remediation Trials Summary Report;
- (f) detail the emission controls and management measures for each selected remediation method and remediation activities, including but not limited to:
 - (i) excavation and material classification;
 - (ii) material handling, stockpiling and storage;
 - (iii) processing and treatment;
 - (iv) material transport; and
 - (v) validated materials.
- (g) benchmark the emission control and management measures with relevant best practice process design and emission control:
- (h) the benchmarking of emission controls systems must consider the risks associated with the emissions to air of total and speciated petroleum hydrocarbons, principal air toxics and odour;
- (i) include robust justification for the handling, processing, treating or storing of contaminated material proposed to be conducted outside of an emission control enclosure (ECE), that considers but is not limited to technical, logistical, financial and health and safety considerations.

B16. The Applicant must:

- (a) submit any subsequent revisions of the AEVR to the EPA for comment prior to the commencement of preparation works.
- (b) submit the approved AEVR to the EPA prior to the commencement of preparation works.

Air Quality Management Plan

- B17. Prior to the commencement of remediation works, the Applicant must prepare an Air Quality Management Plan (AQMP) to the satisfaction of the Site Auditor and the Planning Secretary. The AQMP must form part of the REMP required by condition C2 and must:
 - (a) be prepared by a suitably qualified and experienced person(s);
 - (b) detail and rank all emissions from all sources of the development;
 - describe a program that can evaluate the performance of the remediation works and determining compliance with key performance indicators;
 - (d) identify the proactive mitigation strategies and control measures that will be implemented for each emission source including a timeframe for implementation;
 - (e) nominate the following for each of the proposed controls:
 - (i) key performance indicator;
 - (ii) monitoring method, location, frequency and duration;
 - (iii) response procedures; and
 - (iv) compliance monitoring.
 - include an ambient air quality monitoring program and reactive management strategy, including real-time meteorological data, pollutant and odour monitoring and trigger levels for implementing reactive measures;
 - (g) include a complaint register and response procedures.

B18. The Applicant must:

- (a) not commence remediation works until the Air Quality Management Plan is approved by the Planning Secretary; and
- (b) submit the approved Air Quality Management Plan and any subsequent revisions to the EPA prior to the commencement of remediation works; and
- (c) implement the most recent version of the Air Quality Management Plan approved by the Planning Secretary for the duration of the development.

WATER

Discharges

B19. The development must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.

Soil and Water Management Plan

B20. Prior to the commencement of preparation works, the Applicant must prepare a Soil and Water Management Plan (SWMP) to the satisfaction of the Site Auditor and the Planning Secretary. The SWMP must:

- (a) be prepared by a suitably qualified and experienced person(s), in consultation with the EPA;
- (b) characterise the quality of discharges from the wastewater treatment plant during the development, including the concentrations and loads of all pollutants present at non-trivial levels for typical and worst-case conditions;
- (c) describe the control measures to be implemented to protect water quality in the Duck River during the development, including measures to address any identified impacts to receiving waters and contingency measures for any unexpected pollutants;
- (d) detail the erosion and sediment controls to be installed and maintained for the development, in accordance with the relevant requirements of *Managing Urban Stormwater: Soils and Construction Volume 1: Blue Book* (Landcom 2004):
- (e) detail the measures to divert clean surface water away from contaminated areas;
- (f) include a protocol for testing water accumulated in excavations and trigger levels for determining if it requires treatment or off-site disposal;
- detail the stockpile management measures to minimise the generation of leachate and include design specifications for any liners and impermeable covers;
- (h) detail the design of any leachate collection systems around remediation areas;
- (i) detail the use of existing bunded areas and drainage systems for landfarming and biopiling activities;
- (j) describe the measures to manage surface water during excavation and removal of sub-surface infrastructure;
- (k) detail proposed monitoring to ensure the development complies with the discharge requirements of the EPL.

B21. The Applicant must:

- (a) not commence preparation works until the Soil and Water Management Plan required by Condition B18 is approved by the Planning Secretary; and
- (b) submit any subsequent revisions of the Soil and Water Management Plan to the EPA for comment prior to the commencement of preparation works; and
- (c) submit the approved Soil and Water Management Plan to the EPA prior to the commencement of preparation works; and
- (d) implement the most recent version of the Soil and Water Management Plan approved by the Planning Secretary for the duration of the development.

Groundwater Monitoring and Management Plan

- B22. Prior to the commencement of remediation works, the Applicant must prepare a Groundwater Monitoring and Management Plan (GMP) to the satisfaction of the Site Auditor and the Planning Secretary. The GMP must form part of the REMP required by Condition C2 and must:
 - (a) be prepared by a suitably qualified and experienced person(s), in consultation with the EPA and DPIE Water:
 - (b) include a program to monitor groundwater levels and quality during remediation works and following demobilisation;
 - (c) include a decision protocol for determining appropriate management measures for groundwater during remediation works, including but not limited to, pre-treatment, treatment, discharge or off-site disposal;
 - (d) detail ongoing monitoring following demobilisation, to verify that natural attenuation of groundwater contamination is occurring over time;
 - (e) include trigger levels for investigating potential adverse impacts to the Duck River, including triggers for indicating if further remediation of groundwater is required;
 - (f) outline contingency actions to be implemented if monitoring indicates that natural attenuation is not occurring, or groundwater is having an adverse impact on the Duck River;
 - (g) monitor the effectiveness of management measures and contingency actions for reducing impacts;
 - (h) procedures for reporting changes to groundwater conditions that have the potential to create unacceptable risks to the Duck River.

B23. The Applicant must:

- (a) not commence remediation works until the GMP is approved by the Planning Secretary; and
- (b) submit any subsequent revisions of the GMP to the EPA for comment prior to the commencement of remediation; and
- (c) submit the approved GMP to the EPA prior to the commencement of remediation works; and
- (d) implement the most recent version of the GMP approved by the Planning Secretary for the duration of the development.

Flooding

- B24. Prior to the commencement of remediation works, the Applicant must prepare a Flood Emergency Response Plan for the development. The plan must:
 - (a) align with the Viva Energy Clyde Terminal Flood Emergency Response Plan;
 - (b) detail the procedures for managing flood risks during remediation works, including the protection of human safety, plant and equipment;
 - (c) detail flood recovery measures and sufficient warning times for flash flooding;
 - (d) detail procedures for control of discharges from the development; and
 - (e) identify assembly points, emergency evacuation routes, flood warning alarms and evacuation procedures.
- B25. The Applicant must implement the Flood Emergency Response Plan for the duration of the development.

SOILS

Imported Material

- B26. The Applicant must:
 - (a) ensure that only VENM, ENM, or other material approved in writing by EPA is brought onto the Western Area;
 - (b) keep accurate records of the volume and type of fill to be used; and
 - (c) make these records available to the Department upon request.

Weed Management

B27. As part of the preparation works, the Applicant must clear the site of African Lovegrass (*Eragrostis curvula*) and dispose of the weeds to an appropriately licensed facility.

WASTE

Statutory Requirements

- B28. The Applicant must assess and classify all liquid and non-liquid wastes to be taken off the Western Area in accordance with the latest version of EPA's *Waste Classification Guidelines Part 1: Classifying Waste* (EPA, 2014) and dispose of the wastes to a facility that may lawfully accept the wastes.
- B29. The Applicant must ensure any waste material imported to the Western Area for remediation, is in accordance with the requirements of a Resource Recovery Order and Exemption issued under the *Protection of the Environment Operations (Waste) Regulation 2014.*
- B30. The Applicant must identify, separate and dispose of asbestos from the Western Area in accordance with the requirements of SafeWork NSW, the *Work Health and Safety Regulation 2017* and relevant guidelines.

Waste Management Plan

- B31. Prior to the commencement of remediation works, the Applicant must prepare a Waste Management Plan for the development to the satisfaction of the Planning Secretary. The Plan must form part of the REMP in accordance with condition C2 and must:
 - (a) detail the quantities of each waste type generated during remediation and the proposed reuse, recycling and disposal locations;
 - (b) describe the handling, processing, treatment, storage and disposal of all waste streams, consistent with the POEO Act, *Protection of the Environment Operations (Waste) Regulation 2014* and the EPA's *Waste Classification Guidelines*:
 - (c) detail tracking procedures for all excavated and backfill material, providing sufficient documentation to allow the Site Auditor to independently verify compliance with this requirement.

B32. The Applicant must:

- (a) not commence remediation works until the Waste Management Plan is approved by the Planning Secretary.
- (b) implement the most recent version of the Waste Management Plan approved by the Planning Secretary.

TRAFFIC

Traffic Management Plan

- B33. Prior to the commencement of remediation works, the Applicant must prepare a Traffic Management Plan for the development. The plan must form part of the REMP required by condition C2 and must:
 - (a) be prepared by a suitably qualified and experienced person(s);
 - (b) be prepared in consultation with Council, TfNSW and RMS;
 - (c) detail the measures to be implemented to support road safety and network efficiency;

- (d) detail heavy vehicle routes, access, parking, traffic control measures and hours of operation;
- (e) include a schedule for avoiding peak traffic periods, including measures to minimise the cumulative traffic impacts of the development, the Parramatta Light Rail Project and the Clyde Barging Project (if occurring at the same time as the development);
- (f) include a Driver Code of Conduct to:
 - (i) minimise impacts on the local and regional road network;
 - (ii) minimise conflicts with other road users;
 - (iii) ensure truck drivers use specified routes:
- (g) include a program to monitor the effectiveness of these measures; and
- if necessary, detail procedures for notifying residents and the community, of any potential disruptions to routes.

Operating Conditions

- B34. The Applicant must ensure:
 - (a) development-related vehicles do not queue on the local road network before entering the site;
 - (b) provide sufficient parking facilities on the Western Area for heavy vehicles and site personnel, to ensure that traffic associated with the development does not utilise public and residential streets or public parking facilities;
 - (c) all loading and unloading of materials is carried out on the Western Area;
 - (d) all trucks entering or leaving the Western Area with loads have their loads covered and do not track dirt onto the public road network.
- B35. The Applicant must obtain relevant permits for the use of over-dimensional vehicles on the road network, in accordance with the *Heavy Vehicle National Law (NSW)* and Council's Oversize Vehicle Access Permit.

NOISE AND VIBRATION

Hours of Work

B36. The Applicant must comply with the hours detailed in Table 1.

Table 1 Hours of Work

Activity	Day	Time
Preparation works, remediation works (excluding the DTD Plant) and demobilisation	Monday – Friday Saturday	7 am to 6 pm 8 am to 5 pm
DTD Plant operation and maintenance works	Monday – Sunday	24 hours

- B37. Works outside of the hours identified in condition B36 may be undertaken in the following circumstances:
 - (a) works that are inaudible at the nearest sensitive receivers;
 - (b) works agreed to in writing by the Planning Secretary;
 - (c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or
 - (d) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.

Noise Minimisation

B38. The Applicant must minimise the noise generated by the development in accordance with the best practice requirements in the *Interim Construction Noise Guideline* (DECC, 2009), or its latest version. All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the Applicant's management and mitigation measures in Appendix 2.

Vibration Criteria

- B39. Vibration caused by the development at any residence or structure outside the Western Area must be limited to:
 - (a) for structural damage, the latest version of *DIN 4150-3 (1992-02) Structural vibration Effects of vibration on structures* (German Institute for Standardisation, 1999); and
 - (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: a technical guideline* (DEC, 2006) (as may be updated or replaced from time to time).

HERITAGE

Unexpected Finds Protocol

- B40. If any item or object of Aboriginal heritage significance is identified on the Western Area:
 - (a) all work in the immediate vicinity of the suspected Aboriginal item or object must cease immediately;
 - (b) a 10 m wide buffer area around the suspected item or object must be cordoned off; and
 - (c) the EES must be contacted immediately.
- B41. Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the *National Parks and Wildlife Act 1974*.
- B42. If any archaeological relics are uncovered during the course of the work, then all works must cease immediately in that area. Unexpected finds must be evaluated and recorded in accordance with the requirements of the Department of Premier and Cabinet Heritage Division.

BIODIVERSITY

Biodiversity Management Plan

- B43. Prior to the commencement of remediation works, the Applicant must include in the REMP the relevant biodiversity management measures identified in Appendix 2. In addition, the REMP must include biodiversity management measures that:
 - (a) aim to ensure Green and Golden Bell Frogs are excluded from remediation areas, consistent with the *Revised Plan of Management: Restoration of Green and Golden Bell Frog Habitat, Clyde Terminal, January 2019,* or its latest version;
 - (b) detail measures to minimise impacts on the Duck River riparian corridor and Swamp Oak Floodplain Forest contained within the riparian corridor.
- B44. The Applicant must implement the biodiversity management measures included in the REMP for the duration of the development.

HAZARDS AND RISK

Dangerous Goods

B45. The quantities of dangerous goods stored and handled at the Western Area must be below the threshold quantities listed in the Department of Planning's Hazardous and Offensive Development Application Guidelines – Applying SEPP 33 at all times.

Bunding

B46. The Applicant must store all chemicals, fuels and oils used for the development in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual (Department of Environment and Climate Change, 2007).

DEMOBILISATION

B47. Within twelve months of the cessation of remediation works, unless the Planning Secretary agrees otherwise, the Applicant must decommission the remediation plant and equipment and other temporary infrastructure on the Western Area and rehabilitate the Western Area to achieve the final landform shown in Appendix 4.

COMMUNITY ENGAGEMENT

B48. The Applicant must consult with the community regularly throughout the development, including consultation with the nearby sensitive receivers, relevant regulatory authorities and other interested stakeholders.

PART C ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Management Plan Requirements

- C1. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:
 - (a) details of:
 - (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - (ii) any relevant limits or performance measures and criteria; and
 - (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
 - (b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;
 - (c) a program to monitor and report on the:
 - (i) impacts and environmental performance of the development;
 - (ii) effectiveness of the management measures set out pursuant to paragraph (c) above;
 - (d) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
 - (e) a program to investigate and implement ways to improve the environmental performance of the development over time:
 - (f) a protocol for managing and reporting any:
 - (i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);
 - (ii) complaint;
 - (iii) failure to comply with statutory requirements; and
 - (g) a protocol for periodic review of the plan.

Note: the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans

REMEDIATION ENVIRONMENTAL MANAGEMENT PLAN

- C2. Prior to the commencement of remediation works, the Applicant must prepare a Remediation Environmental Management Plan (REMP) in accordance with the requirements of condition C1, to the satisfaction of the Planning Secretary. The REMP and sub-plans required by condition C3 must be prepared in consultation with relevant agencies including but not limited to Council and the EPA. The Applicant must provide the Site Auditor's Interim Auditor Advice to the EPA and the Planning Secretary, endorsing the environmental management measures set out in the REMP, prior to submitting the REMP to the Planning Secretary.
- C3. The REMP required under condition C2 must:
 - (a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - (b) describe the procedures that would be implemented to:
 - (i) keep the local community and relevant agencies informed about the environmental performance of the development;
 - (ii) receive, handle, respond to, and record complaints;
 - (iii) resolve any disputes that may arise;
 - (iv) respond to any non-compliance;
 - (v) respond to emergencies;
 - (c) include the following sub-plans:
 - (i) Air Quality Management Plan (see condition B17);
 - (ii) Soil and Water Management Plan (see condition B20);
 - (iii) Groundwater Monitoring and Management Plan (see condition B22);
 - (iv) Waste Management Plan (see condition B31);
 - (v) Traffic Management Plan (see condition B33).
- C4. The Applicant must:
 - (a) not commence remediation works until the REMP is approved by the Planning Secretary; and

- (b) carry out the remediation works and demobilisation in accordance with the REMP approved by the Planning Secretary and as revised and approved by the Planning Secretary from time to time;
- (c) ensure that any revision to the sub-plan(s) comply with the requirements of the Environment Protection Licence; and
- (d) provide a copy of any revised sub-plan, as detailed in Condition C3 to the EPA at metro.regulation@epa.nsw.gov.au.

REVISION OF STRATEGIES, PLANS AND PROGRAMS

- C5. Within three months of:
 - (a) the submission of an incident report under condition C8;
 - (b) the approval of any modification of the conditions of this consent; or
 - (c) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review,
- C6. the strategies, plans and programs required under this consent must be reviewed, and the Department must be notified in writing that a review is being carried out.
- C7. If necessary to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.

Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.

REPORTING AND AUDITING

Incident Notification, Reporting and Response

C8. The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one), and set out the location and nature of the incident. Subsequent notification requirements must be given and reports submitted in accordance with the requirements set out in Appendix 3.

Non-Compliance Notification

- C9. The Department must be notified in writing to compliance@planning.nsw.gov.au within seven days after the Applicant becomes aware of any non-compliance.
- C10. A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.
- C11. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

Annual Report

- C12. Within 12 months of the commencement of remediation works, and every year thereafter until the completion of demobilisation, or other timing as may be agreed by the Planning Secretary, the Applicant shall review and report on the environmental performance of the development. The report shall:
 - (a) be submitted to the Planning Secretary and EPA;
 - (b) describe the works that were carried out in the previous year and the works to be carried out in the coming year:
 - (c) include a comprehensive review of the monitoring results and complaints records of the development over the previous year, to demonstrate the effectiveness of the remediation works, including a comparison of:
 - (i) air quality monitoring data with relevant limits or performance measures/criteria;
 - (ii) water discharges with established discharge criteria for contaminants of concern;
 - (iii) groundwater monitoring data with background data and trigger levels established in accordance with condition B22:
 - (iv) detail community consultation activities during the year, including any alterations to works or mitigation measures implemented to address community concerns;
 - (d) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; and
 - (e) describe what contingency measures would be implemented over the coming year to improve the environmental performance of the Development, should the any issues be identified with the effectiveness of the remediation works.

Monitoring and Environmental Audits

C13. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification and independent environmental auditing.

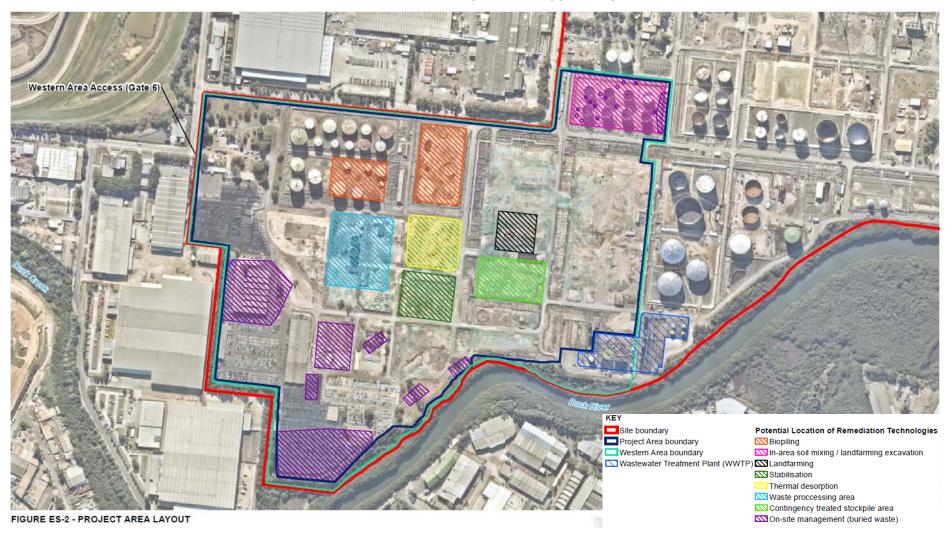
Note:

For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.

ACCESS TO INFORMATION

- C14. At least 48 hours before the commencement of preparation works until the completion of all works under this consent, including demobilisation and final landforming, the Applicant must:
 - (a) make the following information and documents (as they are obtained or approved) publicly available on its website:
 - (i) the documents referred to in condition A2 of this consent and the final layout plans for the development;
 - (ii) all current statutory approvals for the development;
 - (iii) all approved strategies, plans and programs required under the conditions of this consent;
 - (iv) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;
 - (v) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - (vi) a summary of the current stage and progress of the development;
 - (vii) contact details to enquire about the development or to make a complaint;
 - (viii) a complaints register, updated quarterly;
 - (ix) the Compliance Reporting of the development;
 - audit reports prepared as part of any independent audit of the development and the Applicant's response to the recommendations in any audit report;
 - (xi) any other matter required by the Planning Secretary; and
 - (b) keep such information up to date, to the satisfaction of the Planning Secretary.

APPENDIX 1 DEVELOPMENT LAYOUT PLANS



APPENDIX 2 APPLICANT'S MANAGEMENT AND MITIGATION MEASURES

Reference	Mitigation and management measures	Timing	Relevant Plan
	General		
G1	Viva Energy would carry out the Project in accordance with the EIS, Response to Submissions report and the Project approval conditions.	Preparation, Remediation, and Demobilisation works / ongoing operation	All
G2	Viva Energy would ensure that a PMP, REMP and LTEMP are prepared and implemented for the Project.	Preparation, Remediation, and Demobilisation works / ongoing operation	All
G3	Viva Energy would appoint a suitable qualified Environmental Representative to review and advise on the implementation of the REMP, and monitor the implementation and effectiveness of the mitigation and management measures	Preparation, Remediation, and Demobilisation works	REMP
G4	The Project workforce would undergo training in accordance with the PMP and REMP and other training commitments agreed to as part of the Project approval.	Preparation, Remediation, and Demobilisation works	PMP and REMP
G5	EPL 570 will be varied in consultation with the NSW EPA. The final changes to EPL 570 would be agreed with the NSW EPA, once the detailed design for the Project is confirmed and prior to works commencing.	Detailed design	PMP
G6	Viva Energy will provide annual reports to NSW EPA on the progress of the remediation.	Preparation, Remediation, and Demobilisation works	REMP
G7	A decision protocol (in the form of a Remedial Options Analysis) would be developed and included as part of the Detailed RAP. The purpose of this protocol would be to decide which remediation method is appropriate (or whether soil needs to be disposed off-site) in consideration of relevant regulatory guidelines and standards which will be described in the Detailed RAP.	Detailed design	Detailed RAP
G8	Following development consent for the Project a Community Engagement Plan would be produced to guide ongoing community engagement during the execution of the Project. It would include measures to keep the local community informed of the Project including projected timelines and potential impacts from planned works. Communications would provide details of contact point(s) to which community complaints and enquiries may be directed, including a telephone number, a postal address and an email address.	Detailed design/ Preparation, Remediation, and Demobilisation works	PMP
	The Community Engagement Plan would provide details regarding a 24 hour community concerns phone line would be provided for the Preparation, Remediation, and Demobilisation works of the Project.		
	A suitable complaints management procedure would be prepared, implemented and documented in the Community Engagement Plan. This would include: • maintenance of a complaints register;		

Reference	Mitigation and management measures	Timing	Relevant Plan
	 if required, monitoring would be conducted in response to complaints received to ensure compliance with relevant criteria (e.g. noise, air quality etc.); if necessary, reasonable and feasible measures would be implemented to address environmental impacts; and a feedback process would be established to manage complaints, including responding to complainant and updating them on the action/s taken. 		
	Soils, groundwater and contamination		
SGC1	The presence of Acid Sulfate Soils at proposed excavation areas would be confirmed prior to undertaking excavation. Where the presence of ASS has been identified an Acid Sulfate Soils Management Plan (ASSMP) would be prepared. If an ASSMP is required, it will be prepared in accordance with the <i>Acid Sulfate Soils Assessment Guidelines</i> (NSW Acid Sulfate Soils Management Advisory Committee, 1998) and will guide the ongoing monitoring and management of ASS for the specific works. The ASSMP would include: • measures to manage ASS that need to be excavated from the Project Area. These measures would be in accordance with the <i>Waste Classification Guidelines Part 4: Acid Sulfate Soils</i> (NSW EPA, 2014); and • contingency measures to manage impacts that have the potential to occur if specified management strategies fail, and to outline remediation and restoration actions that may be required.	Preparation, Remediation, and Demobilisation works	REMP
SGC2	 A Soil and Water Management Plan (SWMP) would be prepared that outlines: erosion and sediment control requirements (developed in accordance with Managing Urban Stormwater: Soils and Construction (Landcom, 2004)) including: the use of geotextile liners, temporary capping or other suitable measures to reduce infiltration of surface water runoff; installing silt fences around stockpiles to reduce erosion; installing silt and sediment traps across stormwater drains in proximity to excavation areas; placing stockpiles on impermeable sheeting to prevent infiltration, where possible; and locating stockpiles away from council stormwater drainage systems; control measures for the dewatering, storage, movement and treatment of groundwater encountered in excavations. These measures would include: testing accumulated water in excavations from areas where ground investigation data suggests the presence of contaminants at levels that would not be able to be treated by the Wastewater Treatment Plant (WWTP) to confirm that:	Preparation, Remediation, and Demobilisation works	REMP

Reference	Mitigation and management measures	Timing	Relevant Plan
	 details how asbestos (i.e. in soils and unexpected materials) would be managed includes an unexpected find procedure for asbestos material includes management measures required for the appropriate handling of soils containing asbestos; identifies a dedicated area within the Project Area for storing asbestos waste prior to disposal; management measures required for the appropriate handling of metal-impacted fill material (i.e. soils or spoil that contain heavy metals at concentrations above relevant health or ecological screening levels), e.g. stockpiled separately from the underlying natural clays and covered to mitigate infiltration; requirement for inspection of erosion and sediment control structures; potential chemical pollutants (e.g. fuels, additives, steckpiles etc.), would be stored in appropriate containers and/or within bunded and lined areas to minimise the risk of spillages or mobilisation of these pollutants into soil and groundwater; requirement for and location of spill kits for chemicals or fuels that could potentially be spilt or leaked; regular inspection of remediation equipment and plant to ensure the potential for leaks are minimised and identified issues are rectified; measures to remove incidental rainfall from bunded remediation areas and transfer it to the WWTP by the existing surface water system or via temporary pipeline; requirements for monitoring of groundwater for the duration of the Project; the requirement to install, operate and maintain a wheel wash to reduce soil on roads and dust; and if significant impacts are identified below 4 mbgs (including LNAPL) an area-specific risk assessment would be prepared to assess the requirement for remediation (and/or management measures) and would be reviewed by the NSW EPA accredited Site Auditor (Auditor). 		
SGC3	Validation Sampling and Analysis Quality Plans (SAQPs) would be produced alongside the detailed RAP that outline the requirements for the validation of remediated materials proposed for on-site reuse and for the acceptance of imported fill material to the Project Area.	Preparation, Remediation, and Demobilisation works	Detailed RAP
SGC4	Following the completion of the Preparation, Remediation, and Demobilisation works, a Validation Report would be prepared in accordance with the New South Wales (NSW) Environment Protection Authority (EPA) Guidelines for Consultants Reporting on Contaminated Sites (NSW EPA, 2011) and reviewed/approved by the Auditor, confirming that the Western Area is suitable for commercial/industrial land use. The Validation Report may include progressive validation reports for separate portions of the Western Area to enable progressive validation of these areas.	Preparation, Remediation, and Demobilisation works	Detailed RAP
SGC5	The LTEMP would include a Groundwater Monitoring and Management Plan (GMMP) to be implemented to confirm that natural attenuation processes are occurring and residual hydrocarbon concentrations are not posing a human health or ecological risk. The LTEMP would also include management of residual contaminated materials (as and if required).	Ongoing operation	LTEMP
SGC6	The Groundwater Monitoring and Management Plan (GMMP) will be provided to both the NSW EPA and Department of Industry – Water, for comment prior to being finalised and approved by the Auditor. The GMMP will include: • groundwater quality thresholds and trigger action response plans for changes in groundwater quality that would present an unacceptable risk to Duck River receptors; • annual reporting requirements for the groundwater monitoring program, including:	Preparation, Remediation, and Demobilisation works	Detailed RAP

Reference	Mitigation and management measures	Timing	Relevant Plan
	 a discussion of the efficacy of relevant mitigation measures; and a summary of groundwater monitoring data including updated groundwater trends. 		
	Surface water, wastewater and flooding		
SW1	The Soil and Water Management Plan (sub-plan to the REMP) would outline the following: stormwater around excavations would be diverted and directed to existing stormwater/wastewater management systems and WWTP; incorporation of temporary erosion and sediment controls such as settling ponds, silt fences etc. to help segregate and manage stormwater runoff where existing systems have been removed; if required, temporary settling ponds would be located down gradient of remediation areas to manage potential excavation overflow events; discharges from the WWTP would be within existing EPL 570 limits; reuse of water for dust suppression or wheel washing, where appropriate; appropriate storage of materials being utilised for the Project, away from Duck River and the surface water drains; covering of contaminated stockpiles, (i.e. where available soil data indicates that excavated fill material may generate impacted leachates), and biopiles with impermeable sheeting when not being actively managed (e.g. created, moved, turned etc.); ongoing monitoring of licenced discharge points, in line with EPL 570, to confirm compliance during the Project. If necessary, additional monitoring requirements would be developed following completion of the remedial investigation and would be agreed with the Auditor; management actions should exceedances of management triggers occur; incorporation of runoff/sediment controls, including progressive covering and vegetation of remediated areas; and routine inspections would be incorporated into the plan to monitor the implementation of the measures outlined above, including: routine inspections of excavations to instigate the pump out of water accumulating in excavations; inspections of bunding would occur following periods of heavy rainfall to confirm that water is being directed to the WWTP as required.	Preparation, Remediation, and Demobilisation works	REMP
SW2	Potential chemical pollutants (e.g. fuels, additives), would be stored in appropriate containers and/or within bunded and lined areas to minimise the risk of spillages, or mobilisation of these pollutants into aquatic environments in the event that a storm surge or flood event impacts the Project Area.	Preparation, Remediation, and Demobilisation works	REMP

Reference	Mitigation and management measures	Timing	Relevant Plan
SW3	The Long Term Environmental Management Plan would outline: routine inspection requirements to determine that: vegetation is maintained; erosion/sediment measures are operating effectively channelling is not occurring; the discharge locations (i.e. the swales and overland flow into Duck River) are operating effectively; and inspection of swales after large flood event to confirm they are still intact; periodic inspection of mangroves and surface water discharges to note observable changes in the condition of vegetation, which may indicate lower water quality; weed management; and maintenance of erosion and sediment controls.	Ongoing operation	LTEMP
SW4	The proposed works will broadly progress across the Western Area in a staged manner from north west to south east, towards the WWTP, to allow the existing drainage system to be utilised where possible. Where remediation is not required, surface water flows will continue in line with the current management practices. Where remediation is required, surface water flows will be directed to the WWTP, unless the ground investigation data from the surrounding area suggest that the water in excavations should be tested.	Preparation, Remediation, and Demobilisation works	PMP, REMP
SW5	 In the event that settling ponds are required, relevant design criteria from the Blue Book (Landcom, 2004) would be adopted. Key principles and practices for the control of sediment dispersal would include: using settling ponds to collect runoff from excavation areas and settle out associated sediments and potential contaminants; settling ponds would be lined to avoid interactions with groundwater; if water from an overtopped excavation is captured in a settling pond, this water would be sent to the WWTP, unless the ground investigation data from the excavated area suggests that this water should be tested; the sediments settled in the ponds would be tested and characterised before disposal off-site or reuse on-site. Depending on the characteristics of this sediment, these materials may need to be collected, appropriately stored and transported off-site to an appropriately licensed waste facility. 	Detailed design/ Preparation, Remediation, and Demobilisation works	Detailed RAP, REMP

Reference	Mitigation and management measures	Timing	Relevant Plan
	Air quality		
AQ1	 Air quality management controls would be implemented as part of the design of the Project including: level 2 (>2 litres/m²/h) watering of on-site haul roads; watering with or without dust suppressants on exposed areas and stockpiles; application of odour and VOC suppressant foam (with a control efficiency of 95% or higher) on untreated stockpiles in the DTD area (if these stockpiles are not located in an ECE) and on exposed untreated biopiles (i.e. during construction of the biopile) over night; application of odour and VOC suppressant foam (with a control efficiency of 95% or higher) on exposed excavation areas where both required and practical; biopiles would be covered during operation and off-gas from biopiles would be passed through air filters to remove volatile hydrocarbons; the DTD unit pre-treatment area stockpile would be enclosed within a three sided bay unless this material is being stored or pre-treated inside an ECE; all mobile and stationary diesel engines would be compliant with US EPA Tier 3 and EU Stage III A Non-road Diesel Engine Emission Standards; off-gas from the DTD unit would be treated before it is discharged to the atmosphere through a stack; where possible stockpiles would be covered; enclosing the DTD material screening area and placing water sprays on the outlet; and ensuring a particulate filter is used on the mobile crushing plant. 	Detailed design/ Preparation, Remediation, and Demobilisation works	REMP
AQ2	An Air Quality Management Plan (AQMP) would be prepared and implemented for the Project. The AQMP would include: • ambient air quality monitoring requirements; • a Reactive Air Quality Management Program (RAQMP) for: - particulates, specifically PM ₁₀ and PM _{2.5} ; and - odour. • mitigation measures listed in AQ1 particularly for the Remediation works and Land forming works where air pollutant emissions are likely to be highest. The AQMP would also include the following details: • performance objectives to guide the monitoring and management of potential air quality impacts; • timeframe for implementation of all identified emission controls; • key performance indicator(s) for emission controls; • monitoring method(s), including location, frequency and duration; • response mechanisms to mitigate potential off-site impacts; • responsibilities for demonstrating and reporting achievement of key performance indicator(s); and • record keeping and complaints response register; and compliance reporting.	Detailed design/ Preparation, Remediation, and Demobilisation works	REMP
AQ3	The AQMP would outline the requirement for stack emissions testing to validate the potential air quality impact against predicted impacts in the AQIA, ensure ongoing performance of ventilation systems and comply with other required limits. Stack emissions testing would include:	Remediation works	REMP

Reference	Mitigation and management measures	Timing	Relevant Plan
	 emissions testing of the DTD stack during commissioning and periodically post commissioning to confirm pollutant concentrations and ensure ongoing compliance; and periodic emission testing of the biopile aeration system to ensure total VOC concentration is below 10 parts per million (ppm) and identify when air filters used to remove VOCs need to be replaced. Stack emissions testing would be carried out in accordance with the NSW EPA's Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007). 		
AQ4	 The RAQMP would be prepared and implemented in accordance with: The NSW EPA's Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007); AS 3580.9.8-2008 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter - PM₁₀ continuous direct mass method using a tapered element oscillating microbalance analyser; AS/NZS 3580.9.11:2008 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter - PM₁₀ beta attenuation monitors; AS/NZS 3580.1.1:2007 Methods for sampling and analysis of ambient air - Guide to siting air monitoring equipment; and AS 2923-1987 Ambient air - Guide for measurement of horizontal wind for air quality applications. 	Detailed design/ Preparation, Remediation and Land forming works	REMP
AQ5	 The RAQMP (PM₁₀ and PM_{2.5}) would: outline how monitoring stations at the boundary of the Project Area would be established, including location and number; outline the process for collecting data from the monitoring stations; establish and calculate trigger values; and outline the response if trigger values are reached, e.g. investigate, implement contingency measures, review effectiveness of contingency measures and/or stop work. 	Detailed design/ Preparation, Remediation and Land forming works	REMP
AQ6	 The RAQMP (odour) would include: identification of remediation areas which present a higher risk of odorous materials; an operator-run odour complaints management system (as part of the wider Project complaints management procedure) to maintain and monitor air quality performance during potential odour generating activities associated with excavation and remediation of contaminated material; in the event of an odour complaint or onsite staff odour observation information would be obtained regarding the character of the odour, frequency, duration and intensity of odour observations and whether impacts of offensive odours are occurring; an investigation into the odour complaint would be conducted as soon as practicable after the complaint has been received; and if odour impacts are identified from the Project by workers or through complaints action would be undertaken to reduce odour impacts; this may include: spraying odour/VOC suppressant on exposed surface areas and/or stockpiles; covering stockpiles; and limiting excavation works and materials handling of highly contaminated fill while upwind of sensitive receptors during unfavourable weather conditions (e.g. dry and windy conditions). 	Detailed design/ Preparation and Remediation works	REMP

Reference	Mitigation and management measures	Timing	Relevant Plan
AQ7	The need for an emissions control enclosure (ECE) would be identified in the Air Emissions Verification Report required by the conditions of consent. The design and feasibility of any enclosure would be confirmed as part of the Detailed RAP. Any ECE used would be located adjacent to the DTD plant towards the centre of the Western Area. The decision regarding the feasibility of an ECE will have regard to technical, logistical and financial considerations. The feasibility of an ECE would be discussed with the NSW EPA and approved by the Auditor.	Detailed design/ Remediation works	Detailed RAP, REMP
AQ8	 Stack emissions testing will be undertaken to validate the potential air quality impact against predicted impacts in the AQIA, to ensure ongoing performance of ventilation systems and comply with EPL limits. Stack emissions testing would include: validation of modelled in stack and ground level concentrations during the commissioning phase of the DTD unit and biopiles; emissions testing of the DTD unit stack during commissioning to confirm particulate, NO₂, VOC and dioxin and furan stack concentrations and periodically post commissioning to ensure ongoing compliance with EPL limits; and emissions testing of the biopile aeration system would be conducted during commissioning to confirm VOC concentrations and assess performance of air filters. Required stack emissions testing would be carried out in accordance with the NSW EPA's Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007). 	Remediation works	Detailed RAP, REMP
AQ9	Where soils require remediation, only soils with bulk concentrations of air toxics (Benzene and Ethylbenzene) and odorous compounds (Toluene and Xylene) below an agreed limit of detection would be remediated by landfarming. The appropriate limit of detection would be confirmed in the Detailed RAP and approved by the Auditor.	Detailed design/ Remediation works	Detailed RAP
	Human health		
HH1	The Occupational Health and Safety Plan within the PMP would outline the personal protective equipment and occupational health and safety measures to manage potential risks to on-site workers.	Detailed design/ Preparation, Remediation, and Demobilisation works	PMP
	Waste management		

Reference	Mitigation and management measures	Timing	Relevant Plan
W1	 A WMP would be prepared as a sub-plan to the REMP. The WMP would: identify requirements consistent with the waste and resource hierarchy and cleaner production initiatives; include relevant measures from the revised <i>National Waste Policy: Less Waste, More Resources</i> (EPHC, 2009); ensure resource efficiency is delivered through the design, remediation and operational practices; provide consistent clear direction on waste and resource handling, storage, stockpiling, use and reuse management measures; outline procedures for stockpiling of wastes (refer to W2); set out processes for disposal, including on-site transfer, management and the necessary associated approvals; outline that waste generated within the Project Area would be segregated at source and suitably stored in designated waste management areas within the Project Area; include material tracking measures to track waste and recyclables generated from the Project and removed from the Project Area. Material tracking records would include types, volumes and management measures for waste and resource arising from/used for the Project; outline an unexpected finds protocol to manage the potential for unexpected finds during the remediation of the soils (i.e., asbestos or other hazardous materials, excluding hydrocarbon contamination); and include a process for auditing, monitoring and reporting. 	Preparation, Remediation, and Demobilisation works	REMP
W2	Stockpiled wastes would be: appropriately segregated to avoid mixing and contamination; appropriately labelled; appropriately stored to minimise risk of erosion; less than 5 m in height; and located more than 40 m away from sensitive receivers, ecological areas and watercourses.	Preparation, Remediation, and Demobilisation works	REMP
W3	Liquid (excluding those that are suitable to be transferred to the WWTP) and non-liquid wastes generated from Project would be assessed, classified and managed. Wastes requiring off-site disposal would be disposed of at an appropriately licenced facility.	Preparation, Remediation, and Demobilisation works	REMP
W4	All contaminated soil (as defined by Waste Classification Guidelines) received into the Project Area would comply with the SAQP criteria defined as part of the Remedial Work Plan (RWP).	Preparation, Remediation, and Demobilisation works	RWP
W5	No waste would be stored on-site during ongoing operation. Workers undertaking maintenance activities following completion of the Project would remove any waste produced from the Western Area at the completion of the activity.	Ongoing operation	LTEMP
	Noise and vibration		
NV1	The REMP would include the following commitments related to noise and vibration management: plant and equipment with low noise emission levels would be used where practicable; ensuring plant and equipment is properly maintained; turning off machinery when not in use; and	Preparation, Remediation, and Demobilisation works	REMP

Reference	Mitigation and management measures	Timing	Relevant Plan
	 vibration trials would be conducted when vibration intensive work (e.g. a 20 t padfoot roller) is proposed within 30 m of buildings. Training of the Project workforce would be undertaken and include ensure work occurs in line with the conditions of consent. 		
	Traffic, transport and access		
TT1	A Traffic Management Plan (TMP) would be prepared as a sub-plan of the REMP. The TMP would be submitted to TfNSW, Roads and Maritime and Council for comment prior to being finalised. The TMP would include: the maximum number of heavy and private vehicles expected to be generated by each stage of the Project; the remediation working hours; the time periods that vehicles are expected to be travelling to and from the Project Area; routes for heavy and private vehicles to access the Western Area; appropriate routes for oversize or over-height vehicles; on-site parking locations; and the process for ensuring operators have the relevant permits from the National Heavy Vehicle Regulator, if required. The TMP would: refer to the potential traffic impacts, including cumulative impacts, detailed in the EIS; detail the temporary measures that would be implemented to mitigate road safety and network efficiency impacts during the Project, such as work zone speed limits and traffic control; include a notification process for potentially affected businesses along Project haulage routes, in the event of a potential traffic disruption related to the use of vehicles larger than Class 2 Gross Mass Limit 25/26 m B-Doubles; and Vehicle management measures to manage vehicle movements within the Project Area to reduce the likelihood of conflicts between workers and private and heavy vehicles, including a speed limit of 20 km/h for the Project Area.	Detailed design/ Preparation, Remediation, and Demobilisation works	REMP
TT2	Workers would be encouraged to utilise more sustainable transport modes e.g. car-pooling, where feasible to reduce the reliance on private vehicles.	Preparation, Remediation, and Demobilisation works	REMP
ТТ3	On-site car parking for the workforce, within the Western Area would be provided during the Project for up to 80 cars. The car-parking area in the Western Area would be located near the site office, where possible and would have provision for: convenient parking spaces for authorised visitors to the Project Area (i.e. not routine workers); and emergency vehicle parking adjacent to the first aid office.	Detailed design/ Preparation, Remediation, and Demobilisation works	REMP
TT4	Should vehicles with loads exceeding GML limits or comprising non-standard dimensions require access to the Project Area, a permit would be obtained from the NHVR, prior to use of any such vehicle.	Preparation, Remediation, and Demobilisation works	REMP

Reference	Mitigation and management measures	Timing	Relevant Plan
TT5	 The TMP would include a diagram outlining preferred routes to and from the Project Area which would: avoid the intersection of James Ruse Drive, Grand Avenue and Hassall Street during peak periods for workforce and heavy vehicles; and avoid the vehicle restrictions where Wentworth Street travels under the M4 Western Motorway for vehicles exceeding 4.6 m in height. 	Preparation, Remediation, and Demobilisation works	REMP
TT6	The LTEMP would include a section on traffic management which would detail routes and access points to the Project Area and recommended parking locations.	Ongoing operation	LTEMP
	Biodiversity		
BD1	Appropriate exclusion fencing protecting vegetation to be retained outside the Project Area would be installed where not already present. Exclusion fencing would be placed at a distance sufficient to minimise impacts within the vegetation's TPZs and in accordance with AS4970-2009 Australiana Standard. Protection of trees on development sites (Standards Australia Committee, 2009). Fencing is to include appropriate signage such as 'No Go Zone' or 'Environmental Protection Area'. The location of any 'No Go Zones' would be identified in site inductions.	Preparation, Remediation, and Demobilisation works	REMP
BD2	 To mitigate against potential impacts to the GGBF population the following measures would be included in the REMP: works inductions that focus on the potential occurrence of the species; pre-clearance surveys by an environmental representative as needed of stockpiles and excavations to check for the presence of GGBF; management of stockpiles to minimise the chances of frogs using them for shelter habitat (e.g. maintenance of sediment fencing around stockpiles and no ponding of water); measures would also be implemented to minimise indirect impacts to GGBF through spread of Chytrid fungus; and an unexpected finds protocol which outlines the need to engage a suitably qualified ecologist to relocate any GGBF encountered in the Project Area. Mitigation and management measures would be aligned with the actions undertaken during the Conversion Project to maximise their successful implementation, and minimise potential confusion surrounding requirements. 	Preparation, Remediation, and Demobilisation works	REMP
BD3	Material stockpiles, vehicle parking and machinery storage would be located within cleared areas and outside of vegetation exclusion zones.	Preparation, Remediation, and Demobilisation works	REMP
BD4	Where appropriate, native vegetation cleared from the Project Area will be mulched for reuse on-site, to stabilise bare ground (or similar).	Preparation, Remediation, and Demobilisation works	REMP
BD5	Measures to minimise the potential for the spread of weeds would be detailed in the REMP.	Preparation, Remediation, and Demobilisation works	REMP
	Historic heritage	Demobilisation works	

Reference	Mitigation and management measures	Timing	Relevant Plan
HH1	Workers and contractors would be made aware of the heritage values of the former Clyde Refinery and the three surrounding listed items of Lower Duck River Wetlands (I47), Wetlands (I1) and Capral Aluminium (I575), during the site induction.	Preparation, Remediation, and Demobilisation works	REMP
HH2	As noted in the Australian Museum Consulting archaeological assessment (Australian Museum Consulting, 2015), the north-west portion of the Site has low potential to contain significant relics. Notwithstanding this, should an unexpected find of likely significance be uncovered (including artefact scatters (glass, animal bone, ceramic, brick, metal etc.), building foundations, etc.), consistent with the unexpected finds protocol from the Clyde Terminal Conversion Project (SSD 5147), the following stop work procedure would be followed: all work in the nearby area is to cease immediately; contact OEH Heritage Branch; and depending on the possible significance of the relics, an archaeological assessment and an excavation permit under the NSW Heritage Act 1977 may be required before further works can continue in that area.	Preparation, Remediation, and Demobilisation works	REMP
	Aboriginal heritage		
AH1	Any items of potential Aboriginal archaeological or cultural heritage conservation significance or human remains discovered during remediation of the Project Area would be managed in accordance with the unexpected heritage finds and human remains procedure for the Project, which would be prepared in accordance with the: NSW Police Force Handbook (2016); and NSW Health Exhumation of Human Remains Policy (2013). The following standard unexpected heritage finds procedure should be adopted (refer to Annexure A of Appendix K of the EIS for further detail): all works must cease immediately in the area to prevent any further impacts to the object; notify the Environmental Representative; engage a suitably qualified archaeologist to determine the nature, extent and significance of the find and provide appropriate management advice; and prepare and submit an AHIMS site card for the site. In the event that potential human skeletal remains are identified, the following unexpected humans remains finds procedure should be followed: all work in the vicinity of the remains should cease immediately; the location should be cordoned off and the NSW Police notified; and if the Police suspect the remains are Aboriginal, they would contact the Office of Environment and Heritage and arrange for a forensic anthropologist or archaeological expert to examine the site. Subsequent management actions would be dependent on the findings of the inspection undertaken under Point 3 (refer to Annexure A of Appendix K of the EIS for further detail on these actions).	Preparation, Remediation, and Demobilisation works / ongoing operation	REMP
HR1		Preparation,	REMP
TIKI	The REMP would outline the following to manage hazards and risks for the Project: • materials brought to the Project Area are not to exceed the thresholds provided in the Applying SEPP 33 guideline;	Remediation, and Demobilisation works	NEIVIF

Reference	Mitigation and management measures	Timing	Relevant Plan
	 the GAC proposed to be used for biopiling would be activated carbon which is not listed as a dangerous good under the ADG Code. This would be confirmed by checking the relevant Material Safety Data Sheets before purchasing the material; Portland cement and/or fly ash used during the Project would not be the type which is listed as dangerous good under the ADG Code. This would be confirmed by checking the relevant Material Safety Data Sheets before purchasing the material; and in the event that a material is to be used during the Project which has not been assessed in the EIS (Chapter 18 Hazards and risks) or greater quantities and/or vehicle movements are required for materials used during the Project, then a screening risk assessment would need to be completed before the material can be transported, stored or used on-site. 		
HR2	 The transport, storage and handling of hazardous substances would be undertaken in accordance with: Work Health and Safety Act 2011 (NSW); Protection of the Environment Operations (Waste) Regulation 2005 (NSW); Dangerous Goods (Road and Rail Transport) Act 2008 (NSW); Dangerous Goods Regulation (Road and Rail Transport) Regulation 2014 (NSW); Australian Code for the Transport of Dangerous Goods by Road and Rail (National Transport Commission, 2018); relevant Australian Standards; the thresholds outlined in Applying SEPP 33 guidelines; and the relevant Material Safety Data Sheets. 	Preparation, Remediation, and Demobilisation works	REMP
HR3	The PMP would detail the process for identifying and managing services/utilities.	Preparation works	PMP
HR4	The Site Emergency Response Plan would be updated following completion of the Project to reflect the changed site conditions in the Western Area.	Ongoing operation	PMP
	Cumulative impacts		
CU1	Consultation with the Parramatta Light Rail project and Clyde Barging Facility would be undertaken, during detailed design, as part of works planning and during the Project, to gain an understanding of project timing and traffic movements to avoid potential cumulative traffic impacts where possible.	Detailed design/ Preparation, Remediation, and Demobilisation works	REMP

APPENDIX 3 INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS

WRITTEN INCIDENT NOTIFICATION REQUIREMENTS

- A written incident notification addressing the requirements set out below must be emailed to the Department at the following address: compliance@planning.nsw.gov.au within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under condition C8 or, having given such notification, subsequently forms the view that an incident has not occurred.
- 2. Written notification of an incident must:
 - a. identify the development and application number;
 - b. provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
 - c. identify how the incident was detected;
 - d. identify when the applicant became aware of the incident;
 - e. identify any actual or potential non-compliance with conditions of consent;
 - f. describe what immediate steps were taken in relation to the incident;
 - g. identify further action(s) that will be taken in relation to the incident; and
 - h. identify a project contact for further communication regarding the incident.
- 3. Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.
- 4. The Incident Report must include:
 - a. a summary of the incident;
 - b. outcomes of an incident investigation, including identification of the cause of the incident;
 - details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
 - d. details of any communication with other stakeholders regarding the incident.

APPENDIX 4 FINAL LANDFORM

