



Ms Melissa Dunlop
Principal Environmental Scientist
GHD
GHD Tower
Level 3, 24 Honeysuckle Drive
NEWCASTLE NSW 2300

Dear Ms Dunlop

**State Significant Development – Secretary’s Environmental Assessment Requirements
Newcastle Gasworks (Clyde Street) Remediation – Hamilton North (SSD 7676)**

Please find attached the Secretary’s Environmental Assessment Requirements (SEARs) for the proposed remediation of contaminated land at 1 Chatham Road, Hamilton North in the Newcastle local government area.

The SEARs have been prepared for Jemena Gas Networks (NSW) Ltd in consultation with Newcastle City Council and other relevant Government agencies (see **Attachment 2**). The SEARs are based on the Addendum to the Preliminary Environmental Assessment prepared by GHD, dated 20 July 2016.

Please note that the Department may alter the SEARs at any time. You must consult further with the Department if you do not lodge a development application and EIS within two years of the date of issue of these SEARs.

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

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

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

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

If you have any enquiries about these SEARs, please contact Deana Burn on the above details.

Yours sincerely


Chris Ritchie
Director
Industry Assessments
as delegate of the Secretary

8/9/16.

Secretary's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act* Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD 7676
Development	Remediate the former Newcastle Gasworks site by excavation, stabilisation and off-site disposal of highly contaminated material, installation of a capping layer across a portion of the site, installation of a groundwater barrier wall and on-going monitoring and management of contaminated groundwater.
Location	1 Chatham Road, Hamilton North NSW 2292
Applicant	Jemena Gas Networks (NSW) Ltd
Date of Issue	September 2016
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>. In addition, the EIS must include:</p> <ul style="list-style-type: none"> • a detailed description of the development, including: <ul style="list-style-type: none"> – existing activities on the site, including the groundwater monitoring and treatment system; – need and justification for the remediation works; – likely staging of the remediation works; – details of all equipment proposed for use on the site; – likely interactions between the development and existing, approved and proposed developments in the vicinity of the site; and – details of long-term management plans for any remaining contamination on the site. • demonstrate that the site is suitable for the proposed use in accordance with <i>State Environmental Planning Policy No 55 – Remediation of Land</i>; • consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments; • consideration of issues discussed in Attachment 2 (government agencies key issues); • a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment; • detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: <ul style="list-style-type: none"> – a description of the existing environment, using sufficient baseline data; – an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes; – a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage significant risks to the environment; and • a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS. <p>The EIS must also be accompanied by a report from a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> • a detailed calculation of the capital investment value (CIV) of the proposal, as defined in clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>, including details of all assumptions and components from which the CIV calculation is derived; • a close estimate of the jobs that will be created by the development; and

	<ul style="list-style-type: none"> certification that the information provided is accurate at the date of preparation.
<p>Key issues</p>	<p>The EIS must address the following key issues:</p> <ul style="list-style-type: none"> Future Land Use – including: <ul style="list-style-type: none"> evaluation of future land uses on the site considering local and regional strategic plans and opportunities to maximise the range of possible future uses through remediation of the site; justification for selection of the remediation methodology and criteria and the suitability of the proposed remedial strategy for achieving the preferred final land use; details of any restrictions on future development of the land and liabilities for on-going management of residual contamination; an outline of subsequent remedial activities or stages required to support other future land uses on the site; and details of engagement with the local community in communicating and selecting the preferred remedial strategy and final land use. Contamination – including: <ul style="list-style-type: none"> a contaminated land assessment that complies with the requirements of the Management Order (20151403) for the site and the <i>Contaminated Land Management Act 1997</i> (CLM Act); a Remedial Action Plan (RAP) approved by the EPA and a Site Auditor accredited under the CLM Act. The RAP shall include: <ul style="list-style-type: none"> characterisation of the nature and extent of contaminated material and any contaminated groundwater plumes; details of the proposed remediation process, including justification for selection of the preferred treatment methodologies and processes; justification for the proposed treatment and remediation criteria; details of proposed remediation management measures including the management of excavated material, stockpiles, wastewater, odour and human health risk; and a site validation plan. details of the final landform following remediation and the suitability of any fill material; and on-going management of the site following remediation works, including details of the liability for on-going management. Water Quality – including: <ul style="list-style-type: none"> a detailed description of surface and groundwater conditions pre-remediation; an assessment of the potential surface water and groundwater impacts of the remediation works; justification (including details of data, assumptions and methodology used) for proposed pollution control works; details of treatment systems to ensure all discharges comply with the <i>Protection of the Environment Operations Act 1997</i>; details of licensing requirements including the proposed location of discharge points presented on a plan prepared by a registered surveyor; details of any required dewatering and management of contaminated groundwater; identification of potential conflicts with other water users, including other licensed users and recreational users; a detailed description of the mitigation and management controls that would be put in place to manage erosion and sediment, stormwater, groundwater and acid sulphate soils (if present) during and after remediation works; details of proposed surface and groundwater monitoring, including on-going and long-term management; and a flood impact assessment. Human Health – including: <ul style="list-style-type: none"> an assessment of the potential risks (on site and off site) associated with disturbance and long-term containment of contaminated material;

	<ul style="list-style-type: none"> - details of how the site will be remediated and managed to ensure there are no on-going risks to human health on and off site; and - details of mitigation and management measures to be implemented during the remediation works to minimise human health risks and ensure the safety of workers on site and nearby residents. • Air Quality and Odour – including: <ul style="list-style-type: none"> - a quantitative assessment of the air quality and odour impacts of the development on surrounding receivers, in accordance with relevant Environmental Protection Authority (EPA) guidelines; - documenting all modelling input data and assumptions including emission rates, ambient air quality data and meteorological data; - an assessment of all possible sources of air pollution from the remediation works and consideration of cumulative air quality impacts from other operating and approved developments in the vicinity of the site; and - details of the proposed management and monitoring measures to minimise the generation and dispersal of odours beyond the site boundary and quantification of the effectiveness of the mitigation measures. • Noise and Vibration – including: <ul style="list-style-type: none"> - an assessment of all noise and vibration impacts on surrounding sensitive receivers with reference to relevant noise criteria established in accordance with EPA guidelines; - proposed hours of work and justification for any works outside standard construction hours, including details of all reasonable and feasible measures that could be implemented to minimise noise impacts; and - details of the proposed noise and vibration management and monitoring measures. • Waste Management – including: <ul style="list-style-type: none"> - accurate estimates of the quantity and classification of the potential liquid and non-liquid waste streams of the remediation works; - a description of storage, treatment (including immobilisation of contaminants), transport, disposal and re-use for all waste generated, including any hazardous waste; - details of the layout of any proposed waste facility, treatment process and environmental controls; - details of procedures for the assessment and management of contaminated material including stockpiles and leachate management; - the emissions arising from the handling, storage, processing and reprocessing of waste at the site; and - details of the transport, handling, storage and use of dangerous goods, chemical and products on site, including measures to minimise leakage and migration of pollutants. • Traffic and Access – including accurate predictions of the traffic generated by the remediation works and the impact on the safety and capacity of the surrounding road network and key intersections. • Heritage – including: <ul style="list-style-type: none"> - assessment of impacts on State and local heritage including a statement of heritage impact; - assessment of impacts on Aboriginal cultural heritage values; and - details of measures to avoid, mitigate and manage impacts. • Biodiversity – including a Biodiversity Assessment Report prepared by a person accredited under the <i>Threatened Species Conservation Act 1995</i> and in accordance with the Office of Environment and Heritage (OEH) <i>Frameworks for Biodiversity Assessment</i>. • Cumulative Impacts – including an assessment of the cumulative impacts of the proposal in relation to on-site works, surrounding industrial facilities and other nearby approved and proposed development.
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental</i>

	<i>Planning and Assessment Regulation 2000</i> . These documents should be included as part of the EIS rather than as separate documents.
Consultation	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and potentially affected landowners.</p> <p>In particular you must consult with:</p> <ul style="list-style-type: none"> • Newcastle City Council; • NSW Health; • Environment Protection Authority; • Department of Primary Industries; • Office of Environment and Heritage; • SafeWork NSW; • Roads and Maritime Services; and • nearby land owners and occupiers that may be affected by the proposal. <p>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>
Further consultation after 2 years	If you do not lodge an EIS for the development within 2 years of the issue date of these SEAR's, you must consult the Secretary in relation to the requirements for lodgement.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, Attachment 1 contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this development.

ATTACHMENT 1

Technical and Policy Guidelines

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

Many of these documents can be found on the following websites:

<http://www.planning.nsw.gov.au>

<http://www.bookshop.nsw.gov.au>

<http://www.publications.gov.au>

Policies, Guidelines & Plans

Plans and Documents

The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. Provide these as part of the EIS rather than as separate documents.

In addition, the EIS must include the following:

1. An existing site survey plan drawn at an appropriate scale illustrating:
 - the location of the land, boundary measurements, area (sq. m) and north point;
 - the existing levels of the land in relation to buildings and roads;
 - location and height of existing structures on the site;
 - location and height of adjacent buildings and private open space; and
 - all levels to be to Australian Height Datum (AHD).

2. A locality/context plan drawn at an appropriate scale should be submitted indicating:
 - watercourses including nearby rivers and creeks, and dams;
 - significant local features such as heritage items;
 - the location and uses of nearby buildings, shopping and employment areas, hospitals and schools; and
 - traffic and road patterns, pedestrian routes and public transport nodes.

3. An indication of the location of the site with respect to the relevant Land Zoning Map within the *Newcastle Local Environment Plan 2012*.

Documents to be submitted

Documents to submit include:

- 1 electronic copy of all the documents and plans for review prior to exhibition; and
- other copies as determined by the Department once the development application is lodged.

Aspect	Policy /Methodology
<i>Contamination and Soil</i>	Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2011)
	Guidelines for the NSW Site Auditor Scheme – 2nd Edition (DEC, 2006)
	Sampling Design Guidelines (EPA, 1995)
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)
	National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013) (NEPC)
	Draft Guidelines for the Assessment & Management of Groundwater Contamination (DECC)
	State Environmental Planning Policy No. 55 – Remediation of Land

	Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land (DOP)
	Acid Sulfate Soils Manual (Stone et al. 1998)
<i>Surface Water</i>	National Water Quality Management Strategy: Water quality management - an outline of the policies (ANZECC/ARMCANZ)
	NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
	National Water Quality Management Strategy: Policies and principles - a reference document (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Implementation guidelines (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)
	NSW State Rivers and Estuaries Policy(1993)
	State Water Management Outcomes Plan
	NSW Government Water Quality and River Flow Environmental Objectives (DECC)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC 2004)
	Managing Urban Stormwater: Soils & Construction (Landcom)
	Managing Urban Stormwater: Treatment Techniques (DECC)
	Managing Urban Stormwater: Source Control (DECC)
	Technical Guidelines: Bunding & Spill Management (DECC)
NSW Floodplain Development Manual 2005	
<i>Groundwater</i>	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	Australian Groundwater Modelling Guidelines (NWC, 2012)
	NSW State Groundwater Policy Framework Document (DLWC)
	NSW State Groundwater Quality Protection Policy (DLWC)
	NSW State Groundwater Dependent Ecosystems Policy (2002)
	NSW State Groundwater Quantity Management Policy (DLWC) Draft Guidelines for the Assessment and Management of Groundwater Contamination (DEC, 2007)
Human Health Risk	
	Environmental Health Risk Assessment (enHealth, 2012)
Air Quality	
	Protection of the Environment Operations (Clean Air) Regulation 2010
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC) 2005
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)
Odour	
	Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW (DEC)
	Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW (DEC)
Noise	
	NSW Industrial Noise Policy and Application Notes (DECC)
	NSW Road Noise Policy (EPA, 2011)
	Interim Construction Noise Guideline (DECC, 2009)
	Assessing Vibration: A Technical Guideline (DEC, 2006)
Waste	
	Waste Avoidance and Resource Recovery Strategy 2010-2021 (EPA)
	The National Waste Policy: Less Waste More Resources 2009

	Waste Classification Guidelines (DECC)
	Resource Recovery Exemptions (EPA)
	Chemical Control Orders (EPA)
	National Protocol – Approval/Licensing of Trials of Technologies for the Treatment/Disposal of Schedule X Wastes – July 1994
	National Protocol – Approval/Licensing of Commercial Scale Facilities for the Treatment/Disposal of Schedule X Wastes – July 1994
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
Hazards	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP)
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
Heritage	
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Statements of Heritage Impact 2002 (HO & DUAP)
	NSW Heritage Manual (DUAP, 1996)
	Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011)
	Aboriginal cultural heritage consultation requirements for proponents (DECCW, 2010)
Biodiversity	
	Frameworks for Biodiversity Assessment (OEH, 2013)
	NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)
	Guidelines for developments adjoining land and waste managed by OEH (DECCW, 2010)

ATTACHMENT 2

Government Agencies Key Issues

Planning and Regulatory. G.Mansfield
Reference: PB 2016/05360
Phone: 02 4974 2767



25 August, 2016

Ms Deana Burn
Planner
Industry Assessments / Planning Services
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

PO Box 489, Newcastle
NSW 2300 Australia
Phone 02 4974 2000
Facsimile 02 4974 2222
Email mail@ncc.nsw.gov.au
www.newcastle.nsw.gov.au

Response by email: Deana.Burn@planning.nsw.gov.au

Dear Ms Burn

NEWCASTLE GASWORKS CLYDE STREET REMEDIATION DEVELOPMENT (SSD-7676) REQUEST FOR SEARS

I refer to your email of 28 July, 2016 notifying Council that the applicant Jemena has submitted to the Department an Addendum to the Preliminary Environmental Assessment (PEA) for the above remediation project and inviting Council to provide comment on the Secretary's Environmental Assessment Requirements (SEARS) for the project.

The application and supporting documentation have been reviewed by Council officers and the following comments are offered for your consideration:

1. Remediation strategy and future land use

The Addendum to the (PEA) concludes:

'6 Conclusion

Portions of the former Newcastle Gasworks site are contaminated and are required to be remediated to reduce the risk to human health and the environment and to meet relevant statutory requirements.

Remediation of the site is proposed to be undertaken via stabilisation and hydraulic controls. The adopted remediation strategy has been carefully selected based on a consideration of effectiveness, environmental and social impacts, timeliness and cost.

The EPA has provided in-principle support for the preferred remediation and the RAP has been completed and submitted to EPA.'

It would appear that the proposed remediation method is based primarily on an objective to address the immediate environmental issues on the site. From a strategic planning perspective, it would also be desirable if the remediation method was also based upon compatibility with future intended use of the site. Council's adopted *Local Planning Strategy*

identifies the subject site as a potential future 'brownfield' site and includes a long term action for industrial lands (Page 58).

'Investigate preparing a structure plan for old gas works site (Jemena) site in Hamilton North.'

While a preferred future use may not be known in detail at this stage it would be desirable that the remediation method does not unduly restrict the possible future uses for the site. For example, Section 3.3 of the Addendum PEA outlines such future restrictions:

'3.3 Long term environmental management plan

The preferred remediation option requires a long-term environmental management plan to remain applicable to the site to document the management restrictions on the site.

These restrictions will include:

- Restrictions on the use of groundwater*
- Restrictions on the type of land uses and activities*
- Ensuring the capping layer remains in place*
- Task-specific work health and safety measures during subsurface maintenance works*
- Monitoring measures until such time as long term performance criteria are met.'*

It is therefore recommended the Environmental Impact Statement (EIS) for the project include consideration of the possible future land uses for the site with an aim to maximising the range of possible future land uses.

The following advice from Council's Environmental Services section elaborates Council's concerns regarding the remediation strategy:

It is understood that the site is significantly contaminated and is causing offsite impacts and as such the EPA, via a Management Order under the Contaminated Land Management Act, require remediation action to address potential health and environmental impacts into the future. The site has remained in this contaminated state post closure for some 30 years.

From a future land use and planning perspective the remediation of large, highly contaminated or complex sites should ideally be undertaken with due consideration of the final proposed landuse so that proper assessment of the suitability of the proposed remediation strategy can be undertaken. In this case, the final land use has not been determined though a general commercial/industrial landuse has been loosely proposed.

The proposed remediation strategy will involve the capping/containing of a significant volume of material which will exceed an industrial/commercial landuse and which will also involve the creation of a groundwater barrier wall. These aspects of the proposed remediation approach will result in ongoing management requirements and liabilities for Jemena, any future occupiers/landowners and Council or other determining/regulatory authorities. This will likely significantly influence how the land can be used in the future (unless further remediation is undertaken). For example, the location and design of barrier wall/containment cells will impact on how the land may be able to be subdivided into the future such that ongoing management and responsibilities for the long term integrity of these engineered structures can be assured.

Also, the EPA may require ongoing notices/orders such as and ongoing maintenance order which may influence how the land can be used into the future.

Assuming that the remediation must be undertaken without a more detailed future land-use plan, then Environmental Services would prefer the proposed remediation action plan and ongoing management plan to:

- Remediate the land to the level of the most sensitive potential land use under the zone with the least amount of restrictions as possible so that future development options are not overly limited and regulators will not be overly burdened with development and ongoing management requirements and/or;
- Clearly define the proposed remediation as the first part of a staged remediation approach to initially address urgent offsite contamination impacts with a more detailed remediation action plan to be undertaken once a specific future landuse is decided upon and the following issues may need to be addressed:
 - areas where services are proposed may require a more specific remediation approach or 'boxing out'.
 - certain areas may require deeper capping (e.g. grassed) than other areas such as under roads/hardstand.
 - if any future assets such as roads/footpaths are proposed to be dedicated to Council, then Council may have specific remediation criteria which must be met.
 - Ongoing contamination management plans need to be legally enforceable (as per the site auditor's guidelines). If land is subdivided/developed/has new ownership in the future how will this requirement be managed? If a future developer/landowner damages or is required to maintain or repair the barrier wall and pollution occurs who will have responsibility for this?

2. Odour impacts during soil disturbance

Council routinely receives numerous complaints during virtually any disturbance of significant hydrocarbon contaminated soil near residential properties. For example, the disturbance of only a few cubic meters on a typical service station site is enough to create significant odour impacts on residents. As the project involves approximately 3700 cubic meters of soil being excavated and treated, concern is raised that this will result in unacceptable odour impacts in the vicinity of the subject site unless properly managed. Accordingly, this issue should be addressed in the EIS.

If you require clarification of any matter raised in this letter, please contact me by email at gmansfield@ncc.nsw.gov.au or telephone on 02 4974 2767.

Yours faithfully



Geof Mansfield
PRINCIPAL PLANNER (DEVELOPMENT)

DOC16/376167-01, File No. EF14/501

Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Ms Deana Burn

deana.burn@planning.nsw.gov.au

Dear Ms Burn,

REVISED REQUEST FOR SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

CLYDE STREET REMEDIATION PROJECT (SSD_7676)

I refer to your email to the Environment Protection Authority (EPA) received on 28 July 2016 requesting the EPA input for the preparation of Secretary's Environmental Assessment Requirements (SEARs) in respect of the above proposal.

The site is contaminated with gasworks waste and particularly waste tar as a result of the historical land use. The EPA has declared the site as significantly contaminated land under the *Contaminated Land Management Act 1997* and is regulating the management of the contamination by way of a Management Order. The EPA understands that a number of remediation options were considered by the proponent. The preferred remediation option aims to remove highly contaminated material from the site, minimise contact between contaminated material and groundwater and also manage 'clean' groundwater flows at the site to avoid contact with contaminated material.

Excavation and stabilisation, capping and installation of a groundwater barrier wall is proposed. It is envisaged excavation of approximately 3,700m³ of highly contaminated material adjacent to Styx Creek will be removed and a low permeability soil capping layer installed across part of the site. The groundwater barrier wall is to be approximately 510m long and to a depth of approximately 9m below ground surface.

The EPA has considered the details of the proposal as provided in the GHD letter dated 20 July 2016, titled *Newcastle Gasworks - Clyde Street Remediation Project – Addendum to the Preliminary Environmental Assessment* that was attached to your email referred to above. The EPA has identified the information it requires to be addressed in the Environmental Impact Statement (EIS) to make a reliable appraisal of the impacts of the proposal. The main issues of interest to the EPA are:

- contaminated site requirements;
- impacts on water quality and site water management;
- impacts on air quality, including odour management;
- potential noise impacts due to construction; and

- waste management and disposal.

Attachment A presents a more detailed explanation of EPA's main issues regarding the proposed development. Please note that the issuing of SEARs is a statutory requirement for EPA and should not be construed as support or endorsement of the proposed development.

Attachment B provides links to numerous reference materials that may assist the proponent to prepare an adequate EIS.

The proponent should be aware that any commitments made in the EIS may be formalised into EPA's suggested approval conditions for the proposal and the Environment Protection Licence, should one be required. Accordingly, pollution control measures should not be proposed if they are impractical, unrealistic, or beyond the financial viability of the development.

The EPA requests that the applicant provide **one printed copy and one electronic copy** of the EIS and any supporting or background reports when lodging the application with the EPA. These documents should be lodged with the EPA's Regional Manager – Hunter at PO Box 488G, Newcastle NSW 2300.

If you require any further information regarding this matter please contact myself on (02) 4908 6830.

Yours sincerely

Rebecca Scrivener 15/8/2016

REBECCA SCRIVENER
Acting Head Regional Operations Unit - Hunter
Environment Protection Authority

Encl.

Contact officer: Rebecca Scrivener, 4908 6830
hunter.region@epa.nsw.gov.au

ATTACHMENT A

ENVIRONMENT PROTECTION AUTHORITY- REQUEST FOR ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR A STATE SIGNIFICANT DEVELOPMENT

PROPOSED CLYDE STREET REMEDIATION PROJECT (SSD_7676)

GENERAL INFORMATION

The following information must be provided in the Environmental Impact Statement (EIS) to enable EPA to accurately assess the environmental implications of the proposed activity. The EIS must adequately describe the development proposal and the existing environment including air, noise, waters, soils, chemicals and waste.

THE PROPOSAL

The objectives of the proposal should be clearly stated and refer to:

- The size and type of the operation,
- The nature of the processes and the products, by-products and wastes produced;
- The use or disposal of products or wastes;
- The anticipated level of performance in meeting required environmental standards and cleaner production principles;
- The staging and timing of the proposal; and
- The proposal's relationship to any other industry or facility.

THE PREMISES

The EIS will need to fully identify all of the processes and activities intended for the site and during the life of the project. This will include details of:

- a site plan prepared by a registered surveyor clearly showing the boundaries of any proposed premises that will be subject to an Environment Protection Licence (EPL) and the proposed locations of any discharge points covered by an EPL;
- ownership and/or land use details of any premises and land likely to be affected by the proposed development including lot and DP numbers;
- maps and/or aerial photographs, showing:
 - The location of the proposed facility and details of the surrounding environment;
 - The proposed layout of the site;
 - All equipment proposed for use at the site;
 - Appropriate landuse zoning;
 - Topography, vegetation, location of utilities and services;
 - The location of residences and properties that may be impacted by the operation;
 - The location of any environmentally sensitive areas such as conservation areas, wetlands, creeks or streams, watercourses and stormwater systems;
 - Surface water management systems;
 - Chemicals, including fuel, used on the site and proposed methods for their transportation, storage, use and emergency management;
 - Waste generation and disposal;
 - Methods to mitigate any expected environmental impacts of the development;

CONTAMINATED LAND MANAGEMENT

The remediation project must comply with the existing Management Order (#20151403) issued under the *Contaminated Land Management Act 1997*.

The EIS should include an assessment of the contaminated site, conducted in accordance with the guidelines made or approved under section 105 of the *Contaminated Land Management Act 1997* including:

- *Guidelines for Consultants Reporting on Contaminated Sites* (EPA, 2000),
- *Guidelines for the NSW Site Auditor Scheme - 2nd edition* (DEC, 2006),
- *Sampling Design Guidelines* (EPA, 1995) and
- *National Environment Protection (Assessment of Site Contamination) Measure 1999* (April 2013).

The EIS should provide the details on how the site contamination will be remediated and/or managed so that there are no ongoing risks to human health and/or the environment either on-site or off-site.

The EIS should provide details on the proposed mechanisms to capture the long-term management and awareness of the gasworks impacted waste that is proposed to remain on site beneath the capping.

A site auditor, accredited under the *Contaminated Land Management Act 1997*, should be a requirement for the works. The auditor will be required to verify the adequacy of the site investigations, the proposed remedial strategy, the effectiveness of the remedial works in preventing the migration of contamination from the site, and the suitability of the site for the proposed land use.

WATER MANAGEMENT

The EIS must provide sufficient information to demonstrate that the proposed development can be operated whilst complying with the *Protection of the Environment Operations Act 1997*, in particular, the protection of water quality during construction and operation of the remediation project.

The methodology, data and assumptions used to design any pollution control works and assess the potential impact of the proposal on water quality (ground and surface waters), must be fully documented and justified.

The EIS must include an adequacy assessment of stormwater controls. This assessment must determine sediment basins are adequately sized based on relevant guidelines and that discharges to waters from any sediment basins or other treatment systems comply with the requirements of the *Protection of the Environment Operations Act 1997*.

The EIS must identify any fuel or chemical storage areas to be established on the site and describe the measures proposed to minimise the potential for leakage or the migration of pollutants into the soil/waters or from the site.

If applicable, the EIS should also describe the sewage treatment and effluent management processes used on site including the proposed numbers of occupancy using the premises.

NOISE AND VIBRATION IMPACTS

The EIS must include a noise assessment of the existing environment, potential impacts and proposed noise amelioration measures. The EPA's Interim Construction Noise Guideline deals with the assessment of noise from construction activities and advises on best practice approaches to minimise noise impacts. It is specifically aimed at managing noise from construction works regulated by the EPA.

The addendum to the Preliminary Environmental Assessment indicates construction hours are proposed to be 7am-7pm, Monday to Saturday. Justification for the extended construction hours needs to be provided with adequate consideration of all feasible and reasonable mitigation measures that could and/or will be implemented at the site.

AIR QUALITY INCLUDING ODOUR

The site is significantly contaminated with gasworks waste and particularly waste tar as a result of previous land use. Due to the nature of the contamination, there is potential for significant odours to be generated during the remediation project.

The EIS needs to identify how contaminated material is to be managed to limit the generation and dispersal of odours beyond the site boundary. The proponent need should be aware of the provisions of s129 of the Protection of the Environment Operations Act with regard to definition of and emission of offensive odours.

The EIS must include an Air Quality Impact Assessment (AQIA). The AQIA must identify and describe in detail all possible sources of air pollution and activities/processes with the potential to cause air pollutants including odours and fugitive dust emissions beyond the boundary of any premises proposed to be licenced by an EPL. This should cover both the construction and operational phases of the development. The AQIA should include cumulative impacts associated with existing developments and any developments having been granted development consent but which have not commenced.

The EIS should demonstrate that the facility will operate within EPA's objectives which are to minimise adverse effects on the amenity of local residents and sensitive land uses and to limit the effects of emissions on local, regional and inter-regional air quality.

The EIS must describe in detail the measures proposed to mitigate the impacts and quantify the extent to which the mitigation measures are likely to be effective in achieving the relevant environmental outcomes.

The AQIA must be prepared in accordance with the EPA's "*Approved Methods and Guidance for the Modelling & Assessment of Air Pollutants in NSW*". The AQIA must describe the methodology used and any assumptions made to predict the impacts. Air pollutant emission rates, ambient air quality data and meteorological data used in the assessment must be clearly stated and justified.

DANGEROUS GOODS and CHEMICAL TRANSPORT, STORAGE and HANDLING

The EIS must outline all details regarding the transport, handling, storage and use of dangerous goods, chemicals and products, including fuel, both on site and with ancillary activities and describe the measures proposed to minimise the potential for leakage or the migration of pollutants into the air, land or waters from the site.

MONITORING PROGRAMS

The EIS should include a detailed assessment of any noise, air quality, water quality or waste monitoring required during the on-going operation of the remediation project to ensure that the development achieves a satisfactory level of environmental performance and to demonstrate that any activity licenced by an EPL is carried out in an environmental satisfactory manner. The evaluation should include a detailed description of the monitoring locations, sample analysis methods and the level of reporting proposed.

WASTE FACILITIES

The EIS should include:

1. Details of the layout of any proposed waste facility, the treatment process and the environmental controls at the remediation project.
2. Details of the quantity and type of liquid and/or non-liquid waste(s) generated, handled, processed or disposed of at the site. Waste must be classified according to EPA's *Waste Classification Guidelines 2008*.
3. Details of liquid waste and non-liquid waste management at the remediation project, including:

- the transportation, assessment and handling of waste arriving at or generated at the site;
 - any stockpiling of wastes or recovered materials at the site;
 - any waste processing related to the remediation project, including reuse, recycling, reprocessing or treatment both on- and off-site;
 - the method for disposing of all wastes or recovered materials at the remediation project;
 - the emissions arising from the handling, storage, processing and reprocessing of waste at the remediation project;
 - the proposed controls for managing the environmental impacts of these activities.
4. Details of procedures for the assessment, handling, storage, transport and disposal of all **hazardous waste** used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.
 5. Details of the quantity, type and specifications for all **output products** proposed to be produced from the facility. The description should include the physical, chemical and biological characteristics (including contaminant concentrations) of those output products as well as relevant accredited standards against which the products would comply. In documenting or describing the composition of output products and/or wastes generated from the proposed facility reference should be made to the relevant EPA *resource recovery exemption* (<http://www.epa.nsw.gov.au/waste/RRecoveryExemptions.htm>) or the *Waste Classification Guidelines 2008* (<http://www.epa.nsw.gov.au/waste/envguidlns/index.htm>).
 6. Details of intended (or potential) end uses for output products from the facility and the relevant product standards which would be used to assess those products against.
 7. Details of the type and quantity of any chemical substances (including hydrocarbon (oils and fuels, explosives etc.) to be used or stored and describe arrangements for their safe use and storage.

GENERAL WASTE

The EIS should:

1. Include a detailed plan for in-situ classification of waste material, including the sampling locations and sampling regime that will be employed to classify the waste, particularly with regards to the identification of contamination hotspots.
2. Identify, characterise and classify all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste.
Note: All waste must be classified in accordance with EPA's *Waste Classification Guidelines*.
3. Identify, characterise and classify all waste that is proposed to be disposed of to an offsite location, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling.
Note: All waste must be classified in accordance with EPA's *Classification Guidelines*.
4. Include a commitment to retaining all sampling and classification results for the life of the project to demonstrate compliance with EPA's *Waste Classification Guidelines*.
5. Provide details of how waste will be handled and managed onsite to minimise pollution, including:
 - a) Stockpile location and management

- Labelling of stockpiles for identification, ensuring that all waste is clearly identified and stockpiled separately from other types of material (especially the separation of any contaminated and non-contaminated waste).
- Proposed height limits for all waste to reduce the potential for dust and odour.
- Procedures for minimising the movement of waste around the site and double handling.
- Measures to minimise leaching from stockpiles into the surrounding environment, such as sediment fencing, geofabric liners etc.

b) Erosion, sediment and leachate control including measures to be implemented to minimise erosion, leachate and sediment mobilisation at the site during works. The EA should show the location of each measure to be implemented. The Proponent should consider measures such as:

- Sediment traps
- Diversion banks
- Sediment fences
- Bunds (earth, hay, mulch)
- Geofabric liners
- Other control measures as appropriate

The Proponent should also provide details of:

- how leachate from stockpiled waste material will be kept separate from stormwater runoff;
- treatment of leachate through a wastewater treatment plant (if applicable); and
- any proposed transport and disposal of leachate off-site.

6. Provide details of how the waste will be handled and managed during transport to a lawful facility. If the waste possesses hazardous characteristics, the Proponent must provide details of how the waste will be treated or immobilised to render it suitable for transport and disposal.
7. Include details of all procedures and protocols to be implemented to ensure that any waste leaving the site is transported and disposed of lawfully and does not pose a risk to human health or the environment.
8. Include a statement demonstrating that the Proponent is aware of EPA's requirements with respect to notification and tracking of waste.
9. Include a statement demonstrating that the Proponent is aware of the relevant legislative requirements for disposal of the waste, including any relevant Resource Recovery Exemptions, as gazetted by EPA from time to time.
10. Outline contingency plans for any event that affects operations at the site that may result in environmental harm, including: excessive stockpiling of waste, volume of leachate generated exceeds the storage capacity available on-site etc.

EPA STATUTORY REQUIREMENTS

The EIS should confirm that the proposed activity is listed in Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act) and will therefore require an Environment Protection Licence from EPA.

Please note that this response does not cover biodiversity or Aboriginal cultural heritage issues, which are the responsibility of the Office of Environment and Heritage.

Attachment B – Guidance Material

Title	Web address
<u>Relevant Legislation</u>	
<i>Contaminated Land Management Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+140+1997+cd+0+N
<i>Environmentally Hazardous Chemicals Act 1985</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+14+1985+cd+0+N
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+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
<u>Licensing</u>	
Guide to Licensing	http://www.epa.nsw.gov.au/resources/licensing/160307-licensing-guide.pdf
<u>Air Issues</u>	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2005)	http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
<u>Noise and Vibration</u>	
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/resources/noise/09265cng.pdf
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/resources/noise/vibrationguide0643.pdf
Industrial Noise Policy	http://www.epa.nsw.gov.au/resources/noise/ind_noise.pdf
Industrial Noise Policy Application Notes	http://www.epa.nsw.gov.au/noise/applicnotesindustnoise.htm
NSW Road Traffic Noise Policy (DECCW, 2011)	http://www.epa.nsw.gov.au/resources/noise/2011236nswroadnoisepolicy.pdf
<u>Waste, Chemicals and Hazardous Materials and Radiation</u>	
Waste	
Environmental Guidelines: Solid Waste Landfills (EPA, 2016)	http://www.epa.nsw.gov.au/resources/waste/solid-waste-landfill-guidelines-160259.pdf
Waste Classification Guidelines	http://www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm
Resource recovery exemption	http://www.epa.nsw.gov.au/wasteregulation/recovery-exemptions.htm
Chemicals subject to Chemical Control Orders	

Title	Web address
Chemical Control Orders (regulated through the EHC Act)	http://www.epa.nsw.gov.au/pesticides/ccos.htm#five
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
<u>Water and Soils</u>	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps	http://canri.nsw.gov.au/download/
Acid Sulfate Soils Manual (Stone et al. 1998)	Manual available for purchase from: http://www.landcom.com.au/whats-new/the-blue-book.aspx Chapters 1 and 2 are on DP&I's Guidelines Register at: Chapter 1 Acid Sulfate Soils Planning Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf Chapter 2 Acid Sulfate Soils Assessment Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Assessment%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.derm.qld.gov.au/land/ass/pdfs/lmg.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Soils – general	
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	http://www.dnr.nsw.gov.au/care/soil/soil_pubs/pdfs/tech_rep_34_new.pdf
Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008)	Vol 1 - Available for purchase at http://www.landcom.com.au/whats-new/publications-reports/the-blue-book.aspx Vol 2 - http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	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.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf

Title	Web address
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf



Office of
Environment
& Heritage

DOC16/376586-1
SSD 7676

Ms Deana Burn
Planner, Industry Assessments, Planning Services
Department of Planning and Environment
deana.burn@planning.nsw.gov.au

Dear Ms Burn

RE: INPUT INTO SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR NEWCASTLE GASWORKS (CLYDE STREET) REMEDIATION PROJECT, HAMILTON NORTH (SSD 7676)

I refer to your email dated 28 July 2016 inviting the Office of Environment and Heritage (OEH) to provide input into the Secretary's Environmental Assessment Requirements (SEARs) for the proposed Newcastle Gasworks (Clyde Street) Remediation Project (by Jemena Gas Networks [NSW] Pty Ltd) State Significant Development (SSD 7676) located east of Clyde Street and Chatham Road in Hamilton North (Lot 1 in Deposited Plan [DP] 79057 and Lot 270 in DP 81268). This project is located within the Newcastle local government area.

OEH understands that Jemena Gas Networks (NSW) Pty Ltd (the applicant) proposal to remediate the hold Newcastle Gasworks site via a combination of (i) ex-situ Stabilisation of contaminated material located adjacent to Styx Creek, and (ii) hydraulic controls. OEH acknowledges that the proposal was declared a State Significant Development on 29 October 2015 under Section 89C(3) of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). On 21 December 2015 the NSW Environment Protection Authority issued Management Order number 20151403 to Jemena in accordance with the *Contaminated Land Management Act 1997*. The Minister for Planning is the consent authority.

OEH has reviewed the application (and supporting documentation) and has prepared Standard SEARs which are presented in **Attachment A**. No project specific requirements have been provided in **Attachment B**.

The Framework for Biodiversity Assessment was released on 1 October 2014. This project is to be assessed under this policy and must be conducted by a person accredited in accordance with section 142B(1)(c) of the *Threatened Species Conservation Act 1995* (TSC Act), including the provision of a Biodiversity Assessment Report. Given that the Framework for Biodiversity Assessment is a relatively new state wide policy, the consultant is welcome to contact OEH with any questions they may have regarding the methodology.

The proponent will need to ensure that the biodiversity assessment is fully consistent with requirements of the Framework for Biodiversity Assessment. Guidance documents to assist with this process are

provided in **Attachment C**. Please note that a Biodiversity Assessment Report is still a requirement of the FBA even if the site is disturbed.

If you have any further questions in relation to this matter, please contact Steve Lewer, Regional Biodiversity Conservation Officer, on 4927 3158.

Yours sincerely



9 AUG 2016

STEVE LEWER
Acting Senior Team Leader Planning, Hunter Central Coast Region
Regional Operations

Enclosure: Attachments A, B & C

Attachment A – Standard Environmental Assessment Requirements

Biodiversity
1. Biodiversity impacts related to the proposed development are to be assessed and documented in accordance with the <u>Framework for Biodiversity Assessment</u> , unless otherwise agreed by OEH, by a person accredited in accordance with s142B(1)(c) of the <i>Threatened Species Conservation Act 1995</i> .
Aboriginal cultural heritage
2. The EIS must identify and describe Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by the <i>Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW</i> (DECCW, 2011) and consultation with OEH regional officers.
3. Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the <i>Aboriginal cultural heritage consultation requirements for proponents 2010</i> (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.
4. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.
Historic heritage
5. The EIS must provide a heritage assessment including but not limited to an assessment of impacts to <i>State and local heritage</i> including conservation areas, natural heritage areas, places of Aboriginal heritage value, buildings, works, relics, gardens, landscapes, views, trees should be assessed. Where impacts to State or locally significant heritage items are identified, the assessment shall: <ol style="list-style-type: none"> a. outline the proposed mitigation and management measures (including measures to avoid significant impacts and an evaluation of the effectiveness of the mitigation measures) generally consistent with the NSW Heritage Manual (1996), b. be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria), c. include a statement of heritage impact for all heritage items (including significance assessment), d. consider impacts including, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, landscape and vistas, and architectural noise treatment (as relevant), and e. where potential archaeological impacts have been identified develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations (terrestrial and maritime as relevant) and include the results of these test excavations.

Water and soils

6. The EIS must map the following features relevant to water and soils including:
- a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map).
 - b. Rivers, streams, wetlands, estuaries (as described in Appendix 2 of the Framework for Biodiversity Assessment).
 - c. Groundwater.
 - d. Groundwater dependent ecosystems.
 - e. Proposed intake and discharge locations.
7. The EIS must describe background conditions for any water resource likely to be affected by the development, including:
- a. Existing surface and groundwater.
 - b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations.
 - c. Water Quality Objectives (as endorsed by the NSW Government www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters.
 - d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government.
8. The EIS must assess the impacts of the development on water quality, including:
- a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction.
 - b. Identification of proposed monitoring of water quality.
9. The EIS must assess the impact of the development on hydrology, including:
- a. Water balance including quantity, quality and source.
 - b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.
 - c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems.
 - d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches).
 - e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water.
 - f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options.
 - g. Identification of proposed monitoring of hydrological attributes.

Flooding and coastal erosion	
10.	The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including: <ol style="list-style-type: none"> a. Flood prone land b. Flood planning area, the area below the flood planning level. c. Hydraulic categorisation (floodways and flood storage areas).
11.	The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.
12.	The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios: <ol style="list-style-type: none"> a. Current flood behaviour for a range of design events as identified in 8) above. The 1 in 200 and 1 in 500 year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.
13.	Modelling in the EIS must consider and document: <ol style="list-style-type: none"> a. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood. b. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazards and hydraulic categories. c. Relevant provisions of the NSW Floodplain Development Manual 2005.
14.	The EIS must assess the impacts on the proposed development on flood behaviour, including: <ol style="list-style-type: none"> a. Whether there will be detrimental increases in the potential flood affection of other properties, assets and infrastructure. b. Consistency with Council floodplain risk management plans. c. Compatibility with the flood hazard of the land. d. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land. e. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site. f. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses. g. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council. h. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the SES and Council. i. Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the SES. j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

Attachment B – Project Specific Requirements

Nil.

Attachment C – Guidance material

Title	Web address
<u>Relevant Legislation</u>	
<i>Coastal Protection Act 1979</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+13+1979+cd+0+N
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Fisheries Management Act 1994</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
<i>Marine Parks Act 1997</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
<i>Protection of the Environment Operations Act 1997</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
<i>Threatened Species Conservation Act 1995</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
<i>Water Management Act 2000</i>	www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
<i>Wilderness Act 1987</i>	www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
<u>Biodiversity</u>	
NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)	www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf
Framework for Biodiversity Assessment (OEH, 2013)	www.environment.nsw.gov.au/resources/biodiversity/140675fbapdf
Fisheries NSW policies and guidelines	www.dpi.nsw.gov.au/fisheries/habitat/publications/policies.-guidelines-and-manuals/fish-habitat-conservation
List of national parks	www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, re-categorisation and road adjustment policy (OEH, 2012)	www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land and water managed by OEH (DECCW, 2010)	www.environment.nsw.gov.au/resources/protectedareas/10509devadjdeccw.pdf
<u>Heritage</u>	
The Burra Charter (The Australia ICOMOS charter for places of cultural significance)	http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf
Statements of Heritage Impact 2002 (HO & DUAP)	www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf
NSW Heritage Manual (DUAP) 1996	www.environment.nsw.gov.au/Heritage/publications/index.htm#G-I

Aboriginal Cultural Heritage	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
Water and Soils	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps via 'The NSW Natural Resource Atlas'	www.nratlas.nsw.gov.au/
Acid Sulfate Soils Manual (Stone et al. 1998)	www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.advancedenvironmentalmanagement.com/Reports/Savannah/Appendix%2015.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Flooding and Coastal Erosion	
Reforms to coastal erosion management	www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	www.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans www.environment.nsw.gov.au/resources/coasts/130224CZMPGuide.pdf
NSW Climate Impact Profile	NSW Climate Impact Profile
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation
Water	
Water Quality Objectives	www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf



7 July 2016

CR2016/002754
SF2016/103935
KAP

Industry Assessments
NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention Deana Burn,

CLYDE STREET AND CHATHAM ROAD (LOCAL ROADS): SSD-7676 NEWCASTLE
GASWORKS REMEDIATION – CLYDE STREET AND CHATHAM ROAD, HAMILTON NORTH

Reference is made to Department of Planning and Environment's email dated 26 May 2016, requesting the provision of key issues which Roads and Maritime Services' (Roads and Maritime) considers should form part of the Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Assessment submitted with a future application for the prospective development.

Roads and Maritime understands the future application will seek consent to remediate the site to enable future use for commercial and industrial purposes. The remediation will involve the use of multiple remediation technologies, like ex-situ thermal desorption, ex-situ stabilisation, bioremediation and hydraulic controls. Remediation may involve the use of one or more of these methods however a preferred option has not been determined.

Additional traffic is expected within the surrounding road network with heavy vehicle ingress / egress proposed at Chatham Street. The Preliminary Environmental Assessment (PEA) prepared by GHD and dated May 2016 has identified that each of the remediation methods involve 24 hour processing for up to six days a week, over an 18 month period. Traffic movements are dependent on the remediation method adopted, however it is anticipated that up to 12 heavy vehicle movements per week may occur during site establishment, reducing to approximately two heavy vehicle movements per week during remediation works, other than in the event that some materials are disposed of to an off-site landfill. Furthermore, it is estimated that up to 30 employees may be on-site at any one time.

Roads and Maritime Services

Roads and Maritime response

Roads and Maritime has reviewed the information provided and acknowledges that the future remediation project is unlikely to result in an adverse impact to the classified (State) road network or require any future approvals / comments / concurrence from Roads and Maritime following submission of an application as Newcastle City Council (Council) is the roads authority for both Clyde and Chatham Roads. Accordingly, Roads and Maritime recommends that Council be consulted for requirements regarding traffic impacts resulting from the future remediation processes.

Following the remediation of the subject site, Roads and Maritime would welcome the opportunity to provide comment on the future redevelopment of the site for a commercial / industrial estate.

Should you require further information please contact Hunter Land Use on 4924 0688 or by email at development.hunter@rms.nsw.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'David Collaguazo', written in a cursive style.

David Collaguazo
A/ Manager Land Use Assessment
Hunter Region

Deana Burn

From: Robins, Steve <Steve.Robins@safework.nsw.gov.au>
Sent: Tuesday, 2 August 2016 3:32 PM
To: Deana Burn
Cc: Foley, Lisa
Subject: RE: SSD 7676 - Clyde Street Remediation - Revised Request for SEARs

Security Classification:UNCLASSIFIED

Hi Deana,

No comment from SafeWork NSW on the Addendum to the Preliminary Environmental Assessment for the Clyde Street Remediation project. Obviously SafeWork NSW would have an interest in how traffic management and health risks are controlled once work has commenced on site.

Regards

Steve Robins

State Inspector

SafeWork NSW

p 02 4921 2989 | m 0412 083 999

www.safework.nsw.gov.au

Level 1, Suite C, 8 Cowper Street (cnr Fitzroy Street), Carrington NSW 2294



From: Deana.Burn@planning.nsw.gov.au [mailto:Deana.Burn@planning.nsw.gov.au]
Sent: Thursday, 28 July 2016 2:54 PM
To: Christopher D. Williams; Robins, Steve; Foley, Lisa; Steve Lewer; Geof Mansfield; Ben Livissianis; Karen Marler
Subject: RE: SSD 7676 - Clyde Street Remediation - Revised Request for SEARs

Hi All

Further to my email below and the PFM held on 15 June in Newcastle, Jemena has lodged an Addendum to the Preliminary Environmental Assessment for the Clyde Street Remediation project (attached). The Addendum describes Jemena's preferred approach to remediation of the site and no longer refers to different remediation options.

The Department requests that you provide input to the Secretary's Environmental Assessment Requirements for preparation of the Environmental Impact Statement for this project, based on the attached document. Please provide your input by Monday 15 August 2016.

If you have any questions, feel free to give me a call on 9228 6453.

Regards,
Deana.

From: Deana Burn
Sent: Tuesday, 21 June 2016 1:47 PM
To: Christopher D. Williams; Robins, Steve; lisa.foley@safework.nsw.gov.au; Steve Lewer; Geof Mansfield; Ben Livissianis; Karen Marler
Subject: SSD 7676 - Clyde Street Remediation

HI All

Further to the planning focus meeting last week, Jemena has advised that they will be putting forward a single preferred option for the SSD application. GHD will issue an Addendum to the Preliminary Environmental Assessment describing the preferred option later this week or early next week. Once I receive the Addendum I will forward it to you with a request for input into the Secretary's Environmental Assessment Requirements.

Regards,
Deana.

Deana Burn | Planner

Industry Assessments | Planning Services
NSW Department of Planning & Environment
deana.burn@planning.nsw.gov.au | p: 02 9228 6453 | GPO Box 39, Sydney NSW 2001



Subscribe to the Department's e-news at www.planning.nsw.gov.au/enews
Please consider the environment before printing this email.

This e-mail is confidential and may be privileged. If you are not the intended recipient, you must not use or disclose this information. If you have received this e-mail in error, please delete it and advise me immediately. E-mails may contain computer viruses, may be interfered with or may have other defects. They may not be successfully replicated on other computer systems. This e-mail may be subject to copyright. If it is, the written consent of the copyright owner must be obtained before any part of it is reproduced, adapted or communicated.

"This message and any attached files is intended solely for the use of the individual or entity to whom it is addressed and may contain information that is privileged, confidential, proprietary and/or exempt from disclosure under applicable law. Personal and health information is highly sensitive. You should not disclose or retain such information unless you have consent or are authorised by law. If you are not the intended recipient of this message, please delete all copies and notify the sender. Any views expressed in this message are not necessarily the views of SafeWork NSW"