

18 August 2022

Ms Robyn Tucker
LEAP Consulting
1 Moppity Road
Young NSW 3401

EF22/9510
SEAR 1707

Dear Ms Tucker

Pig Farm Expansion
345 Old Forbes Road, Young (Lot 1 DP 217627, Lot B DP 372950, Lots 3, 34 DP 754581, Lots 1, 2, 3 DP 1049163)
Planning Secretary's Environmental Assessment Requirements (SEAR) 1707

Thank you for your request for the Planning Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for the above development proposal. I have attached a copy of these requirements.

In support of your application, you indicated that your proposal is both designated and integrated development under Part 4 of the *Environmental Planning and Assessment Act 1979* and requires an approval under the *Protection of the Environment Operations Act 1997* and the *Water Management Act 2000*. In preparing the SEARs, the Department of Planning and Environment (the Department) has consulted with the Environment Protection Authority, WaterNSW and the Natural Resources Access Regulator (NRAR). A copy of their requirements is attached.

The Department has also consulted with the Biodiversity and Conservation Division, Transport for NSW, the Department of Primary Industries – Agriculture, and NSW Rural Fire Service (NSW RFS). A copy of their additional requirements for the EIS are attached.

Unfortunately, NRAR and NSW RFS were unable to respond in time. You must undertake direct consultation with them and address their requirements in the EIS.

If other integrated approvals are identified before the Development Application (DA) is lodged, you must undertake direct consultation with the relevant agencies, and address their requirements in the EIS.

If your proposal contains any actions that could have a significant impact on matters of National Environmental Significance, then it will require an additional approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the Commonwealth Department of Climate Change, Energy, the Environment and Water on (02) 6274 1111.

Should you have any further enquiries, please contact Zoe Halpin, Planning and Assessment, at the Department on (02) 9995 6430 or via email at zoe.halpin@planning.nsw.gov.au.

Yours sincerely



Chris Ritchie
Director
Industry Assessments
as delegate of the Planning Secretary

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*.
 Schedule 3 of the *Environmental Planning and Assessment Regulation 2021*.

Designated Development

SEAR Number	1707
Proposal	Expansion of a piggery from 9,600 to 24,000 Standard Pig Units (SPU), inclusive of new sheds, replacement of the existing effluent treatment system and expansion of the manure storage area, and collection of biogas from effluent pond with associated power generation
Location	345 Old Forbes Road, Young (Lot 1 DP 217627, Lot B DP 372950, Lots 3, 34 DP 754581, Lots 1, 2, 3 DP 1049163)
Applicant	Windridge Farms Pty Ltd
Date of Issue	18 August 2022
General Requirements	The Environmental Impact Statement (EIS) must comply with the assessment requirements and meet the minimum form and content requirements in sections 190 and 192 of the <i>Environmental Planning and Assessment Regulation 2021</i> .
Key Issues	The EIS must include an assessment of all potential impacts of the proposed development on the existing environment (including cumulative impacts if necessary) and develop appropriate measures to avoid, minimise, mitigate and/or manage these potential impacts. As part of the EIS assessment, the following matters must also be addressed: • strategic and statutory context – including: – a detailed justification for the proposal and suitability of the site for the development – a Land Use Conflict Risk Assessment prepared in accordance with relevant Department of Primary Industries guidelines – demonstrate how the proposal satisfies the Best Practice management guideline for rotational outdoor piggeries APL publication – a demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies – a list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out. – a description of how the proposed expansion integrates with existing on-site operations – a description of any amendments to and/ or additional licence(s) or approval(s) required to carry out the proposed development. • suitability of the site – including: – a detailed justification that the site can accommodate the proposed capacity, having regard to the scope of the operations and its environmental impacts and relevant mitigation measures – plans depicting the proposed layout, including the location of machinery and equipment, pens, waste storage and the like. • waste management – including: – details of waste handling including, transport, identification, receipt, stockpiling

	– and quality control including off-site reuse and disposal – detail of waste management including pig litter, manure and disposal of dead pigs for the proposal – demonstration of consistency with the relevant provisions of the NSW Energy from Waste Policy Statement (EPA 2021) in relation to the proposed collection of biogas – the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the <i>NSW Waste Avoidance and Sustainable Materials Strategy 2041</i>. • 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 all disease control measures – details of all dead animal management and disposal – a biosecurity (pests, weed and disease) risk assessment outlining plant, animal and community risks, with particular reference to zoonotic viruses including Japanese Encephalitis Virus (JEV) – a biosecurity response plan to deal with identified risks – a contingency plan for any failures as described in the appropriate APIQ Standards Manual – a detailed description of the contingency measures that would be implemented for the mass disposal of livestock in the event of disease outbreak; and – demonstrate compliance with the <i>Model Code of Practice for the Welfare of Animals Pig 3rd edition – National Welfare Code for Pigs and Animal Welfare code of practice commercial pig production in NSW</i> – demonstrate consistency with the National Farm Biosecurity Manual for Pork production – provide details of the proposed fencing which must be adequate to keep pigs in and feral pigs out • air quality and odour – including: – a quantitative assessment of the potential air quality, dust and odour impacts of the expanded development, during both construction and operation, in accordance with relevant Environment Protection Authority guidelines – a description and appraisal of air quality and odour impact mitigation and monitoring measures. • soil and water – including: – a description of local soils, topography, drainage and landscapes – details of water usage for the proposal including existing and proposed water licencing requirements in accordance with the <i>Water Act 1912</i> and/or the <i>Water Management Act 2000</i> – details of sediment and erosion controls – a detailed site water balance – a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant Water Sharing Plan or water source embargo – an assessment of potential impacts on the quality and quantity of surface and groundwater resources and identification of potential water pollutants – details of the proposed stormwater and wastewater management systems (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts – an assessment detailing the application of wastewater and the suitability of soil for any wastewater irrigation – a description and appraisal of impact mitigation and monitoring measures. • noise and vibration – including: – a description of all potential noise and vibration sources during construction and
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	operation, including road traffic noise – a noise and vibration assessment in accordance with the relevant Environment Protection Authority guidelines – a description and appraisal of noise and vibration mitigation and monitoring measures. • traffic and transport – including: – details of road transport routes and access to the site – road traffic predictions for the development during construction and operation – characteristics of the cumulative traffic generation resultant from the total development, including the peak traffic volumes, and in the potential impact of the development on the safety and efficiency of the road network – swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site – a Traffic Impact Assessment (TIA) that addresses the impacts of traffic generated by this development upon the surrounding road network, particularly the impact of the intersection of the Henry Lawson Way and Old Forbes Road – an assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development. • biodiversity – including a description of any potential vegetation clearing needed to undertake the proposal and any impacts on flora and fauna. • food safety – including details of how the proposed development would meet the relevant Australia Standards and NSW Food Authority Standards in relation to meat handling and processing. [Use for abattoirs] • bushfire – including a risk assessment level and mitigation plan developed to address bushfire risk • visual – including an impact assessment at private receptors and public vantage points. • heritage – including Aboriginal and non-Aboriginal cultural heritage.
Environmental Planning Instruments and other policies	The EIS must assess the proposal against the relevant environmental planning instruments, including but not limited to: • State Environmental Planning Policy (Transport and Infrastructure) 2021 • State Environmental Planning Policy (Primary Production) 2021 • State Environmental Planning Policy (Resilience and Hazards) 2021 (Chapter 3) • Young Local Environmental Plan 2010 • relevant development control plans and section 7.11 plans.
Guidelines	During the preparation of the EIS you should consult the Department's Register of Development Assessment Guidelines which is available on the Department's website at https://www.planning.nsw.gov.au/Assess-and-Regulate/Development-Assessment/Industries. Whilst not exhaustive, this Register contains some of the guidelines, policies, and plans that must be taken into account in the environmental assessment of the proposed development.
Consultation	During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult with the: • Department of Planning and Environment, specifically the: ○ Environment and Heritage Group (formerly Environment, Energy and Science Group) ○ Natural Resources Access Regulator ○ Environment Protection Authority • Department of Regional NSW, specifically: ○ Department of Primary Industries – Agriculture • Transport for NSW • NSW Health

	• NSW Rural Fire Service • WaterNSW • Young Local Aboriginal Land Council • Hilltops Council • the surrounding landowners and occupiers that are likely to be impacted by the proposal. Details of the consultation carried out and issues raised must be included in the EIS.
Further consultation after 2 years	If you do not lodge an application under Section 4.12(8) of the <i>Environmental Planning and Assessment Act 1979</i> within 2 years of the issue date of these SEARs, you must consult with the Planning Secretary in relation to any further requirements for lodgement.

Ms Zoe Halpin
Planning Officer
Industry Assessments
Department of Planning and Environment
4 Parramatta Square
12 Darcy Street
Parramatta NSW 2150

zoe.halpin@planning.nsw.gov.au

Koorani Grower Piggery, Young (SEAR - 1707) (Hilltops Council)

Dear Ms Halpin,

Thank you for your correspondence of 14th July 2022 requesting Environmental Assessment Requirements for (EARs) for the above proposal.

The NSW Department of Primary Industries (DPI) Agriculture collaborates and partners with our stakeholders to protect and enhance the productive and sustainable use and resilience of agricultural resources and the environment. NSW DPI Agriculture is committed to ensuring that piggery developments are designed and operated to meet industry standards, and associated codes of practice.

NSW DPI Agriculture provides EARs (Attachment 1) and a range of publications to assist consent authorities, community and proponents in addressing the recommended EARs (Attachment 2).

Should you require clarification on any of the information contained in this response, please contact Wendy Goodburn, Agricultural Land Use Planner by email at landuse.ag@dpi.nsw.gov.au.

Sincerely

A handwritten signature in black ink, appearing to read "Wendy Goodburn".

22/7/22

Wendy Goodburn
Agricultural Land Use Planner
Agriculture Strategic Policy and Initiatives

Attachment 1: EARs Recommendations

Issue Site Suitability	Environmental Assessment Requirements for the EIS • Demonstrate that the size of the site is adequate for the sheds and feed silos, any amenity buildings, storage sheds, internal roads, litter composting and stockpile areas, dead pig management and storage areas and mitigation measures for odour, dust and noise impacts and general amenity. Issues such as topography and drainage can impact on the ability of a site to accommodate the farm and should be considered. • Include a map to scale showing the above operational and infrastructure details including separation distances from sensitive receptors and neighbouring agricultural land uses. • Demonstrate how the proposal satisfies the Best Practice management guideline for rotational outdoor piggeries APL publication. • Include a Land Use Conflict Risk Assessment (LUCRA) to identify potential land use conflict, in particular relating to separation distances and management practices to minimise the impact on sensitive receptors, including other agricultural land uses, from odour, dust and noise. A LUCRA is described in the DPI Land Use Conflict Risk Assessment Guide.
Consideration of impacts on agricultural resources and land	<u>Characteristics of Agricultural Land</u> • Describe the soil, slope, land capability, agricultural productivity, land characteristics and the history of agricultural land uses on the proposed development site. • Describe the current and historical agricultural land uses on the surrounding land in the locality including the land capability and agricultural productivity of the surrounding land. <u>Impacts on Agricultural Land, Resources and Land Uses</u> • Detail the potential impacts on agricultural land and agricultural land uses in the locality. • Consider possible cumulative effects to agricultural enterprises and landholders. • Demonstrate that all significant impacts on current and potential agricultural developments and resources can be reasonably avoided or adequately mitigated.
Appropriate and secure power supply	• Demonstrate that a power supply which is reliable, adequate and sufficient for farm requirements will be available or detail the necessary infrastructure required to achieve this. This includes access to 3 phase power, back up arrangements in the event of power failure and sufficient power for potential future farm expansion.

Suitable and secure water supply	• Detail the estimated water demand and water availability. Demonstrate that a water supply which is adequate, suitable and reliable can be provided for drinking, shed cooling, shed clean out, bush fire management and other facilities such as rest rooms, landscaping requirements etc. • Demonstrate that daily water requirements as determined from the Model Code of Practice for the Welfare of Animals – Pigs 3rd edition Appendix 2 can be met. NSW DPI recommends backup of at least 2 days total water requirement in case of breakdown or loss of supply with a stronger preference for seven days supply. • Detail the proposed source of water and any sanitisation methods required.
Biosecurity	• Include a biosecurity (pests, weeds and disease) risk assessment outlining the likely plant, animal and community risks as per guidelines in Attachment 2. • Detail a biosecurity response plan to deal with identified risks as well as contingency plans for any failures as described in the appropriate APIQ Standards Manual. Including monitoring and mitigation measures in weed and pest management plans. • Provide details of dead animal management and disposal. Dead animals must be effectively stored, handled and recycled or disposed of in a lawful manner that protects environmental values and biosecurity.. If onsite disposal is proposed the management facility and operations must be fully documented. The proposal is to demonstrate consistency with the AUSTVETPLAN manuals and documents referenced in Schedule 2. • Provide details of the proposed fencing which must be adequate to keep pigs in and feral pigs out. • The proposal is to demonstrate consistency with the National Farm Biosecurity Manual for Pork production.
Effluent and spent litter disposal	• Detail how effluent and spent litter will be effectively stored, handled and recycled or disposed of in a lawful manner to protect environmental values and biosecurity. • Provide details of any proposed reuse areas. Design of reuse areas is to include a reuse management plan based on a nutrient budget that considers proposed annual volumes and nutrient loads, soil types, current soil nutrient levels and pasture use rates. • The proposal is to demonstrate consistency with the Piggery Manure and Effluent Management and Reuse Guidelines

Animal welfare	• The proposal is to demonstrate that sheds and any range areas are located, designed and managed to meet animal welfare standards and Best Practice Management as outlined in the guidelines in Attachment 2. • The proposal is to demonstrate consistency with: ○ the <i>Model Code of Practice for the Welfare of Animals Pigs 3rd Edition</i> – national welfare code for pigs; and ○ the <i>Animal Welfare Code of Practice Commercial Pig Production</i> for NSW state legislation – based on the national code with some aspects passed as law.
Traffic movements	• Details on the number, timing and route for traffic movements to the site is to be provided. This detail is to take into account potential impacts on sensitive receptors (eg noise, dust, volume of traffic) including other agricultural land uses, and how these impacts will be mitigated.
Community consultation	• 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.
Contingency and Environmental Management Plan	• The proposal is to detail contingency plans to enable the operation to deal with emergency situations. The proposal is to detail Emergency Management procedures and responsibilities for responding to bushfire threats and possible mass mortality events which might result from extreme climatic conditions, routine or emergency animal disease outbreaks. • The proposal is to demonstrate that the emergency management procedures are consistent with the AUSTVETPLAN Manuals and Documents referenced in Schedule 2.

Attachment 2: Guidelines for assessment

Title	Location
Land Use Conflict Risk Assessment Guide	https://www.dpi.nsw.gov.au/agriculture/lup/development-assessment2/lucra
Model Code of practice for the welfare of animals – Pigs 3 rd Edition	http://www.publish.csiro.au/book/5698/
Animal welfare code of practice – commercial pig production	https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0003/313158/animal-welfare-code-of-practice-commercial-pig-production.pdf
APIQ Standards Manual	http://www.apiq.com.au/index.php?option=com_content&view=article&id=79&Itemid=97

Australian Pork Limited National Environmental Guidelines for Indoor Piggeries (NEGIP) May 2018	http://australianpork.com.au/wp-content/uploads/2018/08/NEGP_2018_web.pdf
National environmental Guidelines for Rotational Outdoor piggeries revised 2013	http://australianpork.com.au/wp-content/uploads/2016/07/NGforOP_2013_22_lowres.pdf
Environmental Risk Assessment	http://australianpork.com.au/wp-content/uploads/2013/10/NEGP-Risk-Assessment.pdf
Electronic environmental management plan templates for indoor and outdoor piggeries	http://australianpork.com.au/industry-focus/environment/national-environmental-guidelines-for-piggeries/
Nutrient Balance calculators for indoor and outdoor piggeries	http://australianpork.com.au/industry-focus/environment/national-environmental-guidelines-for-piggeries/
<u>Piggery manure and effluent management and reuse guidelines (also a glove box guide)</u>	http://australianpork.com.au/wp-content/uploads/2013/10/PMEG_2014_14_lr.pdf
BMP Guidelines Odour	http://australianpork.com.au/industry-focus/environment/national-environmental-guidelines-for-piggeries/
BMP Guidelines energy use	http://australianpork.com.au/industry-focus/environment/national-environmental-guidelines-for-piggeries/
BMP design guidelines for anaerobic ponds	http://australianpork.com.au/industry-focus/environment/national-environmental-guidelines-for-piggeries/
BMP guidelines for getting best value from manure nutrients	http://australianpork.com.au/industry-focus/environment/national-environmental-guidelines-for-piggeries/
BMP guidelines for SEPS Sedimentation and evaporation ponds	http://australianpork.com.au/industry-focus/environment/national-environmental-guidelines-for-piggeries/
BMP rotational outdoor piggeries and the environment	http://australianpork.com.au/industry-focus/environment/national-environmental-guidelines-for-piggeries/
NAMMP National Agriculture Manure Management Program	http://australianpork.com.au/industry-focus/environment/national-agricultural-manure-management-program/
Renewable energy – Biogas code of practice and other fact sheets	http://australianpork.com.au/industry-focus/environment/renewable-energy-biogas/
Farm Biosecurity website Pig page Pig Biosecurity manual	https://www.farmbiosecurity.com.au/ https://www.farmbiosecurity.com.au/industry/pigs/ https://www.farmbiosecurity.com.au/wp-content/uploads/2019/03/National-Farm-Biosecurity-Manual-for-Pork-Production-2019.pdf
AUSVETPLAN Manuals and Documents	https://www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/



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

Attention: Ms Zoe Halpin

Notice Number 1620969
Date 25-Jul-2022

RE: Request for Input: Livestock Intensive Industries – Proposed expansion of an existing piggery

345 Old Forbes Road, Young – Hilltops LGA – SEAR 1707

I refer to your request by the Department of Planning, Industry and Environment (DPIE) for the NSW Environment Protection Authority (EPA) requirements for the preparation of Environmental Impact Statement (EIS) with regard to the above proposal, received by EPA on 14 July 2022. It is noted that the proposed development has a previously issued and expired SEAR (SEAR 1385) in which EPA provided a response for on 11 September 2019.

The EPA has considered the details of the proposal as provided by the applicant and has identified the information it requires to assess the proposal in Attachment A. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

1. Odour - The EIS must demonstrate the ability of the proposed piggery expansion to comply with section 129 of the Protection of the Environment Operations Act 1997 (the POEO Act), which prohibits the emission of any offensive odour from the premises.
2. Protection of Waters - The EIS must demonstrate that the proposed piggery expansion will not present unacceptable pollution risk to both ground and surface waters.
3. Waste - The EIS must demonstrate that soils of the proposed development site have sufficient capacity to assimilate the wastes generated by the proposed piggery expansion. This includes demonstrating that over the full life of the proposal, the soils can adequately sustain the proposed effluent application rates, that crop yields will be sustainable and that soils will not degrade as a result of the application of effluent, including any high strength effluent.

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 EIS may be formalised as approval conditions and may also be placed as formal licence conditions. As the site of the proposal is the



subject of an existing Environmental Protection License (EPL 11314), it is likely that the license will require variation if the proposal were approved, and any recommended approval conditions may be imposed upon EPL 11314. It is the responsibility of the licensee to apply to the EPA for a variation, if required.

In addition, should the proposal be approved, the EPA will require the Proponent to amend the Pollution Incident Response Management Plan (PIRMP) held for the premises in accordance with section 153A of the POEO Act.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Janine Goodwin', written over a horizontal dotted line.

Janine Goodwin

Unit Head

Environment Protection Authority

(by Delegation)

ATTACHMENT A: EIS REQUIREMENTS FOR 'Koorani' - 345 Old Forbes Road YOUNG NSW

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

proper valuation and pricing of environmental resources

 - b) identification of who will bear the environmental costs of the proposal.

3. Rehabilitation

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

4. Consideration of alternatives and justification for the proposal

- Consider the environmental consequences of adopting alternatives, including alternative:
 - a) sites and site layouts
 - b) access modes and routes
 - c) materials handling and production processes
 - d) waste and water management
 - e) impact mitigation measures
 - f) energy sources
- Selection of the preferred option should be justified in terms of:
 - a) ability to satisfy the objectives of the proposal
 - b) relative environmental and other costs of each alternative
 - c) acceptability of environmental impacts and contribution to identified environmental objectives
 - d) acceptability of any environmental risks or uncertainties
 - e) reliability of proposed environmental impact mitigation measures
 - 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.
- 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:
 - relevant NSW government guidelines
 - industry guidelines
 - EISs for similar projects
 - relevant research and reference material
 - relevant preliminary studies or reports for the proposal
 - consultation with stakeholders.
- Provide a summary of the outcomes of the process including:
 - all issues identified including local, regional and global impacts (e.g. increased/ decreased greenhouse emissions)
 - key issues which will require a full analysis (including comprehensive baseline assessment)
 - issues not needing full analysis though they may be addressed in the mitigation strategy
 - justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment).

E The environmental issues

1. General

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

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

Describe baseline conditions

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

Assess impacts

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

Describe management and mitigation measures

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

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

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

4. Air

Describe baseline conditions

- Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data. This description should include the following parameters:
 - * Odour
 - * Deposited dust (construction activities).

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)

Describe management and mitigation measures

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

5. Noise and vibration

Describe baseline conditions

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

- i) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring.

Assess impacts

- Determine the project noise trigger levels for the site. For each identified potentially affected receiver, this should include:
 - a) determination of the project intrusive noise level for each identified potentially affected receiver
 - b) selection and justification of the appropriate amenity category for each identified potentially affected receiver
 - c) determination of the project amenity noise level for each receiver
 - d) determination of the appropriate maximum noise level event assessment (sleep disturbance) trigger level.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible 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.
 - a) Where relevant noise/vibration levels cannot be met after application of all feasible and reasonable mitigation measures the residual level of noise impact needs to be quantified
- For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.
- Where blasting is intended an assessment in accordance with the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration* (ANZECC, 1990) should be undertaken. The following details of the blast design should be included in the noise assessment:
 - a) bench height, burden spacing, spacing burden ratio
 - b) blast hole diameter, inclination and spacing
 - c) type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

Describe management and mitigation measures

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

- i) limit usage of exhaust brakes
- j) use of premium muffles on trucks
- k) reducing speed limits for trucks
- l) ongoing community liaison and monitoring of complaints
- m) phasing in the increased road use.

4. Water

Describe baseline conditions

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



developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:

- a) lake or estuary flushing characteristics
- b) specific human uses (e.g. exact location of drinking water offtake)
- c) sensitive ecosystems or species conservation values
- d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc
- e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
- f) historic river flow data where available for the catchment.

Assess impacts

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

- Consult with the EPA as soon as possible if a mixing zone is proposed (a mixing zone could exist where effluent is discharged into a receiving water body, where the quality of the water being discharged does not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the mixing zone). The EPA will advise the proponent under what conditions a mixing zone will and will not be acceptable, as well as the information and modelling requirements for assessment.

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

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

Describe management and mitigation measures

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

- b) retention of native vegetation and revegetation
 - c) artificial recharge
 - d) providing surface storages with impervious linings
 - e) monitoring program.
- Describe geomorphological impact mitigation measures including:
 - a) site selection
 - b) erosion and sediment controls
 - c) minimising instream works
 - d) treating existing accelerated erosion and deposition
 - e) monitoring program.
- Any proposed monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004).

5. Soils and contamination

Describe baseline conditions

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

Assess impacts

Identify any likely impacts resulting from the construction or operation of the proposal, including the likelihood of:

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

Describe management and mitigation measures

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

6. Waste and chemicals

Describe baseline conditions

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

Assess impacts

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

- describe how waste would be treated, stored, used, disposed and handled on site, and transported to and from the site, and the potential impacts associated with these issues, including current and future offsite waste disposal methods; and
- identify the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*.

Describe management and mitigation measures

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

7. Cumulative impacts

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

F. List of approvals and licences

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

G. Compilation of mitigation measures

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

H. Justification for the Proposal

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

ATTACHMENT B: GUIDANCE MATERIAL

Title	Web address
Relevant Legislation	
<i>Contaminated Land Management Act 1997</i>	http://www.legislation.nsw.gov.au/#/view/act/1997/140
<i>Environmentally Hazardous Chemicals Act 1985</i>	http://www.legislation.nsw.gov.au/#/view/act/1985/14
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/#/view/act/1979/203
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/#/view/act/1997/156
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/#/view/act/2000/92
Licensing	
Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm
Air Issues	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2016)	http://www.epa.nsw.gov.au/air/appmethods.htm http://www.epa.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/#/view/regulation/2010/428
Noise and Vibration	
NSW Noise Policy for Industry	http://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm
NSW Road Noise Policy (DECCW, 2011)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
NSW Rail Infrastructure Noise Guideline (EPA, 2013)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
Human Health Risk Assessment	

Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards (enHealth, 2012)	http://www.eh.org.au/documents/item/916
Waste, Chemicals and Hazardous Materials and Radiation	
Waste	http://www.epa.nsw.gov.au/wastestrategy/warr.htm
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	
Acid sulphate soils	
Coastal acid sulfate soils guidance material	http://www.environment.nsw.gov.au/acidsulfatesoil/ and http://www.epa.nsw.gov.au/mao/acidsulfatesoils.htm
Acid Sulfate Soils Planning Maps	http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm
Contaminated Sites Assessment and Remediation	
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	http://www.epa.nsw.gov.au/clm/planning.htm

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

28 July 2022

Department of Planning and Environment
By email: zoe.halpin@planning.nsw.gov.au

Attention: **Zoe Halpin**

SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (SEAR) 1707 – PROPOSED PIGGERY EXPANSION, LOT 2 DP1049163, OLD FORBES ROAD, KIKIAMAH

I refer to your correspondence regarding the subject Application which was referred to Transport for NSW (TfNSW), for assessment and comment.

From review of the information provided it is understood that the proposal is for the expansion of an existing piggery accommodating a maximum of 24,000 standard pig units (SPU) on the subject site. The subject site is located with frontage and access to Old Forbes Road within a 100 km/h speed zone. Access to the site is via Old Forbes Road and its intersection with Henry Lawson Way, which is a classified “state” road.

The submitted information states that the piggery currently has development consent to run 9,600 pigs (2000/DA-00035) and an EPA Licence (11314) for 250-500 t of pigs. The pigs include grower and finisher pigs that are currently accommodated in a combination of deep litter and conventional housing.

Transport for NSW is interested in the characteristics of the cumulative traffic generation resultant from the total development, including the peak traffic volumes, and in the potential impact of the development on the safety and efficiency of the road network. Given the scale of the development proposal, a Traffic Impact Assessment is required to be submitted with the Development Application. In particular the TIA shall address the impacts of traffic generated by this development upon the surrounding road network. Particular focus should be given to the impact of the intersection of the Henry Lawson Way and Old Forbes Road.

From the information available it is considered that the establishment and operational phases of the development have the potential to impact on the transport infrastructure required to service the development. TfNSW advises that in relation to traffic related issues the development should be considered and addressed in 2 distinct stages as follows;

- Establishment phase – the transport of materials and equipment/components for the establishment of the facility and ancillary infrastructure, the movement and parking of construction related vehicles, including personal vehicles, during the construction period.
- Operational phase – the ongoing traffic generation due to the operation, maintenance and servicing of the various elements of the project.

Given the scale of the development proposal a Traffic Impact Assessment (TIA) shall be prepared to address and manage traffic related issues generated by the development. The documentation submitted should address the potential impacts on the road network associated with the development during the lifetime of the project, the works required to the existing road infrastructure, the measures to be implemented to maintain the standard and

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safety of the road network, and the procedures to monitor and ensure compliance. A transport management plan may be required to outline measures to manage traffic related issues generated by the development.

For guidance in the preparation of the TIA the applicant is referred to section 2 of the "Guide to Traffic Generating Developments" prepared by the RTA and the Austroads publications, particularly the Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development and Part 3: Traffic Studies and Analysis. The TIA is to address the existing and anticipated additional traffic generation, including peak volumes, vehicle types and numbers, travel routes for vehicles accessing the development and provide recommendations for any measures, such as intersection upgrades, necessary to address traffic related impacts.

TfNSW emphasises the need to minimise the impacts of the development on the existing road infrastructure and maintain the level of safety, efficiency and maintenance along the existing road network through the design, construction and operation of the development.

Any enquiries regarding this correspondence may be referred to the writer, TfNSW (South Region), phone 0417 508 107.

Yours faithfully



Cam O'Kane
Case Officer, Development Services South

OFFICIAL



Your ref: SEAR 1707
Our ref: DOC22/653972

Ms Zoe Halpin
Planning Officer
Industry Assessments
Department of Planning and Environment

By email: zoe.halpin@planning.nsw.gov.au

Dear Ms Halpin

Request for Input: Livestock Intensive Industries – 345 Old Forbes Road, Young (Lot 1 DP217627, Lot B DP372950, Lots 3, 34 DP754581, Lots 1-3 DP1049163) – Hilltops LGA – SEAR 1707

I refer to your request for our input in the Extension of an existing piggery for the above designated development. The Biodiversity & Conservation Division (BCD) have provided a list of Environmental Assessment Requirements (EAR's) in Attachment 1 for this project that relate to Biodiversity, and flooding and Guidance material in Attachment 2.

The EIS should assess the ecological impacts associated with the proposed works in accordance with the *Biodiversity Conservation Act 2016*. We also recommend that this project's impacts have been appropriately addressed in accordance with the avoid, minimise and offset hierarchy established in the Department's offsetting principles and relevant legislation.

If you have any further questions about this issue, please contact Ms Allison Treweek, Senior Team Leader Planning, South East Region, on 02 6229 7082 or at Allison.treweek@environment.nsw.gov.au.

Yours sincerely,

29/07/2022

ALLISON TREWEEK
Senior Team Leader – Planning
South East, Biodiversity and Conservation

Enclosure: Attachment 1 – Recommended Environmental Assessment Requirements (EARs) for Expansion of a piggery – 345 Old Forbes Road, Young; Attachment 2 – Guidance material

Attachment 1

**Secretary Environmental Assessment Requirements (SEARs) 1707
for the proposed Expansion of a piggery – 345 Old Forbes Road, Young
- Designated Development**

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Recommended Environmental Assessment Requirements (EARs) for the proposed Expansion of a piggery – 345 Old Forbes Road, Young

1. The Proposal

All components of the proposed development must be clearly described, including:

- the location of the proposed development and its context in the locality
- The rationale for the project.
- the size, scale and type of the proposed development
- the pre-construction, construction, operational, and, where relevant, decommissioning phases of the proposed development, and the methods proposed to implement these phases,
- plans and maps of the proposed development showing the locations of relevant phases and infrastructure
- the staging and timing of the proposed development
- the proposed development's relationship to any other proposals and developments

2. Environmental Impacts of the Proposal

The proponent must consider, assess, quantify and report on the likely environmental impacts of the proposal if applicable, particularly:

- Biodiversity
- Flooding, floodplain issues and coastal erosion
- Cumulative impacts

The Environmental Assessment Requirements should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines and reference material is presented in **Attachment 2**. Appropriate justification should be provided in instances where the matters below are not addressed.

3. Biodiversity

The EIS must assess the impact of the proposed development on biodiversity values to determine if the proposed development is “likely to significantly affect threatened species” for the purposes of Section 7.2 of the *Biodiversity Conservation Act 2016* (BC Act), as follows:

- a. The EIS must demonstrate and document how the proposed development exceeds, or does not exceed, the biodiversity offsets scheme threshold as set out in Section 7.4 of the BC Act 2016 and Clause 7.1 of the *Biodiversity Conservation Regulation 2017* (BC Regulation) by determining whether the proposed development involves:
 - i. **The clearing of native vegetation exceeds the thresholds** listed under Clause 7.23 of the BC Regulation, **or**
 - ii. The clearing of native vegetation, or other action, **on land included on the Biodiversity Values Map** published under Clause 7.23 of the BC Regulation (this map includes areas of outstanding biodiversity value, as declared under Section 3.1 of the BC Act).

- b. If the proposal does not trigger any of the criteria in (a) above, then the EIS must determine whether the proposed development is likely to have a significant impact based on 'the test for determining whether proposed development likely to significantly affect threatened species or ecological communities' in Section 7.3 of the BC Act.
- c. Where there is reasonable doubt regarding potential impacts, or where information is not available, then a significant impact upon biodiversity should be considered likely when applying the test in Section 7.3 of the BC Act. Where it is concluded that there is no significant impact, the EIS must justify how the conclusion has been reached.
- d. If the development exceeds the thresholds in (a) or (b), then the EIS must be accompanied by a biodiversity development assessment report (BDAR) prepared in accordance with Part 6 of the BC Act. That is, the Biodiversity Assessment Methodology applies.

Required Information

Where development is considered "likely to significantly impact on threatened species" and a Biodiversity Development Assessment Report is required, the following requirements apply:

- Biodiversity impacts related to the proposal are to be assessed in accordance with 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.
- The BDAR must document the application of the avoid, minimise and offset hierarchy including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method.
- 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 proposal.
 - 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 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.

The BDAR must be prepared by a person accredited to apply the Biodiversity Assessment Method under s6.10 of the *Biodiversity Conservation Act 2016*.

Where a BDAR is not required and a threatened species assessment is prepared to support a conclusion of "no significant impact", the EIS must include a field survey of the site, conducted and documented in accordance with the relevant guidelines including the Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians (DECCW, 2009), Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004) and Guidelines for Threatened Species Assessment (Dept Planning, July 2005). The approach should also reference the field survey methods and assessment

information on the DPIE website including the Bionet Atlas, Threatened Species Profile and Bionet Vegetation Classification (see Attachment two).

4. Water

- The EIS must map features relevant to water, including:
 - Rivers, streams, estuaries (as described in s4.2 of the Biodiversity Assessment Method).
 - Wetlands (as described in s4.2 of the Biodiversity Assessment Method).
 - Groundwater.
 - Groundwater dependent ecosystems.
- The EIS must describe background conditions for any water resource likely to be affected by the proposal, including:
 - Existing surface and groundwater.
 - Hydrology
 - Water Quality Objectives (as endorsed by the NSW Government) including groundwater as appropriate that represent the community's uses and values for the receiving waters. Indicators and trigger values/criteria for the identified environmental values 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
 - *Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions* (OEH/EPA, 2017).
- The EIS must assess the impacts of the proposal on water quality, including:
 - The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the proposal 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.
 - Identification of proposed monitoring of water quality.
 - Consistency with any relevant certified Coastal Management Program (or Coastal Zone Management Plan).
- The EIS must assess the impact of the proposal on hydrology, including:
 - Water balance including quantity, quality and source.
 - Effects upon rivers, wetlands, estuaries, marine waters and floodplain areas.
 - Effects upon water-dependent fauna and flora including groundwater dependent ecosystems.
 - 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).
 - Changes to environmental water availability, both regulated / licensed and unregulated / rules-based sources of such water.

Project specific requirements

Where the proposal is large or high risk with a heightened potential to impact on water quality and hydrology, the EIS should include the following:

- A description of existing water quality / hydrology based on suitable data (meaning data collection may be required) and must include:
 - Water chemistry.
 - A description of receiving water processes, circulation and mixing characteristics and hydrodynamic regimes.
 - Lake or estuary flushing characteristics.
 - Sensitive ecosystems or species conservation values.
 - Specific human uses and values (e.g. fishing, proximity to recreation areas).
 - A description of any impacts from existing industry or activities on water quality.
 - A description of the condition of the local catchment e.g. erosion, soils, vegetation cover.
 - An outline of baseline groundwater information, including, for example, depth to water table, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment.
 - Historic river flow data.
- An assessment of the impacts of the proposal on water quality and hydrology including:
 - Water circulation, current patterns, water chemistry and other appropriate characteristics such as clarity, temperature, nutrient and toxicants, and potential for erosion.
 - Changes to hydrology
 - Stream bank stability and impacts on macro invertebrates.
 - Water quality and hydrology modelling and / or monitoring, where necessary.
- Proposed water quality monitoring in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004). The water quality and aquatic ecosystem monitoring program must include:
 - Adequate data for evaluating maintenance, or progress towards achieving, the relevant Water Quality Objectives.
 - Measurement of pollutants identified or expected to be present.

5. Flooding

- The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:
 - Flood prone land (ie land susceptible to the probable maximum flood event).
 - Flood planning area, the area below the flood planning level.
 - Hydraulic categorisation (floodway and flood storage areas).
 - Flood hazard.
- The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 10% Annual Exceedance Probability (AEP), 1% AEP flood levels and the probable maximum flood, or an equivalent extreme event.
- The EIS must model the effect of the proposal (including fill) on the current flood behaviour for a range of design events as identified above, and the 0.5% AEP 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.

- All site drainage, stormwater quality devices and erosion / sedimentation control measures should be identified in the EIS and the onsite treatment of stormwater and effluent runoff and predicted stormwater discharge quality from the proposal should be detailed.
- Modelling in the EIS must consider and document:
 - Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.
 - The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood (PMF), or an equivalent extreme flood.
 - Impacts of the proposal 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.
 - Impacts of earthworks and stockpiles within the flood prone land up to the PMF level. The assessment should be based on understanding of cumulative flood impacts of construction and operational phases.
 - Relevant provisions of the NSW Floodplain Development Manual 2005.
- The EIS must assess the impacts on the proposal on flood behaviour, including:
 - Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
 - Consistency with Council floodplain risk management plans.
 - Consistency with any Rural Floodplain Management Plans.
 - Compatibility with the flood hazard of the land.
 - Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
 - Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
 - Whether there will be a direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.
 - Appropriate mitigation measures to offset potential flood risk arising from the proposal. Any proposed mitigation work should be modelled and assessed on the overall catchment basis in order to ensure it fits its purpose and meets the criteria of the Council where it is located, and to ensure it has no adverse impact to surrounding areas.
 - Any impacts the proposal may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the NSW SES and Council.
 - 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.
 - Emergency management, evacuation and access, and contingency measures for the proposal during both construction and operational phases considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the NSW SES.
 - Any impacts the proposal may have on the social and economic costs to the community as a consequence of flooding.

Attachment 2

Guidance Material

Title	Web address
<u>Relevant Legislation</u>	
<i>Biodiversity Conservation Act 2016</i>	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
<i>Coastal Management Act 2016</i>	https://www.legislation.nsw.gov.au/#/view/act/2016/20/full
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Fisheries Management Act 1994</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
<i>Marine Parks Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
<i>Wilderness Act 1987</i>	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
<u>Biodiversity</u>	
Biodiversity Values Map	https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap
Biodiversity Assessment Method (OEH, 2017)	http://www.environment.nsw.gov.au/resources/bcact/biodiversity-assessment-method-170206.pdf
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
Ancillary rules: Biodiversity conservation actions	http://www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf
Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	http://www.environment.nsw.gov.au/resources/bcact/ancillary-rules-reasonable-steps-170498.pdf
Ancillary rules: Impacts on threatened species excluded from application of the variation rules	http://www.environment.nsw.gov.au/resources/bcact/ancillary-rules-impacts-on-threatened-entities-excluded-from-variation-170497.pdf
OEH Threatened Species Profiles	http://www.environment.nsw.gov.au/threatenedspeciesapp/
BioNet Atlas	http://www.environment.nsw.gov.au/wildlifeatlas/about.htm

Title	Web address
BioNet Vegetation Classification	http://www.environment.nsw.gov.au/NSWVCA20PRapp/LoginPR.aspx
Threatened Species Profile	http://www.environment.nsw.gov.au/threatenedSpeciesApp/
NSW Guide to Surveying Threatened Plants (OEH, 2016)	http://www.environment.nsw.gov.au/research-and-publications/publications-search/nsw-guide-to-surveying-threatened-plants
Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna - Amphibians (DECC, 2009)	www.environment.nsw.gov.au/resources/Threatenedspecies/09213amphibians.pdf
Threatened Species Assessment Guideline - The Assessment of Significance (DECC 2007)	www.environment.nsw.gov.au/resources/Threatenedspecies/tsaguide07393.pdf
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DEC, 2004)	http://www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation
<u>Water</u>	
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
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
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 Pollutants in New South Wales (DEC 2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf
<u>Flooding</u>	
Floodplain Development Manual	http://www.environment.nsw.gov.au/floodplains/manual.htm
Floodplain Risk Management Guidelines	http://www.environment.nsw.gov.au/topics/water/coasts-and-floodplains/floodplains/floodplain-guidelines
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

05 August 2022

Contact: Simone Tonkin
Phone: 0427 138 188
Email :simone.tonkin@waternsw.com.au
Our ref: F2022/6535

Executive Director
Planning Services
Department of Planning and Environment
PO Box 39
Sydney NSW 2000

Attn: **Zoe Halpin**

Dear Sir/Madam,

Re: SEARs ID No. 1707– Quarry - Pig farm expansion – 345 Old Forbes Road, Young

WaterNSW has reviewed the supporting documentation accompanying the request for Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments below, and further detail in **Attachment A**.

It is recommended that the EIS be required to include:

Access to surface and groundwater resources

- Annual volumes of surface water and groundwater proposed to be taken by the activity (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan.
- Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).
- Assessment of the impact and approvals (Works and Use Approvals under the WMA 2000) required for the taking or storage of water.
- The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.

Impact on surface and groundwater resources

- 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.
 - Full technical details and data of all surface and groundwater modelling.
 - Proposed surface and groundwater monitoring activities and methodologies.
 - Proposed management and disposal of produced or incidental water.
-

Flooding

WaterNSW is responsible for the management and licensing of flood work approvals.

If the proposal is for an earthwork, embankment or levee, wherever situated or proposed to be constructed that is reasonably likely to affect the flow of water to or from a river or lake then the assessment is required to address potential impacts detailed further in attachment A.

Impact on waterfront land and water resource dependents

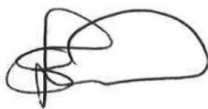
- Clear identification of "waterfront land" (as defined in the WMA 2000) and an assessment of impacts of works and activities on waterfront land. (Works on waterfront land may be subject to Controlled Activity Approval (CAA) under the *Water Management Act 2000*.)
- Details of the final landform of the site, including final void management (where relevant) and rehabilitation measures.
- Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.
- Consideration of relevant policies and guidelines.
- A statement of where each element of the SEARs is addressed in the EIS (i.e. in the form of a table).

NOTE:

It is noted that the proposed development could intercept groundwater whilst installing the underground petrol tanks. Please refer to the WaterNSW web site for information and requirements regarding Construction Dewatering. Please consider the requirements of the Water Management Act when preparing your documentation to ensure adequate information has been supplied for consideration. <https://www.waternsw.com.au/customer-service/water-licensing/dewatering>

Please direct any questions or correspondence to **Simone Tonkin** at simone.tonkin@waternsw.com.au.

Yours sincerely



Simone Tonkin
Water Regulation Specialist
WaterNSW

WaterNSW General Assessment Requirements

The following detailed assessment requirements are provided to assist in adequately addressing the assessment requirements for this proposal.

For further information visit the website, www.water.nsw.gov.au

Key Relevant Legislative Instruments

This section provides a basic summary to aid proponents in the development of an Environmental Impact Statement (EIS), and should not be considered a complete list or comprehensive summary of relevant legislative instruments that may apply to the regulation of water resources for a project.

The EIS should take into account the objects and regulatory requirements of the *Water Management Act 2000* (WMA 2000), and associated regulations and instruments, as applicable.

Water Management Act 2000 (WMA 2000)

Key points:

- Volumetric licensing in areas covered by water sharing plans
- Works within 40m of waterfront land
- SSD & SSI projects are exempt from requiring water supply work approvals and controlled activity approvals as a result of the *Environmental Planning & Assessment Act 1979 (EP&A Act)*.
- No exemptions for volumetric licensing apply as a result of the *EP&A Act*.
- Basic landholder rights, including harvestable rights dams
- Aquifer interference activity approval and flood management work approval provisions have not yet commenced and are regulated by the *Water Act 1912*
- Maximum penalties of \$2.2 million plus \$264,000 for each day an offence continues apply under the *WMA 2000*

Water Management (General) Regulation 2011

Key points:

- Provides various exemptions for volumetric licensing and activity approvals
- Provides further detail on requirements for dealings and applications.

Water Sharing Plans – these are considered regulations under the *WMA 2000*

Access Licence Dealing Principles Order 2004

Harvestable Rights Orders

Water Sharing Plans

It is important that the proponent understands and describes the ground and surface water sharing plans, water sources, and management zones that apply to the project. The relevant water sharing plans can be determined spatially at www.ourwater.nsw.gov.au. Multiple water sharing plans may apply and these must all be described.

The EIS is required to:

- Demonstrate how the proposal is consistent with the relevant rules of the Water Sharing Plan including rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection (including groundwater dependent ecosystems), water quality and surface-groundwater connectivity.
 - Provide a description of any site water use (amount of water to be taken from each water source) and management including all sediment dams, clear water diversion structures
-

with detail on the location, design specifications and storage capacities for all the existing and proposed water management structures.

- Provide an analysis of the proposed water supply arrangements against the rules for access licences and other applicable requirements of any relevant WSP, including:
 - Sufficient market depth to acquire the necessary entitlements for each water source.
 - Ability to carry out a “dealing” to transfer the water to relevant location under the rules of the WSP.
 - Daily and long-term access rules.
 - Account management and carryover provisions.
- Provide a detailed and consolidated site water balance.
- Further detail on licensing requirements is provided below.

Relevant Policies and Guidelines

The EIS should take into account the following policies (as applicable):

- NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
- NSW Aquifer Interference Policy (NOW, 2012)
- Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012)
- Australian Groundwater Modelling Guidelines (NWC, 2012)
- NSW State Rivers and Estuary Policy (1993)
- NSW Wetlands Policy (2010)
- NSW State Groundwater Policy Framework Document (1997)
- NSW State Groundwater Quality Protection Policy (1998)
- NSW State Groundwater Dependent Ecosystems Policy (2002)
- NSW Water Extraction Monitoring Policy (2007)

Policies can be accessed at the following links:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx>
<http://www.water.nsw.gov.au/Water-licensing/Approvals/Controlled-activities/default.aspx>

An assessment framework for the NSW Aquifer Interference Policy can be found online at:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>.

Licensing Considerations

The EIS is required to provide:

- Identification of water requirements for the life of the project in terms of both volume and timing (including predictions of potential ongoing groundwater take following the cessation of operations at the site – such as evaporative loss from open voids or inflows).
 - Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction from each water source as defined in the relevant Water Sharing Plan/s and all water supply works to take water.
 - Explanation of how the required water entitlements will be obtained (i.e. through a new or existing licence/s, trading on the water market, controlled allocations etc.).
 - Information on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works which take surface water, (pumps, dams, diversions, etc).
-

- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring. All predicted groundwater take must be accounted for through adequate licensing.
- Details on existing dams/storages (including the date of construction, location, purpose, size and capacity) and any proposal to change the purpose of existing dams/storages
- Details on the location, purpose, size and capacity of any new proposed dams/storages.
- Applicability of any exemptions under the *Water Management (General) Regulation 2011* to the project.

Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered.

The Harvestable Right gives landholders the right to capture and use for any purpose 10 % of the average annual runoff from their property. The Harvestable Right has been defined in terms of an equivalent dam capacity called the Maximum Harvestable Right Dam Capacity (MHRDC). The MHRDC is determined by the area of the property (in hectares) and a site-specific run-off factor. The MHRDC includes the capacity of all existing dams on the property that do not have a current water licence. Storages capturing up to the harvestable right capacity are not required to be licensed but any capacity of the total of all storages/dams on the property greater than the MHRDC may require a licence.

For more information on Harvestable Right dams, including a calculator, visit:

<http://www.water.nsw.gov.au/Water-licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff>

Dam Safety

Where new or modified dams are proposed, or where new development will occur below an existing dam, the NSW Dams Safety Committee should be consulted in relation to any safety issues that may arise. Conditions of approval may be recommended to ensure safety in relation to any new or existing dams.

See www.damsafety.nsw.gov.au for further information.

Surface Water Assessment

The predictive assessment of the impact of the proposed project on surface water sources should include the following:

- Identification of all surface water features including watercourses, wetlands and floodplains transected by or adjacent to the proposed project.
- Identification of all surface water sources as described by the relevant water sharing plan.
- Detailed description of dependent ecosystems and existing surface water users within the area, including basic landholder rights to water and adjacent/downstream licensed water users.
- Description of all works and surface infrastructure that will intercept, store, convey, or otherwise interact with surface water resources.
- Assessment of predicted impacts on the following:
 - flow of surface water, sediment movement, channel stability, and hydraulic regime,
 - water quality,
 - flood regime,
 - dependent ecosystems,

- existing surface water users, and
- planned environmental water and water sharing arrangements prescribed in the relevant water sharing plans.

Flooding

If the proposal is for an earthwork, embankment or levee, wherever situated or proposed to be constructed that is reasonably likely to affect the flow of water to or from a river or lake then the assessment is required to address potential impacts detailed below;

- the contents of any relevant floodplain management plan or any other relevant Government policy,
- the need to maintain the natural flood regimes in wetlands and related ecosystems and the preservation of any habitat, animals (including fish) or plants that benefit from periodic flooding,
- the effect or likely effect on water flows in downstream river sections,
- any geographical features, or other matters, of Aboriginal interest that may be affected by a controlled work,
- the effect or likely effect of a controlled work on the passage, flow and distribution of any flood waters,
- the effect or likely effect of a controlled work on existing dominant flood ways or exits from flood ways, rates of flow, flood water levels and the duration of inundation, the protection of the environment

Groundwater Assessment

To ensure the sustainable and integrated management of groundwater sources, the EIS needs to include adequate details to assess the impact of the project on all groundwater sources including:

- Works likely to intercept, connect with or infiltrate the groundwater sources.
 - Any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
 - Bore construction information is to be supplied to DPI Water by submitting a “Form A” template. DPI Water will supply “GW” registration numbers (and licence/approval numbers if required) which must be used as consistent and unique bore identifiers for all future reporting.
 - A description of the water table and groundwater pressure configuration, flow directions and rates and physical and chemical characteristics of the groundwater source (including connectivity with other groundwater and surface water sources).
 - Sufficient baseline monitoring for groundwater quantity and quality for all aquifers and GDEs to establish a baseline incorporating typical temporal and spatial variations.
 - The predicted impacts of any final landform on the groundwater regime.
 - The existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.
 - An assessment of groundwater quality, its beneficial use classification and prediction of any impacts on groundwater quality.
 - An assessment of the potential for groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
 - Measures proposed to protect groundwater quality, both in the short and long term.
 - Measures for preventing groundwater pollution so that remediation is not required.
-

- Protective measures for any groundwater dependent ecosystems (GDEs).
- Proposed methods of the disposal of waste water and approval from the relevant authority.
- The results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised from future use as a water supply as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Groundwater Dependent Ecosystems

The EIS must consider the potential impacts on any Groundwater Dependent Ecosystems (GDEs) at the site and in the vicinity of the site and:

- Identify any potential impacts on GDEs as a result of the proposal including:
 - o the effect of the proposal on the recharge to groundwater systems;
 - o the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections; and
 - o the effect on the function of GDEs (habitat, groundwater levels, connectivity).
- Provide safeguard measures for any GDEs.

Watercourses, Wetlands and Riparian Land

The EIS should address the potential impacts of the project on all watercourses likely to be affected by the project, existing riparian vegetation and the rehabilitation of riparian land. It is recommended the EIS provides details on all watercourses potentially affected by the proposal, including:

- Scaled plans showing the location of:
 - o wetlands/swamps, watercourses and top of bank;
 - o riparian corridor widths to be established along the creeks;
 - o existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);
 - o the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
 - o proposed location of any asset protection zones.
 - Photographs of the watercourses/wetlands and a map showing the point from which the photos were taken.
 - A detailed description of all potential impacts on the watercourses/riparian land.
-

- A detailed description of all potential impacts on the wetlands, including potential impacts to the wetlands hydrologic regime; groundwater recharge; habitat and any species that depend on the wetlands.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic and hydrological assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.
- Works on waterfront land may be subject to Controlled Activity Approval (CAA) under the *Water Management Act 2000*. This is managed by DPI Water. Further information can be obtained from the DPI Water's website:
www.water.nsw.gov.au [Water licensing](#) > [Approvals](#) > Controlled activities

Drill Pad, Well and Access Road Construction

- Any construction activity within 40m of a watercourse, should be designed by a suitably qualified person, consistent with the *NSW Guidelines for Controlled Activities on Waterfront Land* (July 2012).
- Construction of all wells must be undertaken in accordance with the *Minimum Construction Requirements for Water Bores in Australia* (3rd edition 2012) by a driller holding a bore drillers' licence valid in New South Wales.
- The length of time that a core hole is maintained as an open hole should be minimised.

Landform rehabilitation (including final void management)

Where significant modification to landform is proposed, the EIS must include:

- Justification of the proposed final landform with regard to its impact on local and regional surface and groundwater systems;
- A detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape;
- Outline of proposed construction and restoration of topography and surface drainage features if affected by the project;
- Detailed modelling of potential groundwater volume, flow and quality impacts of the presence of an inundated final void (where relevant) on identified receptors specifically considering those environmental systems that are likely to be groundwater dependent;
- An outline of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation; and
- The measures that would be established for the long-term protection of local and regional aquifer systems and for the ongoing management of the site following the cessation of the project.

Consultation and general enquiries

General licensing enquiries can be made to Advisory Services:

water.enquiries@water.nsw.com.au, 1800 353 104.

Assessment or state significant development enquiries, or requests for review or consultation should be directed to the Strategic Stakeholder Liaison Unit, water.referrals@dpi.nsw.gov.au.

A consultation guideline and further information is available online at:

www.water.nsw.gov.au/water-management/law-and-policy/planning-and-assessment



NSW RURAL FIRE SERVICE

Department of Planning and Environment (Sydney Offices)
GPO Box 39
Sydney NSW 2001

Your reference: SEAR 1707
Our reference: DA20220717009370-SEARS-1

ATTENTION: Zoe Halpin

Date: Friday 7 October 2022

Dear Sir/Madam,

State Significant Development – Agriculture

Request for Secretary's Environmental Assessment Requirements

345 Old Forbes Road Young NSW, B//DP372950, 1//DP217627, 3//DP754581, 34//DP754581, 1//DP1049163, 2//DP1049163, 3//DP1049163

Reference is made to correspondence dated 14/07/2022 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 2019*.

Further consultation may be required as part of the preparation of the EIS.

For any queries regarding this correspondence, please contact David Webster on 1300 NSW RFS.

Yours sincerely,

Martha Dotter

**Supervisor Development Assessment & Plan
Built & Natural Environment**

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