

19 November 2020

Ania Dorocińska
Planning Officer, Industry Assessments
Department of Planning, Industry and Environment

Via email: Ania.Dorocinska@planning.nsw.gov.au

Dear Ania,

Comments on Request for Secretary's Environmental Assessment Requirements (SEARs) - Western Sydney Sustainable Road Resource Centre (SSD-10866203)

Thank you for the opportunity to provide feedback from the Western Sydney Planning Partnership (the Partnership) about the request for SEARs for the proposed Western Sydney Sustainable Road Resource Centre (SSD-10866203) on land legally described as Lot A in DP 406215, 230 Martin Road, Badgerys Creek.

It is understood that the applicant is seeking to commence a State Significant Development (SSD) approval pathway for the construction and operation of an asphalt plant, Reconomy facility and bitumen products plant and that the SEARS will inform the preparation of an Environmental Impact Statement (EIS).

The Planning Partnership is satisfied that the request for SEARS has adequately considered the relevant matters. The applicant has committed to address consistency with the Aerotropolis SEPP as part of the EIS and the proposed technical studies appear to be sufficient to accompany the EIS. Some additional comments have been provided at **Attachment 1**. The Planning Partnership requests to review and comment on any future applications on the site or proposals.

I trust this information has been of assistance. If you have any more questions, please contact Patrice Rando, Planning Officer, Planning Partnership Office on (02) 9860 1572 or via email at Patrice.Grzalak@planning.nsw.gov.au.

Yours sincerely



Elizabeth Warren
Manager, Western Sydney Planning Partnership

Enc: Attachment 1

Attachment 1 – Detailed comments on SEARS request – SSD-10866203

Strategic Planning Context

The subject site (Lot A in DP 406215) is located within the Wianamatta-South Creek and Badgerys Creek precincts of the Western Sydney Aerotropolis. The site falls within the majority of the Badgerys Creek Precinct. The land was recently rezoned from RU1 Primary Production to Enterprise zone and Environment and Recreation zone under the *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020* (Aerotropolis SEPP).

The scoping report identifies the proposed land uses (general industry and resource recovery activities) are permitted in the Enterprise Zone. However, it is noted Figure 2.1 and Figure 2.2 show that the proposed development also falls within the Environment and Recreation zone which, under the Aerotropolis SEPP, these proposed land uses are prohibited. It is therefore required that the proposed development sit entirely within the Enterprise zone and does not encroach upon the Environment and Recreation zone area.

Application assessed against the Western Sydney Aerotropolis State Environmental Planning Policy (Aerotropolis SEPP).

The Aerotropolis SEPP applies for the purpose of aligning the strategic objectives and Western Sydney Aerotropolis Plan to the site along with airport safeguarding provisions. The Planning Partnership notes the applicant should provide further commitment to address consistency with the Aerotropolis SEPP as part of the Environmental Impact Statement.

Part 3 Development controls—Airport safeguards

A key planning objective for the Western Sydney Aerotropolis is to safeguard the 24-hour operations of Western Sydney International (Nancy-Bird Walton) Airport (the Airport). The SEPP provides further detail on airport safeguarding. It is noted that the subject site is situated north-east of the future Airport and falls within the Australian Noise Exposure Forecast (ANEF) 20-25 contour. The proposed land use is not a sensitive use and is appropriate within this contour.

Consideration will need to be given to the wildlife hazards requirements addressed in the Aerotropolis SEPP. The proposed development would potentially be considered relevant development to which clause 21 of the Aerotropolis SEPP would apply.

Flooding

The scoping report identifies the site as being within the Wianamatta-South Creek catchment, and that approximately 75 per cent of the site is impacted by the South Creek probable maximum flood line (Advisian; 2019), and high, medium 1 per cent Annual Exceedance Probability (AEP) and low flood extents calculated for the Liverpool City Council in 2015 (Figure 2.1 and Figure 2.2 in the provided Scoping Report).

The future Environmental Impact Statement needs to consider flooding and seek to minimise adverse impacts on flooding characteristics, including during construction and operation. The Environmental Impact Statement should address how the project/development will avoid and/or minimise the risk of, and adverse impacts from infrastructure flooding, flooding hazards, or dam failure. The assessment of flood behaviour should consider flood behaviour including a range of modelled flood events up to the probable maximum flood and taking into account climate change.

Although their mapping indicates that the proposed development earthworks footprint is above 1 per cent AEP flood level (e.g. Figure 2.1), this should be verified by a detailed flood impact assessment/study.

The proposal should also be consistent with the relevant flooding controls from the Aerotropolis SEPP and Phase 1 Aerotropolis Development Control Plan, which was finalised in September 2020, including Clause 26 and Clause 27 of the Aerotropolis SEPP and the flooding Development Control Plan controls.

Biodiversity

The scoping report suggests 'the site is mostly cleared of vegetation for grazing but contains Alluvial Woodland along South Creek' (Figure 2.6). The upper western portion of the site (approximately 6ha) is biodiversity certified land.' Upon viewing aerial photography and Google Street view it appears the section of the property where development is proposed is cleared of vegetation.

The Scoping Report advises it is unknown whether there will be any impact on native fauna, however, given this portion of the site is cleared it is unlikely there will be an impact. It is also noted in the forthcoming Environmental Impact Statement will provide an explanation of why biodiversity will not be significantly impacted by the project. Biodiversity assessment work undertaken for the draft Aerotropolis Precinct Plan confirm this site was not ground-truthed.

The proposal will develop a portion of land which is in the Wianamatta-South Creek precinct which is not-certified for development as shown in Figure 2.6, as a result of this, Industry Assessments should contact the Environment and Energy and Science of the Department of Planning, Industry and Environment to advise what (if any) biodiversity assessment requirements are needed for developing on non-certified land.

Application assessed against the Western Sydney Aerotropolis Plan

The Western Sydney Aerotropolis Plan establishes a vision, objectives and principles for the development of the Aerotropolis.

Page 68 and 70 of the Western Sydney Aerotropolis Plan outlines the key considerations, strategic outcomes and implementation strategies for the Wianamatta-South Creek and Badgerys Creek precinct. The Environmental Impact Statement should demonstrate how the proposal is consistent with these. The proposal must also take into consideration the objectives and principles within the Western Sydney Aerotropolis Plan, contained in the Appendix (pages 92-94). Consideration should also be given to orienting the development towards the riparian corridor and creating usable open space for future workers whilst achieving environmental outcomes and mitigating flood impacts.

Consideration of the draft Aerotropolis precincts plan

Whilst it is noted the scoping report was submitted prior to the public exhibition of the draft Aerotropolis Precincts Plan, a holistic consideration should be given to these documents to ensure the proposed development is consistent with outcomes within these plans. The draft Aerotropolis Precincts Plan can be found online at:

<https://www.planningportal.nsw.gov.au/WSAPP>.

Department of Planning and Environment
Industry Assessments
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Sydney NSW 2001

Email: Ania.Dorocinska@planning.nsw.gov.au

**Re: Request for Council's comments on SEARs: Sustainable Road Resource
Centre at 230 Martin Road, Badgerys Creek**

Dear Ms Dorocinska,

Thank you for the opportunity to comment on the proposed State Significant Development for the construction and operation of an asphalt plant, recovery facility and bitumen plant at 230 Martin Road, Badgerys Creek.

Council has reviewed the documentation on the NSW Department of Planning, Industry and Environment's website with respect to this application and request that the following matters, in addition to those identified by the applicant in its letter requesting for SEARs, be taken into consideration in the preparation of the required Environmental Impact Statement.

If you have any questions please contact Nancy-Leigh Norris, Acting Senior Strategic Planner, on 8711 7399.

Yours sincerely,



Charles Wiafe
Acting Manager Planning and Transport Strategy

Liverpool City Council SEARs Advice - 230 Martin Road, Badgerys Creek

1. Strategic Planning Context

On 13 September 2020, the following planning documents were finalised:

- Western Sydney Aerotropolis Plan (WSAP)
- SEPP (Western Sydney Aerotropolis) 2020 (came into effect 1 Oct 2020)
- Aerotropolis Development Control Plan (Phase #1)

The subject site is currently zoned Enterprise and Environment & Recreation under *SEPP (Western Sydney Aerotropolis) 2020* (SEPP). General industry and waste or resource management facilities are permissible with consent within the Enterprise zone, however, are prohibited within the Environment & Recreation zone.

The proposed development is to comply with land use zones, by not encroaching into the Environment & Recreation zone. Additionally, it is to align with all relevant aspects of the SEPP, notably, Clause 21 Wildlife hazards, which requires waste or resource management facilities within 3km of the Airport to be fully enclosed, and Clause 24 relating to the Obstacle Limitation Surface map.

Draft Aerotropolis Precinct Plans are currently on public exhibition (10th November – 18th December 2020). These draft plans, and how they affect the site, are to be taken into consideration, as SEPP Clause 40 requires development to be consistent with the precinct plan. The Draft Plan also shows no encroachment into the Wianamatta-South Creek Precinct (Environment & Recreation zone).

If an application is lodged prior to finalisation of a precinct plan, SEPP Clause 42 'Development prior to a precinct plan' is applicable, and subsequently Part 7 Division 4 'Infrastructure' is also applicable. EP&A Regulation 2000 Clause 271 specifies that consent authority cannot determine an application until a Contributions Plan is in place. Additionally, Clause 275C requires applications to demonstrate assessment of consistency with the Western Sydney Aerotropolis Plan and precinct plans.

The EIS is to include an assessment against the Western Sydney Aerotropolis planning framework, including:

- Western Sydney Aerotropolis Plan (WSAP)
- SEPP (Western Sydney Aerotropolis) 2020 (came into effect 1 Oct 2020)
- Aerotropolis Development Control Plan (Phase #1)
- Draft Aerotropolis Precinct Plans

2. Appropriate Regulatory Authority

Schedule 1 of the Protection of the Environment Operations (POEO) Act 1997 declares premises-based activities regulated by the NSW Environment Protection Authority (EPA). Element Environment Pty Ltd confirmed that the proposed development would be a scheduled activity and require regulation by the NSW Environment Protection Authority (EPA).

In these circumstances, approval must be obtained from the NSW EPA before consent can be granted. The consent authority must refer the development application to the relevant public authority and incorporate the public authority's general terms of approval.

3. State Environmental Planning Policy 55 – Remediation of Land

In accordance with Clause 7(1) of State Environmental Planning Policy (SEPP) No. 55- Remediation of Land, the consent authority is required to consider contamination and the need for remediation when determining an Application. If the land requires remediation, it must be satisfied that the land will be remediated before the land is used for that purpose.

Furthermore, Clause 7(2) of SEPP 55- Remediation of Land requires the consent authority to consider a report specifying the findings of a preliminary investigation of land if the proposed development involves a change of use on any land specified in subclause 4. It is the responsibility of the consent authority to consider the requirements of Clause 7 of SEPP No. 55- Remediation of Land prior to granting consent to any development on the land.

The Applicant shall engage the services of a suitably qualified contaminated land consultant to prepare a Stage 1- Preliminary Site Investigation for the Land. The Preliminary Site Investigation shall comply with applicable guidelines made or approved by the NSW EPA under the Contaminated Land Management Act 1997 and identify all past and present potentially contaminating activities; identify potential contamination types; discuss the site condition; provide a preliminary assessment of site contamination; and assess the need for further investigations.

Where contaminating activities are suspected or known to have occurred, or if site history is incomplete, it may be necessary to prepare a Stage 2- Detailed Site Investigation. This investigation shall give regard to the potential effects of any contaminants on public health, the environment and building structures and shall meet the sampling density outlined in the NSW EPA 'Sampling Design Guidelines' (1995).

If the Stage 2-Detailed Site Investigation indicates that the site poses unacceptable risks to human health or the environment, a Remedial Action Plan (RAP) shall be prepared by a suitably qualified and experienced Contaminated Land Consultant in accordance with applicable guidelines made or approved by the NSW EPA under the Contaminated Land Management Act 1997. In these circumstances, the Remedial Action Plan shall be referred to the consent authority for review.

Contaminated site reports shall be prepared by a suitably qualified contaminated land consultant who is certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.

4. Technical Reports

To improve environmental health outcomes and efficiency during the development assessment process, Council requests that the subsequent application is to be

supported by technical reports prepared by suitably qualified and industry certified environmental consultants.

The technical reports are to include the following; Traffic impact assessment, Noise assessment, flooding, water quality. Other requirements are as listed below. Further information on the technical reports requirements is available on Council's website at:

<https://www.liverpool.nsw.gov.au/development/development-and-building>.

5. Acoustic Assessment

The proposed development may be a source of offensive noise and potentially impact upon human health and amenity. An acoustic report shall be prepared by a suitably qualified acoustic consultant and include a quantitative assessment of all noise and vibration generating sources during site preparation, construction and operation in accordance with the NSW Environment Protection Authority's 'Noise Policy for Industry' (2017) and Department of Environment and Conservation's 'Assessing Vibration: A Technical Guideline' dated February 2006. The cumulative effect of noise must be considered when assessing the impact upon receivers.

Where necessary, the report shall also assess potential road traffic noise impacts in accordance with the 'NSW Road Noise Policy' prepared by the Department of Environment, Climate Change and Water NSW (DECCW NSW) dated March 2011. The project noise trigger levels for the proposed development shall be selected according to the most stringent intrusive or amenity criteria. If required, recommendations and noise control measures shall be specified to achieve compliance with the assessment criteria. The assessment shall be representative of all noise generating activities on-site.

When assessing noise levels at commercial or industrial premises, the noise level shall be determined at the most affected point on or within the property boundary. Alternatively, when gauging noise levels at residences, the noise level shall be assessed at the most affected point on or within the residential property boundary. Where necessary, sound levels shall be adjusted in accordance with NSW Environment Protection Authority's guidelines for tonality, frequency weighting, impulsive characteristics, fluctuations and temporal content.

Detailed specifications of any equipment, machinery or public address system are required to determine noise impacts associated with the proposed development's operation. Construction noise shall also be assessed in accordance with the 'Interim Construction Noise Guideline' published by the Department of Environment and Climate Change NSW dated July 2009.

In accordance with Council's requirements, it is strongly recommended that the Department requires acoustic reports to be prepared or reviewed and certified by a suitably qualified acoustic consultant who is a member of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm. The report's cover or title page must confirm the consultant's membership with the Australian Acoustical Society or employment by an Association of Australasian Acoustical Consultants (AAAC) member firm.

6. Noise Management Plan

The SEARs shall require the preparation of a Noise Management Plan and complaints' handling procedure prepared under the supervision of a suitably qualified acoustic consultant. The Noise Management Plan and complaints' handling procedure shall be submitted to the consent authority for review.

7. Air and Water Quality Management

The proposed development may compromise air and water quality. Windblown particulates could potentially impact unreasonably upon sensitive receivers and site runoff may degrade receiving waters. Consideration must therefore be given to the proposed design, construction and layout of the premises to ensure that the facility is able to be operated in an environmentally satisfactory manner. This would include the incorporation of appropriate safeguards in the design and construction of the facility to prevent the generation of wind-blown dust and contamination of overland flow and surface waters.

The SEARs shall require an air and water quality assessment undertaken by a suitably qualified environmental consultant in accordance with the NSW EPA's 'Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales' published January 2017, Office of Environment and Heritage (OEH) 'Technical Framework Assessment and Management of Odour from Stationary Sources in NSW' dated November 2006 and 'Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales' dated March 2004. Where required, recommendations shall be detailed to mitigate impacts on the environment and public health.

8. SEPP 33 – Hazardous and Offensive Development

To address the requirements of State Environmental Planning Policy No. 33- Hazardous and Offensive Development, the Applicant may be required to prepare a preliminary screening procedure and/or Preliminary Hazard Analysis for the proposal.

9. Chemical Inventory

A chemical inventory checklist may need to be completed and submitted to the consent authority for review.

10. Vehicle Refuelling Facilities & Chemical Storage

If vehicle refuelling activities are proposed, detailed site plans are required to demonstrate compliance with the 'Practice Note Managing Run-Off from Service Station Forecourts' Published by the NSW EPA dated June 2019.

Detailed plans of the forecourt and chemical storage areas shall identify bunding, spill kit locations and drainage infrastructure. All work and storage areas where spillage may occur shall be bunded. The capacity of the bunded area shall be calculated as being equal to 110% of the largest storage or process vessel/container in the area or 10% of the total volume of vessels/containers accommodated in the area, whichever is greater.

Drainage within any fuel dispensing area may need to be connected to a pre-treatment device. The canopy covering the fuel dispensing and chemical storage areas shall have an overhang by 10° to prevent rainwater intrusion.

The Applicant may also be required to comply with the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019, Protection of the Environment Operations (Clean Air) Regulation 2010 and industry best practice and standards including but not limited to Australian Standard AS 4897–2008: Design, installation and operation of underground petroleum storage systems (AS 2008a) and The Standards and Best Practice Guidelines for Vapour Recovery at Petrol Service Stations published by the NSW EPA dated March 2017.

Plans may also be required to demonstrate compliance with Australian Standard (AS) 1940–2017: The storage and handling of flammable and combustible liquids; AS/NZS 3833:2007 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers; and if applicable, Australian Standard (AS) 1692-2006 Steel tanks for flammable and combustible liquids.

11. Mechanical Repairs and Servicing

If general vehicle maintenance is proposed, these activities shall be conducted within a workshop/building constructed and operated in accordance with the 'Environmental Action for Automotive Servicing and Repairs' (DECC 2008/77) prepared by the Department of Environment and Climate Change NSW dated May 2008.

The floor of the workshop/building shall be graded to an internal drainage point connected to an appropriate wastewater system. Otherwise, general vehicle maintenance and fleet servicing shall be prohibited at the site.

12. Wash Bay

If vehicle, trailer and/or equipment washing is proposed, adequate environmental controls comprising a fully enclosed bunded and covered wash bay must be incorporated into the design of the waste management facility. The floor of the wash bay shall be graded to an internal drainage point connected to the sewer of Sydney Water in accordance with their requirements.

Trafficable bunds shall be installed at the entry/exit of the wash bay and the roof covering the wash bay shall contain an overhang of at least 10° to prevent rainwater intrusion. Uncontaminated rainwater shall be directed from the canopy and other roofed areas into stormwater drains.

13. Construction Phase Soil and Water Management Plan

A soil and water management plan shall be prepared for the construction phase of the proposal.

14. Construction Environmental Management Plan

A Construction Environmental Management Plan shall be prepared by a suitably qualified environmental consultant for the proposal. Suitable management and control

measures must be included within the Plan to ensure that there are no adverse impacts on the environment during construction. The CEMP must address all environmental aspects of the development's construction phases, and include, where relevant, but not be limited to, the following:

1. Project Contact Information;
2. Site Security Details;
3. Timing and Sequencing Information;
4. Site Soil and Water Management Plan;
5. Noise and Vibration Control Plan;
6. Dust Control Plan;
7. Health and Safety Plan;
8. Waste Management Plan;
9. Incident Management Contingency; and
10. Unexpected Finds Protocol.

15. Site Plans

Detailed site plans for the proposed facility shall be submitted with the Application and include:

- Environmental safeguards such as trafficable bunds installed at the entry and exits of chemical and waste storage areas to prevent contamination of the surrounding environment;
- A sealed forecourt area to prevent dust emissions and tracking of sediment and other material from the site;
- An enclosed building for the complete storage of chemicals and waste;
- The roof covering all storage areas, garbage bin bays and chemical storage areas shall contain an overhang of at least 10° to prevent rainwater intrusion. Uncontaminated rainwater shall be directed from the canopy and other roofed areas into stormwater drains;
- The location of spill kits, stormwater pits and stormwater drainage infrastructure. A detailed drainage diagram shall be submitted with the Application to clearly identify the proposed location of surface drains, sewerage and stormwater infrastructure; and
- Manufacturer's specifications and the location of any pre-treatment devices to be installed at the subject premises.

All containment measures including trafficable bunds shall be designed, installed and constructed in a manner which: permits the safe passage of personnel and vehicles, maintains effective containment capacity and minimises intrusive/offensive noise impacts arising from vehicle operation.

16. Operational Environmental Management Plan

An Operational Environmental Management Plan (OEMP) shall be prepared for the proposed facility and be submitted to the consent authority for review. The Plan shall be written by a suitably qualified and experienced environmental consultant and address means by which the commitment in the Environmental Impact Statement and other environmental assessment reports will be fully implemented.

The EMP shall also provide a framework for managing and mitigating environmental impacts for the life of the proposal and make provisions for auditing the effectiveness of the proposed environmental protection measures and procedures. The Plan must support recommendations proposed in the submitted technical reports whilst also addressing other risks to the environment including but not limited to material storage, dust/odour management, protection of watercourses, wet areas, water management and facility design.

The OEMP shall be prepared to meet the requirements of ISO 14001 and as a minimum address the following requirements:

- a) Provide the strategic context for the management of the development;
- b) Identify all the statutory requirements of the development and any specific environmental standards;
- c) Detail mitigation measures to minimise acoustic impacts;
- d) Specify mitigation requirements to maintain air quality;
- e) Outline mitigation measures to maintain water quality;
- f) Address sediment and erosion control during operation; and
- g) Include community consultation and complaints management procedures.

In this regard, the OEMP must include at least the following information: introduction, project description, environmental policy, EMP context, objectives, responsibilities, statutory and reporting requirements, environmental management activities, environmental training, emergency contacts, risk assessment and monitoring and review procedures, OEMP auditing and appendices. Individual sub-plans may be incorporated into a single comprehensive OEMP for the proposal. Further advice should be sought from an environmental consultant who is suitably qualified and experienced in the preparation of Environmental Management Plans.

17. Traffic & Transport

The following matters shall be addressed in a Traffic Impact Statement accompanying the EIS:

- a) Daily and peak traffic movements likely to be generated by the proposed development.
- b) Details of haulage profile (including vehicle type and likely arrival and departure times) and routes.
- c) Adequacy of Martin Road to be used for heavy vehicle movements expected to be generated by the proposed development.
- d) Details of the proposed accesses and the layout of the parking associated with the proposed development including compliance with the requirements of the relevant Australian Standards (i.e. turn paths, sight distance requirements, aisle widths, etc).
- e) Proposed number of car parking spaces and compliance with the appropriate parking codes.
- f) Intersection performance analysis of the following intersections, considering the cumulative impacts of the proposed development and other developments:
 - i. Access off Martin Road;
 - ii. Martin Road/Elizabeth Drive intersection; and
 - iii. Other surrounding intersections.

- g) The assessment needs to provide details of the required infrastructure upgrades to support the proposed development and funding mechanism.
- h) Noise mitigation measures for the proposed haulage routes near residential areas.
- i) A construction traffic management plan providing details of all demolition / construction activities, detailing vehicle routes, number of trucks, hours of operation, access arrangements, traffic control measures and impacts on the existing and proposed road network.

18. Flooding

The proponent shall require undertaking a flood study with hydrologic and 2d hydraulic modelling and establish flood behavior of the creek in the vicinity of the site. The flood study shall consider future development proposed for the entire site.

Development shall not have adverse flooding impact in the vicinity upstream downstream of the site. Any adverse flood impact shall be mitigated through flood mitigation works. Detailed flood study report, flood mapping and flood levels deference mapping for pre and post development scenarios along with electronic copies of flood models shall be submitted for Council's review.

The flood study shall also assess any existing overland flows from upper catchment areas running through the site. Development shall not have adverse flooding impact on adjoining sites and appropriate measures shall be incorporated to the proposal to manage the flows safely.

19. Water Quality Management

Water quality treatment measures shall be provided for the development to treat stormflows from the site before discharging into receiving waters and shall achieve Council's stormwater treatment targets. Water quality treatment devices such as bio-retentions, bio-filters and GPT shall be considered and designed using MUSIC modelling software and water quality treatment performance shall be verified using Councils MUSIC.

Wastewater and pollutant generated from operation of the recovery facility shall be treated through wastewater treatment plants and appropriate control measures before being discharged from the site.



OUT20/14463

Ania Dorocinska
Department of Planning, Industry and Environment

Ania.dorocinska@planning.nsw.gov.au

Dear Ms Dorocinska

Environmental Assessment Requirements– SSD 10866203 – Western Sydney Sustainable Road Resource Centre, 230 Martin Road, Badgerys Creek, (Lot A DP 406215)

Thank you for your correspondence dated 9 November 2020 requesting Environmental Assessment Requirements (EARs) for the above proposal.

The NSW Department of Primary Industries (NSW DPI) is committed to the protection and growth of agricultural industries, and the land and resources upon which these industries depend. Important issues are the potential impact on agricultural resources and operations to enable continued agricultural investment.

NSW DPI Biosecurity and Food Safety request that the environmental assessment requirements include a requirement for the proponent to include the following matters in the environmental impact statement:

- a biosecurity risk assessment outlining the impact, or potential impact, of pests, disease and weeds on the environment, economy and community as a result of the development proposal; and
- strategies/plans to prevent, eliminate, minimise or mitigate the biosecurity impact, or potential impact, of the development proposal on the environment, economy and community.

Should you require clarification on any of the information contained in this response, please contact me on 0429 864 501 or the Biosecurity and Food Safety Unit by email at bfs.portal@dpi.nsw.gov.au

Yours sincerely

20 November 2020

Paul Garnett
Agricultural Land Use Planning Officer



OUT20/13919

Ania Dorocinska
Planning and Assessment Group
NSW Department of Planning, Industry and Environment

ania.dorocinska@planning.nsw.gov.au

Dear Ms Dorocinska

**Western Sydney Sustainable Road Resource Centre (SSD 10866203)
Comment on the Secretary's Environmental Assessment Requirements (SEARs)**

I refer to your email of 9 November 2020 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

The following recommendations are provided by DPIE Water and NRAR.

The SEARS should include:

- The identification of an adequate and secure water supply for the life of the project. This includes confirmation that water can be sourced from an appropriately authorised and reliable supply. This is also to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.
- Proposed surface and groundwater monitoring activities and methodologies.
- Consideration of relevant legislation, policies and guidelines, including the NSW Aquifer Interference Policy (2012), the Guidelines for Controlled Activities on Waterfront Land (2018) and the relevant Water Sharing Plans (available at <https://www.industry.nsw.gov.au/water>).

Any further referrals to DPIE Water & NRAR can be sent by email to:
landuse.enquiries@dpi.nsw.gov.au.

Yours sincerely

Alistair Drew
Project Officer, Assessments
Water – Strategic Relations
11 November 2020



Our ref: DOC20/933061

Senders ref: SSD 10866203 (Liverpool City)

Ania Dorocinska
Senior Environmental Assessment Officer
Industry Assessments
4 Parramatta Square
12 Darcy Street
Parramatta NSW 2150

Dear Ms Dorocinska,

Subject: Request for SEARs for Western Sydney Sustainable Road Resource Centre at 230 Martin Road, Badgerys Creek (SSD 10866203)

Thank you for your e-mail received on 11 November 2020, requesting input from Environment, Energy and Science Group (EES) in the Department of Planning, Industry and Environment (DPIE) on the Request for SEARs for Western Sydney Sustainable Road Resource Centre at 230 Martin Road, Badgerys Creek.

EES has reviewed the scoping report prepared by Element dated 6 November 2020 and provides the following comments and recommendations at **Attachment A**.

Biodiversity

EES recommends that the SEARs include the attached biodiversity requirements.

Flooding

EES recommends that the SEARs include the attached flooding requirements.

Water and Soils

EES recommends that the SEARs include the attached water and soil requirements.

Please note with regards to Aboriginal Cultural Heritage issues and ACHARs, ACH regulation, including advice in regard to SSI and SSD, is now managed by the Department of Premier and Cabinet (DPC). The new contact for the ACH regulation team is heritagemailbox@environment.nsw.gov.au.

Should you have any queries regarding this matter, please contact Bronwyn Smith, Senior Conservation Planning Officer on 9873 8604 or bronwyn.smith@environment.nsw.gov.au

Yours sincerely

Susan Harrison
Senior Team Leader Planning
Greater Sydney Branch
Climate Change and Sustainability

**Attachment A – EES Environmental Assessment Requirements – Western Sydney
Sustainable Road Resource Centre at 230 Martin Road, Badgerys Creek (SSD 10866203)**

Biodiversity
1. Biodiversity impacts related to the proposed development are to be assessed in accordance with Section 7.9 of the Biodiversity Conservation Act 2017 the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the Biodiversity Conservation Act 2016 (s6.12), Biodiversity Conservation Regulation 2017 (s6.8) and Biodiversity Assessment Method, including an assessment of the impacts of the proposal (including an assessment of impacts prescribed by the regulations). 2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method. 3. The BDAR must include details of the measures proposed to address the offset obligation as follows: • The total number and classes of biodiversity credits required to be retired for the development/project; • The number and classes of like-for-like biodiversity credits proposed to be retired; • The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules; • Any proposal to fund a biodiversity conservation action; • Any proposal to conduct ecological rehabilitation (if a mining project); • Any proposal to make a payment to the Biodiversity Conservation Fund. If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits. 4. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix 11 of the BAM. 5. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the Biodiversity Conservation Act 2016.
Water and soils

6. The EIS must map the following features relevant to water and soils including:
 - a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map).
 - b. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method).
 - c. Wetlands as described in s4.2 of the Biodiversity Assessment Method.
 - d. Groundwater.
 - e. Groundwater dependent ecosystems
 - f. Proposed intake and discharge locations
7. The EIS must describe background conditions for any water resource likely to be affected by the development, including:
 - a. Existing surface and groundwater.
 - b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations.
 - c. Water Quality Objectives (as endorsed by the NSW Government <http://www.environment.nsw.gov.au/ieo/index.htm>) including groundwater as appropriate that represent the community's uses and values for the receiving waters.
 - d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the [ANZECC \(2000\) Guidelines for Fresh and Marine Water Quality](#) and/or local objectives, criteria or targets endorsed by the NSW Government.
 - e. Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions <http://www.environment.nsw.gov.au/research-and-publications/publications-search/risk-based-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning>

8. The EIS must assess the impact of the development on hydrology, including: a. Water balance including quantity, quality and source. b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas. c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems. d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches). e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water. f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options. g. Identification of proposed monitoring of hydrological attributes.
Flooding and coastal hazards
9. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including: a. Flood prone land. b. Flood planning area, the area below the flood planning level. c. Hydraulic categorisation (floodways and flood storage areas) d. Flood Hazard. 10. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP, flood levels and the probable maximum flood, or an equivalent extreme event. 11. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios: a. Current flood behaviour for a range of design events as identified in 14 above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change. 12. Modelling in the EIS must consider and document:

- a. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.
- b. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood, or an equivalent extreme flood.
- c. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazard categories and hydraulic categories
- d. Relevant provisions of the NSW Floodplain Development Manual 2005.

13. The EIS must assess the impacts on the proposed development on flood behaviour, including:

- a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
- b. Consistency with Council floodplain risk management plans.
- c. Consistency with any Rural Floodplain Management Plans.
- d. Compatibility with the flood hazard of the land.
- e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
- f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
- g. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of riverbanks or watercourses.
- h. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the NSW SES and Council.
- i. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the NSW SES and Council.
- j. Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the NSW SES.
- k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

(END OF SUBMISSION)

From: [Cornelis Duba](#)
To: [Ania Dorocińska](#)
Cc: [DPE CSE Information Planning Mailbox](#)
Subject: NSW Planning, Industry & Environment Request for SEAR's SSD-10866203 Western Sydney Sustainable Road Resource Centre
Date: Friday, 20 November 2020 8:46:43 PM
Attachments: [image034.png](#)
[image038.png](#)
[image001.png](#)
[EE FPJ 6007 Technical Review Request Aug 2019.pdf](#)
[SW08773 Work near underground assets.pdf](#)
[SW Work near overhead power lines.pdf](#)
[EE Safety Plumbing.pdf](#)
[EE Safety on the job.pdf](#)
[EE MD10044 Easements and Property Tenure.pdf](#)
[ENA EMC What We Know.pdf](#)

Hello Ania

I refer to your below email of 9 November 2020 regarding the request for the Planning Secretary's Environmental Assessment Requirements (SEARs) for a State Significant Development SSD-10866203 Western Sydney Sustainable Road Resource Centre for construction and operation of asphalt plant, reconomy facility and bitumen products manufacturing plant located at 230 Martin Road, Badgerys Creek (Lot A DP 406215) in the Liverpool City Local Government Area (LGA). Submissions need to be made to the Department by 20 November 2020.

As shown in the below site plans from Endeavour Energy's G/Net master facility model (and extract from Google Maps Street View) there are:

- No easements benefitting Endeavour Energy (active easements are indicated by red hatching).
- To the road verge / roadway there are low voltage and 11,000 volt / 11 kilovolt (kV) high voltage overhead power lines including pole mounted substation no. 8497 (indicated by the ) from which there is an extended low voltage overhead service conductor going to a customer owned / private pole (indicated by the green circle) on the site providing a customer connection point for the existing use.
- To the adjoining south western corner of Lot 22 DP 626147 there is a pole to which there are 11 kV (constructed at 22,000 volt / 22 kV) high voltage overhead power lines and 11 kV high voltage underground cables.

Please note the location, extent and type of any electricity infrastructure, boundaries etc. shown on the plan is indicative only. In addition it must be recognised that the electricity network is constantly extended, augmented and modified and there is a delay from the completion and commissioning of these works until their capture in the model. Generally (depending on the scale and/or features selected), low voltage (normally not exceeding 1,000 volts) is indicated by blue lines and high voltage (normally exceeding 1,000 volts but for Endeavour Energy's network not exceeding 132,000 volts / 132 kV) by red lines (these lines can appear as solid or dashed and where there are multiple lines / cables only the higher voltage may be shown). This plan only shows the Endeavour Energy network and does not show electricity infrastructure belonging to other authorities or customers owned electrical equipment beyond the customer connection point / point of supply to the property. This plan is not a 'Dial Before You Dig' plan under the provisions of Part 5E 'Protection of underground electricity power lines' of the *Electricity Supply Act 1995* (NSW).

Whilst Endeavour Energy has not sited the Draft SEARs, the following is an example of the 'Utilities' section of a recent notification received by Endeavour Energy from NSW Planning, Industry and Environment.

14. Utilities

- In consultation with relevant service providers:
 - assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.
 - identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.
 - provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.

The following is a combination of the various requests for SEARs for other State Significant Development referred to Endeavour Energy which attempts to capture the possible 'Utilities' related matters.

Prepare an Infrastructure Management Plan in consultation with relevant agencies / authorities to:

- *address the existing capacity of the site to service the proposed development and any extension or augmentation, property tenure or staging requirements for the provision of utilities, including arrangements for electrical network requirements, drinking water, waste water and recycled water and how the upgrades will be co-ordinated, funded and delivered on time and be maintained to facilitate the development; and*
- *identify the existing infrastructure on the site or within the network which may be impacted by the construction and operation of the proposal and the measures to be implemented to address any impacts on this infrastructure.*

Endeavour Energy believes that either of the foregoing would adequately require the applicant to investigate and address in utilities required for the SSD.

Endeavour Energy's recommendations and comments regarding the Scoping Report are as follows:

- Network Capacity / Connection

The availability of electricity supply to a site is based on a wide range of factors eg. the age and design of the network; other development in the locality utilising previously spare capacity within the local network; the progress of nearby / surrounding sites including electricity infrastructure works eg. a smaller and isolated development that may not of its own accord require a substation may require a substation to facilitate the development and from which the spare capacity is made available to subsequent nearby development.

Distribution substations are required to transform the high voltage of the distribution feeder (usually at 11,000 volts / 11 kV) to the secondary system voltage (400/230 volts) to supply customers / developments. Distribution substations are divided into ground mounted substations most commonly being a padmount substations installed a complete unit on a concrete foundation / plinth and usually associated with underground distribution and pole mounted substations where there is overhead distribution.

Pole mounted have comparatively limited capacity of 25 kilovolt amperes (kVA) up to a maximum of 400 kVA. Padmount substations can accommodate loads from 315 kVA up to 1,500 kVA (typically 500 kVA). Accordingly there is a significant variation in the number and type of premises able to be connected to a substation ie. a single distribution substation may serve one large building, or many homes. Whilst pole mounted substation no. 8497 is located on the road verge and is likely to have some spare capacity, it may not be sufficient to facilitate the proposed development ie. pole mounted substations are generally not intended or capable of providing supply to a significant urban development.

As well as the capacity of distribution substations, other factors such as the size and rating / load on the conductors and voltage drop (which can affect the quality of supply particularly with long conductor runs) etc. need to be assessed. Accordingly an extension and / or augmentation of the existing local network may be required. However the extent of the works will not be determined until the final load assessment is completed. Endeavour Energy's preference is to alert proponents / applicants (and the Department) of the potential matters that may arise as further development of areas continues to occur.

In due course the applicant for the proposed development of the site will need to submit an appropriate application based on the maximum demand for electricity for connection of load via Endeavour Energy's Network Connections Branch to carry out the final load assessment and the method of supply will be determined. Straightforward applications can be completed online and permission to connect may be provided immediately if submitting a complying application.

Depending on the outcome of the assessment, any required padmount substation/s will need to be located within the property (in a suitable and accessible location) and be protected (including any associated cabling) by an easement and associated restrictions benefitting and gifted to Endeavour Energy. Please refer to Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights'.

For more complex connections, advice on the electricity infrastructure required to facilitate the proposed development (including asset relocations) can be obtained by submitting a Technical Review Request to Endeavour Energy's Network Connections Branch, the form for which FPJ6007 is attached. The response to these enquiries is based upon a desktop review of corporate information systems, and as such does not involve the engagement of various internal stakeholders in order to develop a 'Connection Offer'. It does provide details of preliminary connection requirements which can be considered by the applicant prior to lodging a formal application for connection of load.

Further details are available by contacting Endeavour Energy's Network Connections Branch on business days via Head Office enquiries on business days on telephone: 133 718 or (02) 9853 6666 from 9am - 4:30pm or on Endeavour Energy's website under 'Home > Residential and business > Connecting to our network' via the following link:

<http://www.endeavourenergy.com.au/>.

Alternatively the applicant may need to engage an Accredited Service Provider (ASP) of an appropriate level and class of accreditation to assess the electricity load and the proposed method of supply. The ASP scheme is administered by Energy NSW and details are available on their website via the following link or telephone 13 77 88:

<https://energy.nsw.gov.au/government-and-regulation/legislative-and-regulatory-requirements/asp-scheme-and-contestable-works> .

Endeavour Energy is urging applicants /customers to engage with an Electrical Consultant prior to finalising plans to in order to assess and incorporate any required electricity infrastructure. In so doing the consideration can also be given to its impact on the other aspects of the proposed development.

- Network Asset Design

Endeavour Energy's Company Policy 9.2.5 'Network Asset Design', includes the following requirements for electricity connections to new urban subdivision / development (Enterprise Zone of the Badgerys Creek Precinct):

5.11 Reticulation policy

5.11.1 Distribution reticulation

In order to improve the reliability performance of and to reduce the operating expenditure on the network over the long term the company has adopted the strategy of requiring new lines to be either underground cables or where overhead is permitted, to be predominantly of covered or insulated construction. Notwithstanding this strategy, bare wire overhead construction is appropriate and permitted in some situations as detailed below.

In areas with the potential for significant overhanging foliage, CCT is used to provide increased reliability as it is less susceptible to outages from wind-blown branches and debris than bare conductors. CCT must only be used in treed² areas as the probability of a direct lightning strike is low. In open areas where the line is not shielded from a direct lightning strike, bare conductors must generally be used for 11kV and 22kV reticulation.

Non-metallic Screened High Voltage Aerial Bundled Cable (NMSHVABC) must be used in areas which are heavily treed and where it is not practicable to maintain a tree clearing envelope around the conductors.

² A 'treed' area is one with a substantial number of trees adjacent to the line, in each span. In these situations CCT is used to provide increased reliability as it is less susceptible to outages from wind-blown

5.11.1.1 Urban areas

Reticulation of new residential subdivisions will be underground. In areas of low bushfire consequence, new lines within existing overhead areas can be overhead, unless underground lines are cost justified or required by either environmental or local council requirements.

Where underground reticulation is required on a feeder that supplies a mixture of industrial, commercial and/or residential loads, the standard of underground construction will apply to all types of load within that development.

Where ducting is used, adequate spare ducts and easements must be provided at the outset to cover the final load requirements of the entire development plan.

Extensions to the existing overhead 11kV/22kV network must generally be underground. Bare wire will be used for conductor replacements and augmentations except in treed areas where CCT or NMSHVABC must be used. Extensions to the existing overhead LV network and augmentations must either be underground or ABC. Conductor replacements greater than 100m in route length must utilise aerial bundled cable.

- Streetlighting

With the significant increase in vehicular traffic, given the existing streetlighting is designed for a non-urban environment, the streetlighting for the proposed development should be reviewed and if necessary upgraded to comply with the series of standards applying to the lighting of roads and public spaces set out in with Australian/New Zealand Standard AS/NZS 1158: 2010 'Lighting for roads and public spaces' as updated from time to time.

Whilst the determination of the appropriate lighting rests with the road controlling authority, Endeavour Energy as a Public Lighting Service Provider is responsible for operating and maintaining the streetlights on behalf of local councils, Roads and Maritime Services and other utilities in accordance with the NSW Public Lighting Code 2019 (Code) as updated from time to time. Endeavour Energy recognises that well designed, maintained and managed Public Lighting offers a safe, secure and attractive visual environment for pedestrians and drivers during times of inadequate natural light.

For any Code implementation and administration / technical matters please contact Endeavour Energy's Substation Mains Assets Section via Head Office enquiries on business days on telephone: 133 718 or (02) 9853 6666 from 9am - 4:30pm or email mainsenquiry@endeavourenergy.com.au .

- Separation of Driveways to Electricity Infrastructure

For public / road safety and to reduce the likelihood / protect electricity infrastructure from vehicle impact, Endeavour Energy's recommendation that the minimum separation distance of driveways from power poles, streetlight columns or low voltage pillars is 1 metre. The greater the separation provided the better and the less the risk eg. Endeavour Energy's Lighting Design Instruction LDI 0001 'Public lighting design' indicates that for new lighting installations 'The minimum clearance to any driveway shall be 1500 mm'. However with increased density achieved with smaller, narrower, battle-axe lots and where built to side boundary development is allowed this can be difficult to achieve.

The widening of landscaping provided along the side boundary and the curving of the driveway away can provide additional clearance. In some instances the 1 metre of separation may be comparatively excessive eg. depending on the extent and voltage of the electricity infrastructure (some poles may have multiple overhead power lines ranging from low voltage to 132,000 volt / 132 kilovolt (kV) high voltage); setback of the electricity infrastructure from the roadway / kerb and gutter; the traffic type, volume and speed etc. However for lesser distances, appropriate protective devices may be required and 300 millimetres clearance to the skirting of the proposed driveway is regarded as the minimum that would be acceptable / safe for anyone properly using the driveway. Failing the foregoing, an asset relocation may be the only option remaining.

In regard to the relevant parts of Australian Standard 2890 'Parking Facilities', whilst there is no direct reference in the Standard to power poles or streetlight columns as a 'permanent sight obstruction', provision needs to be made to allow for turning movements, reversing, safety aspects such as sight distances to both pedestrians and other vehicles should not be compromised. Also, as a 'fixed object', if adequate separation cannot be provided, protective devices to protect the power pole or streetlight column from vehicle impact may be required.

Also the applicant should note that under the provision of the *Electricity Supply Act 1995* (NSW), a driveway constructed too close to electricity infrastructure may under Section 49 'Obstruction of electricity works' be regarded as interfering with electricity works eg. in the event that a pole needs to be replaced and excavation of the surrounding ground is required part of the driveway would need to be removed.

- Flooding and Drainage

Endeavour Energy has noted that the following in the Scoping Report.

2.1.2 Proposed activities

Earthworks

The project will require bulk earthworks to establish a suitable platform(s) on which to construct the Sustainable Road Resource Centre. As discussed further in sections 3.2 and 3.3, the western third of the site is above the (1% annual exceedance probability (AEP)) flood level while the eastern two-thirds of the site is below the 1% AEP flood level. This significantly constrains the area of land available for development if no development was to occur within the 1% AEP flood extent.

Endeavour Energy requires the electricity network needed to service an area / development to be fit for purpose and meet the technical specifications, design, construction and commissioning standards based on Endeavour Energy's risk assessment associated with the implementation and use of the network connection / infrastructure for a flood prone site. Risk control has focused typically on avoiding the threat, but where this is not possible, reducing the negative effect or probability of flood damage to assets by implementing good design and maintenance practices.

Distribution substations should not be subject to flood inundation or stormwater runoff ie. the padmount substation cubicles are weatherproof not flood proof and the cable pits whilst designed to be self-draining should not be subject to excessive ingress of water. Section 7 'Substation and switching stations' of Endeavour Energy's Mains Construction Instruction MCI 0006 'Underground distribution construction standards manual' provides the following details of the requirements for flooding and drainage in new padmount substation locations.

7.1.6 Flooding and drainage

Substations are to be located such that the risk of flooding or stormwater damage is minimal.

As a minimum the level at the top of the transformer footing, HV and LV switchgear, shall not be lower than the 1:100 year flood level.

All drains within the substation site area or in the vicinity shall be properly maintained to avoid the possibility of water damage to Endeavour Energy's equipment.

In areas where, as determined by the Network Substation Manager, there is a high water table or a heightened risk of flooding, indoor substations will not be permitted.

All materials used in the construction below the substation (ground level) shall be capable of withstanding prolonged immersion in water without swelling or deterioration.



Figure 51 - Example substation raised above 1:100 flood level

- Bushfire

Endeavour Energy has noted the following I the Scoping Report.

2.4.8 Bushfire prone land

The site contains bushfire prone land (vegetation category 1) along South Creek (Figure 2.7). The project will be limited to the western part of the site, away from South Creek, therefore, the potential bushfire risk is low.

Although industrial uses are not covered by Chapters 5 to 7 of NSW Rural Fire Service 'Planning for Bush Fire Protection 2019' (PBP), the aim and objectives of PBP still need to be considered and a suitable package of bush fire protection measures should be proposed commensurate with the assessed level of risk to the development. PBP provides the following advice regarding electricity services:

5.3.3 Services – Water, electricity and gas

Intent of measures: to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

Table 5.3c

Performance criteria and acceptable solutions for water, electricity and gas services for residential and rural residential subdivisions.

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
The intent may be achieved where:	
ELECTRICITY SERVICES	location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.
	where practicable, electrical transmission lines are underground; where overhead, electrical transmission lines are proposed as follows: - lines are installed with short pole spacing of 30m, unless crossing gullies, gorges or riparian areas; and - no part of a tree is closer to a power line than the distance set out in ISSC3 Guideline for Managing Vegetation Near Power Lines.

The following is an extract of Endeavour Energy's Company Policy 9.1.1 Bushfire Risk Management:

9.1.1 BUSHFIRE RISK MANAGEMENT

1.0 POLICY STATEMENT

The company is committed to the application of prudent asset management strategies to reduce the risk of bushfires caused by network assets and aerial consumer mains to as low as reasonably practicable (ALARP) level. The company is also committed to mitigating the associated risk to network assets and customer supply reliability during times of bushfire whilst achieving practical safety, reliability, quality of supply, efficient investment and environmental outcomes. The company is committed to compliance with relevant acts, regulations and codes.

Accordingly the electricity network required to service the proposed development must be fit for purpose and meet the technical specifications, design, construction and commissioning standards based on Endeavour Energy's risk assessment associated with the implementation and use of the network connection / infrastructure for a bushfire prone site. In assessing bushfire risk, Endeavour Energy has traditionally focused on the likelihood of its network starting a bushfire, which is a function of the condition of the network. Risk control has focused on reducing the likelihood of fire ignition by implementing good design and maintenance practices. However the potential impact of a bushfire on its electricity infrastructure and the safety risks associated with the loss of electricity supply are also considered.

- Earthing

The construction of any building or structure (including fencing, signage, flag poles, hoardings etc.) whether temporary or permanent that is connected to or in close proximity to Endeavour Energy's electrical network is required to comply with Australian/New Zealand Standard AS/NZS 3000:2018 'Electrical installations' as updated from time to time. This Standard sets out requirements for the design, construction and verification of electrical installations, including ensuring there is adequate connection to the earth. It applies to all electrical installations including temporary builder's supply / connections.

Inadequate connection to the earth to allow a leaking / fault current to flow into the grounding system and be properly dissipated places persons, equipment connected to the network and the electricity network itself at risk from electric shock, fire and physical injury. The earthing system is usually in the form of an earth electrode consisting of earth rods or mats buried in the ground. It should be designed by a suitably qualified electrical engineer / ASP following a site-specific risk assessment having regard to the potential number of people could be simultaneously exposed, ground resistivity etc.

For details of the ASP scheme please refer to the above point 'Network Capacity / Connection'.

- State Environmental Planning Policy 33 - Hazardous and Offensive Development (SEPP 33)

Endeavour Energy has noted the following in the Scoping Report.

3.5.2 SEPP 33 (Hazardous and Offensive development).

SEPP 33 requires the consent authority to consider whether a development proposal is a potentially hazardous industry or a potentially offensive industry. A screening assessment will be undertaken for the project to determine if it is classified as hazardous or offensive industry under SEPP 33. Based on the outcome of the screening process, the requirement for a preliminary hazard analysis will be determined.

Endeavour Energy is aware that the provisions of SEPP 33 in the preparation of a preliminary hazard assessment electricity infrastructure is not defined / regarded as sensitive land use. However, in similar situations Endeavour Energy has sought further advice from the consultants preparing the preliminary hazard assessment on the basis that, although not a sensitive land use in the traditional / environmental sense, if the electricity infrastructure on or in proximity of the site (which also may be a potential ignition source) is damaged, the resulting outage could leave many properties / customers without power (including possibly the telecommunications facility located on nearby lot 21 DP 827164). The consultants have been requested to specifically address the risks associated with the proximity of the electricity infrastructure ie. detail design considerations, technical or operational controls etc. to demonstrate as required by SEPP33 that the proposed business / development is suitably located and can be built and operated with an adequate level of safety and pollution control.

- Air Quality / Dust

Although Endeavour Energy's electricity infrastructure is not a 'sensitive receptor' in the traditional sense of being a habitable / residential use, the electrical equipment / operation of the site would be affected by excessive / cumulative dust emissions eg. it could cause a flashover to occur on the insulators and start a fire in the substation. From Endeavour Energy's perspective it is imperative that the appropriate air quality management measures are implemented and adhered to in order to minimise any impact on the electricity on and near the site.

- Prudent Avoidance

The electricity industry has adopted a policy of prudent avoidance by doing what can be done without undue inconvenience and at modest expense to avert the possible risk to health from exposure to emissions from electricity infrastructure such as electric and magnetic fields (EMF) and noise which generally increase the higher the voltage ie. Endeavour Energy's network ranges from low voltage (normally not exceeding 1,000 volts) to high voltage (normally exceeding 1,000 volts but not exceeding 132,000 volts / 132 kV).

In practical terms this means that when designing new transmission and distribution facilities, consideration is given to reducing exposure and increasing separation distances to more sensitive uses such as residential or schools, pre-schools, day care centres or where potentially a greater number of people are regularly exposed for extended periods of time.

These emissions are usually not an issue but with authorities permitting or encouraging development with higher density, reduced setbacks and increased building heights, but as the electricity network operates 24/7/365 (all day, every day of the year), the level of exposure can increase.

Endeavour Energy believes that irrespective of the zoning or land use, applicants (and the Department) should also adopt a policy of prudent avoidance by the siting of more sensitive uses eg. the office component of an industrial building, away from and less susceptible uses such as garages, non-habitable or rooms not regularly occupied eg. storage areas in a commercial building, towards any electricity infrastructure – including any possible future electricity infrastructure required to facilitate the proposed development.

Where development is proposed near electricity infrastructure, Endeavour Energy is not responsible for any amelioration measures for such emissions that may impact on the nearby proposed development.

Please find attached a copy of Energy Networks Association's 'Electric & Magnetic Fields – What We Know' which can also be accessed via their website at <https://www.energynetworks.com.au/electric-and-magnetic-fields> and provides the following advice:

Electric fields are strongest closest to their source, and their strength diminishes rapidly as we move away from the source.

The level of a magnetic field depends on the amount of the current (measured in amps), and decreases rapidly once we move away from the source.

Typical magnetic field measurements associated with Endeavour Energy's activities and assets given the required easement widths, safety clearances etc. and having a maximum voltage of 132,000 volt / 132 kV, will with the observance of these separation distances not exceed the recommended magnetic field public exposure limits.

- Vegetation Management

The planting of large trees near electricity infrastructure is not supported by Endeavour Energy. Particularly for overhead power lines, ongoing vegetation management / tree trimming is a significant network cost and falling trees and branches during storms are a major cause of power outages.

The planting of large trees near electricity infrastructure is not supported by Endeavour Energy. Suitable planting needs to be undertaken in proximity of electricity infrastructure (including any new electricity infrastructure required to facilitate the proposed development). Only low growing shrubs not exceeding 3.0 metres in height, ground covers and smaller shrubs, with non-invasive root systems are the best plants to use. Larger trees should be planted well away from electricity infrastructure (at least the same distance from overhead power lines as their potential full grown height) and even with underground cables, be installed with a root barrier around the root ball of the plant.

Landscaping that interferes with electricity infrastructure may become a potential safety risk, cause of bush fire, restrict access, reduce light levels from streetlights or result in the interruption of supply. Such landscaping may be subject to Endeavour Energy's Vegetation Management program and/or the provisions of the *Electricity Supply Act 1995* (NSW) Section 48 'Interference with electricity works by trees' by which under certain circumstances the cost of carrying out such work may be recovered.

- Dial Before You Dig

Before commencing any underground activity the applicant is required to obtain advice from the *Dial Before You Dig 1100* service in accordance with the requirements of the *Electricity Supply Act 1995* (NSW) and associated Regulations. This should be obtained by the applicant not only to identify the location of any underground electrical and other utility infrastructure across the site, but also to identify them as a hazard and to properly assess the risk.

- Removal of Electricity Supply

Approval for the permanent disconnection and removal of supply must be obtained from Endeavour Energy's Network Connections Branch (contact via Head Office enquiries on business days on telephone: 133 718 or (02) 9853 6666 from 9am - 4:30pm) by Accredited Service Providers (ASP) with the relevant class of Authorisation for the type of work being carried out. The work could involve:

- The disconnection and removal of an underground service cable or overhead service line,
- Removal of metering equipment.

The written request must be submitted to Endeavour Energy using Form FPJ4603 'Permission to Remove Service / Metering by Authorised Level 2 Accredited Service Provider' which must be accompanied by Notification of Service Works (NOSW) forms provided as a result of service work activity performed by a Level 2 ASP. The retailer must also provide written agreement for the permanent removal of supply.

For details of the ASP scheme please refer to the above point 'Network Capacity / Connection'.

- Demolition

Demolition work is to be carried out in accordance with Australian Standard AS 2601—2001: 'The demolition of structures' as updated from time to time. All electric cables or apparatus which are liable to be a source of danger, other than a cable or apparatus used for the demolition works shall be disconnected ie. the existing customer service lines will need to be isolated and/or removed during demolition. Appropriate care must be taken to not otherwise interfere with any electrical infrastructure on or in the vicinity of the site eg. streetlight columns, power poles, overhead power lines and underground cables etc.

- Public Safety

Workers involved in work near electricity infrastructure run the risk of receiving an electric shock and causing substantial damage to plant and equipment. I have attached Endeavour Energy's public safety training resources, which were developed to help general public / workers to understand why you may be at risk and what you can do to work safely. The public safety training resources are also available via Endeavour Energy's website via the following link:

<http://www.endeavourenergy.com.au/wps/wcm/connect/ee/nsw/nsw+homepage/communitynav/safety/safety+brochures>.

If the applicant has any concerns over the proposed works in proximity of the Endeavour Energy's electricity infrastructure to the road verge / roadway, as part of a public safety initiative Endeavour Energy has set up an email account that is accessible by a range of multiple stakeholders across the company in order to provide more effective lines of communication with the general public who may be undertaking construction activities in proximity of electricity infrastructure such as builders, construction industry workers etc. The email address is Construction.Works@endeavourenergy.com.au.

- Emergency Contact

In case of an emergency relating to Endeavour Energy's electrical network, the applicant should note the Emergencies Telephone is 131 003 which can be contacted 24 hours/7 days. Endeavour Energy's contact details should be included in any relevant risk and safety management plan.

I appreciate that not all the foregoing issues may be directly or immediately relevant or significant to the request for SEARs / Development Application. However in keeping with the Department's aim of earlier and better engagement, Endeavour Energy's preference is to alert proponents / applicants of the potential matters that may arise should development within closer proximity of the existing and/or required electricity infrastructure needed to facilitate the proposed development on or in the vicinity of the site occur.

Should you wish to discuss this matter, or have any questions, please do not hesitate to contact me or the contacts identified above in relation to the various matters. Due to the high number of development application / planning proposal notifications submitted to Endeavour Energy, to ensure a response contact by email to property.development@endeavourenergy.com.au is preferred.

With the current COVID-19 health risk, as many as possible of Endeavour Energy staff are working from home. As a result there is only a small contingent located at the Huntingwood head office for essential operations. Although working from home, access to emails and other internal stakeholders is now somewhat limited and as a result it may take longer than usual to respond to enquiries. Thank you for your understanding during this time.

Kind regards

Cornelis Duba

Development Application Specialist

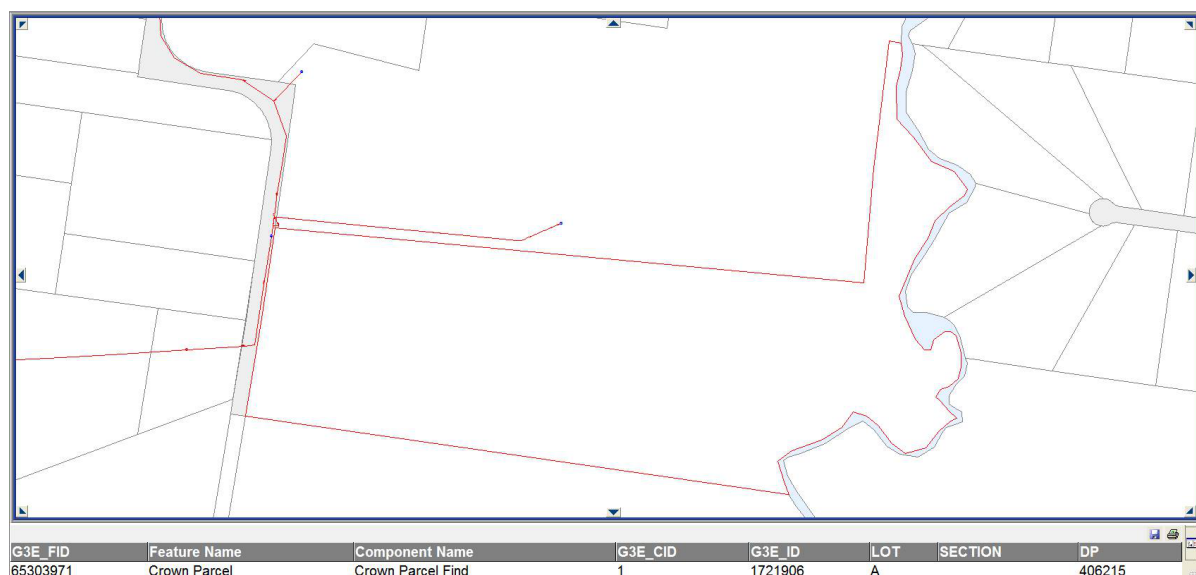
Network Environment & Assessment

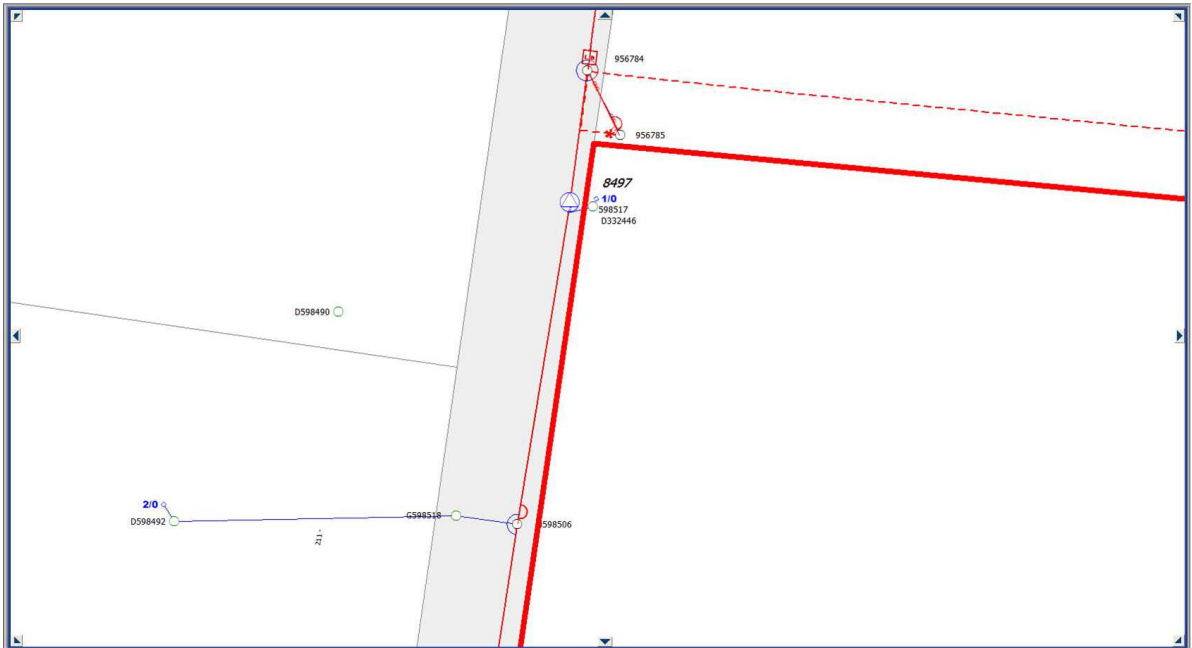
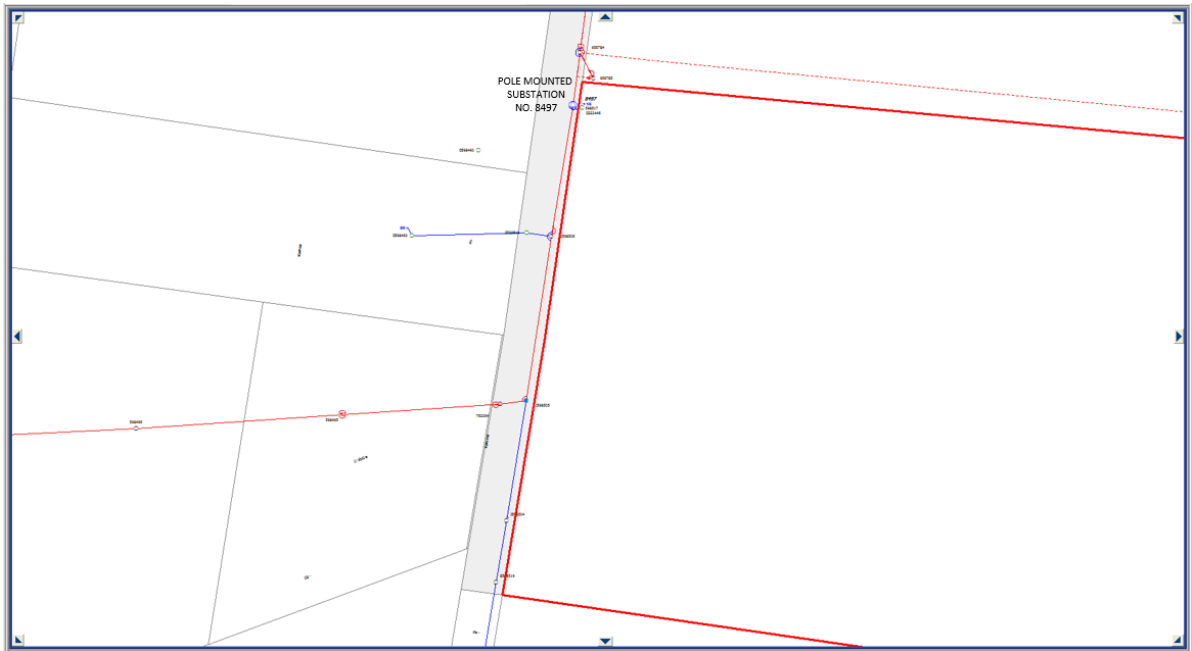
M: 0455 250 981

E: cornelis.duba@endeavourenergy.com.au

51 Huntingwood Drive, Huntingwood NSW 2148

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From: Ania Dorocinska <Ania.Dorocinska@planning.nsw.gov.au>
Sent: Monday, 9 November 2020 1:32 PM
Subject: Request for SEAR's input: Western Sydney Sustainable Road Resource Centre
Importance: High

Good Afternoon,

The Department of Planning, Industry and Environment has received a request for Secretary's Environmental Assessment Requirements (SEARs) for the **Western Sydney Sustainable Road Resource Centre**.

The proposed development is a State Significant Development under the Environmental Planning and Assessment Act 1979.

Please provide input into the SEARs for the proposal including details of any key issues and assessment requirements by **20 November 2020**.

All documents can be found online: <https://www.planningportal.nsw.gov.au/major-projects/project/40571>

Kind regards,

Ania Dorocinska
Senior Environmental Assessment Officer

Industry Assessments | Department of Planning, Industry and Environment
T 02 9274 6225 | M 0414 848 343 | E ania.dorocinska@planning.nsw.gov.au
4 Parramatta Square, 12 Darcy St, Parramatta, NSW 2150.
www.dpie.nsw.gov.au



**Planning,
Industry &
Environment**

The Department of Planning, Industry and Environment acknowledges that it stands on Country which always was and always will be Aboriginal land. We acknowledge the Traditional Custodians of the land and waters, and we show our respect for elders past, present and emerging. We are committed to providing places in which Aboriginal people are included socially, culturally and economically through thoughtful and collaborative approaches to our work.

Ms Ania Dorocinska
Senior Environmental Assessment Officer
Industry Assessments, DPIE
Locked Bag 5022
Parramatta NSW 2150

Notice Number 1602940

Proposed Sustainable Road Resource Centre - SSD-10866203 - 230 Martin Road, Badgerys Creek - Input to SEARs

I am writing to provide the Environment Protection Authority's (EPA) requirements for the environmental impact statement (EIS) in relation to this State Significant Development proposal.

The EPA has considered the details of the proposal as provided within '*Downer Western Sydney Sustainable Road Resource Centre Scoping Report*', prepared by Element Environmental, dated 6 November 2020 (the Scoping Report).

The EPA has identified the information it requires in the EIS in **Attachments A and B**. This information will enable us to consider the environmental impacts of the proposal and provide recommendations to the consent authority.

When preparing the EIS, Downer EDI Works Pty Ltd (the proponent) should refer to the relevant guidelines as listed in **Attachment C** and any relevant industry codes of practice and best practice management guidelines.

Any commitments made in the EIS may eventually be formalised as conditions on an Environment Protection Licence (EPL) issued by the EPA for the premises.

Consistent with provisions under Part 9.4 of the *Protection of the Environment Operations Act 1997* (the Act) the EPA may require the provision of a financial assurance and/or assurances as a condition of an EPL. The amount and form of the assurance(s) will be determined by the EPA when an EPL application is made for scheduled activities at the premises.

The future holder of an EPL for this premises will also be required to prepare, test and implement a Pollution Incident Response Management Plan and/or Plans in accordance with Section 153A of the Act.

The EPA has not considered Aboriginal cultural heritage, biodiversity or built form/urban design requirements as these are the purview of the Environment, Energy and Science Group (EES) within the Department of Planning, Industry and Environment.

Yours sincerely

A handwritten signature in blue ink, reading "Lesley Corkill".

.....
Lesley Corkill

Unit Head

Regulatory Operation Metro - West

(by Delegation)

ATTACHMENT A: Site specific requirements for the proposal

The proposal includes construction and operation of a Sustainable Road Resource Centre, consisting of an asphalt plant, reconomy facility and bitumen products manufacturing plant at 230 Martin Road, Badgerys Creek (the premises). The premises is currently undeveloped and used for grazing.

The proposed asphalt plant would produce 550,000 tonnes per annum (tpa) of asphalt using deliveries of aggregates, sand, lime, bitumen and internal deliveries from the reconomy facility.

The proposed reconomy facility would process up to 500,000 tpa of various materials. Street sweepings, gross pollutant trap arisings, non-destructive digging muds, low-level contaminated spoil and glass fines will be processed in a detritus plant. Up to 300,000 tpa of recycled asphalt pavement (RAP) will be processed by the reconomy facility and used in the asphalt plant or sold. Construction and demolition waste will be processed in a crusher and screen plant.

The proposed bituminous products plant would produce up to 15,000 tpa of blended products.

A portion of the premises is proposed to be raised through bulk earthworks to make a suitable platform(s) for the Sustainable Road Resource Centre, as the eastern two-thirds of the premises is reportedly below the 1% annual exceedance probability flood level.

The site specific requirements for the EIS are set out below.

1. Licensing

Section 3.6 of the Scoping Report lists 'Resource recovery' as being the only activity proposed to be carried out at the premises that meets the licensing criteria in Schedule 1 of the Act.

Given the description of operations in the Scoping Report, the proponent should examine whether they will also be carrying out other scheduled activities at the premises, such as Clause 8 'Chemical Production', Clause 31A 'Petroleum products and fuel production' and Clause 9 'Chemical Storage (e.g. for bituminous products manufacturing)', Clause 41 'Waste processing (non-thermal treatment)' (e.g. considering the weight by % of the waste received in any year requires disposal after processing), and Clause 42 'Waste Storage' (e.g. considering amount of storage of waste received from off-site at the premises).

2. Enclosed facility and hardstand areas

The Act makes clear that environmental performance is to be continuously improving. The EPA therefore seeks best practice for all new waste facilities or activities, including that all waste and materials are stored and processed inside an enclosed building. All waste handling activities, including receiving, sorting, processing, sampling, quarantine, storage and loading must be conducted within an enclosed building. The EPA will not consider the storage of waste (including finished product) outside, particularly within the flood zone. Any external haulage areas or roads must be sealed hardstand. Any unused external surfaces must be sealed hardstand or vegetated.

This position for new waste facilities is also consistent with the Western Sydney Aerotropolis DCP 2020 (section 5.1.8, Performance Outcome PO1, PO2 and PO3). The proposal is reportedly located in the Badgerys Creek and Wianamatta-South Creek precinct of the Aerotropolis area.

3. Waste Management

The EIS must include a detailed assessment of the waste management processes to be undertaken at the site. This includes but is not limited to:

- Detailed information on the **types** and **quantities** of each type of waste to be received at the site:
 - Detail the physical and chemical content of the waste of each incoming waste type, considering the likely sources of the waste. The type of waste collected from hydro excavation can be highly variable depending on the land use where the excavation is carried out. Also waste from street sweepings and maintenance of stormwater treatment systems can be highly variable depending on the catchment (residential, rural, industrial etc). These types of waste can be difficult to characterise and could contain contaminants such as heavy metals, hydrocarbons, asbestos, syringes (classified as *clinical waste*) and other chemicals. The proponent will need to provide information on the source and details of the types of catchments where waste is to be collected.
 - Identify the types of waste that will be received at the facility with reference to the EPA's Waste Classification Guidelines and definitions in the Act.
 - Where waste is to be received at the site wet and will require dewatering, the applicant must identify if this incoming waste is likely to be classified as *liquid waste* (as defined by the Act).
 - Details of the maximum volume of waste to be stored on the site at any one time (identified by raw incoming waste, waste being processed/dried, finished product and unwanted/rejected material).
 - Details of the maximum weekly and annual throughput of waste to be processed at the site.
 - Calculations that demonstrate that there is sufficient storage capacity onsite for incoming waste, wastes undergoing processing/drying, finished product and unwanted/rejected material, considering proposed weekly and annual throughput.
- Description of waste processing procedures for each waste type.
- A description of how non-conforming wastes (i.e. waste not permitted to be received at the site) will be identifying and rejected. This will need to include measures for identifying potential asbestos contamination in the spoil before it is processed.
- For each incoming waste type, identify the types of pollution which may result from the storage and processing of that waste and mitigation measures for managing any such impacts.
- Details of contingency measures to deal with potential reduced processing capacity (e.g. equipment failure), to ensure excessive amounts of waste don't accumulate onsite.
- Details of the type and quantities of materials to be produced and their intended fate.

- Details of any materials produced under a Resource Recovery Exemption and Order issued by the EPA, and the controls in place for meeting the conditions of that exemption and order.
- A description of how the EPA's record keeping and reporting requirements, including weighing material in and out of the site, will be met (see the EPA's Waste Levy Guidelines at <http://www.epa.nsw.gov.au/your-environment/waste/waste-levy>).
- A detailed site plan(s) identifying areas for:
 - haulage;
 - waste receiving, processing, storage and loading (for each waste type);
 - quarantine;
 - infrastructure for environmental controls including dust, noise, water and wheelwash;
 - weighbridge;
 - site boundaries;
 - stormwater drainage areas; and
 - unused stabilised areas.
- It appears that there may be a need to import fill material to raise surface levels of the land to build the Sustainable Road Resource Centre. The Scoping Report does not specify what fill material will be used for the bulk earthworks. Any fill or waste imported to the premises for land application must be classified as VENM and/or meet the requirements of a Resource Recovery Order and Exemption. The impacts of any bulk earthworks should be included in the EIS and mitigation measures (e.g. measures to prevent land application of non-conforming fill material, sediment and erosion control etc).

4. Standards for managing construction waste in NSW

Changes to the Protection of the Environment Operations (Waste) Regulation commenced on 16 November 2018, which requires compliance with the EPA's Standards for managing construction waste in NSW (the Standards). The EIS should include details about how the proponent will meet these legislative requirements and ensure their operations are compliant. The Standards are available at:

<https://www.epa.nsw.gov.au/publications/managewaste/18p1270-standards-for-managing-construction-waste-in-nsw>

5. Fire Safety Guidelines for Waste Facilities

Fire and Rescue NSW have developed guidelines regarding fire safety within waste facilities titled *Fire safety guideline – Fire safety in waste facilities* (Fire and Rescue NSW, 27 February 2020) (the Fire Safety Guidelines). The Fire Safety Guidelines are applicable to any waste facility within NSW involved in the storage, processing or resource recovery of combustible waste material. The EIS should demonstrate how the proponent will ensure compliance with the Fire Safety Guidelines. The Fire Safety Guidelines are available at:

https://www.fire.nsw.gov.au/gallery/files/pdf/guidelines/guidelines_fire_safety_in_waste_facilities.pdf

6. Water management

Details of water management during both construction and operation must be included in the EIS. This must include as a minimum characterisation of any proposed discharges from the site (both volume and quality),

assessment of the potential impacts from these discharges and proposed mitigation measures to manage any impacts. Discharges include, but are not limited to stormwater (contaminated and uncontaminated), and waste water (such as from processing/dewatering/treatment and effluent).

A water quality impact assessment will be required prior to the discharge of waste water or contaminated run-off to *waters* (as defined by the POEO Act). The EIS must address potential impacts on South Creek, its riparian and flood zones. Please refer to **Attachment B** for detail of what is to be included in assessment of water impacts.

Where discharge to *waters* is not proposed, the applicant must:

4. demonstrate that the water capture system has been adequately sized for the operation;
5. detail procedures for restoring capacity in the waste water storage system (such as onsite reuse or off-site tankering including when and how this will be undertaken);
6. have contingencies in place in the event of an overflow to prevent pollution of waters.

The EPA expects that buildings are constructed to exclude all stormwater and that internal surfaces be graded inwards to contain any polluted water (being any water that has come into contact with waste).

There is a risk that, even where all waste storage and processing is conducted within an enclosed building, waste could be tracked on to external surfaces leading to the generation of polluted run-off. The EPA expects that external areas, where waste vehicles travel or wait for loading/unloading, must drain to a stormwater treatment device sufficient to remove any pollutants, both solid and dissolved, prior to discharge offsite.

7. Air quality

The EIS should include an air quality impact assessment (AQIA) in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW. The AQIA should focus on the individual and cumulative impacts from the asphalt plant, reconomy facility and bituminous products plant, including as a minimum the following components:

- assessment objective:
 - demonstrate the proposed project will incorporate and apply best management practice emission controls;
 - demonstrate that the project will not cause violation of the project adopted air quality impact assessment criteria at any residential dwelling or other sensitive receptor.
- assessment criteria:
 - define applicable assessment criteria for the proposed development referencing the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW, including appendices and updates;
 - demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations 1997* (the Act) and the *Protection of the Environment (Clean Air) Regulation 2010*.
- existing environment:

- provide a detailed description of the existing environment within the assessment domain, including:
 - geophysical form and land-uses;
 - location of all sensitive receptors;
 - existing air quality; and local and regional prevailing meteorology.
- justify all data used in the assessment, specifically including analysis of inter-annual trends (preferably five consecutive years of data), availability of monitoring data, and local topographical features;
- meteorological modelling must be verified against monitored data (verification should involve comparative analysis of wind speed, wind direction and temperature, at a minimum);
- a review of all existing, recently approved and planned developments likely to contribute to cumulative air quality impacts must be completed.
- emissions inventory:
 - provide a detailed description of the project and identify the key stages with regards to the potential for air emissions and impacts on the surrounding environment;
 - identify all sources of air emissions, including mechanically generated, combustion and transport related emissions and odours likely to be associated with the proposed development;
 - estimate emissions of TSP, PM10, PM2.5, (tonnes per year), at a minimum, for all identified sources during each key development stage. The emissions inventory should:
 - utilise USEPA (1995) (and updates) emission estimation techniques, direct measurement or other method approved in writing by the EPA;
 - calculate uncontrolled emissions (with no particulate matter controls in place);
 - calculate controlled emissions (with proposed particulate matter controls in place).
 - for potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate. Note: with dust and odour, it may be possible to use data from existing similar activities to generate emission rates.
 - the emissions inventory must be explicitly coupled with the project description.
 - provide a detailed summary and justification of all parameters adopted within all emission estimation calculations, including site specific measurements, proponent recommended values or published literature.
 - document, including quantification and justification, all air quality emission control techniques/practices proposed for implementation during the project (as a minimum, consideration must be given to source control techniques, and reactive/predictive management techniques).

- best practice determination:
 - demonstrate that the proposed control techniques/practices are consistent with best management practice.
- dispersion modelling and interpretation of results:
 - atmospheric dispersion modelling should be undertaken in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW, including appendices and updates;
 - modelling must implement fit for purpose modelling techniques that:
 - have regard for the most up to date and scientifically accepted dispersion modelling techniques;
 - contextualise all assumptions based on current scientific understanding and available data;
 - include a thorough validation of adopted methods and model performance.
 - use an appropriate atmospheric dispersion model to predict, at a minimum, incremental ground level concentrations/levels of the following:
 - 24-hour and annual average PM10 concentrations;
 - 24-hour and annual average PM2.5 concentrations.
 - ground level concentrations of pollutants should be presented for surrounding privately-owned properties, mine-owned properties and other sensitive receptors (as applicable);
 - undertake a cumulative assessment of predicted impacts (the contribution of all identified existing and recently approved developments should be accounted for in the cumulative assessment);
 - cumulative 24-hour PM10 and PM2.5 concentrations must be assessed in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW, including appendices and updates, and/or a suitably justified probabilistic methodology;
 - cumulative annual average PM10 and PM2.5 should be assessed using a sufficiently justified background concentration(s);
 - results of dispersion modelling should be presented as follows:
 - isopleth plots showing the geographic extent of maximum pollutant concentrations (incremental and cumulative);
 - tables presenting the maximum predicted pollutant concentrations (increment and cumulative) and the frequency of any predicted exceedances at each surrounding privately-owned properties, mine-owned properties and other sensitive receptors (as applicable);
 - time series and frequency distribution plots of pollutant concentrations at each private receptor location at which an exceedance is predicted to occur (where no exceedances are predicted, the analysis must be performed for the most impacted off-site sensitive receptor).

- air quality emission control measures:
 - provide a detailed discussion of all proposed air quality emission control measures, including details of a reactive/predictive management system. The information provided must include:
 - explicit linkage of proposed emission controls to the site-specific best practice determination assessment;
 - timeframe for implementation of all identified emission controls;
 - key performance indicators for emission controls;
 - monitoring methods (location, frequency, duration);
 - response mechanisms;
 - responsibilities for demonstrating and reporting achievement of KPIs;
 - record keeping and complaints response register;
 - compliance reporting.

All sensitive receivers need to be considered when conducting air quality and odour impact assessments. This includes the nearby residents on Martin Road, Badgerys Creek. A sensitive receiver can also include a place where someone works. Therefore, any industrial neighbours to the Premises must be included as sensitive receivers.

8. Noise and Vibration

The applicant must assess noise impacts and demonstrate effective controls for managing noise impacts, including from traffic, at all receptors. Potential noise impacts are of concern due to several nearby sensitive receivers to the premises and proposed 24/7 operations. Please refer to **Attachment B** for details of what is to be included in the noise and vibration impact assessment.

9. Occupier of the premises

The EPA can only issue an environment protection licence to a person or entity who is the lawful occupier of a premises (as defined by the Act). The EIS should include information about who the lawful occupier of the premises will be and why (e.g. lease agreement).

10. Dangerous goods and chemical transport, storage and handling

The EIS must outline all details regarding the transport, handling, storage and use of dangerous goods, chemicals, and products, including fuel, both on site and with ancillary activities and describe the measures proposed to minimise the potential for leakage or the migration of pollutants into the air, land or waters from the premises. If fuel is intended on being stored at the premises, any fuel storage areas must be undercover and bunded.

The EIS should include details of emergency management procedures, including but not limited to spills of chemicals or restricted, hazardous and/or liquid waste stored on the Premises.

11. Wheel Wash

Best practice material handling facilities, particularly waste management facilities, contain a wheel wash to reduce risk of contaminants being tracked out onto public roads. The EPA notes the Scoping Report does not contain reference to a wheel wash for the site. The proponent should set out in the EIS whether a wheel wash will be installed and if not, justification as to why a wheel wash will not be installed and how contaminants will be retained and managed onsite without a wheel wash.

12. Other

Details of any workshop or garaging of waste vehicles. All vehicle repair or washing must be conducted in an area that excludes rainwater, is sufficiently bunded to contain all fluids within and is sealed to be impervious to those fluids.

ATTACHMENT B - General requirements for the proposal

How to use these requirements

The EPA requirements have been structured in accordance with the DIPNR EIS Guidelines, as follows. It is suggested that the EA follow the same structure:

- A. Executive summary
- B. The proposal
- C. The location
- D. Identification and prioritisation of issues
- E. The environmental issues
- F. List of approvals and licences
- G. Compilation of mitigation measures
- H. Justification for the proposal

A Executive summary

The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.

B The proposal

1. Objectives of the proposal

- The objectives of the proposal should be clearly stated and refer to:
 - a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced
 - b) a life cycle approach to the production, use or disposal of products
 - c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
 - d) the staging and timing of the proposal and any plans for future expansion
 - e) the proposal's relationship to any other industry or facility.

2. Description of the proposal

General

- Outline the production process including:
 - a) the environmental "mass balance" for the process – quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc)
 - b) any life-cycle strategies for the products.
- Outline cleaner production actions, including:
 - a) measures to minimise waste (typically through addressing source reduction)
 - b) proposals for use or recycling of by-products
 - c) proposed disposal methods for solid and liquid waste
 - d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points
 - e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.
 - f) soil contamination treatment and prevention systems.
- Outline construction works including:
 - a) actions to address any existing soil contamination
 - b) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site)
 - c) construction timetable and staging; hours of construction; proposed construction methods

- d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.
- Include a site diagram showing the site layout and location of environmental controls.

Air

- Identify all sources or potential sources of air emissions from the development.
Note: emissions can be classed as either:
 - *point (e.g. emissions from stack or vent) or*
 - *fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).*
- Provide details of the project that are essential for predicting and assessing air impacts including:
 - a) the quantities and physio-chemical parameters (e.g. concentration, moisture content, bulk density, particle sizes etc) of materials to be used, transported, produced or stored
 - b) an outline of procedures for handling, transport, production and storage
 - c) the management of solid, liquid and gaseous waste streams with potential to generate emissions to air.

Noise and vibration

- Identify all noise sources or potential sources from the development (including both construction and operation phases). Detail all potentially noisy activities including ancillary activities such as transport of goods and raw materials.
- Specify the times of operation for all phases of the development and for all noise producing activities.
- For projects with a significant potential traffic noise impact provide details of road alignment (include gradients, road surface, topography, bridges, culverts etc), and land use along the proposed road and measurement locations – diagrams should be to a scale sufficient to delineate individual residential blocks.

Water

- Provide details of the project that are essential for predicting and assessing impacts to waters including:
 - a) the quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health, including the risks they pose to Water Quality Objectives in the ambient waters (as defined on <http://www.environment.nsw.gov.au/ieo/index.htm>, using technical criteria derived from *the Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, ANZECC 2000)
 - b) the management of discharges with potential for water impacts
 - c) drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.

- Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities with significant potential impacts e.g. effluent ponds) and showing potential areas of modification of contours, drainage etc.
- Outline how total water cycle considerations are to be addressed showing total water balances for the development (with the objective of minimising demands and impacts on water resources). Include water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

Waste and chemicals

Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

- Provide details of liquid waste and non-liquid waste management at the facility, including:
 - a) the transportation, assessment and handling of waste arriving at or generated at the site
 - b) any stockpiling of wastes or recovered materials at the site
 - c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site
 - d) the method for disposing of all wastes or recovered materials at the facility
 - e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility
 - f) the proposed controls for managing the environmental impacts of these activities.
- Provide details of spoil disposal with particular attention to:
 - a) the quantity of spoil material likely to be generated
 - b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil
 - c) the need to maximise reuse of spoil material in the construction industry
 - d) identification of the history of spoil material and whether there is any likelihood of contaminated material, and if so, measures for the management of any contaminated material
 - e) designation of transportation routes for transport of spoil.

Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.

- Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.
- Reference should be made to the guidelines: EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

ESD

- Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:
 - a) an assessment of a range of options available for use of the resource, including the benefits of each option to future generationsproper valuation and pricing of environmental resources
- b) identification of who will bear the environmental costs of the proposal.

3. Rehabilitation

- Outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses).

4. Consideration of alternatives and justification for the proposal

- Consider the environmental consequences of adopting alternatives, including alternative:
 - a) sites and site layouts
 - b) access modes and routes
 - c) materials handling and production processes
 - d) waste and water management
 - e) impact mitigation measures
 - f) energy sources
 - Selection of the preferred option should be justified in terms of:
 - a) ability to satisfy the objectives of the proposal
 - b) relative environmental and other costs of each alternative
 - c) acceptability of environmental impacts and contribution to identified environmental objectives
 - d) acceptability of any environmental risks or uncertainties
 - e) reliability of proposed environmental impact mitigation measures
- efficient use (including maximising re-use) of land, raw materials, energy and other resources.

C The location

1. General

- Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:
 - a) meteorological data (e.g. rainfall, temperature and evaporation, wind speed and direction)
 - b) topography (landform element, slope type, gradient and length)
 - c) surrounding land uses (potential synergies and conflicts)
 - d) geomorphology (rates of landform change and current erosion and deposition processes)
 - e) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils)
 - f) ecological information (water system habitat, vegetation, fauna)
 - g) availability of services and the accessibility of the site for passenger and freight transport.

2. Air

- Describe the topography and surrounding land uses. Provide details of the exact locations of dwellings, schools and hospitals. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.
- Describe surrounding buildings that may effect plume dispersion.
- Provide and analyse site representative data on following meteorological parameters:
 - a) temperature and humidity
 - b) rainfall, evaporation and cloud cover
 - c) wind speed and direction
 - d) atmospheric stability class
 - e) mixing height (the height that emissions will be ultimately mixed in the atmosphere)
 - f) katabatic air drainage
 - g) air re-circulation.

3. Noise and vibration

- Identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals. Typically the location of any noise sensitive locations in relation to the site should be included on a map of the locality.
- Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas.

4. Water

- Describe the catchment including proximity of the development to any waterways and provide an assessment of their sensitivity/significance from a public health, ecological and/or economic perspective. The Water Quality and River Flow Objectives on the website: <http://www.environment.nsw.gov.au/ieo/index.htm> should be used to identify the agreed environmental values and human uses for any affected waterways. This will help with the description of the local and regional area.

5. Soil Contamination Issues

- Provide details of site history – if earthworks are proposed, this needs to be considered with regard to possible soil contamination, for example if the site was previously a landfill site or if irrigation of effluent has occurred.

D Identification and prioritisation of issues / scoping of impact assessment

- Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account:
 - a) relevant NSW government guidelines
 - b) industry guidelines
 - c) EISs for similar projects
 - d) relevant research and reference material
 - e) relevant preliminary studies or reports for the proposal
 - f) consultation with stakeholders.
- Provide a summary of the outcomes of the process including:
 - a) all issues identified including local, regional and global impacts (e.g. increased/ decreased greenhouse emissions)
 - b) key issues which will require a full analysis (including comprehensive baseline assessment)
 - c) issues not needing full analysis though they may be addressed in the mitigation strategy
 - d) justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment).

E The environmental issues

1. General

- The potential impacts identified in the scoping study need to be assessed to determine their significance, particularly in terms of achieving environmental outcomes, and minimising environmental pollution.
- Identify gaps in information and data relevant to significant impacts of the proposal and any actions proposed to fill those information gaps so as to enable development of appropriate management and mitigation measures. This is in accordance with ESD requirements.

Note: The level of detail should match the level of importance of the issue in decision making which is dependent on the environmental risk.

Describe baseline conditions

- Provide a description of existing environmental conditions for any potential impacts.

Assess impacts

- For any potential impacts relevant for the assessment of the proposal provide a detailed analysis of the impacts of the proposal on the environment including the cumulative impact of the proposal on the receiving environment especially where there are sensitive receivers.
- Describe the methodology used and assumptions made in undertaking this analysis (including any modelling or monitoring undertaken) and indicate the level of confidence in the predicted outcomes and the resilience of the environment to cope with the predicted impacts.
- The analysis should also make linkages between different areas of assessment where necessary to enable a full assessment of environmental impacts e.g. assessment of impacts on air quality will often need to draw on the analysis of traffic, health, social, soil and/or ecological systems impacts; etc.
- The assessment needs to consider impacts at all phases of the project cycle including: exploration (if relevant or significant), construction, routine operation, start-up operations, upset operations and decommissioning if relevant.
- The level of assessment should be commensurate with the risk to the environment.

Describe management and mitigation measures

- Describe any mitigation measures and management options proposed to prevent, control, abate or mitigate identified environmental impacts associated with the proposal and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
- Proponents are expected to implement a 'reasonable level of performance' to minimise environmental impacts. The proponent must indicate how the proposal meets reasonable levels of performance. For example, reference technology based criteria if available, or identify good practice for this type of activity or development. A 'reasonable level of performance' involves adopting and implementing technology and

management practices to achieve certain pollutant emissions levels in economically viable operations. Technology-based criteria evolve gradually over time as technologies and practices change.

- Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.
- Outline any proposed approach (such as an Environmental Management Plan) that will demonstrate how commitments made in the EIS will be implemented. Areas that should be described include:
 - a) operational procedures to manage environmental impacts
 - b) monitoring procedures
 - c) training programs
 - d) community consultation
 - e) complaint mechanisms including site contacts
 - f) strategies to use monitoring information to improve performance
 - g) strategies to achieve acceptable environmental impacts and to respond in event of exceedences.

4. Air

Describe baseline conditions

- Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data.

Assess impacts

- Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.
- Estimate the resulting ground level concentrations of all pollutants. Where necessary (e.g. potentially significant impacts and complex terrain effects), use an appropriate dispersion model to estimate ambient pollutant concentrations. Discuss choice of model and parameters with the EPA.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.
- For potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate.

Note: With dust and odour, it may be possible to use data from existing similar activities to generate emission rates.

- Reference should be made to *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (DEC, 2016); *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DEC, 2007); *Assessment and Management of Odour from Stationary Sources in NSW* (DEC, 2006);

Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006); *Load Calculation Protocol for use by holders of NSW Environment Protection Licences when calculating Assessable Pollutant Loads* (DECC, 2009).

Describe management and mitigation measures

- Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.

5. Noise and vibration

Describe baseline conditions

- Determine the existing background (LA90) and ambient (LAeq) noise levels, as relevant, in accordance with the *NSW Noise Policy for Industry*.
- Determine the existing road traffic noise levels in accordance with the *NSW Road Noise Policy*, where road traffic noise impacts may occur.
- The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including:
 - a) details of equipment used for the measurements
 - b) a brief description of where the equipment was positioned
 - c) a statement justifying the choice of monitoring site(s), including the procedure used to choose the site(s), having regards to Fact Sheets A and B of the *NSW Noise Policy for Industry*.
 - d) details of the exact location of the monitoring site and a description of land uses in surrounding areas
 - e) a description of the dominant and background noise sources at the site
 - f) day, evening and night assessment background levels for each day of the monitoring period
 - g) the final Rating Background Level (RBL) value
 - h) graphs of the measured noise levels for each day should be provided
 - i) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring.

Assess impacts

- Determine the project noise trigger levels for the site. For each identified potentially affected receiver, this should include:
 - a) determination of the project intrusive noise level for each identified potentially affected receiver
 - b) selection and justification of the appropriate amenity category for each identified potentially affected receiver

- c) determination of the project amenity noise level for each receiver
- d) determination of the appropriate maximum noise level event assessment (sleep disturbance) trigger level.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible effects on sleep. Determine expected noise level and noise character likely to be generated from noise sources during:
 - a) site establishment
 - b) construction
 - c) operational phases
 - d) transport including traffic noise generated by the proposal
 - e) other services.

Note: The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).

- Determine the noise levels likely to be received at the reasonably most affected location(s) (these may vary for different activities at each phase of the development).
- The noise impact assessment report should include:
 - a) a plan showing the assumed location of each noise source for each prediction scenario
 - b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site
 - c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc
 - d) methods used to predict noise impacts including identification of any noise models used.
 - e) the weather conditions considered for the noise predictions
 - f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario
 - g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived
 - h) an assessment of the need to include modification factors as detailed in Fact Sheet C of the *NSW Noise Policy for Industry*.
- Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional feasible and reasonable mitigation measures.
- The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.
 - a) Where relevant noise/vibration levels cannot be met after application of all feasible and reasonable mitigation measures the residual level of noise impact needs to be quantified
- For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.

- Where blasting is intended an assessment in accordance with the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration* (ANZECC, 1990) should be undertaken. The following details of the blast design should be included in the noise assessment:
 - a) bench height, burden spacing, spacing burden ratio
 - b) blast hole diameter, inclination and spacing
 - c) type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

Describe management and mitigation measures

- Determine the most appropriate noise mitigation measures and expected noise reduction including both noise controls and management of impacts for both construction and operational noise. This will include selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.
- For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:
 - a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage
 - b) control of traffic (eg: limiting times of access or speed limitations)
 - c) resurfacing of the road using a quiet surface
 - d) use of (additional) noise barriers or bunds
 - e) treatment of the façade to reduce internal noise levels buildings where the night-time criteria is a major concern
 - f) more stringent limits for noise emission from vehicles (i.e. using specially designed 'quite' trucks and/or trucks to use air bag suspension
 - g) driver education
 - h) appropriate truck routes
 - i) limit usage of exhaust brakes
 - j) use of premium muffles on trucks
 - k) reducing speed limits for trucks
 - l) ongoing community liaison and monitoring of complaints
 - m) phasing in the increased road use.

4. Water

Describe baseline conditions

- Describe existing surface and groundwater quality – an assessment needs to be undertaken for any water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling program is needed if runoff events may cause impacts).
Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC 2004) or be approved and analyses undertaken by accredited laboratories).
- Provide site drainage details and surface runoff yield.
- State the ambient Water Quality and River Flow Objectives for the receiving waters. These refer to the community's agreed environmental values and human uses endorsed by the Government as goals for the ambient waters. These environmental values are published on the website: <http://www.environment.nsw.gov.au/ieo/index.htm>. The EIS should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values are not available for groundwater resources. Where groundwater may be affected the EIS should identify appropriate groundwater environmental values and justify the choice.
- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC 2000 *Guidelines for Fresh and Marine Water Quality* (<http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html>) (Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANZECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries or the NSW Salinity Strategy (DLWC, 2000) (<http://www.environment.nsw.gov.au/salinity/government/nswstrategy.htm>).
- Where site specific studies are proposed to revise the trigger values supporting the ambient Water Quality and River Flow Objectives, and the results are to be used for regulatory purposes (e.g. to assess whether a licensed discharge impacts on water quality objectives), then prior agreement from the EPA on the approach and study design must be obtained.
- Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are generally only expected to source available data and information. However, proponents of large or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:
 - a) lake or estuary flushing characteristics
 - b) specific human uses (e.g. exact location of drinking water offtake)
 - c) sensitive ecosystems or species conservation values
 - d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc

- e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
- f) historic river flow data where available for the catchment.

Assess impacts

- No proposal should breach clause 120 of the *Protection of the Environment Operations Act 1997* (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).
- Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- Identify potential impacts associated with geomorphological activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain siltation.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- Containment of spills and leaks shall be in accordance with EPA's guidelines section 'Bunding and Spill Management' at <http://www.epa.nsw.gov.au/mao/bundingspill.htm> and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.
- The significance of the impacts listed above should be predicted. When doing this it is important to predict the ambient water quality and river flow outcomes associated with the proposal and to demonstrate whether these are acceptable in terms of achieving protection of the Water Quality and River Flow Objectives. In particular the following questions should be answered:
 - a) will the proposal protect Water Quality and River Flow Objectives where they are currently achieved in the ambient waters; and
 - b) will the proposal contribute towards the achievement of Water Quality and River Flow Objectives over time, where they are not currently achieved in the ambient waters.
- Consult with the EPA as soon as possible if a mixing zone is proposed (a mixing zone could exist where effluent is discharged into a receiving water body, where the quality of the water being discharged does not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the mixing zone). The EPA will advise the proponent under what conditions a mixing zone will and will not be acceptable, as well as the information and modelling requirements for assessment.

Note: The assessment of water quality impacts needs to be undertaken in a total catchment management context to provide a wide perspective on development impacts, in particular cumulative impacts.

- Where a licensed discharge is proposed, provide the rationale as to why it cannot be avoided through application of a reasonable level of performance, using available technology, management practice and industry guidelines.
- Where a licensed discharge is proposed, provide the rationale as to why it represents the best environmental outcome and what measures can be taken to reduce its environmental impact.
- Reference should be made to *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004), *Guidelines for Fresh and Marine Water Quality* (ANZECC 2000), *Environmental Guidelines: Use of effluent by Irrigation* (DEC, 2004).

Describe management and mitigation measures

- Outline stormwater management to control pollutants at the source and contain them within the site. Also describe measures for maintaining and monitoring any stormwater controls.
- Outline erosion and sediment control measures directed at minimising disturbance of land, minimising water flow through the site and filtering, trapping or detaining sediment. Also include measures to maintain and monitor controls as well as rehabilitation strategies.
- Describe waste water treatment measures that are appropriate to the type and volume of waste water and are based on a hierarchy of avoiding generation of waste water; capturing all contaminated water (including stormwater) on the site; reusing/recycling waste water; and treating any unavoidable discharge from the site to meet specified water quality requirements.
- Outline pollution control measures relating to storage of materials, possibility of accidental spills (e.g. preparation of contingency plans), appropriate disposal methods, and generation of leachate.
- Describe hydrological impact mitigation measures including:
 - a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition)
 - b) minimising runoff
 - c) minimising reductions or modifications to flow regimes
 - d) avoiding modifications to groundwater.
- Describe groundwater impact mitigation measures including:
 - a) site selection
 - b) retention of native vegetation and revegetation
 - c) artificial recharge
 - d) providing surface storages with impervious linings
 - e) monitoring program.
- Describe geomorphological impact mitigation measures including:
 - a) site selection
 - b) erosion and sediment controls
 - c) minimising instream works
 - d) treating existing accelerated erosion and deposition

- e) monitoring program.
- Any proposed monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004).

5. Soils and contamination

Describe baseline conditions

- Provide any details (in addition to those provided in the location description - Section C) that are needed to describe the existing situation in terms of soil types and properties and soil contamination.

Assess impacts

- Identify any likely impacts resulting from the construction or operation of the proposal, including the likelihood of:
 - a) disturbing any existing contaminated soil
 - b) contamination of soil by operation of the activity
 - c) subsidence or instability
 - d) soil erosion
 - e) disturbing acid sulfate or potential acid sulfate soils.
- Reference should be made to *Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011); *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997* (EPA, 2015).

Describe management and mitigation measures

- Describe and assess the effectiveness or adequacy of any soil management and mitigation measures during construction and operation of the proposal including:
 - a) erosion and sediment control measures
 - b) proposals for site remediation – see *Managing Land Contamination, Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998)
 - c) proposals for the management of these soils – see *Acid Sulfate Soil Manual* (Acid Sulfate Soil Advisory Committee 1998) and *Acid Sulfate Soils Assessment Guidelines* (Acid Sulfate Soil Advisory Committee 1998).

6. Waste and chemicals

Describe baseline conditions

- Describe any existing waste or chemicals operations related to the proposal.

Assess impacts

- Assess the adequacy of proposed measures to minimise natural resource consumption and minimise impacts from the handling, transporting, storage, processing and reprocessing of waste and/or chemicals.
- Reference should be made to: the EPA's *Waste Classification Guidelines 2014 (as in force from time to time)*
- If the proposal is an energy from waste facility it must:
 - demonstrate that the proposed operation will comply with the NSW EPA's Energy from Waste Policy Statement;
 - describe of the classes and quantities of waste that would be thermally treated at the facility;
 - demonstrate that waste used as a feedstock in the waste to energy plant would be the residual from a resource recovery process that maximises the recovery of material;
 - detail procedures that would be implemented to control the inputs to the waste to energy plant, including contingency measures that would be implemented if inappropriate materials are identified;
 - detail the location and size of stockpiles of unprocessed and processed recycled waste at the site;
 - demonstrate any waste material (e.g. biochar, ash) produced from the waste to energy facility for land application is fit-for-purpose and poses minimal risk of harm to the environment in order to meet the requirements for consideration of a resource recovery order and /or exemption by the EPA;
 - detail procedures for the management of other solid, liquid and gaseous waste streams;
 - describe how waste would be treated, stored, used, disposed and handled on site, and transported to and from the site, and the potential impacts associated with these issues, including current and future offsite waste disposal methods; and
 - identify the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*.

Describe management and mitigation measures

- Outline measures to minimise the consumption of natural resources.
- Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.
- Outline measures to support any approved regional or industry waste plans.

7. Cumulative impacts

- Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute.
- Assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region.
- Identify infrastructure requirements flowing from the proposal (e.g. water and sewerage services, transport infrastructure upgrades).
- Assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts (e.g. travel demand management strategies).

F. List of approvals and licences

- Identify all approvals and licences required under environment protection legislation including details of all scheduled activities, types of ancillary activities and types of discharges (to air, land, water).

G. Compilation of mitigation measures

- Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under EPA licences or approvals (e.g. outline of an environmental management plan).
- The mitigation strategy should include the environmental management and cleaner production principles which would be followed when planning, designing, establishing and operating the proposal. It should include two sections, one setting out the program for managing the proposal and the other outlining the monitoring program with a feedback loop to the management program.

H. Justification for the Proposal

- Reasons should be included which justify undertaking the proposal in the manner proposed, having regard to the potential environmental impacts.

ATTACHMENT C: GUIDANCE MATERIAL

Title	Web address
Relevant Legislation	
<i>Contaminated Land Management Act 1997</i>	http://www.legislation.nsw.gov.au/#/view/act/1997/140
<i>Environmentally Hazardous Chemicals Act 1985</i>	http://www.legislation.nsw.gov.au/#/view/act/1985/14
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/#/view/act/1979/203
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/#/view/act/1997/156
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/#/view/act/2000/92
Licensing	
Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm
Air Issues	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2016)	http://www.epa.nsw.gov.au/air/appmethods.htm
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/#/view/regulation/2010/428
Noise and Vibration	
NSW Noise Policy for Industry	http://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm
NSW Road Noise Policy (DECCW, 2011)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
NSW Rail Infrastructure Noise Guideline (EPA, 2013)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
Human Health Risk Assessment	

Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards (enHealth, 2012)	http://www.eh.org.au/documents/item/916
Waste, Chemicals and Hazardous Materials and Radiation	
Waste	
Environmental Guidelines: Solid Waste Landfills (EPA, 2016)	http://www.epa.nsw.gov.au/waste/landfill-sites.htm
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	http://www.epa.nsw.gov.au/resources/waste/envguidlms/industrialfill.pdf
EPA's Waste Classification Guidelines 2014	http://www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm
Resource recovery orders and exemptions	http://www.epa.nsw.gov.au/wasteregulation/orders-exemptions.htm
European Unions Waste Incineration Directive 2000	http://ec.europa.eu/environment/archives/air/stationary/wid/legislation.htm
EPA's Energy from Waste Policy Statement	http://www.epa.nsw.gov.au/wastestrategy/energy-from-waste.htm
NSW Waste Avoidance and Resource Recovery Strategy 2014-2021	http://www.epa.nsw.gov.au/wastestrategy/warr.htm
Chemicals subject to Chemical Control Orders	
Chemical Control Orders (regulated through the EHC Act)	http://www.epa.nsw.gov.au/pesticides/CCOs.htm
National Protocol - Approval/Licensing of Trials of Technologies for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
National Protocol for Approval/Licensing of Commercial Scale Facilities for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
Water and Soils	
Acid sulphate soils	
Coastal acid sulfate soils guidance material	http://www.environment.nsw.gov.au/acidsulfatesoil/ and http://www.epa.nsw.gov.au/mao/acidsulfatesoils.htm
Acid Sulfate Soils Planning Maps	http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm
Contaminated Sites Assessment and Remediation	
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	http://www.epa.nsw.gov.au/clm/planning.htm

Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	http://www.epa.nsw.gov.au/resources/clm/20110650consultantsguidelines.pdf
Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006)	http://www.epa.nsw.gov.au/resources/clm/auditorguidelines06121.pdf
Sampling Design Guidelines (EPA, 1995)	http://www.epa.nsw.gov.au/resources/clm/95059sampingdline.pdf
National Environment Protection (Assessment of Site Contamination) Measure 1999 (or update)	http://www.scew.gov.au/nepms/assessment-site-contamination
Soils – general	
Managing land and soil	http://www.environment.nsw.gov.au/soils/landandsoil.htm
Managing urban stormwater for the protection of soils	http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://australiangeomechanics.org/admin/wp-content/uploads/2010/11/LRM2000-Concepts.pdf
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html
Applying Goals for Ambient Water Quality Guidance for Operations Officers - Mixing Zones	Contact the EPA on 131555
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf



Ania Dorocinska
Senior Environmental Assessment Officer
Industry Assessments
Department of Planning, Industry & Environment
email: ania.dorocinska@planning.nsw.gov.au

Your reference: SSD-10866203
Our reference: DOC20/926024-3

Advice uploaded via the Major project Portal

Dear Ms Dorocinska

**HERITAGE NSW – ABORIGINAL CULTURAL HERITAGE REGULATION
SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (SEARS)**

Project: Western Sydney Sustainable Road Resource Centre
SSD/SSI application no: SSD-10866203

Thank you for requesting our input on the draft Planning Secretary's Environmental Assessment Requirements (SEARs) for the above state significant project.

Heritage NSW has reviewed the supporting documentation and provides SEARs for the proposed development in relation to Aboriginal cultural heritage matters in **Attachment A**.

We note the Scoping Report identifies the site as undeveloped used for grazing with riparian vegetation along South Creek. The Scoping Worksheet indicates that Aboriginal cultural heritage will require detailed assessment for the EIS, which will be addressed in technical studies that will be appended to/summarised in the EIS.

If you have any questions regarding these SEARs please contact me on (02) 6229 7089 or via email at jackie.taylor@environment.nsw.gov.au.

Yours sincerely

Jackie Taylor
Senior Team Leader, Aboriginal Cultural Heritage Regulation - South
Heritage NSW
22 November 2020

Enclosure – Attachment A: Recommended Aboriginal Cultural Heritage SEARs for SSD-10866203

ATTACHMENT A: HERITAGE NSW – Aboriginal Cultural Heritage - SEARs

Project Name: Western Sydney Sustainable Road Resource Centre

SSD/I #: SSD-10866203

1. The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the [Code of Practice for Archaeological Investigation in NSW](#) (OEH 2010), and be guided by the [Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales](#) (DECCW 2011) and consultation with Heritage NSW.
2. Consultation with Aboriginal people must be undertaken and documented in accordance with the [Aboriginal Cultural Heritage Consultation Requirements for Proponents](#) (DECCW 2010). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.
3. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to Heritage NSW.
4. The assessment of Aboriginal cultural heritage values must include a surface survey undertaken by a qualified archaeologist. The result of the surface survey is to inform the need for targeted test excavation to better assess the integrity, extent, distribution, nature and overall significance of the archaeological record. The results of surface surveys and test excavations are to be documented in the ACHAR.
5. The ACHAR must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the project to formulate appropriate measures to manage unforeseen impacts.
6. The ACHAR must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts to this material.

NOTE: The process described in the *Due Diligence Code of Practice for the protection of Aboriginal objects in NSW* (DECCW 2010) is not sufficient to assess the impacts on Aboriginal cultural heritage of Major Projects.



Our ref: DOC20/926059

Ms Ania Dorocinska
Department of Planning, Industry and Environment
4 Parramatta Square
12 Darcy Street, Parramatta NSW 2150

By email: Ania.Dorocinska@planning.nsw.gov.au

Dear Ms Dorocinska,

Request for Secretary's Environmental Assessment Requirements (SEARS) for Western Sydney Sustainable Road Resource Centre (SSD 10866203)

Thank you for your referral dated 9 November 2020 inviting SEARS input from the Heritage Council of NSW on the above proposal.

The subject site is not listed on the State Heritage Register (SHR), nor is it in the immediate vicinity of any SHR items. Further, the site does not contain any known historical archaeological deposits. Therefore, no heritage comments are required. The Department does not need to refer subsequent stages of this proposal to the Heritage Council of NSW.

If you have any questions regarding the above advice, please contact Colleen Klingberg, A/Customer Strategies Officer, at Heritage NSW via on 9873 8566 or Colleen.klingberg@environment.nsw.gov.au

Yours sincerely

Anna London
A/Senior Team Leader, Customer Strategies
Heritage NSW
Department of Premier and Cabinet
As Delegate of the Heritage Council of NSW
19 November 2020

20 November 2020

Ania Dorocinska

Senior Environmental Assessment Officer

Industry Assessments

Department of Planning, Industry & Environment

4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150

ania.dorocinska@planning.nsw.gov.au

Dear Ms Dorocinska

Sydney Water input to SEARs for the Downer Western Sydney Sustainable Road Resource Centre (SSD-10866203) at 230 Martin Road, Badgerys Creek

Thank you for seeking Sydney Water's input to the Secretary's Environmental Assessment Requirements for the abovementioned development which proposes the construction and operation of an asphalt plant producing 550,000 tpa of asphalt, a reconomy facility capable of recycling 500,000 tpa of material waste, and a bitumen products manufacturing plant producing 15,000 tpa of blended products.

Sydney Water have reviewed the proposal and provide the following comments for your consideration:

- Sydney Water currently has limited water services and no existing wastewater services within the vicinity of this development.
- The site is, however, located within Sydney Water's *Growth Servicing Plan (2019-2024)* and therefore Sydney Water may provide the necessary trunk infrastructure to adequately service this property in the future.
- The proposed development presents potentially large water servicing demands, and as such further investigation will be required to determine the servicing requirements for this site.
- It is recommended that the proponent engage a Water Servicing Coordinator as soon as possible, and **a feasibility application** is lodged with Sydney Water prior to a Section 73 application being made. This application should include a detailed concept servicing proposal with a breakdown of maximum potable water and potential recycled water demands and maximum wastewater discharge flows.
- Once a feasibility application is received, it is recommended that an inception meeting is held as soon as possible with the relevant Sydney Water Regional Account Manager

Potential Impacts to Sydney Water Assets

The proposed development presents potential impacts to Sydney Water's assets including but not limited to potable water reticulation pipes on Martin Street.

Proposed SEARs Requirements:

Sydney Water also requests that the Department of Planning, Industry and Environment include the following Secretary's Environmental Assessment Requirements relating to the provision of water-related services for the subject site:

Water-related Infrastructure Requirements

1. The proponent of the development should determine service demands following servicing investigations and demonstrate that satisfactory arrangements for drinking water, wastewater, and if required, recycled water services have been made.
2. The proponent must obtain endorsement and/or approval from Sydney Water to ensure that the proposed development does not adversely impact on any existing water, wastewater or stormwater main, or any other Sydney Water asset, including any easement or property. When determining landscaping options, the proponent should take into account that certain tree species can cause cracking or blockage of Sydney Water pipes and therefore should be avoided.
3. Strict requirements for Sydney Water's stormwater assets (for certain types of development) may apply to this site. The proponent should ensure that satisfactory steps/measures been taken to protect existing stormwater assets, such as avoiding building over and/or adjacent to stormwater assets and building bridges over stormwater assets. The proponent should consider taking measures to minimise or eliminate potential flooding, degradation of water quality, and avoid adverse impacts on any heritage items, and create pipeline easements where required.
4. As this development creates trade wastewater, Sydney Water has trade wastewater requirements which need to be met. By law, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. The proponent must obtain Sydney Water approval for this permit before any business activities can commence. Given this development comprises industrial operations, wastewater may discharge into a sewerage area that is subject to wastewater reuse. Please contact Sydney Water's Business Customer Services to send your permit application or to find out more information. They can be contacted at the following email address: businesscustomers@sydneywater.com.au.

Integrated Water Cycle Management

1. The proponent should outline any sustainability initiatives that will minimise/reduce the demand for drinking water, including any alternative water supply and end uses of drinking and non-drinking water that may be proposed, and demonstrate water sensitive urban design (principles are used), and any water conservation measures that are likely to be proposed.

This will allow Sydney Water to determine the impact of the proposed development on our existing services and required system capacity to service the development.

If you require any further information, please contact the Growth Planning Team at urbangrowth@sydneywater.com.au.

Yours Sincerely,

A handwritten signature in blue ink, appearing to read "Wayne Jackson", with a stylized flourish at the end.

Wayne Jackson

Manager – Growth Planning & Commercial Frameworks
City Growth and Development, Business Development
Sydney Water, 1 Smith Street, Parramatta NSW 2150

27 November 2020

Industry Assessments
Department of Planning, Industry & Environment
Locked Bag 5022
PARRAMATTA NSW 2124

ATTN: Ania Dorocinska

Dear Ms. Dorocinska,

**Request for SEARS Requirements – Western Sydney Sustainable Road Resource Centre
(SSD-10866203) (Liverpool City)**

Thank you for your request via Major Projects Planning Portal (ref: PAE-10934906) dated 9 November 2020 requesting Transport for NSW (TfNSW) to provide details of key issues and assessment requirements regarding the abovementioned development for inclusion in the Secretary's Environmental Assessment Requirements (SEARs). Legislation came into effect on 1 December 2019 that brings together Roads & Maritime Services and TfNSW. This response reflects the advice from the new organisation.

TfNSW has reviewed the submitted Scoping Report and other supporting documentation and provides the following advice for consideration to the draft SEARS in **TAB A**.

Should you require clarification of any issue raised, please don't hesitate to contact Serena Li, Transport Planner, Land Use Planning and Development at development@transport.nsw.gov.au

Yours sincerely



27/11/2020

Mark Ozinga
Principal Manager, Land Use Planning & Development
Customer Strategy and Technology

CD20/08712

Transport and Accessibility

A detailed traffic impact assessment should be prepared and include, but not be limited to, the following:

1. Daily and peak traffic movements likely to be generated by the proposed redevelopment (including vehicle type and the likely arrival and departure times) and volumes likely to be generated during construction and operation, including a description of haul route origins and destinations, including;
 - a. Plans demonstrating how all vehicles associated with construction and operation awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network;
 - b. Details of the vehicle movement into and out the site (construction and operations) throughout the day, with detailed breakdown of movements during peak site operational hours and peak hours on the broader road network.
 - c. Details of the driver facilities provided on site;
 - d. Demonstration that the site is able to cater for all necessary queuing and parking on site, without the need to stage heavy vehicles on the public road network (for construction and operation).
 - e. Details of the origin/destination of heavy vehicles leaving the site and identification of broader road network upgrades
 - f. An assessment of any impacts on road safety as a result of the development based on activity during peak operations, including any impacts to vulnerable road users (such as pedestrians and cyclists)
 - g. Details of the origin/destination of dangerous goods movements to/from the site, their volumes and the transportation and handling arrangements;
 - h. Swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site and critical intersections for both light and heavy vehicles;
 - i. A clearly illustrated and annotated circulation plan showing how heavy vehicles will access and exit the site and move safely within the facility when operating at full capacity, including the design of spaces used for bulk materials handling and storage;
 - j. Details of design at the proposed new truck access including design speed and lines of sight;
 - k. An outline of the materials used, and the volumes required for peak operations (typical busy weekday by time of day); and
 - l. Details of layout for internal truck movements, including truck washing facilities and weighbridges for inbound and outbound trucks.
2. All affected intersections should be examined/ modelled and the need/associated funding for upgrading or road improvement works (if required), including consideration of cumulative traffic impacts key intersections using SIDRA or similar traffic model as prescribed by TfNSW (former Roads and Maritime). These should include, but not be limited to:
 - a. Martin Road / Elizabeth Drive
3. Details of the proposed accesses and the parking provisions associated with the proposed redevelopment including compliance with the requirements of the relevant Australian Standards (turn paths, sight distance requirements, aisle widths etc.)
4. Proposed number of car parking spaces and how these will access and move through the site in relation to heavy vehicle and materials handling movements and compliance with the appropriate parking codes.
5. To ensure that the above requirements are fully addressed, the traffic impact assessment

TAB A – Advice on SEARS – SSD-10866203

must properly ascertain the cumulative study area traffic impacts associated with the subject development and any other known proposed developments in the area, including, but not limited to, the development at 256 Martin Road and the development at 1669-1723 Elizabeth Drive. The proposed traffic signal operation of Martin Road and Elizabeth Drive intersection should also be included in the traffic impact assessment. This process provides an opportunity to identify a package of traffic and transport infrastructure measures required to support future development. Regional and local intersection and road improvements, vehicular access options for adjoining sites, public transport needs, the timing and cost of infrastructure works and the identification of funding responsibilities associated with the development should be identified.

6. The applicant should also assess the cumulative impact of construction vehicles on the road network during construction of the Western Sydney airport and other major infrastructure projects including the M12 and Metro.

Preliminary Construction Traffic Management Plan

1. A preliminary Construction Traffic Management Plan should be prepared detailing construction program, timeframe, construction vehicle routes, number of trucks, hours of operation, access arrangements, traffic control and how the pedestrian footpath and bus stop in the vicinity to be managed during construction, including:
 - a) Assessment of cumulative impacts associated with other construction activities (if any);
 - b) An outline of the proposed construction period and staging with regard to the movement of materials for the project;
 - c) Traffic generated for the peak construction week by time of day, including the type, size and capacity of heavy vehicles to be used;
 - d) Indication of the design vehicle used to carry materials and inputs in accordance with SPECTS principles and routes;
 - e) An assessment of the road safety impacts of the construction activity on the surrounding road network with particular attention to vulnerable road users and sensitive environments such as South Creek; and
 - f) A description (including clear illustrations) of the proposed traffic changes required for the development during construction period, including any alternative routes or diversions needed to accommodate construction activity in the network.

Relevant Policies and Guidelines:

- Western Sydney Aerotropolis Draft Precinct Plans;
- Future Transport 2056 and supporting plans;
- NSW Freight and Ports Plan 2018 – 2023;
- NSW Heavy Vehicle Access Policy Framework 2018;
- NSW Circular Economy Policy 2019;
- Guide to Traffic Generating Developments (Roads and Maritimes Service, 2002);
- EIS Guidelines - Road and Related Facilities (DoPI)
- Cycling Aspects of Austroads Guides
- NSW Planning Guidelines for Walking and Cycling
- Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development
- AS/ NZS 2890.1:2004 (Parking Facilities – Off- street car parking)
- Standards Australia AS2890.3 (Bicycle Parking Facilities).