Contact: Sally Munk
Phone: (02) 9274 6431
Email: sally.munk@planning.nsw.gov.au

Mr Eddie Wehbe
Managing Director
Woodlands Ridge Poultry Pty Ltd
Gurrundah Road
GOULBURN NSW 2580

SSD 9143

Dear Mr Wehbe

Planning Secretary's Environmental Assessment Requirements,
Mixed Use Development, 52 Sinclair Street, Goulburn (SSD 9143)

Please find attached the Planning Secretary's Environmental Assessment Requirements (SEARs) for the proposed mixed-use development at 52 Sinclair Street, Goulburn, in the Goulburn Mulwaree local government area.

The attached SEARs have been prepared in consultation with the relevant State government agencies and Goulburn Mulwaree Council (see **Attachment 2**), and are based on the information you have provided to date. Unfortunately, NSW Health did not respond in time, and you are required to consult with the authority directly regarding its requirements for the proposed development. The SEARs are based on the *Request for Secretary's Environmental Assessment Requirements*, prepared by KDC Pty Ltd, dated July 2018.

Please note that the Planning Secretary may alter the SEARs at any time. You must consult further with the Department if you do not lodge a Development Application (DA) and Environmental Impact Statement (EIS) for the development within two years of the date of issue of these SEARs.

I wish to emphasise the importance of effective and genuine community consultation and the need for the proposal to proactively respond to the community's concerns. A comprehensive, detailed and genuine community consultation and engagement process must be undertaken during preparation of the EIS. This process must ensure the community is informed of the development and engaged with issues of concern to it. Sufficient information must be provided to the community to enable a good understanding of the development and any potential impacts.

The development may require a separate approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). If EPBC Act approval is required, please advise the Department accordingly, as the Commonwealth approval process may be integrated into the NSW approval process, and supplementary SEARs may need to be issued.

Please contact the Department at least two weeks before you lodge the EIS and any associated documentation for the development. This will enable the Department to determine the:

- applicable fee (under Division 1AA, Part 15 of the Environmental Planning and Assessment Regulation 2000); and
- consultation and public exhibition arrangements, including copies and format requirements of the EIS.

If you have any enquiries about these SEARs, please contact Sally Munk, Principal Planner, on the above details.

Yours sincerely

Chris Ritchie 25/7/18
Director
Industry Assessments
As the delegate of the Planning Secretary

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

State significant development

Application Number	SSD 9143
Development	Mixed use development comprising a cold storage and distribution centre, poultry processing plant, childcare facility and other associated infrastructure
Location	52 Sinclair Street, Goulburn (Lot 22 in DP 750050), in the Goulburn Mulwaree local government area.
Applicant	Woodlands Ridge Poultry Pty Ltd
Date of Issue	25 July 2018
General Requirements	The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000. The EIS must include: • a detailed description of the proposed development including: – need for the development – justification for the development and the suitability of the site – likely staging of the development – likely interactions between the development and other existing and proposed developments in the vicinity of the site – integration of operations – a description of all processes involved – preparation of plans of any proposed works – details of any proposed consolidation or subdivision of land. • a list of any approvals that must be obtained under the *Local Government Act 1993*, the *Roads Act 1993*, or any other Act or law before the development may lawfully be carried out • details of how the proposal would interact with any existing development consents/approvals applicable to the site • consideration of key issues identified by Government agencies (see **Attachment 2**) • a risk assessment of the potential environmental impacts of the development, identifying key issues for further assessment • a detailed assessment, where relevant, of the key issues below, and any other potential significant issues identified in the risk assessment, must include: – a description of the existing environment, using adequate baseline data – consideration of potential cumulative impacts due to other development in the vicinity – measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment – a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.
Capital Investment Value	The EIS must be accompanied by a report from a qualified quantity surveyor providing: • a detailed calculation of the capital investment value (CIV) of the proposal (as defined in clause 3 of the *Environmental Planning and Assessment Regulation 2000),* including details of all assumptions and components from which the CIV calculation is derived • a close estimate of the jobs that will be created by the development during the construction and operational phases • certification that the information provided is accurate at the date of preparation.

Key Issues	The EIS must include an assessment of the potential impacts of the proposal (including cumulative impacts) and develop appropriate measures to avoid, mitigate, manage and/or offset these impacts. The EIS must address the following specific matters: • **community and stakeholder engagement** – including: – a detailed community and stakeholder engagement strategy identifying who in the community has been consulted and a justification for the selection, other stakeholders consulted and the form/s of the consultation – a report detailing the issues raised and how they have been addressed including any changes to the proposal – details of proposed future community and stakeholder engagement activities throughout the construction and operation of the development. • **strategic context** – including: – demonstration that the proposal is generally consistent with all relevant planning strategies and environmental planning instruments and justification for any inconsistencies – details of any proposed consolidation or subdivision of land – a land use conflict assessment including reference to separation distances and best management practices, particularly with respect to amenity impacts (odour, noise) on the proposed childcare facility and the proximity of the development to non-associated sensitive receivers, including businesses, residences, aged care facilities and accommodation providers – description of any current and potential 'important agricultural land' on the site and surrounding locality. • **air quality and odour** – including: – a quantitative assessment of the potential air quality and odour impacts of the development in accordance with the relevant Environment Protection Authority (EPA) guidelines. This assessment must include: o an identification of existing and potential future sensitive receivers and consideration of approved and/or proposed developments in the vicinity o an investigation and assessment of odour impacts on all identified and potential receivers including, but not limited to, the adjacent rural residences o an assessment of the cumulative air quality and odour impacts of the development o evidence of appropriate meteorological data for use in air dispersion modelling, using real meteorological data where possible o inclusion of 'worst case' emission scenarios and sensitivity analyses o a contingency plan to address unpredicted operational odour impacts o a description and appraisal of air quality and odour impact monitoring, emission control techniques and mitigation measures. • **transport and road traffic** – including: – a quantitative traffic impact assessment prepared in accordance with the relevant Council, Austroads and Roads and Maritime Services guidelines – details of all daily and peak traffic and transport movements likely to be generated during construction and operation, including a description of haul routes, vehicle types, vehicle access routes and potential queuing impacts – an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic modelling – detailed plans of the proposed layout of the internal road network and parking on site, in accordance with the relevant Australian Standards – swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site – plans for any proposed road upgrades, infrastructure works or new roads required – an assessment of the potential impacts of the development upon surrounding public transport services. • **soils and water** – including: – an accurate description of operational water demands, a breakdown of water supplies (including any water licensing or approval requirements), a description of measures to minimise water use and evidence of an adequate and secure water supply – a detailed site water balance

- details of erosion, sediment, stormwater and leachate control during construction
- a description of surface, groundwater and stormwater management systems, including on site detention, surface water diversions, flood impact mitigation and measures to treat or reuse water during operation
- a MUSIC stormwater quality model for pre- and post-development scenarios
- an assessment of potential surface water, flooding and groundwater impacts, including impacts on nearby waterbodies, surrounding properties, any licensed water users, landholder rights or groundwater dependent ecosystems
- a description and appraisal of impact mitigation, management, maintenance and monitoring measures
- details of how potential water quality risks associated with the transport of livestock and associated waste materials through the Sydney drinking water catchment will be managed
- an assessment of whether the proposed development will have a neutral or beneficial effect (NorBE) on water quality during construction and operation, in accordance with the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011.

- **waste and wastewater management** – including:
  - identification and classification of waste streams that would be generated at the site in accordance with the Waste Classification Guidelines (EPA, 2014)
  - a description of waste handling, transport, identification, storage, processing and disposal measures
  - a description of proposed management and disposal of wastewater, leachate and effluent
  - details on containment and monitoring of wastewater and waste streams
  - the measures that would be implemented to ensure the proposed development is consistent with the aims, objectives and guidelines outlined in the NSW Waste Avoidance and Resource Recovery Strategy 2014-21
  - a description and appraisal of waste impact mitigation, contingencies and management.
- **biodiversity** – including:
  - accurate predictions of any vegetation clearing on site or for any road upgrades
  - an assessment of the proposal in accordance with the Biodiversity Assessment Method (BAM) including the potential impacts on any threatened species, populations, endangered ecological communities or their habitats and groundwater dependent ecosystems
  - details of weed management during construction and operation in accordance with existing State, regional or local weed management plans or strategies
  - a detailed description of the measures to avoid, minimise, mitigate and offset biodiversity impacts.
- **heritage** – including:
  - an assessment of Aboriginal and non-Aboriginal heritage items and values of the site and surrounding area in accordance with the relevant Office of Environment and Heritage guidelines.
- **animal welfare, bio-security and disease management** – including:
  - details of how the proposed development would comply with relevant codes of practice and guidelines
  - details of any potential bio-security impacts to landowners and properties located along primary haulage routes
  - details of all bio-security and disease control measures
  - a detailed description of the contingency measures that would be implemented for the mass disposal of livestock in the event of a disease outbreak.
- **noise and vibration** – including:
  - a quantitative noise and vibration impact assessment in accordance with the relevant EPA guidelines
  - a description of all potential noise and vibration sources during construction and operation, including traffic noise along primary haulage routes
  - a description of noise and vibration monitoring, management and mitigation measures.
- **hazards and risk** – including:
  - the Environmental Impact Statement must include a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33—

	Hazardous and Offensive Development and Applying SEPP 33 (Department of Planning, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development – Should the preliminary risk screening indicate that the development is "potentially hazardous", a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' (Department of Planning, 2011) and Multi-Level Risk Assessment (Department of Planning, 2011) • **contamination** – including: – a detailed assessment of the extent and nature of any contamination at the site – conceptual site model detailing the potential risks to human health and the environmental receptors in the vicinity of the site. • **visual impacts** – including: – details of proposed landscaping works – a description of the visual catchment, an assessment of visual impacts and details of proposed mitigation measures, including lighting impacts on surrounding receivers and public areas – a detailed assessment (including photomontages and perspectives) of the buildings, including height, colour, scale, bulk, building materials and signage • **social and economic** – including: – the preparation of a social impact assessment, which: o identifies and analyses the potential social impacts of the development from the point of view of the affected community and other relevant stakeholders o considers how the affected community and other relevant stakeholders may expect to experience the project o considers how potential environmental impacts (such as traffic, odour and noise) may affect people's way of life, community, access, health, surroundings, and livelihoods o includes mitigation measures for likely negative impacts, and enhancement measures for likely positive impacts o details how social impacts will be monitored and managed over time – an analysis of any potential economic impacts of the development, including a discussion of any potential economic benefits to the community. • **infrastructure** – including details of any upgrade or extension to existing services infrastructure required to accommodate the proposed development (e.g. electricity supply). • **contributions** – including consideration of Goulburn Mulwaree Section 94 Development Contributions Plan 2009, Revised 23 June 2016, and/or details of any Voluntary Planning Agreement. • **bush fire management** – including a bush fire assessment report.
Plans and Documents	The EIS must include all plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. These documents should be included as part of the EIS rather than as separate documents.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: • Goulburn Mulwaree Council • Environment Protection Authority • Office of Environment and Heritage • Department of Primary Industries • WaterNSW • Roads and Maritime Services • Southern NSW Local Health District • Rural Fire Service • Geological Survey of NSW – Division of Resources and Geoscience • Essential Energy • surrounding landowners • the local community • any other stakeholders identified during the preparation of the EIS.

	The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, an explanation should be provided.
Further consultation after 2 years	If you do not lodge a development application and EIS for the development within 2 years, you must consult further with the Planning Secretary in relation to the preparation of the EIS.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, strategies and plans. While not exhaustive, **Attachment 1** contains a list that may be relevant to the assessment of this proposal.

ATTACHMENT 1
Technical and Policy Guidelines

The following guidelines may assist in the preparation of the Environmental Impact Statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:
http://www.planning.nsw.gov.au
http://www.bookshop.nsw.gov.au
http://www.publications.gov.au

Policies, Guidelines & Plans	
Plans and Documents	
	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following: 1. An existing site survey plan drawn at an appropriate scale illustrating: • the location of the land, boundary measurements, area (in square metres) and north point; • the existing levels of the land in relation to buildings and roads; • location and height of existing structures on the site; • location and height of adjacent buildings and private open space; and • all levels to be to Australian Height Datum (AHD). 2. A locality/context plan drawn at an appropriate scale should be submitted indicating: • significant local features such as watercourses, drainage lines, residential and recreational areas, roads, and heritage items; • location of similar agricultural activities; • the location and uses of existing buildings and employment areas; and • traffic and road patterns, pedestrian routes and public transport nodes. 3. Drawings at an appropriate scale illustrating: • plans, sections and elevations of the proposed buildings, manager's residences and other related infrastructure; • detailed plans of proposed access driveways, internal roads, carparking and services infrastructure; and • detailed plans of any proposed boundary adjustment or subdivision, including details of the existing and proposed lot boundaries, lot areas and north point. 4. Schedule of materials, colours and finishes
Documents to be Submitted	
	Documents to submit include: • 1 hard copy and 1 electronic copy of all the documents and plans; and • Other copies as determined by the Department once the development application is lodged

Aspect	Policy/Methodology
Air Quality and Odour	
Air Quality	*Protection of the Environment Operations Act 1997*
	Protection of the Environment Operations (Clean Air) Regulation 2010
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC, 2007)
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016)
Odour	Technical Framework: 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)
Transport and Road Traffic	
	Roads Act 1993
	Guide to Traffic Management Part 12: Traffic Impacts of Developments (Austroads, 2016)
	Guide to Road Design (Austroads, 2016)
	Guide to Traffic Generating Development (RTA, 2002) (as updated by the RMS)
	Future Transport 2056 (TfNSW, 2018)
	Regional NSW Services and Infrastructure Plan (TfNSW, 2018)
Soil and Water	
Soil	Soil and Landscape Issues in Environmental Impact Assessment (DLWC, 2000)
	Site Investigations for Urban Salinity (DLWC, 2002)
	Acid Sulfate Soils Manual (Stone et al., 1998)
	Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al., 2004)
Surface Water	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC, 2007)
	Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom, 2004)
	Guidelines for Controlled Activities on Waterfront Land (DPI Water, 2012)
	Australian and New Zealand Guidelines for Fresh and Marine Water Quality (all volumes) (ANZECC and ARMCANZ, 2000)
	Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC and ARMCANZ, 2000)
	Using the ANZECC Guidelines and Water Quality Objectives in NSW (DEC, 2006)
	NSW Water Quality and River Flow Objectives – Namoi River Catchment (DECCW, 2006)
Groundwater	National Water Quality Management Strategy – Guidelines for Groundwater Protection in Australia (Australian Government, 2014)
	NSW State Groundwater Policy Framework Document (DLWC, 1997)
	NSW Aquifer Interference Policy (NOW, 2012)
	Australian Groundwater Modelling Guidelines (NWC, 2012)
Flooding	Floodplain Development Manual (NSW Government, 2005)
Waste and Wastewater Management	
Waste	Waste Classification Guidelines (EPA, 2014)
	Waste Avoidance and Resource Recovery Strategy 2014-2021 (EPA, 2014)
	National Waste Policy: Less Waste, More Resources (DEWHA and EPHC, 2009)
Wastewater	Environmental Guidelines: Use of Effluent by Irrigation (DEC, 2004)
Biodiversity	
	Biodiversity Conservation Act 2017
	Biodiversity Conservation Regulation 2017
	Biodiversity Assessment Method (OEH, 2017)
	Guidance and Criteria to Assist a Decision Maker to Determine a Serious and Irreversible Impact (OEH, 2017)
	NSW Guide to Surveying Threatened Plants (OEH, 2016)

Heritage	
	NSW Heritage Manual (HO and DUAP, 1996)
	The Burra Charter (Australia ICOMOS, 2013)
	Statements of Heritage Impact (HO and DUAP, 2002)
	Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010)
	Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)
Animal Welfare and Bio-security	
	Model Code of Practice: Domestic Poultry (CSIRO Publishing, 2002)
	Model Code of Practice for the Welfare of Animals – Livestock at Slaughtering Establishments (CSIRO Publishing, 2002)
	Model Code of Practice for the Welfare of Animals – Land Transport of Poultry (CSIRO Publishing, 2006)
	Best Practice Management for Meat Chicken Production in New South Wales Manual 2 – Meat Chicken Growing Management (DPI, 2012)
	National Farm Biosecurity Manual for Chicken Growers (Australian Chicken Meat Federation, 2009)
Agriculture	
	Land Use Conflict Risk Assessment Guide (Department of Primary Industries, 2011)
Noise and Vibration	
	Noise Policy for Industry (EPA, 2017)
Noise	NSW Road Noise Policy (DECCW, 2011)
	Interim Construction Noise Guideline (DECC, 2009)
Vibration	Assessing Vibration: A Technical Guideline (DEC, 2006)
Hazards and Risk	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DoP, 2011)
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011)
Human Health Risk	
	Environmental Health Risk Assessment (enHealth, 2012)
Contamination	
	State Environmental Planning Policy No. 55 – Remediation of Land
	National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended)
	Managing Land Contamination: Planning Guidelines: SEPP 55 – Remediation of Land (DUAP and EPA, 1998)
	Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)
	Guidelines for the NSW Site Auditor Scheme – 2nd Edition (EPA, 2017)
	Sampling Design Guidelines (EPA, 1995)
	Designing Sampling Programs for Sites Potentially Contaminated by PFAS (EPA, 2016)
Advertising and Signage	
	State Environmental Planning Policy No. 64 – Advertising and Signage
	Transport Corridor Outdoor Advertising and Signage Guidelines (DPE, 2017)
Social and Economic	
	Social Impact Assessment Guideline for State Significant Mining, Petroleum Production and Extractive Industry Development (DPE, 2017)
Bush Fire	
	Planning for Bush Fire Protection (NSW Rural Fire Service, 2006)

ATTACHMENT 2
State Government Authority and Council Submissions

Office of Environment & Heritage

Your reference: SSD 9143
Our reference: DOC18/459949
Contact: Julia Maskell (02) 6229 7039, Nicola Hargraves (02) 6229 7195

Sally Munk
Principal Planning Officer
Industry Assessments
Planning Services Division
320 Pitt Street

Dear Ms Munk

52 Sinclair Street, Goulburn NSW – Mixed use State Significant Development– Request for Secretary's Environmental Assessment Requirements

I refer to your email dated the 5 June 2018 seeking input into the Secretary's Environmental Assessment Requirements (SEAR's) for the development of the Goulburn Poultry facility with a mixed development application, located at 52 Sinclair Street Goulburn. The proposed development is within the *Goulburn Mulwaree Local Environmental Plan 2009*.

The proposal is located within B6-Enterprise Corridor, RU6-Transitional and E3-Environmental Management zones. I note that a poultry facility is prohibited within all zones.

OEH understands that the proposal is a State Significant Development (SSD 9143) under the *Environmental Planning and Assessment Act 1979* for the purpose of an 'agricultural produce industry' and that the Minister for Planning is the consent authority.

OEH has reviewed the Preliminary Environmental Assessment prepared by KDC Pty Ltd (dated June 2018) and has prepared Standard SEAR's which are presented in **Attachment A**. There are no project-specific SEAR's provided for this project (**Attachment B**). References for guidance documents are provided in **Attachment C**.

Previous archaeological assessment on an adjacent property located Aboriginal objects including isolated artefacts, artefact scatters and areas of potential archaeological deposit. It is likely that these site types are present in the proposal area. A full Aboriginal cultural heritage assessment in accordance with OEH guidelines will therefore be required.

If you have any further questions in relation to this matter, please feel free to contact Allison Treweek, Senior Team Leader – Planning (02) 6229 7082.

Yours sincerely

16.7.2018

MICHAEL SAXON
Director South East – South East Planning
Regional Operation Division

Enclosure: OEH's Recommended Environmental Assessment Requirements (EARs) for Major Projects

PO Box 733, Queanbeyan NSW 2620
11 Farrer Place, Queanbeyan NSW
Tel: (02) 6229 7188 Fax: (02) 6229 7001
ABN 30 841 387 271
www.environment.nsw.gov.au

52 Sinclair Street Goulburn - Mixed Use Development comprising a cold storage and distribution centre, poultry processing plant, childcare facility and associated infrastructure

OEH's Recommended Environmental Assessment Requirements (EARs) for Major Projects

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Attachment A – Standard Environmental Assessment Requirements

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, unless OEH and DPE determine that the proposed development is not likely to have any significant impacts on biodiversity values. 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*.
Aboriginal cultural heritage
6. 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 Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (DECCW, 2011) and consultation with OEH regional branch officers.

7. Consultation with Aboriginal people must be undertaken and documented in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.

8. 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 ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.

9. The ACHAR must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the development to formulate appropriate measures to manage unforeseen impacts.

Historic heritage

10. The EIS must provide a heritage assessment including but not limited to an assessment of impacts to *State and local heritage* including conservation areas, natural heritage areas, places of Aboriginal heritage value, buildings, works, relics, gardens, landscapes, views, trees should be assessed. Where impacts to State or locally significant heritage items are identified, the assessment shall:
    a. outline the proposed mitigation and management measures (including measures to avoid significant impacts and an evaluation of the effectiveness of the mitigation measures) generally consistent with the NSW Heritage Manual (1996),
    b. be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria),
    c. include a statement of heritage impact for all heritage items (including significance assessment),
    d. consider impacts including, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, landscape and vistas, and architectural noise treatment (as relevant), and
    e. where potential archaeological impacts have been identified develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations (terrestrial and maritime as relevant) and include the results of these test excavations.

Water and soils

11. 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.
12. 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
13. The EIS must assess the impacts of the development on water quality, including: a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction. b. Identification of proposed monitoring of water quality. c. Consistency with any relevant certified Coastal Management Program (or Coastal Zone Management Plan)
14. 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

15. 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
16. 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.
17. 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.
18. Modelling in the EIS must consider and document:
19. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.
20. 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.
21. 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.
22. Relevant provisions of the NSW Floodplain Development Manual 2005.
23. 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 river banks 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 or 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.

Attachment B – Project Specific Environmental Assessment Requirements

Biodiversity – Nil
Aboriginal cultural heritage – Nil
Historic heritage – Nil
Water and soils – Nil
Flooding and coastal hazards – Nil

Attachment C – Guidance material

Title	Web address
Relevant Legislation	
Biodiversity Conservation Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
Coastal Management Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/20/full
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
Marine Parks Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Wilderness Act 1987	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
Biodiversity	
Biodiversity Assessment Method (OEH, 2017)	http://www.environment.nsw.gov.au/resources/bcact/biodiversity-assessment-method-170206.pdf
Biodiversity Development Assessment Report	https://www.legislation.nsw.gov.au/#/view/act/2016/63/part6/div3/sec6.12
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	http://www.environment.nsw.gov.au/resources/bcact/guidance-decision-makers-determine-serious-irreversible-impact-170204.pdf
Accreditation Scheme for Application of the Biodiversity Assessment Metho Order 2017	https://www.legislation.nsw.gov.au/regulations/2017-471.pdf
Biodiversity conservation actions	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf
Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-reasonable-steps-170498.pdf

Title	Web address
OEH Threatened Species Website	www.environment.nsw.gov.au/threatenedspecies/
NSW BioNet (Atlas of NSW Wildlife)	www.bionet.nsw.gov.au/
NSW guide to surveying threatened plants (OEH 2016)	www.environment.nsw.gov.au/resources/threatenedspecies/160129-threatened-plants-survey-guide.pdf
OEH threatened species survey and assessment guideline information	www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm
BioNet Vegetation Classification - NSW Plant Community Type (PCT) database	www.environment.nsw.gov.au/research/Vegetationinformationsystem.htm
OEH Data Portal (access to online spatial data)	http://data.environment.nsw.gov.au/
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land managed by the Office of Environment and Heritage (OEH 2013)	http://www.environment.nsw.gov.au/resources/protectedareas/development-land-adjoining-130122.pdf
Aboriginal Cultural Heritage	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	http://www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	http://www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	http://www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
Heritage	

Title	Web address
The Burra Charter (The Australia ICOMOS charter for places of cultural significance)	http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf
Statements of Heritage Impact 2002 (HO & DUAP)	http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf
NSW Heritage Manual (DUAP) (scroll through alphabetical list to 'N')	http://www.environment.nsw.gov.au/Heritage/publications/
Water and Soils	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps via Data.NSW	http://data.nsw.gov.au/data/
Acid Sulfate Soils Manual (Stone et al. 1998)	http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Flooding and Coastal Erosion	
Reforms to coastal erosion management	http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	http://www.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans http://www.environment.nsw.gov.au/resources/coasts/130224CZMPGuide.pdf
NSW Climate Impact Profile	http://climatechange.environment.nsw.gov.au/
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

Sally Munk

From: Jenn Warner
Sent: Wednesday, 18 July 2018 5:59 PM
To: Sally Munk
Cc: DRG GSNSW Landuse Minerals Mailbox
Subject: Request for Secretary's Environmental Assessment Requirements - Goulburn Mixed Use Development - SSD 9143 - Goulburn Mulwaree LGA - GSNSW Response (DOC18/457212)

Dear Sally,

Thank you for the opportunity to provide requirements for the Goulburn Mixed Use Development SSD 9143.

The Geological Survey of New South Wales (GSNSW) – Division of Resources & Geoscience has reviewed the Preliminary Environmental Assessment and has no Secretary's Environmental Assessment Requirements for this proposal.

Mineral Exploration Licence (EL) 8673 held by Australian Consolidated Gold Holdings Pty Ltd exists over the subject site, however we do not anticipate that the proposal will significantly impact activities relating to the exploration licence.

Queries regarding the above information, and future requests for advice in relation to this matter, should be directed to the GSNSW Land Use team at landuse.minerals@geoscience.nsw.gov.au.

Kind regards

Jenn

Jennifer Warner | Acting Senior Geoscientist | Land Use & Titles Advice | Geological Survey of NSW
Division of Resources and Geoscience
516 High Street | Maitland NSW 2320 | PO Box 344 | Hunter Region Mail Centre | NSW 2310
T: 02 4063 6668 | E: jenn.warner@planning.nsw.gov.au


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NSW RURAL FIRE SERVICE

The Secretary
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Your reference: SSD 9143
Our reference: D18/6248
DA18070613871 BB

Attention: Sally Munk

17 July 2018

Dear Sir/Madam,

State Significant Development Application - Request for SEARs - Proposed mixed use development at 52 Sinclair Street, Goulburn

Reference is made to correspondence dated 5 July 2018 seeking input regarding the preparation of Secretary's environmental assessment requirements for the above State Significant Development in accordance with the *Environmental Planning and Assessment Act 1979*.

The New South Wales Rural Fire Service (NSW RFS) has reviewed the information provided and advises that a bush fire assessment report shall be prepared which identifies the extent to which the proposed development conforms with, or deviates from, the relevant provisions of *Planning for Bush Fire Protection 2006* (PBP).

With regards to the above, the *Building Code of Australia* does not provide for any bush fire specific performance requirements for Class 5 to 8 and Class 10 buildings. As such, the Australian Standard AS3959-2009 *Construction of buildings in bush fire-prone areas* does not apply as a set of 'deemed to satisfy' provisions. The general fire safety construction provisions are taken as acceptable solutions, but the aim and objectives of PBP apply in relation to other matters such as access, water and services, emergency planning, and landscaping/vegetation management. In circumstances where the aims and objectives of PBP (section 1.1) are not met, then the construction requirements for bush fire protection will need to be considered on a case-by-case basis.

All bush fire protection measures, in particular, the minimum asset protection zone (APZ) requirements for Special Fire Protection Purpose development should be contained within the 'overall' development site and not on adjoining lands, other than in exceptional circumstances. Neither the NSW RFS nor a council has the power to impose an APZ on an adjoining landowner. It is therefore the developer's responsibility to negotiate with adjoining land owner/s as part of the development application process. If an easement is required, details of the proposed easement and the adjoining owners consent should be submitted with the development application.

If you have any queries regarding this advice, please contact Bradley Bourke, Development Assessment and Planning Officer, on 1300 NSW RFS.

Postal address
NSW Rural Fire Service
Planning and Environment Services
Locked Bag 17
GRANVILLE NSW 2141

T 1300 NSW RFS
F (02) 8741 5433
E records@rfs.nsw.gov.au
www.rfs.nsw.gov.au

Yours sincerely,

Jeff Lucas
Director, Planning and Environment Services

Our ref: STH18/00035/02
Contact: Melissa Steep 4221 2423
Your ref: SSD9143

10 July 2018

Sally Munk
Department of Planning and Environment
Sally.munk@planning.nsw.gov.au

REQUEST FOR SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS – GOULBURN MIXED USE DEVELOPMENTDEVELOPMENT – SSD 9143

Dear Sally,

Roads and Maritime Services (RMS) refers to your correspondence dated 17 June 2018 regarding the subject Secretary's Environmental Assessment Requirements (SEARs) request.

RMS has reviewed the information provided and considers that the following information should be addressed in the Environmental Assessment (EA):

- A traffic impact study (TIS) is required. As a guide Table 2.1 of the RTA Guide to Traffic Generating Developments outlines the key issues that may be considered in preparing a TIS.
- RMS notes Council's Section 94 plan includes a roundabout at the intersection of Sydney Road and Common Street. Consideration will need to be given to the provision of an intersection upgrade at this location to service the proposed development. RMS would not object to a roundabout at this location subject to the appropriate SIDRA modelling and provision of a strategic design.
- The TIS will need to identify vehicle types, volumes and distributions generated by the development, and in particular the impact of such vehicles travelling south through Goulburn to access the Hume Highway. SIDRA intersection modelling will be required to assess pre and post development performance of the intersections of Sydney Road with Common Street and Auburn Street with Clinton St.
- Intersection modelling using SIDRA needs to be undertaken for the above identified intersections with consideration to the following:
    - Full development of the site.
    - AM and PM peaks volumes and holiday peak volumes.
    - Existing traffic volumes with and without development and 10 year projected volumes with and without the development.
    - The base SIDRA models must be calibrated with on site observations in the AM and PM peak. This can be done by measuring existing queue lengths and delays.
    - Any proposed intersection upgrade will need to be reflected in and supported by the SIDRA modelling
    - Electronic copies of all SIDRA files needs to be provided to RMS for review

- A strategic design for any identified intersection upgrades (i.e. a roundabout at the intersection of Sydney Road and Common Street) will need to be prepared to clarify the scope of works, demonstrate the works can be constructed within the road reserve at the proposed location and allow the consent authority to consider any environmental impacts of the works as part of their Part 4 assessment. These impacts include traffic and road safety impacts as well as other impacts such noise, flora and fauna, heritage and impact to community.

If you have any questions please contact Melissa Steep on 4221 2423.

Please ensure that any further email correspondence is sent to development.southern@rms.nsw.gov.au.

Yours faithfully,

Joanne Parrott
Network & Safety Manager
Southern Region

PO Box 398, Parramatta NSW 2124
Level 14, 169 Macquarie Street
Parramatta NSW 2150
www.waternsw.com.au
ABN 21 147 934 787

16 July 2018

Sally Munk
Principal Environmental Planner
Industry Assessments
NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Contact: *Nicole Wallwood*
Telephone: *9865 2503*
Our ref: *D2018/76620*

Dear Ms Munk

Request for SEARs – Goulburn Mixed Use Development (SSD 9143)

Thank you for your email received 5 July 2018 seeking WaterNSW's input into the SEARs for a proposed mixed use development comprising a cold storage and distribution centre, poultry processing plant, childcare facility and other associated infrastructure at 52 Sinclair Street, Goulburn (SSD 9143). WaterNSW appreciates the opportunity to input into the SEARs.

The site is located within the Sydney drinking water catchment, and as such, the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 (the SEPP) applies. The SEPP requires the consent authority to only grant consent if is satisfied that the carrying out of the proposed development would have a neutral or beneficial effect on water quality.

WaterNSW has reviewed the Preliminary Environmental Assessment (dated July 2018) and the Draft Site Layout Plan, and requests that the following key issues be addressed in the SEARs:

1. **General requirements**
   - The EIS should provide an assessment of whether the proposed development will have a neutral or beneficial effect on water quality (NorBE) during the construction and operational stages, and shall specifically address the requirements outlined in clauses 9(1) and (2), and 10(1) of the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011.
   - A description of the proposed development and existing environment should also include a description of all processes involved and details of specific aspects of the development that may potentially impact the quality and quantity of surface water and groundwater within and adjacent to the site, including delivery, stockpiling and processing of poultry and any impacts on receiving waters. Detailed site plans at suitable scales showing the location of all structures shall be provided.
2. **Waste management**
   - Specific details of how poultry waste generated within the site, including from the rendering and processing plants, will be managed, stored/stockpiled and disposed of in line with relevant best management practice(s), to limit potential water quality impacts.
3. **Soil and water**
   - A Conceptual Soil and Water Management Plan for the construction phase, in line with Managing Urban Stormwater – Soils & Construction Volume 2004, Landcom).

- Specific details on proposed stormwater treatment and management measures, including any existing stormwater measures at the site and those required by a positive covenant; separation of clean and dirty stormwater runoff; and optimization of stormwater reuse to reduce impacts on receiving waters. The following details should be addressed:
    - the nature of any stormwater treatment, including the location of proposed stormwater management measures that capture and treat stormwater prior to reuse or discharge. This should include any existing measures and any required by a positive covenant
    - a MUSIC stormwater quality model which realistically represents the pre and post-development scenarios (including any existing stormwater management measures). The model must demonstrate that the proposed development can achieve a neutral or beneficial effect on water quality with the proposed stormwater management measures, and must be consistent with the Guideline for Using MUSIC in Sydney's Drinking Water Catchment (SCA, 2012)
    - a Conceptual Stormwater Drainage Plan consistent with the MUSIC model which includes location of the proposed stormwater measures, specific details and sizing of proposed treatment measures (including existing measures and those required by positive covenants at the site), and the location and nature of stormwater discharge points, and includes appropriate cross sections, and
    - an electronic copy of the MUSIC model (sqz) file should also be provided.

4. **Chemical management**
    - Details of how any chemicals at the site will be used, stored and disposed of to reduce potential water quality risks, in accordance with relevant best management practices. This should include details of the location and management of stored chemicals with regard for relevant best management practice.
5. **Transport**
    - Details of how potential water quality risks associated with the transport of poultry and associated waste materials through the Sydney drinking water catchment, to and from the site, will be managed.
6. **Sewer**
    - Specific details of the capacity of the sewage pumping station and associated sewerage infrastructure to cater for the proposed development, including (if any) industrial related discharges to sewer.
7. **Conceptual Operational Environmental Management Plan**
    - a Conceptual Operational Environmental Management Plan addressing the management of proposed chemicals, waste and stormwater; outlining the roles and responsibilities for the management, and monitoring, maintenance and management programs, including frequency of such programs.

WaterNSW would be happy to discuss our requirements with the applicant. WaterNSW would appreciate the continued opportunity to comment on this project as the assessment progresses.

If you wish to discuss this matter further, please contact Nicole Wallwood on 9865 2503 or Dr Girja Sharma on 9865 2501.

Yours sincerely

MALCOLM HUGHES
Manager Catchment Protection

Goulburn Mulwaree Council
Locked Bag 22
Goulburn NSW 2580

Civic Centre
184 - 194 Bourke Street
Goulburn NSW 2580
t (02) 4823 4444
e council@goulburn.nsw.gov.au
www.goulburn.nsw.gov.au

19 July 2018

Contact: Planning & Environment
Reference: SSD 9143

Ms Sally Munk
Planning Services Division
Department of Planning & Environment
320 PITT STREET
SYDNEY NSW 2000

Dear Sally,

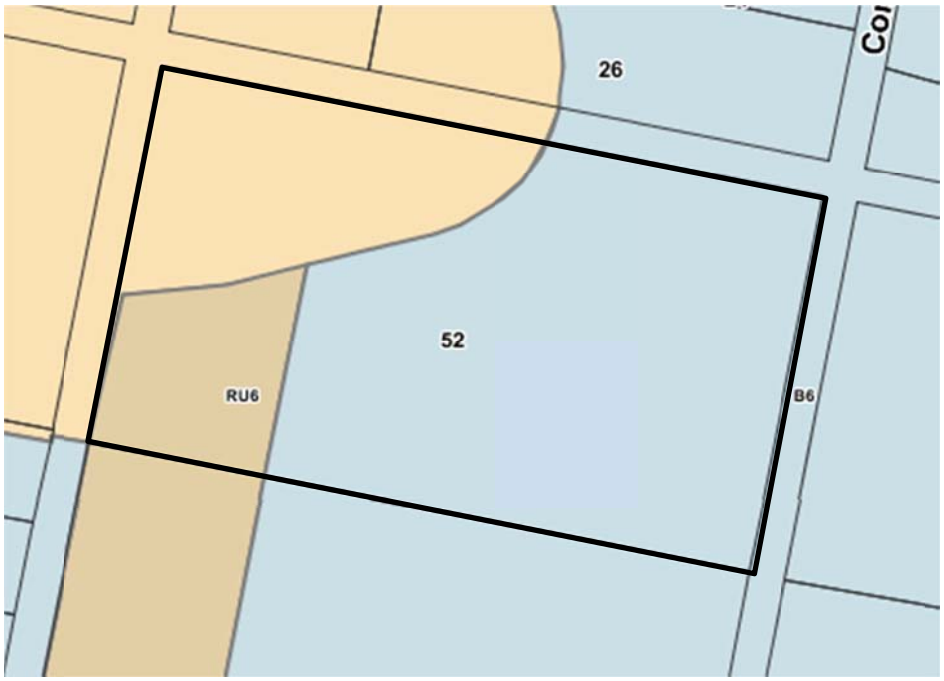
Subject: Request for Secretary's Environmental Assessment Requirements – Goulburn Mixed Use Development SSD 9143

Reference is made to the details provided in the Departments email request dated July 2018, Council has also considered our previous response dated 4 January 2018 and the responses from government agencies, specifically the Office of Environment and Heritage 15 December 2017.

In regards to permissibility, under GM LEP 2009 the site is zoned:

- B6 Enterprise Corridor
- RU6 Transition and
- E3 Environmental Management.

These zones are delineated across the site as follows therefore certain areas permit certain types of development.



I agree with our previous advice that Livestock Processing Industries (as a Rural Industry) are prohibited in the B6 Enterprise Corridor zone however as identified above and by the KDC's submission, the proposed development would be considered State Significant Development (SSD) under s.89C of the State and Regional Development (SRD) SEPP 2011 as a *Agricultural produce industry and food and beverage processing* and *Warehouse or distribution centre* development, the proposal may be granted consent by the Minister because it has a Capital Investment Value (CIV) of greater than $30M and $50M respectively.

In terms of permissibility, the proponent has made a reasonable attempt to fit the development within the existing zone boundaries delineated on the site however the RU6 Transition and E3 Environmental Management areas require specific attention.

Flora and Fauna

On examination of the site layout, a service lane and the rear of the processing plant abutt an Endangered Ecological Community of Box Gum Woodland. This EEC vegetation community should not be considered as something to be ignored rather it should be viewed as part of the development and something where its regeneration can assist in mitigating the impact of the development on adjoining lands and contribute to the development.

This is particularly so where the locality is described, as in Section 5.7 of the SEAR's request with, a low density rural character. Further, maintenance of the plant community can be more readily facilitated if easier access and opening up this area to allow viewing of its (improved) quality is implemented. A more considered and detailed BDAR response will be required for OEH to support the proposal. Integrating the vegetation community into the development will ameliorate the impacts and thereby any mitigation measures.

The concept site layout is noted as having the Rendering Plant, Office and Amenities and water storage tanks at the rear of the property (towards the EEC). Making use of the existing landscaping for staff amenities, promoting the vegetation rather than hiding it and relocating the Staff Recreation Area towards the rear can create a positive work environment.

Heritage

The response from OEH also identifies potential Aboriginal artefacts and suggests that a full archaeological cultural assessment is required. I concur with this request. Our GIS mapping identifies the whole of the east Goulburn precinct as potentially containing heritage or archaeological deposits.

Child Care centre
This is initiative is to be commended for inclusion by the proponent. The location of a Child Care centre in this locality has a significant potential to expand. This will be so particularly when the area begins to develop as an Industrial area (as per the Employment Lands Strategy). However, these uses often present difficulties to parents when dropping off and collecting children. We would greatly appreciate a really safe and user friendly transfer area.

Air and Odour
Wind Direction and odour drift charts will be required to be submitted demonstrating prevailing wind direction and the direction and location of odour impact zones.

Retailing
Any future retailing of processed products should be considered in this stage of the proposal and incorporated into the design rather than retrofitted.

Building Heights
The building heights need to be demonstrated against the landscape. The RL (Floor levels) are shown with a ceiling height but no comparative presentation.

Landscape Plan
A landscape plan should demonstrate the layout, planting species and maintenance regime for the site. Proposed plantings should be selected on their screening properties or their biodiversity contribution.

Impervious Area
The existing natural drainage network has evidence of significant damage. The impervious area of this development will contribute significantly to this condition. A satisfactory volume and velocity management plan, including Water Sensitive Urban Design (WSUD) Principles, will need to be provided.

Schedule of materials, colours and finishes
This should be submitted to demonstrate that they are non-reflective and are passive to the landscape in the immediate vicinity and distant viewpoints.

Yours faithfully,

Stephanie Mowle
Acting Business Manager Planning & Strategic Outcomes

Sally Munk

From: Nicholas Hon
Sent: Friday, 6 July 2018 9:52 AM
To: Sally Munk
Cc: Doris Yau
Subject: RE: Request for Secretary's Environmental Assessment Requirements - Goulburn Mixed Use Development - SSD 9143
Attachments: Preliminary Environmental Assessment - 52 Sinclair St, Goulburn.pdf; Concept Plans - 52 Sinclair St, Goulburn.pdf; Council SEARs consultation - 52 Sinclair St, Goulburn.pdf; EPA SEARs Consultation Letter - 52 Sinclair St, Goulburn.pdf; OEH SEARs consultation - 52 Sinclair St, Goulburn.pdf

Hi Pam,

Having reviewed the attached documents, it is recommended that the following SEARs be included:

> **Hazards and Risks** – the Environmental Impact Statement must include a preliminary risk screening completed in accordance with *State Environmental Planning Policy No 33—Hazardous and Offensive Development* and *Applying SEPP 33* (Department of Planning, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should the preliminary risk screening indicate that the development is "potentially hazardous", a Preliminary Hazard Analysis (PHA) must be prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'* (Department of Planning, 2011) and *Multi-Level Risk Assessment* (Department of Planning, 2011), and assess the risk to childcare facility.

It is also recommended that the Applicant be advised to:

- provide sufficient details (including equipment) on any industrial refrigeration systems proposed utilising dangerous goods (DG) refrigerants. The quantity of DG refrigerants must be compared with the relevant screening threshold as part of preliminary risk screening; and
- specify the quantity of oxygen (especially liquids) proposed to be stored and handled within the development. This quantity must be compared with the screening threshold quantity for dangerous goods (DG) Class 5.1 (5 tonnes), given that oxygen is also sub-risk 5.1 (refer to Example 2 of *Applying SEPP 33*).

If there are any queries from the Applicant on the above, please refer them to me.

Thanks.

Regards,

Nicholas Hon

Technical Specialist (Hazards)
NSW Department of Planning & Environment
Level 29, 320 Pitt Street
Sydney NSW 2000 Australia
T (02) 9274 6344 E nicholas.hon@planning.nsw.gov.au

From: Sally Munk
Sent: Thursday, 5 July 2018 10:00 AM
To: Landuse Minerals <landuse.minerals@industry.nsw.gov.au>; Adam Oehlman

<landuse.enquiries@dpi.nsw.gov.au>; 'landuse.enquiries@industry.nsw.gov.au' <landuse.enquiries@industry.nsw.gov.au>; Water Referrals <water.referrals@dpi.nsw.gov.au>; 'nsw.agriculture@dpi.nsw.gov.au' <nsw.agriculture@dpi.nsw.gov.au>; OLG - Goulburn Mulwaree Council <council@goulburn.nsw.gov.au>; Planning Matters Mailbox <planning.matters@environment.nsw.gov.au>; DPE PSVC Hazards Mailbox <hazards@planning.nsw.gov.au>; 'development.southern@rms.nsw.gov.au' <development.southern@rms.nsw.gov.au>; environmental.assessments@waternsw.com.au; SNSWLHD-ConsumerFeedback@health.nsw.gov.au; 'csc@rfs.nsw.gov.au' <csc@rfs.nsw.gov.au>; 'records@rfs.nsw.gov.au' <records@rfs.nsw.gov.au>
Cc: emma-jayne.leckie@goulburn.nsw.gov.au; Janine Goodwin <Janine.Goodwin@epa.nsw.gov.au>; Michael Heinze <Michael.Heinze@epa.nsw.gov.au>; Susan Lamb <Susan.Lamb@environment.nsw.gov.au>; Allison Treweek <Allison.Treweek@environment.nsw.gov.au>; Miles Ellis <Miles.Ellis@waternsw.com.au>
Subject: Request for Secretary's Environmental Assessment Requirements - Goulburn Mixed Use Development - SSD 9143

Dear All

The Department has received a request for Secretary's Environmental Assessment Requirements (SEARs) from KDC Pty Ltd (KDC) on behalf of Woodlands Ridge Poultry Pty Ltd (WRP) (the Applicant) for a proposed mixed use development at 52 Sinclair Street, Goulburn, in the Goulburn Mulwaree local government area (SSD 9143). The Applicant proposes a mixed use development comprising a cold storage and distribution centre, poultry processing plant, childcare facility and other associated infrastructure.

The proposal is State Significant Development as it is development for the purpose of an 'agricultural produce industry' that has a capital investment value of more than $30 million. The Minister for Planning is the consent authority.

The Applicant's *Request for Secretary's Environmental Assessment Requirements* is attached and can also be viewed on the project page on the Department's website at the following link:

http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=9143

Your organisation is invited to nominate any issues to be addressed in the Environmental Impact Statement for the proposal by **COB Thursday 19 July 2018.**

If you have any questions, please do not hesitate to contact me.

Regards
Sally

Sally Munk
Principal Planning Officer (Part Time: Tuesday, Wednesday & Thursday)
Industry Assessments
Planning Services Division
320 Pitt Street | Sydney NSW 2000
T 02 9274 6431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OUT18/10901

Sally Munk
Principal Planning Officer
Industry Assessments
NSW Department of Planning and Environment

Sally.Munk@planning.nsw.gov.au

Dear Ms Munk

Goulburn Mixed Use Development (SSD 9143)
Secretary's Environmental Assessment Requirements (SEARs)

I refer to your email of 5 July 2018 to the Department of Industry (DoI) in respect to the above matter. Comment has been sought from relevant branches of Lands & Water and Department of Primary Industries (DPI), and the following requirements for the proposal are provided:

DoI - Water

- 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 DPI Water Guidelines for Controlled Activities on Waterfront Land (2012) and the relevant Water Sharing Plans (available at http://www.water.nsw.gov.au/).

DoI - Crown Lands

The unconstructed roads to the north and west of Lot 22 DP 750050 should not be relied upon for buffer zones, including APZ, noise or amenity buffers. Should this land be required for any use ancillary to the development except for roadworks the applicant should consult with both Crown Lands and Goulburn Mulwaree Council concurrently.

DPI – Agriculture

Please refer to **Attachment A** for detailed SEARs and guidelines.

Any further referrals to Department of Industry can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

Yours sincerely

Alison Collaros
A/Manager, Assessment Advice
19 July 2018

ATTACHMENT A

Goulburn Mixed Use Development (SSD 9143)
Secretary's Environmental Assessment Requirements

SEARs Recommendations

Issue and desired outcome	Detail / Requirement
Site Suitable for development	• Detail that the proposal is consistent with strategic plans and zone requirements • Complete a Landuse Conflict Risk Assessment (LUCRA) to identify potential landuse conflict, in particular relating to separation distances and management practices to minimise odour, dust and noise from sensitive receptors. A LUCRA is described in the DPI Land Use Conflict Risk Assessment Guide. • Include a map to scale showing the above operational and infrastructure details including separation distances from sensitive receptors.
Consideration for impacts to agricultural resources and land	• Describe the current and potential *Important Agriculture Land* on the proposed development site and surrounding locality including the land capability and agricultural productivity. • Demonstrate that all significant impacts on current and potential agricultural developments and resources can be reasonably avoided or adequately mitigated. • Consider possible cumulative effects to agricultural enterprises and landholders. • Detail the expected life span of the proposed development
Bushfire risk identified and managed	• Risk assessment level and mitigation plan developed to address bush fire risk.
Suitable and secure water supply	• Estimated water demand and water availability should be clearly outlined in the proposal. The source of water and any sanitisation methods to be detailed in the application. • Outline any impacts to water use from agriculture and mitigation measures if required.
Surface & Groundwater protected	• Proposed development design, operation and by-product management should be undertaken to avoid nutrient and sediment build up and minimise erosion, off site surface water movement and groundwater accession. • The proposal should detail how design and operation will be undertaken for by-product management in accordance with best practice to prevent excess build-up of nutrients and salts in the soil profile and increase the risk of leaching. A monitoring program should be developed.
Biosecurity Standards met	• Include a biosecurity (pests, weeds and disease) risk assessment outlining the likely plant, animal and community risks as per guidelines in Attachment 2. • Develop a biosecurity response plan to deal with identified risks as well as contingency plans for any failures. Including monitoring and mitigation measures in weed, disease and pest management plans. • Details of adequate fencing to keep livestock out.
Suitable traffic movements	• Consideration of the route for movements needs to be taken into account so that impacts on sensitive receptors are minimised (eg noise, dust, volume of traffic). This should include consideration of Travelling Stock Reserves1 (TSR) and the movement of livestock or farm vehicles along / across the affected roads
Visual amenity achieved	• Amenity impacts are assessed and any necessary response to mitigate visual impacts is described and illustrated.
Adequate consultation with community	• Consult with relevant agencies such as on the design, construction and operation of the proposed infrastructure. • Consult with the owners / managers of affected and adjoining neighbours and agricultural operations in a timely and appropriate manner about; the proposal, the likely impacts and suitable mitigation measures or compensation. • Establish a complaints register that includes reporting and investigating procedures and timelines, and liaison with Council in relation to complaint issues.

Guidelines for assessment

Title	Location
Land Use Conflict Risk Assessment Guide	www.dpi.nsw.gov.au/content/agriculture/resources/lup/development-assessment/lucra
Agricultural Issues for Extractive industry Development	http://www.dpi.nsw.gov.au/content/agriculture/resources/lup/development-assessment/extractive-industries
Agricultural Issues for Landfill Developments	http://www.dpi.nsw.gov.au/content/agriculture/resources/lup/development-assessment/landfill-developments
Infrastructure Proposals on Rural Land	http://www.dpi.nsw.gov.au/content/agriculture/resources/lup/development-assessment/infrastructure-proposals

Department of Planning and Environment
Industry Assessments - Planning Service Division
GPO Box 39
Sydney NSW 2000

Attention: Ms Sally Munk

Notice Number 1566934

Date 18-Jul-2018

RE: Poultry Processing and Rendering Plant and Associated Infrastructure - SSD 9143

I refer to your request for the Environment Protection Authority's (EPA) requirements for the environmental assessment (EA) in regard to the above proposal received by EPA on 5 July 2018. The EPA has considered the details of the proposal as provided by Department of Planning and Environment and has identified the information it requires to issue its general terms of approval in **Attachment A**.

The EPA notes that the proposal includes a child care facility which is intended to be used by employees on site, as well as others not employed at the site. This co-location presents a unique potential planning conflict of acutely sensitive receivers adjacent to a potentially odorous and noisy industry. Given the child care facility is included as part of the proposal, the EPA recommends that the proponent clearly outline whether or not the child care facility is considered a sensitive receiver which will potentially be affected by the proposal, or whether they consider the impact of the entire proposal on the receiving environment, i.e.: that the child care facility is not included as a sensitive receiver, and only impacts on *existing* sensitive receivers are assessed. With this in mind, in summary the EPA's key information requirements for the proposal include an adequate assessment of:

1. **Odour** - Odour generation and mitigation measures, management of potential impacts on adjacent residences and business during the operational phase of the new facility. The assessment should include all existing and potential new receptor locations at and beyond the boundary of the proposed premises;

2. **Dust** - management of potential impacts on adjacent residences and business during the construction and operational phases.

3. **Noise** - Proximity to sensitive receptors and impact of any sources associated with the project.

4. **Waste wate**r treatment and management

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in **Attachment B** and any relevant industry codes of practice and best practice management guidelines.

The Proponent should be made aware that any commitments made in the EA may be formalised as approval conditions and may also be placed as formal licence conditions.

Please note that the EPA has raised concerns regarding the suitability of the location for the proposed activities. In early correspondence to the proponent (19 December 2017), and at a meeting and site inspection in February 2018 with the proponent and Goulburn Mulwaree Council, the EPA highlighted the high risk for potential land use conflicts caused by odour and noise given the close proximity of non-associated sensitive receivers including businesses, residences, aged care facilities and accommodation providers. Consequently, the EA will need to fully consider the potential odour and noise issues, and include comprehensive discussion on best practice technologies and management proposed to be implemented to ameliorate potential impacts on the local community.

Yours sincerely

.....

Janine Goodwin

Acting Unit Head

South East - Queanbeyan

(by Delegation)

ATTACHMENT A: EIS REQUIREMENTS FOR

Poultry Processing and Rendering Plant and Associated Infrastructure

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 EIS 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 generations
  b) proper valuation and pricing of environmental resources
  c) 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
  f) 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.

- Given that a childcare facility is proposed as part of the development, this component should be specifically addressed and identified as a sensitive receiver.

- 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: construction, routine operation, start-up operations, and upset operations.

- 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.

2. 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.

3. 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 affects 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.

- 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.

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 (e.g.: 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 'quiet' 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.

5. 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 ANCECC 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).

6. 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)

7. 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).*

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.

8. 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.

NSW EPA

ATTACHMENT B: GUIDANCE MATERIAL

Title	Web address
Relevant Legislation	
Contaminated Land Management Act 1997	http://www.legislation.nsw.gov.au/#/view/act/1997/140
Environmentally Hazardous Chemicals Act 1985	http://www.legislation.nsw.gov.au/#/view/act/1985/14
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/#/view/act/1979/203
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/#/view/act/1997/156
Water Management Act 2000	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
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/envguidlns/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	
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/20110650consultantsglines.pdf
Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006)	http://www.epa.nsw.gov.au/resources/clm/auditorglines06121.pdf
Sampling Design Guidelines (EPA, 1995)	http://www.epa.nsw.gov.au/resources/clm/95059sampgdlne.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/booklet3sitei nvestigationsforurbansalinity.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/approved methods-water.pdf