ASSESSMENT OF DEVELOPMENT APPLICATION
NYNGAN WASTE AND RESOURCE MANAGEMENT FACILITY

PREPARED FOR
BOGAN SHIRE COUNCIL

DECEMBER 2013

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Geolyse Pty Ltd and the authors responsible for the preparation and compilation of this report declare that we do not have, nor expect to have a beneficial interest in the study area of this project and will not benefit from any of the recommendations outlined in this report.

The preparation of this report has been in accordance with the project brief provided by the client and has relied upon the information, data and results provided or collected from the sources and under the conditions outlined in the report.

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Executive Summary

Bogan Shire Council (BSC) currently operates a waste management centre and landfill on Canonba Road, approximately five (5) kilometres north of the town of Nyngan. Council propose an extension to the facility to provide additional capacity. The proposed facility would, at completion, have capacity to accommodate 72,000 cubic metres over 16 years, equating to around 4,500 cubic metres per year. Waste will be transported to the facility via heavy vehicles in relation to the Council's kerbside collection program and by private vehicles visiting the site on an ad hoc basis.

As Council is both the applicant and the nominated assessing authority, Geolyse has been commissioned by BSC to complete an independent assessment of the proposed application. Due to the status of the application as designated development the consent authority is the Western Region Joint Regional Planning Panel by virtue of Part 8 of Schedule 4A of the *Environmental Planning and Assessment Act 1979*.

The existing facility is formed of two lots; the existing waste facility infrastructure occupies Lot 107 and the access road and other infrastructure, together with the proposed expansion area, occupy Lot 108. The physical elements of the existing facility occupies an area of approximately 4.9 hectares and features three landfill cells; one of which is operational, but nearing capacity, and two which have been filled and capped, together with associated infrastructure. The two lots are surrounded by Lot 109 in DP1182342, which is a Travelling Stock Route.

The existing facility was developed without relevant consents (with the knowledge and agreement of the relevant approval authorities of the time) after the floods of April 1990 inundated the previous facility.

Following a review of the existing site, and consideration of alternatives component systems, BSC settled on expansion of the existing facility site via acquisition of an adjacent 12 hectare parcel of land and the licencing of an adjacent 7.5 hectare parcel of land. The acquired land is an undulating, mostly cleared, site. The EIS states that a portion of the acquired land, being an area of approximately 5.7 hectares, would be developed for the proposed facility, bringing the overall waste facility site area to approximately 10.2 hectares. The remainder of the acquired site would remain undeveloped but would be available for future expansion as required (subject to further consent).

The development site is close to Nyngan, thereby providing good accessibility for residents and contractors, and it can satisfy modern environmental guidelines for landfill design.

A small community of *Weeping Myall Woodland* Endangered Ecological Community (EEC) is located on site. This community is identified as an EEC under the NSW *Threatened Species Conservation Act 1995*, however it is not classified as a Matter of National Environmental Significance (NES) under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. The community would be fenced off from the remainder of the site and signs would be erected to limit disturbance. For the avoidance of doubt, no tree removal would result from this community. In addition, proposed vegetation visual screens would be planted around the perimeter of the facility at a ratio of 40:1 by comparison to the existing community and using species representative of the Myall Woodland EEC. There are 11 trees within the community, and therefore an additional 440 trees are to be planted.

The community's waste profile has been considered, including the intention as stated in the EIS to continue to improve resource recovery efforts; overall it is determined that additional landfill security is necessary.

The application has been exhibited by Council for 30 days via two (2) advertisements in the local paper, two (2) advertisement in a state paper, a sign on the site, and targeted consultation letters to nearby properties.

Council received no public submission to the project during the exhibition period.

Agency submissions were received from the NSW Office Water, the Environment Protection Authority, NSW Office of Environment and Heritage, NSW Trade and Investment Crown Lands and Roads and Maritime Services.

The merits of the project have been assessed and this report concludes that the potential impacts have been satisfactorily addressed in the original Environmental Impact Statement, additional information received, the Council's statement of commitments and the recommended conditions of approval.

Consequently, it is concluded that this project is in the public interest and should be approved subject to the imposition of conditions.

EXECUTIVE SUMMARY

FIGURES

TABLES

APPENDICES

ABBREVIATIONS

AHD	Australian Height Datum
ARI	Annual Recurrence Interval
BSC	Bogan Shire Council
CWLHPA	Central West Livestock Health and Pest Authority
DA	Development Application
DCP	Development Control Plan
DPI	NSW Department of Primary Industries
EIS	Environment Impact Statement
EPA	Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regs	Environmental Planning and Assessment Regulations 2000
EPI	Environmental Planning Instrument
Ha	Hectare
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
LEP	Local Environmental Plan
LGA	Local Government Area
NOW	NSW Office of Water
OEH	NSW Office of Environment and Heritage
Rural Lands SEPP	State Environmental Planning Policy (Rural Lands) 2008
RMS	Roads and Maritime Services
SIG	Special Interest Group
SR-SEPP	State Environmental Planning Policy (State and Regional Development) 2011
TSR	Travelling Stock Route
VENM	Virgin Excavated Natural Material
WARR	Waste Avoidance & Resource Recovery Strategy 2007
WRJRPP	Western Region Joint Regional Planning Panel
NWRMF	Nyngan Waste and Resource Management Facility

Introduction

1.1 INTRODUCTION

Geolyse Pty Ltd has been commissioned by Bogan Shire Council (BSC) to undertake an assessment of a Designated Development Application (DA) for an expansion of the Nyngan Waste and Resource Management Facility (NWRMF). As Council is both the applicant and the Local Planning Authority for the area within which it is located, Council sought the services of an independent consultant to assess and make a recommendation for determination of the application.

The assessment has been prepared pursuant to Section 79C of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and provides recommendations for determination of the DA.

1.2 PROPOSAL DESCRIPTION

Bogan Shire Council proposes to construct and operate a new solid waste landfill with a capacity to receive approximately 72,000 cubic metres of solid waste over 16 years, ie, approximately 4,500 cubic metres per year.

The area of the subject site is identified as 10.2 hectares in total which consists of 3 hectares of Lot 107 in DP822472 and 3.8 and 3.4 hectares of Lots 108 and 109 in DP1182342 respectively.

The new landfill would be licensed to receive putrescible waste, although Council commit to continue to reduce putrescible waste content by improving waste avoidance and recovery measures. Waste to be received at the site is understood to remain unchanged from the existing, being:

- General waste including domestic, commercial and industrial putrescible and non-putrescible wastes.
- Waste oils.
- Dead animals.
- Household items including refrigerators, stoves and microwave ovens, etc.
- Green waste.
- Used tyres.
- Industrial waste (excluding heavy machinery).
- Special waste (clinical, asbestos-contaminated and other contaminated wastes).
- Scrap metal and vehicles.

Waste separation and emplacement would continue to occur at the site. Approximately 4 trucks per week (2 return journeys a day on 2 days in a week) would transport waste collected via the kerbside collection program to the proposed landfill for emplacement. **Table 1.1** below describes the main components of the project including key physical infrastructure. **Figure 1** shows the project site layout including staging order for cell construction.

Construction associated with these components is predominantly limited to earthworks, with the exception of the development of required buildings. A construction certificate/s would be required for the development of the buildings only.

Recyclables collected via the Council's kerbside recycling program will continue to be transported directly to a Gilgandra sorting yard; any recyclables received at the NWRMF would be stored until sufficient material is accumulated, whereupon it would be transported to a suitable recycling facility.

Green waste would be stockpiled and mulched for re-use within the Bogan Local Government Area (LGA).

Demolition waste would be stockpiled and then crushed, with the crushed material used as a drainage medium with landfill cells, or elsewhere within the Bogan LGA.

Table 1.1 – Main Components of the Project

Component	Description
Project Summary	• An extension to the existing landfill facility providing capacity for 16 years of waste storage, approximately 72,000 cubic metres or 4,500 cubic metres per year
Proposed key infrastructure	• Site entrance and access road. • Site office and workshop. • Selected Waste Drop-off Area. • A Landfill area (approximately 4.5 ha) comprising 24 landfill cells, each approximately 40m long, 15m wide and 6m deep. • Soil and clay or virgin excavation natural material (VENM) stockpile areas. • Leachate Evaporation Pond. • A vegetation/tree screen. • A centrally-located internal access road. • A flood water diversion bund.
Rehabilitation	• Progressive rehabilitation to re-instate the land to agriculturally productive land consistent with the land surrounding the site.
Vehicle movements	<u>Forecasted Movements</u> (1 journey = 2 movements) • Trucks – 2 journeys per day, twice a week = total of 8 movements/week • Staff vehicles – 2 journeys per day, 6 days per week = 24 movements/week
Landfill Environmental Management Plan	• A *Landfill Environmental Management Plan* would be prepared and regularly updated. The plan would cover the following points - Site overview – covering the broad locational and environmental characteristics of the Site. - Landfill structure and operations overview – outlining the landfill design/construction concepts, specifications, general operating philosophy, the nature and quantity of wastes to be received, recycling to be conducted, the intended life of the landfill and predicted financial guarantees over the life of the landfill. - Discharge of pollutants to waters – describing in detail mechanisms for preventing groundwater and surface water contamination. - Emissions of pollutants to the atmosphere – describing in detail mechanisms for controlling emissions. - Land management and conservation – describing in detail the measures to be adopted to help meet waste reduction goals, the degree of control over waste taken into the Site, and the proposed approach to site colure and remediation. - Prevention of hazard and loss of amenity – identifying mechanisms for managing dust, birds, litter, noise, pests, vermin, odour, traffic and fire. - Those relevant matters identified within the GTAs issued by the EPA (refer **Appendix C**).
Hours of Operation	<u>Landfilling Operations</u> • 7:00am – 6:00pm, Monday to Saturday <u>Public Access</u> • 7:00am – 4:00pm, Monday to Friday • 6:00am – 6:00pm, Saturday The facility would locked and secured outside of these hours.
Number of Employees	• Operational: 2 Construction: Not stated
Subdivision	• None proposed.

Figure 1: Proposed Site Layout (Source: Figure B of R W Corkery EIS, 2013a)

1.3 BACKGROUND

At the time of publication of the EIS BSC estimated that less than one (1) month of capacity existed in the current waste facility on Canonba Road (Corkery, 2013a). This facility was originally established without any approvals, as agreed by the relevant government agencies of the time, following the inundation of the previous facility during the floods of April 1990.

The timing of the approval is therefore a factor in the determination of this application but does not override the requirement to appropriately assess and mitigate any arising impacts.

1.3.1 SITE SELECTION

No reference is made to any consideration of alternative sites for the proposed facility within the EIS however alternative proposal components were considered, including types of waste received and extent and design of the waste emplacement area (Corkery, 2013a). Notwithstanding that the review did not consider alternative locations, the existence of an adjacent lot which enables the expansion of the existing facility makes expansion of the existing facility an attractive proposition. In the absence of any alternate sites, the proposed site is considered acceptable.

1.3.2 SITE DESCRIPTION

The application states that the site that is the subject of this DA is the current NWRMF, located at Lot 107 in DP822472 Canonba Road, Nyngan, together with the proposed expansion of this site into adjacent Lots 108 and 109 in DP1182342; the proposed site layout is provided at **Figure 1**. The site is located approximately five (5) kilometres north of the town of Nyngan by road.

The proposed development area the subject of this application is formed of the entirety of Lot 107 (3 hectares), a portion of Lot 108 (5.7 hectares) and a portion of Lot 109 (3.4 hectares); 10.2 hectares in total.

The current facility (being formed of Lot 107 and a small portion of Lot 108) has an area of approximately 4.9 hectares and is situated on the western side of Canonba Road. Access to Lot 107 from Canonba Road is provided via Lot 108 – refer **Figure 2**. It is recommended as a condition of consent that Lots 107 and 108 be consolidated to ensure no future issues with legal access to the site.

Lot 108 in DP1182342 is approximately 15.6 hectares in size. An approximately 5.7 hectare portion of Lot 108 would be affected by this application, with the residue of Lot 108 available for future expansion of the facility as required (subject to a further DA). The 5.7 hectares consists of 3.8 hectares of the site which would host the expanded waste facility, included cells and storage areas, together with 1.9 hectares, which consists of the access road and some minor infrastructure. The remainder of the proposed 10.2 hectare site is formed of a 3.4 hectare area of Lot 109, which would be the subject of a Crown Lands Licence. The licence seeks authorisation for use of a total area of 7.5 hectares of Lot 109 to ensure the future of the site is assured – refer **Figure 2**. It is noted that the Central West Livestock Health and Pest Authority (CWLHPA) have identified that, in the event that the licence is granted, they may require that the licenced portion of Lot 109 be acquired by Council.

Given that the licence has not been issued, a deferred commencement condition would be applied to the consent to confirm the granting of this licence before the development commences.

> Prior to the release of an occupation certification, Lots 107 and 108 are to be consolidated, for the purposes of ensuring that access to the site is maintained in perpetuity.
>
> This consent is a deferred commencement consent under Section 80(3) of the Environmental Planning and Assessment Act 1979. This consent shall not operate until the applicant (Bogan Shire Council) has formally gained a Crown Lands Licence pursuant to the provisions of the *Crown Lands Act 1989* for the 7.5 hectare area of Lot 109 DP1182342, within two years of the issue of this notice.

Lot 109 is a Travelling Stock Route (TSR).

At the time the application was lodged, Lots 107, 108 and 109 were under the ownership of the NSW State Government, with Lots 108 and 109 vested in the CWLHPA and Lot 107 vested in BSC for the purposes of a waste facility.

The CWLHPA signed the DA form in their capacity as the owner of all three lots. Since the DA was lodged, BSC have acquired Lots 107 and 108 via the provisions of the Local Government Act. Additionally a Crown Lands licence has been lodged for the use of the 7.5 hectare portion of Lot 109.

The site is predominantly flat, with elevations between approximately 169m Australian Height Datum (AHD) and 170m AHD. The site is located 2.5km east of the Bogan River and is within the Central West Catchment Management Area. There are no natural drainage lines noted on site however the Box Cowal (an oxbow lake) is located to the south and east of the site.

Figure 2: Current lot arrangement of subject site (Source: Six Maps)

1.3.3 THE LOCALITY

The subject site is located in a rural environment characterised by broad acre farming with associated scattered residential dwellings. It is noted in the EIS, and confirmed by available aerial photography and a site visit on the 27 August 2013, that the closest residential receptors are greater than two (2) kilometres from the existing facility (Corkery, 2013a).

1.3.4 THE EXISTING FACILITY

The EIS confirms that the existing facility is unmanned and benefits from the following infrastructure:

- One active landfill cell and two filled and capped cells;
- An equipment shed;
- A waste oil receival area; and
- A 1.8m high perimeter fence with lockable gate. (Corkery, 2013a)

It is noted in the EIS (Section 1.3.3) that the existing facility is currently accessible 24 hours a day, seven days a week (Corkery, 2013a);; it is therefore assumed that the above lockable gate is currently not used.

The existing and historical cells are approximately 100 metres long by 70 metres wide by 5 metres deep. The easternmost cells have been completed and capped with approximately 600mm of previously stockpiled clay material, whilst the western cell is currently active.

The following classes of waste are currently accepted at the facility:

- General waste including domestic, commercial and industrial putrescible and non-putrescible wastes;
- Waste oils;
- Dead animals;
- Household items including refrigerators, stoves and microwave ovens, etc;
- Green waste;
- Used tyres;
- Industrial waste (excluding heavy machinery);
- Special waste (clinical, asbestos-contaminated and other contaminated wastes); and
- Scrap metal and vehicles.

The EIS states that between March 2011 and April 2012 approximately 867 tonnes of waste were delivered to the site as a result of the BSC kerbside collection program (Corkery, 2013a).

As the facility is unmanned there is currently no direct control over the classes of waste accepted nor is it possible to quantify amounts of non-kerbside waste delivered to the site.

The EIS estimated that the existing facility would reach its available waste capacity by approximately the end of March 2013 (Corkery, 2013a). An expansion of the facility to provide additional capacity is therefore the key driver behind this DA. A site visit conducted on the 27 August 2013 confirmed that the site was still operational at that time, notwithstanding the capacity issues identified in the EIS (Corkery, 2013a).

Figure 3 shows the existing facility, surrounding land ownership and the nearest residences on a locality map.

1.4 LICENSING

As noted in **Section 1.3.2**, whilst Lot 109 forms part of the application site, and the owners consent has been provided for its inclusion in this application, it currently remains the subject of a pending Crown Lands licence application. The licence seeks approval for use of an overall 7.5 hectare portion of Lot 109 however only a 3.4 hectare would be affected by this application. Within the 3.4 hectare area of land vegetation screening would be provided around the periphery of the site together with areas for VENM stockpile. Given the low impact nature of these activities it is not considered that the development is jeopardised in the event that the licence is not granted in the short term. The granting of owners consent for the development by CWLHPA confirms that the principle of the development over the portion of Lot 109 is generally acceptable.

In order to confirm the application in the form lodged, it is deemed reasonable to apply a deferred commencement condition in accordance with Section 80(3) of the EP&A Act, requiring the gaining of the licence prior to the activation of the consent.

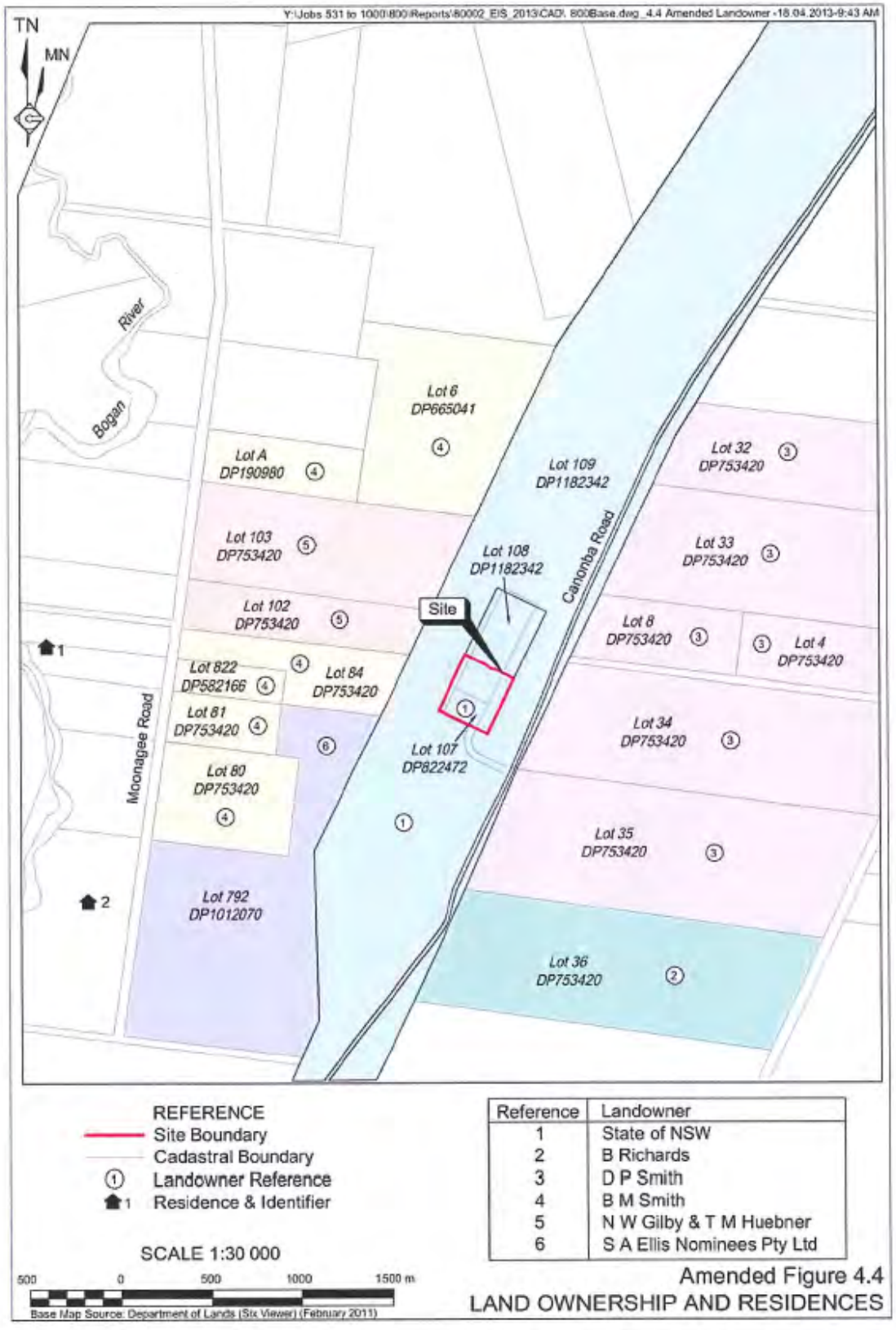

Figure 3: Land Ownership and Residences (Source: Figure 4.4 of R W Corkery EIS, 2013a)

Statutory Context

2.1 NSW 2021

NSW 2021 aims to increase recycling to meet the 2014 NSW waste recycling identified targets in the *Waste Avoidance and Resource Recovery Strategy 2007 (WARR)*. This project is considered for additional landfill space in the context of waste avoidance and recovery initiatives.

An assessment of project impacts is provided in **Section 3**. This includes an appraisal of landfill demand, waste recovery initiatives and alternative approaches to a new landfill. Based on the assessment, together with the recommended conditions, it is concluded that the project is consistent with NSW 2021.

2.2 PART 4 ASSESSMENT

The proposed waste or resource management facility, being located in the RU1 - Primary Production Zone under *Bogan Local Environmental Plan 2011* (LEP), is prohibited development pursuant to the LEP Land Use Table.

A waste or resource management facility is defined by the LEP as:

> *waste or resource management facility means any of the following:*
>
> *(a) a resource recovery facility,*
>
> *(b) a waste disposal facility,*
>
> *(c) a waste or resource transfer station,*
>
> *(d) a building or place that is a combination of any of the things referred to in paragraphs (a)–(c).*

By virtue of the fact that the proposed development includes both waste disposal, resource recovery and waste transfer, it is considered to constitute a waste or resource management facility.

Notwithstanding the provisions of the LEP, Clause 121 of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) identifies that development for the purposes a waste or resource management facilities is permitted with consent within a prescribed zone. Clause 120 of the ISEPP defines the RU1 zone as a prescribed zone. The definition within the ISEPP for a waste or resource management facility accords with the LEP definition.

Clause 8 of the ISEPP states that, in the event on an inconsistency between the ISEPP and another Environmental Planning Instrument (EPI), the ISEPP prevails to the extent of that inconsistency.

On the basis of the above, the ISEPP overrides the prohibition identified by the LEP and enables the development with consent – refer **Section 2.6.4**.

2.3 DESIGNATED DEVELOPMENT

Clause 32 of Schedule 3 to the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) identifies the relevant thresholds for which a proposed waste management facility would be considered Designated Development, specifically relevant are subclauses (i) and (iv):

> *(1) Waste management facilities or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste and:*
>
> *(a) that dispose (by landfilling, incinerating, storing, placing or other means) of solid or liquid waste:*
>
> *(i) that includes any substance classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste, or*
>
> *(iv) that comprises more than 200 tonnes per year of other waste material, or*

Expected tonnage per year is not explicitly stated within the EIS however it is understood that the proposed facility is projected to accommodate 72,000 cubic metres over its 16-year life, equating to approximately 4,500 cubic metres per year (Corkery, 2013a). Notwithstanding the unknown density of compacted waste, it is anticipated that the facility would exceed the 200 tonne trigger outlined in clause 32(1)(a) above. In addition, the EIS states that the facility would continue to receive substances classified as dangerous goods (Corkery, 2013a). Both of these matters separately trigger the development as a Designated Development.

As set down in clause 78A(8)(a) of the EP&A Act, an EIS is required to support a DA if the application is in respect of designated development. The EIS prepared by R W Corkery & Co, together with its corrigendum and other associated information supplied by way of response to comments from statutory stakeholders, satisfies this requirement.

2.4 CONSENT AUTHORITY

By virtue of clause 21 of the *State Environmental Planning Policy (State and Regional Development) 2011* (SR-SEPP) and schedule 4A of the (EP&A Act), the Western Region Joint Regional Planning Panel (WRJRPP) is to exercise the functions of the consent authority, including determination of this DA.

The development is considered to fall into the remit of the WRJRPP by virtue of the fact that it constitutes a waste management facilities or works, which meet the requirements for designated development, as stated in **Section 2.3**.

2.5 INTEGRATED DEVELOPMENT

The proposed development has been identified as being 'Integrated Development' by virtue of requiring development consent and the following approval:

- Scheduled development work and Scheduled activity under Sections 43(a), 43(b), 47, 48, 51 and 55 of the *Protection of the Environment Operations Act 1997* from the Environment Protection Authority (EPA).

The application proposes no change to the site entrance at the point of intersection with Canonba Road and therefore consent under Section 138 of the *Roads Act 1993* is not required. In any event, pursuant to section 91(3) of that Act, Council is the roads authority for Canonba Road.

2.6 ENVIRONMENTAL PLANNING INSTRUMENTS

The relevant Environmental Planning Instruments (EPI) are:

- *Bogan Local Environmental Plan 2011* (LEP);
- *State Environmental Planning Policy No. 33 – "Hazardous and Offensive Development"*;
- *State Environmental Planning Policy No. 55 – "Remediation of Land";*
- *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP);
- *State Environmental Planning Policy (Rural Lands) 2008 (Rural Lands SEPP)*
- *State Environmental Planning Policy (State and Regional Development) 2011*

There is no draft EPI relevant to the subject site at the time of the assessment.

The relevant Development Control Plans are:

- *Bogan Shire Council Development Control Plan 2012* (DCP)

There are no known Planning Agreements, provisions of the EP&A Regulation, or Coastal Zone Management Plans that apply to the proposed development.

The above instruments, including their relevance, is discussed in the following sections.

2.6.1 BOGAN LOCAL ENVIRONMENTAL PLAN 2011

The aims of the LEP are:

(1) This Plan aims to make local environmental planning provisions for land in Bogan in accordance with the relevant standard environmental planning instrument under section 33A of the Act.

(2) The particular aims of this Plan are as follows:

(a) to protect, enhance and conserve agricultural land through the proper management, development and conservation of natural and man-made resources,

(b) to encourage a range of development, including housing, employment, recreation and community facilities, to meet the needs of existing and future residents of Bogan,

(c) to promote the efficient and equitable provision of public services, infrastructure and amenities.

A review of LEP constraint mapping in the context of the subject site is provided in **Table 2.1**, including reference to the relevant area of this report where these are discussed.

Table 2.1 – Local Environmental Plan Mapping Constraint Review

Constraint	Relevance	Section of the Report Discussed
Land Application Map	The subject site is identified as being located within the Bogan LGA	No further discussion required
Land Zoning Map	The site is zoned RU1 – Primary Production	**Section 2.2**
Lot Size Map	The applicable minimum lot size for subdivision is 600 hectares	No further discussion required
Heritage Map	The site is not identified as containing or being located within the vicinity of a heritage item	No further discussion required
Land Reservation Acquisition Map	Land is not identified for reservation or acquisition	No further discussion required
Terrestrial Biodiversity Map	The site is identified as containing land with moderate biodiversity sensitivity	Refer **Sections 2.6.1.5 and 3.7**
Groundwater Vulnerability Map	The site is not identified as being located within land identified as groundwater vulnerable	No further discussion required
Watercourse Map	The site is not identified as containing a sensitive watercourse, although it is noted that a watercourse traverses to the south and east of the site	Refer **Section 3.10**
Wetlands Map	The site is not identified as containing or being located within the vicinity of a sensitive wetland	No further discussion required
Urban Release Area Map	The site is not identified as being located within an urban release area	No further discussion required

Source: Bogan Local Environmental Plan 2011

The above mapped constraints together with other matters of relevance emerging from the LEP are discussed in the following sections.

2.6.1.1 Preservation of trees or vegetation

Clause 5.9 of the LEP seeks to ensure that the amenity of an area is protected, including biodiversity values, through the preservation of trees and vegetation.

Development consent is required for any works that would affect a tree of a species identified within a DCP. A review of the DCP does not identify any specific tree species that acquire protection from this clause. As such, it is considered that clause 5.9 does not apply to the development.

In any event, an ecological assessment of the impacts of the development has been prepared which confirms that the impacts of the development in respect of biodiversity would be acceptable.

2.6.1.2 Earthworks

Clause 7.1 of the LEP seeks to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land. Specific consent is not required where earthworks are ancillary to other development for which development consent has been given. This DA seeks consent for the use of the land as a waste facility, ancillary to which is the undertaking of earthworks. As such, specific and separate consent for earthworks is not required.

Elements of the development which require the undertaking of earthworks include:

- Waste cell excavation;
- Development of a flood bund; and
- Development of an internal surface water diversion bund.

Clause 7.1(3) of the LEP identifies those matters to be considered in the context of proposed earthworks and these are considered relevant to this application. These are considered in **Table 2.2**.

Table 2.2 – Earthworks Considerations

Matters	Response/Relevance
(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality of the development,	This is considered in **Section 3.10**
(b) the effect of the development on the likely future use or redevelopment of the land,	The EIS states that the proposed rehabilitation measures would rehabilitate the site in a manner that would re-instate rural agriculturally productive land consistent with the land surrounding the Site (Corkery, 2013a). .
(c) the quality of the fill or the soil to be excavated, or both,	The geotechnical assessments of soil provided at Appendix 4 of the EIS have confirmed, subject to some mixing, the suitability of the soil for use within the waste cells (Corkery, 2013b). Additional information would be required, via a condition of consent, to confirm soil suitability and pavement design for use in the surface water diversion bund and flood bund.
(d) the effect of the development on the existing and likely amenity of adjoining properties,	This is considered in **Section 3.20**
(e) the source of any fill material and the destination of any excavated material,	Fill would be sourced on site from excavation of waste cells and no fill would be removed from the site.
(f) the likelihood of disturbing relics,	This is considered in **Section 3.6**
(g) the proximity to and potential for adverse impacts on any waterway, drinking water catchment or environmentally sensitive area.	This is considered in **Section 3.10**

Source: Bogan Local Environmental Plan 2011 Clause 7.1

It is considered that the content of the EIS and the assessment contained within **Section 3** of this report confirms that the earthworks associated with the proposed development accords with the objectives of clause 7.1 of the LEP.

Engineering details including pavement design and compaction analysis to confirm the suitability of the use of the soil on site for development of the proposed surface water diversion bund and flood diversion bund shall be provided to, and approved by, Council prior to commencement. The approved design shall be used in the construction of these features. Any change to the approved design must first be approved in writing by Council.

2.6.1.3 Flood Planning

Notwithstanding that the site is not identified as being located within a flood area by reference to LEP mapping, consideration of the matter by the NSW Office of Water (NOW) and the response provided by the proponent confirms that the site is affected by a 200 year ARI event and was likely inundated during the 1990 floods.

Clause 7.2 of the LEP therefore applies to the site. Clause 7.2 identifies the following specific objectives:

(a) to minimise the flood risk to life and property associated with the use of land,

(b) to allow development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate change,

(c) to avoid significant adverse impacts on flood behaviour and the environment.

The proposal includes provision for the development of a bund on all sides of the development to limit the risk of inundation during flood events. The details of this have been provided to and considered by NOW and no objections have been raised.

Clause 7.2(3) identifies specific matters that should be considered in the assessment of any application located on land to which this clause applies; these are considered in **Table 2.3** below.

Table 2.3 – Flood Planning Matters

Matter	Response
(a) is compatible with the flood hazard of the land, and	Details of the development have been provided to NOW as set out in **Section 5** of this report. No objections to the development are provided nor any specific recommended conditions of consent. An assessment of the development contained with **Section 3.10** confirms that the development is compatible with the flood hazard of the site.
(b) is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and	The additional information supplied to NOW in support of the EIS via correspondence dated 20 September 2013 confirms that the development, subject to appropriate mitigation measures, would not significantly affect flood behaviour (refer **Appendix B**).
(c) incorporates appropriate measures to manage risk to life from flood, and	The development incorporates a proposed flood water diversion bund which would limit the likely encroachment of the site in an ARI 200 year flood event. The details of the bund have been provided to NOW and no objections identified (refer **Appendix B**).
(d) is not likely to significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and	The measures contained within the EIS, specifically those identified within (but not limited to) Section 2.5, together with the GTA's issued by the EPA, confirm that the development can be undertaken without significant adverse effect to the environment (refer **Appendix C**).
(e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.	The flood risk to the site is identified as being limited to ARI events of 200 years or greater. Measures proposed would suitability ameliorate the impacts of these events and overall it is not anticipated that the development would lead to any unsuitable social or economic costs as a result of flooding.

Source: Bogan Local Environmental Plan 2011 Clause 7.2

It is considered that the content of the EIS and the assessment contained within **Section 3** of this report confirms that the earthworks associated with the proposed development accords with the objectives of clause 7.2 of the LEP.

2.6.1.4 Stormwater Management

Clause 7.3 of the LEP seeks to address the impacts of urban stormwater. Surface waters are required to be managed via the GTA's issued by the EPA, including preparation of a stormwater management scheme (refer condition O4.1 of the EPA GTA) and maintained to support the sites EPL (refer **Appendix C**). On this basis it is considered that stormwater management issues can be adequately addressed.

In addition, the EPA require via the issuance of their GTA's, that a Stormwater Management Plan be prepared and incorporated within the LEMP for the site.

2.6.1.5 Terrestrial Biodiversity

Clause 7.4 of the LEP relates to land identified as containing sensitive terrestrial biodiversity and states *inter alia:*

(1) The objective of this clause is to maintain terrestrial biodiversity by:

(a) protecting native fauna and flora, and

(b) protecting the ecological processes necessary for their continued existence, and

(c) encouraging the conservation and recovery of native fauna and flora and their habitats.

(2) This clause applies to land identified as "High Biodiversity Sensitivity" and "Moderate Biodiversity Sensitivity" on the Terrestrial Biodiversity Map.

(3) Before determining a development application for development on land to which this clause applies, the consent authority must consider whether or not the development:

(a) is likely to have any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and

(b) is likely to have any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and

(c) has any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and

(d) is likely to have any adverse impact on the habitat elements providing connectivity on the land.

(4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

(a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or

(b if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or

(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

An ecological assessment has been prepared by OzArk to support the EIS (Corkery, 2013d).

The ecological assessment concludes that the development is:

- *Unlikely to significantly affect any of the listed threatened species, fauna populations or communities;*
- *Unlikely to augment or significantly contribute to any of the Nation or State listed key threatening processes, if the appropriate safeguards regarding the control of potential vertebrate pests are effectively applied;*
- *Unlikely to significantly affect any Ramsar wetland or any CAMBA, JAMBA or ROKAMBA listed species;*
- *Unlikely to significantly affect any of the creeks if adequate safeguards are adopted for water run-off from the site; and*
- *Consistent with ESD principles with regard to fauna and would not adversely affect the local biodiversity and no issue of inter-generational or value added matters area relevant in this instance.*

On the basis of the above conclusions, it is considered that the EIS adequately addresses the considerations identified within clause 7.3(3).

The ecological assessment provides at Section 8.0 a range of recommendations that are intended to mitigate the impacts associated with the development (Corkery, 2013d). It is considered that the imposition of these recommendations as conditions of consent would ensure that the development is appropriately controlled and impacts to the biodiversity are minimised. On this basis it is considered that the EIS adequately addresses the provisions of clause 7.3(4).

1. Vegetation to be removed would be restricted to the Waste Management Area (Impact Footprint) and potentially the Project Site Boundary area. Should additional clearing be required further environmental impact assessment will be needed to meet statutory guidelines;
2. Both State and National levels of government aim to maintain, enhance or improve biodiversity, through the developer. The most effective offset for this project would be to:
   - Offset for the removal of Myall (*Acacia pendula*) from the Weeping Myall EEC. Plant out areas between the Waste Management Area and Project Site Boundary with 440 Myall. This will provide a visual screen and windbreak to prevent the distribution of windblown rubbish, provide further habitat for the Grey-Crowned Babbler and migratory Superb Parrot and will be consistent with a 'maintain or improve' outcome.
     - Follow up / audit the results in a year's time, replant trees where required, make a file note and attach it to this report;
   - Scatter removed timber in surrounding area. If this is not appropriate then discuss offsets with the Bogan Shire Council Environmental Manager about the possibility of using large timber as environmental offsets in other Bogan Shire reserves
3. Any eucalypts lopped or removed would be managed by a qualified arborist;
4. To ensure there are no errors during vegetation clearing, all vegetation within the Impact Footprint will be required to be marked in the field so as to clearly identify them from trees to be retained. Avoiding unnecessary tree clearing would have flow on effects on dependant fauna;
5. Prior to lopping or clearing, inspect trees with bird nests before pushing or felling to ensure any nests are vacant (no nests were observed during the assessment). Inspection should occur immediately before pushing or felling. If a bird is in the nest, clear the trees around it first to see if the animal will disburse. If the bird is nestling all measures should be taken to collect the bird[3] and remove to a safe location;
   a. Grey-crowned Babblers are laborious flyers and are potentially at risk of being killed by construction traffic when feeding on the ground. These impacts could be managed through a stringent Traffic Control Plan which would be incorporated within internal Council administrative controls and could address issues such as increased traffic flow and vehicle speed in the Project Site Boundary.
6. Stockpile small limbs from removed trees and excess topsoil and spread the material over the disturbed area or within land to be used for offsets after the works are complete;
7. Have an appropriate plan in place and equipment on site to cater for injured animals. Seek advice from a qualified wildlife veterinarian prior to preparing this plan and ensure veterinary assistance has been organised prior to work commencing. Note – do not allow any person to handle any species of bat. Potential exists for the transmission of a virus that is detrimental to the health of humans;
8. No vegetation would be burnt on site (requirement of the POEO Act);
9. All soil works would be undertaken according to The NSW Department of Housing Blue Book "Managing Urban Stormwater- Soil and Conservation" (2004) to minimise the disturbance and exposure of soils;
10. An Erosion and Sediment Control Plan (ESCP), would be prepared for the works, included as part of the Contractors Environmental Management Plan. A copy of the plan shall be kept on-site and made available to Council's officers on request. All erosion and sediment control measures would be maintained in a functional condition throughout the duration of the works. Good examples of these can be found in the RTA Code of Practice for *Water Management (1999)* and implement a suitable plan as soon as possible. Other examples include the RTA Road Design Guide 1989, Section 8- *Erosion and Sedimentation*, the NSW DOH 2004 publication *Managing Urban Stormwater-Soils and Construction* as well as relevant DIPNR soil conservation guidelines such as Construction Site Erosion and Sediment Control Manual;

a. Maintenance and checking of the erosion and sedimentation controls would be undertaken on a regular basis and records kept and provided at anytime upon request. Sediment would be cleared from behind barriers on a regular basis and all controls would be managed in order to work effectively at all times;

b. All vehicle and machinery movements would be restricted to the existing road alignment and table drains and areas of disturbance.

11. An appropriately qualified weeds officer would undertake an inspection of the Study Area prior to, during and three months after ground surface disturbing works. Noxious weeds identified within the Project site such as African Boxthorn would be destroyed and continuously suppressed as required under the *Noxious Weeds Act, 1993*;

12. The Proponent would undertake a pre-clearing and post-clearing audit such that it can be demonstrated that adequate systems were in place in the event that OEH are required to investigate unauthorised impacts;

13. All personnel undertaking works would be inducted such that they are aware that any stand of native vegetation is protected and as such there are legislative consequences of deliberately or accidently impacting it without approval of the EP&A Act. Evidence of all personnel receiving an induction would be kept on file (signed induction sheets etc.) Should an incident happen followed by a DECCW investigation, this process is likely to reduce the severity of the repercussions to Proponent whilst encouraging the willingness to comply with the ground crews; and

14. Vehicles and machinery would be parked in cleared areas and not under the drip-line of retained vegetation or trees. Retained vegetation or trees would not be smothered by stockpiles, sediment or by the storage of materials and equipment.

Further detailed summary and assessment of the impacts to biodiversity are contained within **Section 3.7**

2.6.1.6 Essential Services

The LEP requires via clause 7.9 that a DA not be granted unless the consent authority is satisfied that all essential services required to support the development are supplied.

A review of the content of the EIS in respect of essential services is provided in **Table 2.4** and reveals the following:

Table 2.4 – Essential Service Provision

Essential Services	Response	Acceptable
(a) the supply of water,	Reticulated water supplied and would be augmented to provide fire fighting services. The EIS makes no specific statement about potable water provision but it is assumed that this would also be supplied via the reticulated service	✓
(b) the supply of electricity,	No formal supply proposed – office to be supplied via generator or solar power.	✓
(c) the disposal and management of sewage,	No reticulated connection or septic system proposed – chemical toilet for staff to be provided	✓
(d) stormwater drainage or on-site conservation,	Stormwater to be managed as discussed in **Sections 2.6.1.4** and **3.10** of this report	✓
(e) suitable road access.	Provided	✓

Source: Bogan Local Environmental Plan 2011 Clause 7.9

By virtue of the above, it is considered that the development adequately responds to the provisions of clause 7.9 of the LEP.

2.6.2 STATE ENVIRONMENTAL PLANNING POLICY NO. 33 – "HAZARDOUS AND OFFENSIVE DEVELOPMENT"

The EIS states that although the development falls into the potentially offensive hazardous industry it is unlikely to constitute an offensive industry, given its likely compliance with appropriate conditions. These conditions include controlled operating hours (controlled as per the GTAs issued by the EPA - refer **Appendix C**) and ensuring adequate separation to nearby land uses (by virtue of its siting) (Corkery, 2013a).

Based on the risk screening method identified with *Applying SEPP33* (DoP 2011), the EIS confirms that the proposal is not considered to constitute potentially hazardous industry (Corkery, 2013a).

On the basis of the above, the provisions of SEPP33 are considered to be satisfied.

2.6.3 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 – "REMEDIATION OF LAND"

The portion of the subject site within which the expanded facility is proposed is identified as grazing land with no likelihood of previous contamination and therefore no remediation is required. On this basis it is not considered that SEPP55 is applicable to the development.

Groundwater would be monitored via piezometers to ensure that the former, now capped, waste cells, and the proposed cells do not leach any contaminants to groundwater in the locality. This is considered an acceptable response.

2.6.4 STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007 (ISEPP)

As noted in **Section 2.2**, clause 121 of the ISEPP enables the development of the proposal subject to the granting of consent.

The aims of the ISEPP are identified via clause 2 as:

(a) improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and

(b) providing greater flexibility in the location of infrastructure and service facilities, and

(c) allowing for the efficient development, redevelopment or disposal of surplus government owned land, and

(d) identifying the environmental assessment category into which different types of infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development), and

(e) identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and

(f) providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing.

Clause 104 and schedule 3 of the ISEPP are also relevant by virtue that any waste facility requires referral to RMS for comment. Referral of the application to RMS has been undertaken and the comments received are discussed in **Section 5** of this report.

Clause 123 of the ISEPP is relevant and is further discussed in **Section 3.2**.

By virtue of the above, it is considered that the development is compatible with the aims of the ISEPP.

2.6.5 STATE ENVIRONMENTAL PLANNING POLICY (RURAL LANDS) 2008 (RURAL LANDS SEPP)

The EIS concludes that, as the land the subject of the application has not been identified as state or regionally significant agricultural land via Schedule 2 of the *State Environmental Planning Policy (Rural Lands) 2008* (Rural Lands SEPP), that the Rural Lands SEPP does not apply (Corkery, 2013a).

The aims of the Rural Lands SEPP are identified as:

(a) to facilitate the orderly and economic use and development of rural lands for rural and related purposes,

(b) to identify the Rural Planning Principles and the Rural Subdivision Principles so as to assist in the proper management, development and protection of rural lands for the purpose of promoting the social, economic and environmental welfare of the State,

(c) to implement measures designed to reduce land use conflicts,

(d) to identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations,

(e) to amend provisions of other environmental planning instruments relating to concessional lots in rural subdivisions.

From a review of the above aims, it does not follow that the provisions of the Rural Lands SEPP apply only to land identified as state or regionally significant agricultural land. In fact, clause 4 of the Rural Lands SEPP identifies that the policy applies to the state, with the exception of the LGA's identified. Bogan Shire is not identified and therefore the Rural Lands SEPP is considered to apply to development within the Bogan LGA. For the avoidance of doubt, a review of Schedule 2 of the Rural Lands SEPP confirms that the site is not identified as state or regionally significant agricultural land.

On the basis of the above, it is considered that the Rural Lands SEPP is relevant to the development and therefore an assessment of the development against the rural planning principles is provided within **Table 2.5**.

Table 2.5 – Rural Planning Principles

Rural Planning Principles	Response
(a) the promotion and protection of opportunities for current and potential productive and sustainable economic activities in rural areas	The land the subject of the proposed expansion of the waste facility is zoned for primary production use however is identified as being used as a TSR and is therefore not currently utilised for production purposes. The utilisation of this portion of land for expansion of the waste facility is considered acceptable by virtue of this fact, and in consideration of the permissibility of the use extended by the ISEPP.
(b) recognition of the importance of rural lands and agriculture and the changing nature of agriculture and of trends, demands and issues in agriculture in the area, region or State	The provision of expanded waste facilities in the LGA responds to a need from users of both urban and rural lands and can therefore be considered to support the demands of the whole LGA. The provision of an appropriately controlled and licenced facility minimises the likelihood of on farm waste dumping, thereby enhancing the value of agricultural land within the LGA.
(c) recognition of the significance of rural land uses to the State and rural communities, including the social and economic benefits of rural land use and development	As above, rural land users require an appropriate waste facility and the provision of a management facility ensures that on farm dumping is minimised.
(d) in planning for rural lands, to balance the social, economic and environmental interests of the community	The LGA as a whole generates a demand for an economic and efficient waste facility. An environmental assessment confirms that the overall development is considered acceptable in the context of environmental impacts.
(e) the identification and protection of natural resources, having regard to maintaining biodiversity, the protection of native vegetation, the importance of water resources and avoiding constrained land	The EIS and assessment within **Section 3** of this report confirms that the development is generally acceptable, subject to appropriate mitigation measures.

Table 2.5 – Rural Planning Principles

Rural Planning Principles	Response
(f) the provision of opportunities for rural lifestyle, settlement and housing that contribute to the social and economic welfare of rural communities	Not directly applicable due to separation rural residential land uses. The potential for future encroachment of rural residential land uses in the direction of the waste facility is a consideration, however it is considered that this can be appropriately controlled through the rezoning process at that time.
(g) the consideration of impacts on services and infrastructure and appropriate location when providing for rural housing	The provision of the expanded waste facility in its current location ensures a generally accessible location.
(h) ensuring consistency with any applicable regional strategy of the Department of Planning or any applicable local strategy endorsed by the Director-General.	No applicable regional strategies relating to waste provision relate to the site.

Source: State Environmental Planning Policy (Rural Lands) 2008

In the context of the above matters, it is considered that the development is generally acceptable.

2.6.6 STATE ENVIRONMENTAL PLANNING POLICY (STATE AND REGIONAL DEVELOPMENT) 2011

Part 4 of the State Environmental Planning Policy (State and Regional Development) 2011 provides provision for assessment and determination of applications of regional significance. By virtue of this application being a waste facility the application is therefore designated and the relevant consent authority is the WRJRPP.

2.6.7 DCP

The *Bogan Development Control Plan 2012* (DCP) applies to all land within the Bogan LGA. The DCP contains specific provisions as relevant to various land uses; waste land uses are not specifically identified. Several sections of the DCP provide generic standards that apply to all development. Those matters are considered in **Table 2.6.**

Table 2.6 –Applicable Development Control Plan Standards

Standard	Response	Compliance
Outdoor lighting		
Not relevant as no lighting proposed	No further response required.	N/A
Outdoor advertising signage		
Not relevant as no external advertising proposed	No further response required.	N/A
Brothel and Restricted Premises		
Not relevant as the development is not a brothel or restricted premises	No further response required.	N/A
Standards for Food Affected Land		
General Development Requirements		
a) Development should be consistent with the principles and standards of the Flood Plain Management Manual (NSW Government).	The floodplain management manual recommends that the assessment of development applications via Part 4 of the EP&A Act is done within the strategic framework of a floodplain risk management plan and not in isolation or individually (section 3.1.3 of the FPM). Comments from NOW confirm that the development should be considered in the context of surrounding houses and roads, including the potential that the development may impact flood levels. The response by the proponent to NOW confirms the minimal potential for flood related impacts as a result of the project.	✓

Table 2.6 –Applicable Development Control Plan Standards

Standard	Response	Compliance
b) Development must ensure safety to life and property.	Via provision of the proposed flood control device, it is considered that the development has been designed to ensure safety to life and property during extreme flood events (200 year ARI).	✓
c) Development on flood affected land must be structurally capable of withstanding the effects of flowing floodwaters including debris and buoyancy forces.	No specific commentary on this point is noted within the EIS, however given the nature of the land use and the types of buildings proposed, it is considered that compliance with this clause is unnecessary.	Compliance not enforced.
d) Development must not increase the risk or implications of flooding to existing areas.	See the response to a) above.	✓
e) Development on flood affected land must incorporate the Flood Proofing Guidelines in Appendix B.	See the response to c) above.	Compliance not enforced.
Access		
If flood free access is not possible, the development must be able to achieve safe wading criteria as specified in Figure L1 of the FPM.	Given the nature of the proposed use, and the measures proposed to ensure protection of the site from flood waters, it is not considered that this particular provision of the DCP should be enforced, on the basis that access to the site during a flood event would not be necessary.	Compliance not enforced.
Industrial Development		
Variation to the design flood planning level may be approved where Council considers strict adherence to the designed floor level to be unreasonable or unnecessary.	In this instance strict adherence to the designed floor level is not deemed necessary, on the basis that building flood levels are identified by the proponent as above the 1% (ARI 100 year) flood levels.	✓
Council may require that all electrical installations and wiring be above the flood standard and that building materials and services are in accordance with the Flood Proofing Guidelines.	No specific commentary on this point is noted within the EIS, however given the nature of the land use and the types of buildings proposed, it is considered that compliance with this clause is unnecessary.	Compliance not enforced
Non residential rural buildings		
Where it is not practical to locate floor levels above the 1% flood level, materials used in construction must be capable of withstanding inundation by floodwaters.	Floor levels would be above the 1% (ARI 100 year) flood level	✓
Environmental Standards		
Vegetation		
a) Existing trees may be removed from the proposed building footprint where it can be shown there is no acceptable alternative design.	The ecological assessment contained within the EIS confirms that vegetation removal would be minimised and that vegetation screening plants would be planted to complement the onsite EEC (Corkery, 2013d).	✓
b) All trees removed must be replaced by comparable native and mature trees.	Planting of species compatible with the onsite EEC is proposed.	✓
c) Non-native plants may be used where they are shown to be non-invasive and pivotal to the overall amenity of the development.	Not proposed.	N/A

Source: Bogan Development Control Plan 2011

On the basis of the above, it is considered that the development is generally compatible with the provisions of the DCP.

2.7 STATEMENT OF COMPLIANCE

The EIS and associated submitted documents, including responses provided by the proponent to stakeholder queries, have been considered against the content of the issued Director Generals Requirements and, overall, it is determined that the document generally complies with those requirements.

2.8 OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 (THE ACT)

In assessing a development application, the consent authority is required to consider the objects set-out in Section 5 of the EP&A Act. These objects have been fully considered by this report. In particular, the following has been considered:

- whether the landfill project is orderly and economic development by examining need and justification for new landfill space in the context of waste recovery initiatives and alternatives – refer **Section 3.2**;
- all environmental aspects of the project and in particular, it has closely examined the potential for impact on biodiversity – refer **Section 3**, and in particular **Section 3.7**; and
- the principles of ESD – refer **Section 6.1.5**.

2.9 OBJECTS OF THE COMMONWEALTH ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

Clause 3 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) states that:

> *(1) The objects of this Act are:*
>
> *(a) to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance; and*
>
> *(b to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources; and*
>
> *(c) to promote the conservation of biodiversity; and*
>
> *(ca) to provide for the protection and conservation of heritage; and*
>
> *(d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples; and*
>
> *(e) to assist in the co-operative implementation of Australia's international environmental responsibilities; and*
>
> *(f) to recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and*
>
> *(g) to promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.*

The above objects have been considered in the assessment of this application, particularly the impact of the development on the environment, and especially those matters of national environmental significance – refer **Section 3.7.2**.

Environmental Assessment

3.1 INTRODUCTION

In assessing the merits of the project, the following has been considered:

- The Proponent's Environmental Assessment including additional information submitted by the proponent to support the EA (refer **Appendix A**);
- All submissions (refer **Appendix B**);
- The objects of the *Environmental Planning and Assessment Act 1979* (the Act), including the object to encourage Ecologically Sustainable Development (refer **Section 2.6.1**);
- The objects of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (refer **Section 2.9**);
- Relevant Environmental Planning Instruments (refer **Section 2.6**);
- Relevant guidelines and policies (including the *Environment Protection Authority (1996) Environment Guidelines: Solid Waste Landfills*);
- The Department of Planning's Guide to Section 79C; and
- Relevant statutory requirements of the Act and Regulation.

3.2 PROJECT NEED

3.2.1 ISSUE

Clause 123 of the ISEPP specifies matters that a consent authority must consider when considering a development application for landfill. The matters include:

- Whether there is a suitable level of waste recovery, such as by using alternative waste treatment or the composting of food and garden waste, so that the amount of waste is minimised before it is placed in the landfill;
- Best practice landfill design and operation;
- Maximising gas capture and energy recovery;
- Whether the land is already degraded and in a location that does not cause conflict; and
- Optimal transport links.

These matters are applicable to Part 4 assessments and are highly relevant to the main objects of the Act and the principles of Ecologically Sustainable Development. As such, these are discussed in the following sections.

3.2.2 CONSIDERATION

3.2.2.1 Landfill demand

Demand for landfill space is likely to be consistent over the coming years by comparison to preceding years.

Moderate recorded population growth in the 2001 to 2006 (2883 to 2890) census period together with the Council's stated aim to gradually decommission three (3) village landfill sites and modify them to transfer stations only would result in increased demand for waste storage. As a result the proposed development would become the primary waste disposal facility for the Council area. These increases would likely be offset by tighter control over use of the proposed facility than currently exists via improved security and monitoring of incoming waste.

It is understood that no overall data is available for current waste emplacement rates due to the uncontrolled (open and accessible 24 hours) status of the current facility.

No viable alternative site is identified and landfill security in the area is important for the Council and its community. A failure to provide a suitable local facility may result in an increase in on farm dumping of waste, which would have a detrimental impact on the environment. On this basis, the proposed site is considered appropriate for the proposed development.

3.2.2.2 Waste recovery

The NSW Government is committed to waste avoidance and resource recovery from all waste streams across NSW. This is reflected in the *Waste Avoidance and Resource Recovery Strategy (WARR) 2007.* The relevant aim of this strategy is to ensure:

- Avoidance of unnecessary resource consumption;
- Resource recovery including reuse, reprocessing, recycling and energy recovery; and
- Disposal.

The WARR Strategy provides the following targets for the recovery and use of secondary materials in the three major waste streams by 2012:

- Municipal Waste – from a baseline of 26% to 66%
- Commercial and Industrial (C&I) Waste – from a baseline of 28% to 63%
- Construction and Demolition (C&D) Waste – from a baseline of 65% to 76%.

BSC has developed its *Community Strategic Plan 2026* which provides a strategic direction for waste management, which identifies the following goal:

> *To support the current and long-term liveability of our Shire by enhancing and protecting our environment through sound urban planning, managing our waste stream and sewerage services, and providing potable water supplies that are economically sustainable, reliable and environmentally responsible.*

A key outcome of the above goal is identified as ensuring:

> *our waste stream is effectively managed, reducing waste to landfill and maximising resource recovery through recycling.*

Council currently provides the following services with the volumes as identified below:

- General Waste via the kerbside collection – approximately 867 tonnes of waste were collected during March 2011 and April 2012 and delivered to the current facility. It is unknown if records of tonnages exist prior to this;
- Recycling – since September 2011 recyclables have been collected by Council via a fortnightly kerbside collection, with recyclables transferred directly to a facility in Gilgandra for sorting.

Any recyclables collected at the site are stockpiled and then transferred to the Gilgandra facility.

Residents of Nyngan have their waste collected weekly and their recycling collected fortnightly. Additionally, on the basis that the existing facility is unmanned and accessible 24 hours a day, residents can dispose of waste to the current facility at any time. As a result of this, volumes of waste being delivered by individuals to the Nyngan facility are unaccountable. The other three villages in the Council area have individual unmanned waste facilities, however the EIS anticipates over time these would be converted to transfer stations, and all waste brought to the proposed Nyngan facility (Corkery, 2013a).

The EIS notes the following in respect of the WARR targets:

…given the location of the Bogan LGA, achieving the identified increase in resource recovery to 66% by 2014 through reuse, recycling and reprocessing of recyclable materials is unlikely to be achievable within the existing or proposed facility. (Corkery, 2013a)

In the Department of Planning's assessment of the Orange Waste Facility's it was noted that:

> *The Department agrees with DECCW, and believes it is important to acknowledge that it will be more difficult for Councils in regional NSW to reach the WARR Strategy targets than it will be for Councils in large metropolitan or coastal NSW, due to factors such as the lack of economies of scale.*

Notwithstanding the strategic aims outlined in the 2026 Strategic Plan, it is also recommended that Council:

- Implement all reasonable and feasible measures to recover resources from the waste stream before disposing any residual waste at the NWRMF;
- Prepare and implement a detailed Community Education Program for the project to promote better resource recovery;
- Monitor the effectiveness of the resource recovery measures; and if necessary; and
- Adjust the waste strategy to achieve better resource recovery rates.

3.2.2.3 Best practice landfill design and operation

Best practise landfill design and operation is set out in the Benchmark Techniques specified in Appendix A of Environment Protection Authority (1996) *Environmental Guidelines: Solid Waste Landfill.* The EIS states that these Benchmark Techniques have been applied to the design and operation of the facility; on this basis the design is considered best practice (Corkery, 2013a).

The use of these techniques is proposed to be formalised via approval conditions and the need for the proponent to finalise and implement a LEMP for the project to address operational matters such as dust, litter and vermin control.

3.2.2.4 Maximising gas capture and energy recovery

It is identified in the EIS that proposed waste volumes are quite small and are not likely to generate viable quantities of gas for energy recovery. The EIS states that waste cells would feature impermeable floor and walls (Corkery, 2013a). It is unclear, nor is it explained within the EIS, how impermeable walls would be provided, given the likely difficulties of compacting a vertical face.

In any event, the EIS commits to providing adequately designed and constructed cells and these would be monitored via the GTAs issued by the EPA and the subsequent EPL for the site (refer **Appendix C**); as such it can be reasonably expected that the design would maximise gas capture.

3.2.2.5 Whether the land is already degraded and in a location that does not cause conflict

Table 4.1 of the report confirms that the site is outside of the 'environmentally sensitive areas' identified in Table 1, and **Table 4.2** confirms that the site is suitably distant from land-uses specified in Table 2, of the EIS Guideline for Landfilling (DUAP, 1996).

Design specifications, mitigation strategies and proposed vegetation planting are considered to adequately address impacts on endangered ecological communities. This site is not a disused mine-site. The EIS identifies that the site is likely to be agricultural class 3 or 4 with relatively low production values, and is therefore not 'prime' agricultural land (Corkery, 2013a).

3.2.2.6 Optimal transport links

The site is located approximately 5 kilometres by road from Nyngan. The project would generate around 8 heavy vehicle movements per week (2 journeys per day, twice a week) and 24 light vehicles per week which can easily be accommodated on the route from Nyngan without significant impacts. Other waste disposal options, such as the transfer to out of LGA facilities, would introduce an undesirable social impact associated with long-haul transport such as higher exposure to the risk of traffic accidents, higher green-house gas emissions and higher sensitivity to the price of fuel and

objections based on social equity in transporting waste out of region. As a result of the above assessment, it is considered that the site is appropriately located in respect of transport links.

3.3 CONTEXT AND SETTING

3.3.1 CHARACTER AND AMENITY OF THE LOCALITY

The subject site is located in a rural environment characterised by broad acre farming with associated scattered residential dwellings. The EIS notes that the closest residential receptors are greater than two (2) kilometres from the existing facility (Corkery, 2013a).

3.3.2 LANDSCAPE, VIEWS, SCENIC QUALITY

A visibility assessment, including a review of the landscape and visual amenity, has been undertaken by the applicant, and is contained in Section 4.9 of the EIS (Corkery, 2013a).

The topography of the locality is noted to be generally flat, and therefore there is low capability of the area to visually absorb the existing and proposed landfill operations. Specifically the EIS states:

> *...in summary the existing facility is separated from surrounding land by a fence, with no visual screening. Due to the flat topography surrounding the site, activities within the site are visible for a short distance in all directions, including from Canonba Road.* (Corkery, 2013a)

During construction and operation, the main point of visual impact would be from Canonba Road, located immediately to the south east of the landfill. BSC intends to undertake the site establishment stage over a period of approximately 22 months and as such there is scope for a sustained period of visual impact. The EIS identifies, and this would be enforced via a condition, that planting of the external tree/visual screen would occur prior to other physical works, therefore providing screening of visual impacts of construction (Corkery, 2013a).

Construction and use of the first landfill cell would commence progressively and following landfill cells would be progressively constructed in the order identified in Figure 2.2 of the EIS and reproduced as **Figure 1** of this report (Corkery, 2013a).

Providing the proposed mitigation measures (outlined in Section 4.9.3 of the EIS and reproduced below) are adhered to, the development is not expected to result in significant adverse visual impacts (Corkery, 2013a).

- **Prior to works commencing**
  - Establish a tree/visual screen adjacent to the western, southern and eastern boundaries of the site progressively throughout the life of the Proposal.
  - Construction of a perimeter fence around the site prior to the commencement of activities under this proposal.
- **During Construction**
  - Construction of a perimeter fence around the site prior to the commencement of activities under this proposal.
  - Dust to be suppressed during construction utilising water carts to wet the construction site.
  - Monitoring and maintenance of landscape and boundary plantings along the site boundaries.
  - Maintenance of a complaints register and promptly investigating and responding to complaints.
- **During Operation**
  - Ensure that the waste placement measures identified in Section 2.5.4 of the EIS are implemented throughout the life of the proposal, including managing placement of waste and implementation of intermediate covers.

- Construct and progressively relocate a litter fence around the active landfilling cell(s) throughout the life of the proposal.
- Implement a litter inspection program within and surrounding the site during periods of high winds and collect windblown litter as required.
- Continuous observation of wind conditions to ensure that control methods are appropriate.
- Ensuring that as soon as cells are filled, they are closed, rehabilitated and revegetated as soon as possible as per Section 2.5.4 of the EIS to restore the amenity of the facility.
- Implementation of effective vermin control measures as appropriate.
- Maintenance of a complaints register and promptly investigating and responding to complaints.
- Initiation of any corrective actions on the site.

3.3.3 COMPATIBILITY OF LAND USES

The requirement to prepare and apply LEMP would ensure that any impacts between the proposed land use and surrounding properties would be appropriately mitigated.

Compatibility of the proposed development with the existing surrounding land uses is discussed in **Section 4** of this report. Overall, it is considered that the site is suitably located in the context of surrounding land uses.

3.4 TRANSPORT, TRAFFIC AND ACCESS

3.4.1 TRAFFIC GENERATION

A traffic assessment for the proposal was prepared by R W Corkery & Co. Pty Limited as part of the EIS (Corkery, 2013a). No traffic count data is provided for Canonba Road, however, the EIS notes that traffic volumes are consistent with rural collector roads within the Bogan LGA, ie light traffic, with annual peak traffic volumes associated with grain harvests and agricultural operations (Corkery, 2013a).

The closure of the three transfer facilities would likely lead to increases in private vehicles visiting the site, however the EIS is silent on whether the below figures account for these. Given the likely low volumes associated with those small facilities, it is not considered that an increase of the below volumes due to the closure of the transfer stations would give rise to unacceptable impacts to the road environment.

The applicant anticipates the following traffic generation levels are likely in conjunction with the proposed development (1 journey = 2 movements):

- 2 journeys, 2 days per week (8 movements) in relation to the Councils kerbside collection service;
- 2 journeys per day in relation to facility employees (24 movements); and
- 5-10 journeys per day in relation to public access (10 – 20 movements).

This translates to a maximum of 24 journeys (or 48 movements) per week.

The EIS states that anticipated traffic-related impacts associated with the proposal would be negligible, for the following reasons:

- The proposal would not significantly increase traffic levels from those that currently use Canonba Road.
- The proposal would not adversely impact upon the road safety and traffic flow along Canonba Road. (Corkery, 2013a)

It is noted that the above conclusions are drawn without knowledge of base traffic volumes, however given the existing use and the low volumes anticipated, it is considered that the conclusions are reasonable. The scale of the project does not warrant additional traffic assessment.

- Ensure that all council-related drivers are required to adhere to Bogan Shire Council's "Driver Code of Conduct" during the delivery of materials to the site or transport of materials from the site.
- Regularly inspect and clear long grass and bushes that grow on the Canonba Road shoulder to maintain the maximum possible sight distance.

3.4.2 INTERSECTIONS

3.4.2.1 Site Intersection with Canonba Road

No change is proposed to the existing site intersection.

3.4.3 PARKING

The EIS confirms that the workshop area would comprise a covered parking area, however it is assumed that this would be available for staff rather than visitors (Corkery, 2013a). Figure 2.4 of the EIS provides a drilled down version of the Waste Drop-Off Area identified in **Figure 1** and makes reference to the provision of sufficient parking. Figure 2.4 of the EIS is reproduced in **Figure 4** below.

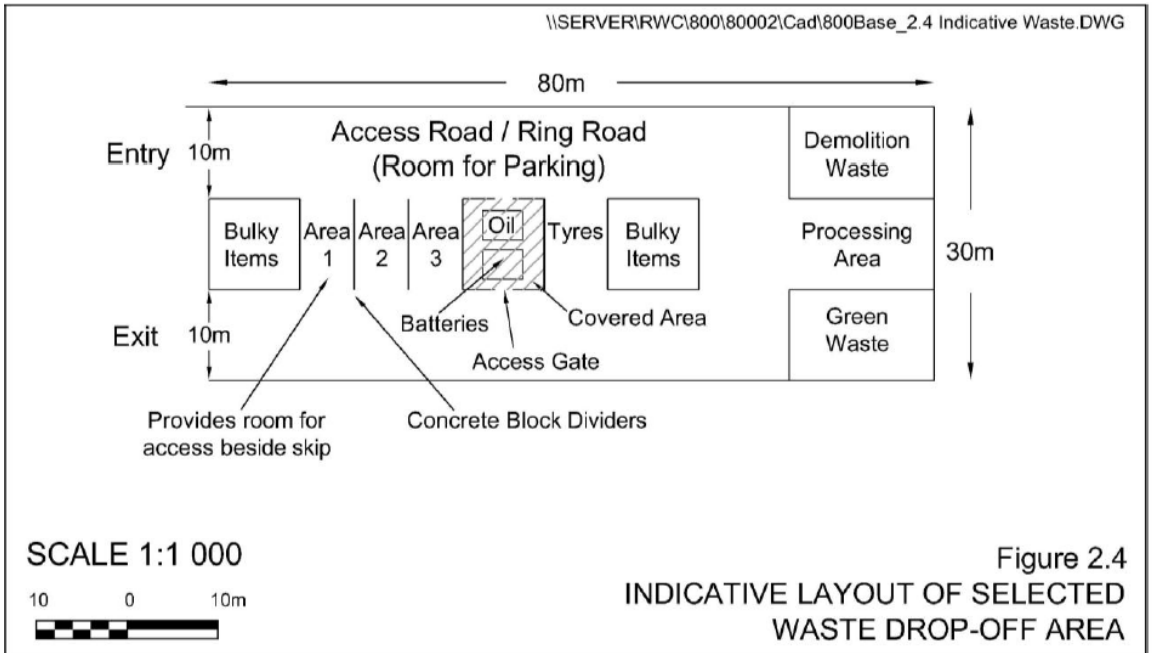

Figure 4: Waste Drop-Off Area (Figure 2.4 of R W Corkery EIS)

Given the 10 metre width of the access road and its one-way operation, it is considered that sufficient capacity is identified to enable the parking of vehicles without detriment to traffic flows.

Conditions of consent are recommended to provide further details of the arrangement of parking and confirmation of compliance with relevant standards, prior to commencement of the use.

- Provision should be made for a minimum of two (2) staff car parking spaces adjacent to the workshop/office
- Three (3) short team parking spaces shall be provided within the waste drop off area for standing during waste drop off.
- All car parking spaces shall be designed in accordance with AS2890.1 and 2890.2.
- Construction of the car park area shall be undertaken in accordance with Appendix A to Bogan Development Control Plan 2012.

3.5 UTILITIES

Refer **Section 2.6.1.6**.

3.6 HERITAGE

3.6.1 INDIGENOUS HERITAGE

A Heritage Assessment was undertaken by OzArk, to establish the presence of any remains of Aboriginal heritage within the study area. This assessment included background database searches of existing heritage items in the area, assessment of the landscape and cultural contexts, and a field survey. The field survey included a representative from Nyngan Local Aboriginal Land Council (NLALC). It concluded that:

- No Aboriginal sites were identified during the survey or have previously been recorded within the landfill site.

The EIS confirms that given no Aboriginal sites were identified during the survey or have been previous recorded, no management or mitigation measures in respect of Aboriginal heritage is required (Corkery, 2013a). However, in the unlikely event that objects of suspected Aboriginal heritage significance are encountered, the Statement of Commitments advises that the unanticipated finds protocol identified in OzArk (2012) would be followed.

It is recommended that the following mitigation measures be incorporated into the conditions of any consent granted:

- **Prior to works commencing**

All contractors who work within the confines of the study area should be made aware of the NP&W Act 1974 (as amended) and the fact that is an offence to move, disturb or destroy Aboriginal objects without the written permission of the Director-General of the OEH.

- **During Construction**

If objects of suspected Aboriginal heritage significance are encountered during construction, the 'unanticipated finds protocol' identified in OzArk (2012) would be adhered to (refer to Appendix 3 of Appendix 7 of the EIS).

The EIS, inclusive of the OzArk Heritage assessment, was forwarded to OEH for review and comment. OEH confirmed via correspondence dated 14 August 2013 that the Aboriginal Cultural Heritage (ACH) assessment is adequate.

By virtue of OEH confirmation of the acceptability of the ACH, it is considered that the development is acceptable in the context of indigenous heritage.

3.6.2 NON-INDIGENOUS HERITAGE

A review of available resources confirms that the site is not listed as containing, nor in the vicinity of, any items of non-indigenous heritage.

- **During Construction**

In line with the NSW legislation protecting heritage, specifically Section 139 of the NSW *Heritage Act*, should any underground remains be discovered on site; works are to stop in that area. At that stage the contractor is to contact an archaeologist who will come to inspect the remains, record the remains via photography and possibly measured drawings and provide advice on the next steps to take.

3.7 FLORA AND FAUNA

3.7.1 EXISTING ENVIRONMENT

A Terrestrial Ecology Assessment was undertaken by OzArk Environmental and Heritage Management Pty Ltd (refer **Appendix A**).

3.7.2 IMPACTS OF THE DEVELOPMENT

A small community of Myall Woodland Endangered Ecological Community (EEC) is located on site. This community is identified as an EEC under the NSW *Threatened Species Conservation Act 1995*, however it is not classified as a Matter of National Environmental Significance (NES) under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. The EIS states that this EEC would be fenced off from the remainder of the site and signs would be erected to ensure that the community is not disturbed. In addition, vegetation visual screens planted around the facility would consist of a 40:1 planting ratio of Myall Woodland EEC representative species by comparison to the existing community of 11 species (ie, approximately 440 trees would be planted) (Corkery, 2013a).

The ecological assessment draws specific conclusions in respect of development impacts and states that the proposal is:

- *Unlikely to significantly affect any of the listed threatened species, fauna populations or communities;*
- *Unlikely to augment or significantly contribute to any of the Nation or State listed key threatening processes. If the appropriate safeguards regarding the control of potential vertebrate pests are effectively applied;*
- *Unlikely to significantly affect an Ramsar wetland or CAMBA or JAMBA listed species;*
- *Unlikely to significantly affect any of the creeks of adequate safeguards are adopted for water run-off from the site; and*
- *Consistent with the ESD principles with regard to fauna and would not adversely affect the local biodiversity and no issue of inter-generational or value added matters are relevant in this instance. (Corkery, 2013d)*

3.7.3 CONSULTATION

The EIS, inclusive of the ecological assessment, has been referred to the NSW Office of Environment and Heritage (OEH) who provided a detailed response together with additional questions. The applicant responded to these questions via a submission of additional information, prepared by OzArk and dated 4 September 2013 and provided to the OEH by the applicant on the 11 September 2013.

The substance of the initial OEH comments as relevant to flora and fauna is summarised in **Table 3.1**, with the specific responses provided by the applicant via their correspondence of 11 September is also provided:

Table 3.1 – OEH Comments and Applicants Response

OEH Initial Comment	Applicant Response
Flora and Fauna Assessment	
Concern with accuracy of identification of vegetation communities and with lack of identification of condition of vegetation communities and habitat components.	Mapping was achieved through Rapid Plot Data (RPD). Formal vegetation plots were not undertaken with the method employed recording up to 10 species from most to least dominant for each stratum within a 20mx20m area. All vegetated recorded met the definition of Moderate to Good following BBAM (2008).
No indication as to whether a full BioBanking analysis has been conducted.	As the development is not a State Significant Development, collection of field data following BioBanking was not undertaken.
OEH recommends that an appropriate offset for all vegetation communities be cleared, particularly in light of possible future expansion	Offsetting is not required outside of SSD projects. The proponent has committed to plant Weeping Myall around the outside of the proposal in recognition of the small area of Myall EEC adjacent to the activity at a ratio of 40:1.
Further assessment of the impacts of the proposal on native fauna is required.	No specific response.
Threatened Species	
Threatened species assessment fails to assess the impact of change in pest species populations	The proposal is likely to lessen the impact of pest animals in the landfill as the additional approved area of disturbance permits more appropriate landfill management measures than is current possible at the existing facility. This will include daily covers and restricted areas of exposed waste.
Threatened species assessment to be expanded to also assess a minimum of 9 additional potentially affected species	Additional information supplied via Tables 8 – 11 of the correspondence assessing the impact to a total of 41 fauna species
Pest Management	
There is no assessment of the potential impact of pests, vermin or noxious weeds included in either the EIS or Terrestrial Ecology Assessment except for one sentence in section 2.5.2.5 of the EIS,	No specific response.
OEH considers that a detailed assessment of pests is required. In particular, the following issues should be addressed:	A BioBanking standard management plan template for weed and vertebrate animals would be adopted and developed as a statement of commitment.
Pest animals (particularly rodents, foxes and feral cats and dogs) currently present at the site, Whether populations of these species are likely to increase due to the proposal, What the impact of pest species is likely to be on native species (in particular threatened species). For example, threatened birds such as Grey-crowned Babblers may experience an increase in predation from foxes, cats and native predators. Predatory birds (such as Black Kites and Barking Owls) and Spotted-tailed Quolls may prey on rodents attracted to the waste facility, A weed and pest animal control plan should be developed. This should include methods to minimise potential bait uptake and/or secondary poisoning by native species and should be included in the Statement of Commitments.	

OEH have confirmed the adequacy of the response received and advised no further comments are likely to be forthcoming on this matter.

3.7.4 MITIGATION MEASURES

The EIS provides a range of design and operational safeguards proposed to ameliorate the impacts of the proposed development. These are identified as follows and would be incorporated as conditions of consent:

- Ensure that land preparation and rehabilitation is undertaken progressively to minimise the total disturbed area any one time;
- Ensure that the boundaries of areas to be disturbed are clearly marked on the ground to minimise the potential for inadvertent over clearing;
- Ensure that the existing area of Myall Woodland EEC is fenced and signs erected indicating the presence and importance of the community and indicating that disturbance is not permitted;
- Strip topsoil with the vegetation to ensure soil structure and seed bank is maintained in accordance with the procedures identified in Section 4.12.3;
- Establish the visual amenity screens as identified in Section 2.4 using species representative of the Myall Woodland EEC; and
- Manage weeds within Council-controlled land, with particular focus on managing African Boxthorn. (Corkery, 2013a)

In addition, it is noted that, notwithstanding the comments within the applicants response to OEH, a BioBanking standard management plan template has not been received, nor have the statement of commitments been updated to reflect its adoption. It is considered that these matters can be addressed via conditions of consent.

- Biodiversity mitigations
  - Ensure that land preparation and rehabilitation is undertaken progressively to minimise the total disturbed area any one time;
  - Ensure that the boundaries of areas to be disturbed are clearly marked on the ground to minimise the potential for inadvertent over clearing;
  - Ensure that the existing area of Myall Woodland EEC is fenced and signs erected indicating the presence and importance of the community and indicating that disturbance is not permitted;
  - Strip topsoil with the vegetation to ensure soil structure and seed bank is maintained in accordance with the procedures identified in Section 4.12.3;
  - Establish the visual amenity screens as identified in Section 2.4 using species representative of the Myall Woodland EEC; and
  - Manage weeds within Council-controlled land, with particular focus on managing African Boxthorn.

3.7.5 SECTION 5A ASSESSMENT

Section 5A of the EP&A Act requires consideration of whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats as a result of the proposed development. The following provides a summary of the findings of the initial and revised Flora and Fauna Assessments undertaken by OzArk for the proposed development.

3.7.5.1 Threatened Species

Fauna

A range of threatened species are identified as potentially occurring within the site. 41 of these have been assessed using seven part tests, both via the original assessment and the additional information supplied by OzArk in their correspondence dated 11 September 2013.

The tests of significance determined that the affected species are not likely to be significantly affected by the proposed development. A Species Impact Statement is not required for any of the identified species.

Flora

The OzArk assessment states that no threatened plant species were recorded within the Site during the field survey.

3.7.5.2 Endangered Populations

Endangered populations are not explicitly discussed within the ecological assessment. A review of Schedule 1 of the TSC Act and a cross reference against the ecological assessment does not identify any endangered populations expected to occur within the vicinity of the study area.

3.7.5.3 Endangered Ecological Communities

A small community of *Acacia Pendual* (being a total of 11 trees) was recorded within the site. This patch is consistent with the Weeping Myall Woodland EEC listed under the TSC Act. Under the Biobanking methodology this stand would be identified as a red flag area with high biodiversity conservation values.

This stand would be protected and planting of species consistent with this woodland used for boundary plantings at a ratio of 40:1 by reference to the existing EEC community.

3.7.5.4 Critical Habitat

The 7-part tests confirm that only minor impacts to critical habitat are likely and that these impacts are not likely to be significant to local populations. Plantings of vegetation species consistent with the Weeping Myall EEC would provide a feeding resource for the Greg Crowned Babbler.

3.7.5.5 Key Threatening Processes

The EIS confirms that the OEH list of Key Threatening Processes (KTP) was revised for the project and this identified 36 KTPs (Corkery, 2013a). Only one of these, clearing of native vegetation, would be exacerbated by the project. The EPBC Act list of KTP was also reviewed and identified only one of 19 KTPs as relevant, being land clearance.

Given the planting regime proposed, it is considered that any clearing of vegetation is suitably compensated for.

3.7.6 SUMMARY

It is considered that the initial ecological assessment, together with the additional information supplied via the correspondence of 11 September 2013 adequately considers the requirements under the EP&A Act including flora, fauna, threatened species, populations and ecological communities and their habitats, by reference to the scale and nature of the proposed development.

3.8 OTHER LAND RESOURCES

3.8.1 PRODUCTIVE AGRICULTURAL LAND

Given the surrounding land uses of the site, the EIS states that it is likely the soils are classed as Class 3 (Grazing land or land well suitable to pasture improvement) or Class 4 (land suitable for grazing but not for cultivation) in accordance with the classification system described in the document *Agricultural land Classification* published by NSW Agriculture (Corkery, 2013a). Whilst the proposed development would slightly reduce the area available on site for use for agricultural purposes, it would not reduce the agricultural potential of the land. Additionally, given the former and current use of Lots 108 and 109 as a TSR, its use for traditional primary production purposes (such as cropping/grazing)

has been limited to date, although its value in the context of broader primary production activities is unquestionable.

The change of use of this portion of the site for use as a waste facility is not considered to be detrimental to productive agricultural land. Additionally, following the rehabilitation measures identified in Section 2.12 of the EIS, the EIS states that the site could revert to an agricultural (intermittent grazing) use (Corkery, 2013a). Whether this is, in fact, a likely outcome is questionable, however it is considered that the small amount of land given over for the expanded use would not detrimentally impact the productivity of surrounding agricultural land.

3.8.2 WATER SUPPLY CATCHMENTS

The Site is within the Central West (Bogan – Macquarie) Catchment Management Area. There are no natural drainage lines within the site, with the surface runoff from rainfall events flowing across the land surface by lateral sheet flow. Water in the vicinity of the site flows east and south, draining into Box Cowal (an oxbow lake) and eventually into the Bogan River. Site topography is depicted in **Figure 5**.

Figure 5: Site topography (Source: Figure 4.2 of R W Corkery EIS)

3.9 WATER DEMAND & SUPPLY

3.9.1 WATER REQUIREMENTS

3.9.1.1 Site Office and Workshop

It is assumed, in the absence of any alternative information, that water supplies for the site office and workshop would be supplied via the on-site reticulated connection.

3.9.1.2 Landscape watering

Noted landscaping is limited to the establishment of a vegetated screen surrounding the site, to consist of species representative of the Myall Woodland EEC. No discussion surrounding landscape watering is provided within the EIS. It is assumed that landscape watering would not be proposed beyond that required in initial establishment phase. In any event, this could be provided from the reticulated service.

3.9.1.3 Fire fighting

The EIS states that the existing reticulated water supply would be extended within the site to provide adequate water supply to control any fires that occur (Corkery, 2013a).

Clause 4.8.2 of the EIS also confirms that a water tank with sufficient capacity is maintained onsite for fire fighting purposes (Corkery, 2013a).

3.9.1.4 Dust suppression – water truck/sprinklers

Clause 2.5.4 of the EIS notes that dust emissions would be controlled by sequencing of landfill development and stabilisation of disturbed areas as soon as possible. However, in extremely dry and hot conditions a water tanker or sprinklers would be employed to wet down dusty surfaces, as necessary (Corkery, 2013a). There is no reference within the EIS to the source of this water – it is assumed for the purposes of this assessment that water is sourced from the connected reticulated service.

Condition O2.0 of the EPA GTA's provides controls around dust management during operation (refer **Appendix C**). This is satisfactory and as such no further conditions relating to this matter are considered necessary.

3.9.2 WATER SOURCES

3.9.2.1 Drinking Water

The EIS references the proposed extension of the reticulated water connection (Corkery, 2013a) and it is assumed that this would also provide drinking water for the site office and workshop staff.

3.9.2.2 Rainwater Tanks

A rainwater tank is proposed to be maintained for fire fighting purposes. No other reference to proposed rainwater tanks are mentioned.

3.9.2.3 Leachate Pond

The EIS confirms that the floor of the active landfill cell would include a leachate collection point or sump which would be relocated as landfilling activities progressively move north within the active cell (Corkery, 2013a). Section 2.5.5 of the EIS states that:

> *As monthly evaporation rates in the vicinity of the Site exceeds the monthly mean rainfall during all months, accumulation of excessive volumes of leach is not anticipated. (Corkery, 2013a)*

It is not therefore anticipated that water from this pond would be available for use as a water source.

3.10 WATER QUALITY

3.10.1 TREATMENT, REUSE AND DISPOSAL OF WASTE WATER

3.10.1.1 Rainwater Tanks

A rainwater tank is proposed to be maintained for firefighting purposes. As this is not for consumption purposes, no treatment is considered necessary.

3.10.1.2 Waste cells

The landfill cells would be designed to meet the leachate barrier system requirements of EPA's *Environmental Guidelines: Solid Waste Landfills* in accordance with the Benchmark Technique 1. The EIS states that the base and the walls of cells would achieve a permeability of $<1x10^{-9}$ m/s over 900mm thickness or equivalent (Corkery, 2013a). It is unclear how the walls would achieve this level of permeability given the likely difficulties with compaction of vertical walls. The geotechnical reporting provided with the EIS (Appendix 4, Corkery 2013b) identifies that the soils on site, subject to mixing, are suitable for use in the waste cells.

3.10.1.3 Leachate Pond

The EIS confirms that a leachate collection system would be installed in the base of each landfill cell (Corkery, 2013a). All leachate would be contained in the landfill cell or pumped to an engineered Leachate Evaporation Pond. The pond would be aerated through the installation and operation of an aerator, if required to manage odour-related issues. Full details of the proposed cell construction methodology are to be provided within the LEMP.

A range of piezometers have been installed and would be used to monitor groundwater within and surrounding the Site to identify any potential adverse groundwater quality impacts. These impacts would be assessed and controlled by virtue of the EPA GTA's (refer **Appendix C**) and an ongoing EPL.

3.10.1.4 Overflow

A surface water diversion structure would be constructed to ensure that water from undisturbed areas surrounding the Site is diverted around the Site, while potentially sediment laden water within the Site is retained – as depicted in Figure 2.2 of the EIS (Corkery, 2013a) and **Figure 1** of this report.

The use of surface water diversion appears to be a continuation of current practise.

Consultation with the NOW has not identified any objections to the above proposed approach to surface waters and therefore it is considered acceptable.

The geotechnical reporting provided with the EIS (Appendix 4, Corkery 2013b) identifies that the soils on site, subject to mixing, are suitable for use in the waste cells. No discussion is provided of the suitability of the soils for use in for the surface water or flood bunds, however it is considered that this information can be required via a condition of consent.

3.10.2 WATER QUALITY AND POLLUTION OF WATER BODIES

3.10.2.1 Construction

There is the potential for pollution during vegetation clearing and construction. Surface water management and erosion and sediment control measures would be required as conditions of consent.

3.10.2.2 Operation

During operation of the facility the following potential impacts on water quality are noted:

- Contaminants associated with leaching of landfill material;
- Hydrocarbons and chemicals from leaks and spills;

- Gross pollutants escaping from vehicles at the tip face; and
- Suspended soil particles in stormwater.

Leachate

By issuing its GTA's for the EPL (refer **Appendix C**), the EPA concurs that the risk of leachate entering the ground and surface water systems from the landfill is low, subject to monitoring and adherence to proposed mitigation measures.

Spills and Leaks

This issue is not specifically addressed via the EIS however it can be addressed within the LEMP.

Gross Pollutants

Design of base and walls of the landfilling cells are constructed in accordance with EPA Benchmark Technique 1 and access to the tip face is limited to Council vehicles only.

Suspended Soil Particles

Appropriate sediment controls to be implemented, as referred in Sections 2.5 and 4.3.3 of the EIS, and confirmed via an Erosion Sediment Control Plan (ESCP).

- An ESCP shall be prepared for the proposed development and submitted to Council for approval prior to commencement of the development. The ESCP shall be consistent with, but are not limited by, the measures outlined in Section 2.5 and 4.3.3 of R W Corkery's EIS.
- The ESCP shall be implemented prior to and during construction, and throughout operation of the development.
- The mitigation measures outlined in Section 2.5 and 4.3.3 of the EIS shall be included into the Landfill Environmental Management Plan (LEMP), to be prepared and submitted to Council for approval prior to commencement of the development.
- The LEMP shall be implemented during construction and throughout operation of the development.

3.10.3 IMPACTS OF FLOODING

The EIS states that the site is beyond the flood zone of the Bogan River (Corkery, 2013a) however NOW contend that the site is an area that may receive water during flood periods, although this water is likely to be relatively still and may form part of a flood storage area rather than an active flowing part of the floodplain (refer **Appendix B**).

A flood bund is proposed to ensure that flood waters do not enter the site. Further details of this would be required as a condition consent.

3.10.4 GROUNDWATER

3.10.4.1 Existing Environment

The EIS provides a summary of the groundwater assessment at Section 4.2 of the EIS (Corkery, 2013a). A Groundwater Assessment has been provided to support the EIS, prepared by R W Corkery and informed by reporting prepared by the IMPAX group (Corkery, 2013c).

IMPAX was engaged by BSC to install a total of eight (8) groundwater monitoring bores at the subject site and undertake subsequent monitoring of these bores. The bores were installed in 2010 although it is understood that their installation does not form part of this DA. It is noted that NOW has separately advised the proponent of their obligations in respect of required licencing/approvals for these bores.

The EIS identifies a total of 24 registered bores located within 10 kilometres of the subject site. These bores are predominantly used for stock and domestic purposes, and extract water from three principal acquifier systems:

- the Great Artesian Basin;
- the Central West Alluvium; and
- the Central West Fractured Rock. (Corkery, 2013a)

3.10.4.2 Assessment

An analysis of the information gathered from the drilling of the above eight (8) bores confirms that standing water levels vary between 16.53 metres and 18.49 metres. Bores were drilled to around 21 metres in depth with soil profiles varying between clay and sand across bore depths. Some gravel was encountered at lower depths.

In January and November 2012 IMPAX conducted baseline groundwater monitoring at the site, with samples collected from 6 of the 8 bores (due to damage, samples were not retrieved from 2 bores). Monitoring was conducted in accordance with NSW EPA *Environmental Guidelines – Solid Waste Landfills (1996).*

The EIS identifies the following in respect of the monitoring:

- pH is between 6.7 and 7.0, indicating that groundwater is neither acidic nor alkaline.
- Electrical conductivity is between 34 000µS/cm and 38 000µS/cm, with a single sample returning 51 000µS/cm, indicating that the groundwater is saline to very saline, with limited beneficial uses. (Corkery, 2013a)

3.10.4.3 Mitigation Measures

The EIS concludes that overall groundwater impacts would be negligible subject to the successful implementation of a range of mitigation measures (Corkery, 2013a). It is recommended that those measures be incorporated into the LEMP for the site.

- Those matters identified at Section 4.2.3 of the EIS are to be incorporated into the LEMP.

3.10.5 CONSULTATION

As noted, NOW has been provided with a copy of the EIS and comments sought, an initial response was received from NOW dated the 29 August 2013 (refer **Appendix B**). Council provided a response dated 20 September 2013. A summary of NOW's comments together with the Council's response is provided **Table 5.2**.

Following a review of the project by NOW, and in the absence of any specific objections, it is considered that the development is generally acceptable from a water quality perspective.

3.11 SOILS

Section 4.12 of the EIS describes the soil environment and soil impacts (Corkery, 2013a).

3.11.1 EXISTING ENVIRONMENT

The EIS states: at Section 4.12.2:

> *The NSW Natural Resource Atlas suggests that soils surrounding the Site are dominated by Red Kandosol and Red Earth soil types. Topsoil typically extends to a depth of approximately 250mm below surface, with subsoils occurring from the base of the topsoil to a depth of more than 750mm.*
>
> *The Site is considered to be located within a relatively low to moderate rainfall erosivity zone in accordance with the Landcom (2004). Given the topography of the Site, and based on the Applicant's*

experience working with the soils, it is likely the soils within the Site have a low to moderate erosion potential.

Given the surrounding land uses of the Site, it is likely the soils are classed as Class 3 (Grazing land or land well suitable to pasture improvement) or Class 4 (land suitable for grazing but not for cultivation) in accordance with the classification system described in the document Agricultural land Classification published by NSW Agriculture.

Rehabilitation has been ongoing for the current facility. An inspection of the existing facility identified the successful placement of topsoils over the completed landfill cells with germination of native grasses commencing. (Corkery, 2013a)

The EIS further states at Section 4.12.4:

The anticipated soils, land capability and agricultural suitability-related impacts associated with the Proposal would be negligible for the following reasons.

Soils would be excavated from within the footprint of the landfill cells and would be used for onsite rehabilitation. No soils from off-site would be brought to the Site for rehabilitation purposes.

Soils would be appropriately stockpiled and handled.

Experience has shown the proposed measures to be appropriate and successful in managing soils on the Site, and achieving successful rehabilitation. (Corkery, 2013a)

3.11.2 EROSION & SEDIMENT CONTROL

An Erosion and Sediment Control Plan (ESCP) is required to be provided as part of the GTAs issued by the EPA and would form a part of a future EPL (refer **Appendix C**). This plan would address erosion and sediment control for the subject site. Further, conditions will be imposed on the required EPL to ensure avoidance of sedimentation and pollution of water bodies caused through soil erosion. Adequate measures would therefore be employed to ensure adverse impacts on soils or waterways, as a result of soil erosion, are minimised.

By virtue of the content of the EPA GTA's it is considered that this matter does not need to be separately addressed via the conditions of consent of this DA, thereby avoiding unnecessary duplication and negating any potential future compliance conflicts.

3.12 AIR & MICROCLIMATE

Section 4.7 of the EIS summarises air quality impacts including odour and greenhouse gases (Corkery, 2013a).

3.12.1 EXISTING ENVIRONMENT

The EIS identifies that the principal source of dust in the existing environment would be from agricultural activities, wind erosion and limited vehicle movements. The EIS notes no issues with odour in relation to the current waste facility (Corkery, 2013a).

3.12.2 EMISSIONS

Emissions arising from the development are likely to consists of odour, particulate matter, greenhouse gas emissions and methane and other gas emissions.

Odour associated with the existing and proposed landfill is likely to arise in relation to the:

- Active landfill face;
- Final capped landfill cells; and
- Leachate pond.

Potential sources of particulate matter generated from the proposed development have been identified as:

- Vehicle movements on unsealed roads (waste collection trucks);
- Tracked vehicles moving overburden; and
- Wind erosion,

Greenhouse gas emissions associated with existing operations are identified at Section 4.7.2 of the EIS as:

- *Limited emissions associated with combustion of diesel used by machinery within the Site.*
- *Limited emissions associated with methane generation from small volumes of putrescible waste. (Corkery, 2013a)*

The EIS identifies that the small volumes of gas generated as a resulting of landfilling putrescible waste would have a low risk of escaping via subsurface migration. Emissions would be controlled via the capping and rehabilitation of each cell as it is completed. The EIS states that should emissions, particularly methane, become problematic, gas would be tapped off and oxidised (Corkery, 2013a).

3.12.3 MITIGATION MEASURES

The EIS identifies a range of measures that a proposed to address air quality impacts, including:

- *Minimise the risk of subsurface migration of gas through the use of an impermeable barrier in the floor and walls of each landfill cell.*
- *Ensure that odours would be minimised through limiting the size of the active emplacement area and installation and operation of an aerator on the Leachate Evaporation Pond, if required.*
- *Collect and oxidise any methane generated within the landfill cells in accordance with the State and Federal Regulatory requirements.*
- *Water or treat internal roads with chemical suppressants, where appropriate, to minimise dust generation.*
- *Restrict vehicle speed to 20 km/hr within the Site.*
- *Ensure that completed sections of the active landfill cell are progressively rehabilitated to reduce the area of non-vegetated surfaces.*
- *Minimise the area of uncovered waste within the active cell by operating the smallest active tipping face practicable and through the use of intermediate covers.*
- *Control the pH of the leachate that is evaporated to minimise its odour, if necessary.*
- *Manage stockpiles to ensure that development of anaerobic conditions in the stockpiled greenwaste is minimised.*
- *Install airtight fittings on leachate risers, if required.*
- *Install and operate an aerator on the leachate evaporation pond, if required. (Corkery, 2013a)*

Via the issuance of their GTA's and associated conditions, the EPA have confirmed the acceptability of the proposed measures.

- It is recommended these mitigation measures (to be imposed in the event that odour complaints are received once the facility has commenced operation) be included in the LEMP for the development, which would be required to be prepared by a condition of any consent granted for the development.
- An Erosion and Sediment Control Plan (ESCP) shall be prepared for the proposed development and submitted to Council for approval prior to commencement of the development. The ESCP shall be consistent with the measures outlined in Section 2.5 of the EIS and EPA Benchmark Technique 3.
- The ESCP shall be implemented during construction and maintained throughout operation of the development.

- The mitigation measures outlined in Section 2.5 of the EIS shall be included into the Landfill Environmental Management Plan (LEMP), to be prepared and submitted to Council for approval prior to commencement of the development.
- The LEMP shall be implemented during construction and throughout operation of the development.
- A review of methane levels shall be undertaken in accordance with the requirements of the EPA, as per condition M2.1 of the GTA's issued by that authority.

3.13 WASTE

Waste impacts associated with the application are limited to an assessment associated with litter, contained in Section 4.5 of the EIS (Corkery, 2013a). This section is summarised below. Other potential waste products are discussed in the following sections.

3.13.1 LITTER

Litter impacts associated with the proposed development are identified as:

- Placement of waste and the use of daily covers would be able to be managed in a manner that is more appropriate than is currently possible. This would reduce the generation of windblown litter.
- The use of litter fences would limit the distribution of any windblown litter that may be generated.
- A daily inspection program and follow up collection of windblown litter would ensure that litter that does accumulate is identified and removed within a reasonable timeframe.

Litter would be managed through:

- Ensure that the waste placement measures identified in Section 2.5.4 of the EIS are implemented throughout the life of the Proposal, including managing placement of waste and, where required, use of intermediate covers.
- Constructing a perimeter fence around the Site prior to the commencement of activities under this Proposal.
- Constructing and progressively relocating a litter fence around the active landfilling cell(s) throughout the life of the Proposal.
- Ensuring that waste is placed in the manner described in Section 2.5.4 of the EIS and that intermediate covers are used as required throughout the life of the Proposal.
- Implementing a litter inspection program within and surrounding the Site during and following periods of high winds and collect windblown litter as required. (Corkery, 2013a)

- The above management measures shall be included in a Litter Management Plan that should form part of a Landfill Environmental Management Plan (LEMP), to be prepared and submitted to Council for approval prior to commencement of the development.
- The LEMP shall be implemented prior to and during construction, and maintained throughout operation of the development.

3.13.2 EFFLUENT

No effluent outputs are anticipated due to the use of a chemical toilet on site.

3.13.3 PEST & VERMIN CONTROL

The attraction of vermin to waste facilities is a real impact through provision of a food source and breeding habitat. The impacts of such include transmission of disease, destruction of property, threat to native flora and fauna, and threat to livestock. To ameliorate the impacts of such, the development would incorporate measures to minimise the attraction of vermin to the site. These measures would be incorporated into a weed and pest control program.

It is proposed to adopt a BioBanking standard management plan for weeds and vertebrate animals. The additional submitted to OEH via correspondence of 11 September 2013 to support the EIS concludes, that, as a result of the adoption of the management plan:

- Pest animals, particularly rodents are unlikely to increase as a result of the proposal; and
- Native predators are likely to have fewer rat/mice resources to depend on. Quolls are unlikely to be recorded on the Site.

- The details of the proposed pest management plan shall be included into the Landfill Environmental Management Plan (LEMP), to be prepared and submitted to Council for approval prior to commencement of the development.
- The LEMP shall be implemented during construction and maintained throughout operation of the development.

3.13.4 ASBESTOS

The EIS confirms that the site would continue to receive special waste including asbestos (Corkery, 2013a).

A separate cell is proposed to be maintained for hazardous material including asbestos and all staff are to be adequately trained and supported in relation to hazardous materials. Management techniques would ensure that asbestos is only received via prior arrangement.

Asbestos disposal is regulated under the *POEO Act 1997*. The requirements for acceptance and burial are stringent: for example, asbestos waste can only be accepted if it is transported bagged or wrapped in accordance with requirements of POEO Waste Regulation 2005 and National Occupational Health and Safety Commission (NOHSC) code of practice.

During the operation of the waste facility, the requirements of Clause 42 of POEO Waste Regulation 2005 will apply, which include the disposal of asbestos in designated areas. These designated areas will be marked on plans and clearly signposted so that operators in future will have knowledge of asbestos designated disposal areas.

These controls are designed to ensure dust emissions are eliminated during disposal. There is consequently very little risk posed by lawful disposal of asbestos waste. The operator of the site will only accept asbestos waste for burial under the controlled conditions above. Strict procedures for inspection and screening of demolition waste will be followed at this site. (This is usually integrated in to the Development Application process for building demolition to ensure there is compliance at the waste source).

The quantity of asbestos waste disposed of at this site will be relatively small, but a facility for this purpose must be available to ensure that the community are able to dispose of the material lawfully and responsibly.

3.13.5 OTHER HAZARDOUS WASTES

Aside from asbestos, other hazardous wastes such as clinical waste, dead animals and other contaminated wastes would also be accepted at the facility. Given the relative isolated nature of the site and the distance to alternative waste facilities, it was considered that not accepting these hazardous wastes would impose an unreasonable burden on the community and potentially lead to illegal or irresponsible dumping of those materials.

These potentially hazardous waste streams would only be accepted by prior arrangement and would be placed directly into an appropriate emplacement area under the supervision of the facility manager or operator.

- The LEMP shall include screening and recording procedures in accordance with the EPA's *Environmental Guidelines: Solid Waste Landfills*.

3.14 ENERGY

3.14.1 ENERGY NEEDS

No electricity would be supplied to the site. Power for the office would be supplied for the office via a small generator or a solar system.

Should aeration of the leachate be subsequently identified as necessary (as referred variously in the EIS) this would result in considerable energy consumption. Dependent on the approach taken to this, further details or a further development application may be required prior to implementation.

3.14.2 GAS TAPPING

The proposed development does not involves the installation of a gas tapping system, however should gas emission be identified as an issue a system; these would be installed in accordance with regulatory requirements.

Via the issuance of their GTAs for the proposal, the EPA have provided a mechanism for methane monitoring (refer **Appendix C**). The need for this monitoring would be reviewed within two years of the commencement of the development.

3.15 NOISE

3.15.1 EXISTING ENVIRONMENT

The noise assessment identifies the following existing contributing noise sources:

- traffic on Canonba Road;
- landfilling activities within the existing facility;
- farm equipment such as tractors and cultivators;
- domestic activities such as lawn mowers and chainsaws;
- insects such as cicadas, especially during spring and summer months;
- livestock and other farm and native animals; and
- wind through vegetation within the Site and surrounding areas.

The applicant identifies that the background noise level would be anticipated to be below the 30 dB(A) default background noise level adopted by the *Industrial Noise Policy* (INP).

The closest potentially affected receivers are located a minimum distance of 2.1 kilometres from the site.

3.15.2 IMPACT ASSESSMENT

Section 4.6.4 of the EIS identifies the following matters in the context of noise impact assessment:

- *Noise produced from the sources attributable to the Proposal are unlikely to be significant in the context of the surrounding land uses. In addition, the Proposal would not result in an increase in the noise levels currently produces within the Site.*
- *The remoteness of the area and distance to the sensitive receptors would allow for the dissipation of noise.*
- *Operational hours restrict noise emissions to daytime only.*
- *No noise related complaints have been received for the existing facility. (Corkery, 2013a)*

3.15.3 SUMMARY AND MITIGATION

In light of the above factors, and the following proposed mitigation ensures, the development is not considered likely to result in detrimental noise impacts to potentially affected receivers:

- *Strictly comply with the proposed hours of operation identified in Section 2.12 of the EIS and condition L7.2 of the EPA GTAs.*
- *Regularly service all equipment on site to ensure sound power levels of each item remains at or below the default/or factory-set values.*
- *Ensure that all truck drivers are required to comply with the Council's Driver Code of Conduct outlining procedures for reducing noise impacts during transportation within the Site and off site.*
- *Maintain an open dialogue with the surrounding community and neighbours to ensure any concerns over noise or vibration are addressed.*

The EPA, via the issuance of their GTA's, provides strict noise limits that must not be exceeded at the site (refer **Appendix C**). By virtue of these GTA's, the development is considered acceptable in the context of noise impacts.

3.16 NATURAL HAZARDS

3.16.1 BUSHFIRE

The subject site is not identified as bushfire prone via the Council's bushfire prone land map.

3.16.2 FLOODING

As discussed at **Section 4.2.1** of this report, the site is identified to be located within potentially flood affected land. Those measures proposed and discussed via at **Section 2.6.1.3** are considered sufficient to mitigate the potential impacts associated with flooding.

3.17 TECHNOLOGICAL HAZARDS

3.17.1 FIRE

An assessment of fire impacts are provided in Section 4.8 of the EIS (Corkery, 2013a).

Fire incidences associated with the existing use of the site are known to have occurred as a result of both vandalism and inappropriate placement of waste.

In order to reduce the risk of fire, access to the active cell would be restricted and stockpiles of combustible materials would be specifically managed using measures such as limiting the size of combustible stockpiles, stockpiling of combustible materials separately to avoid spread of fire; and the regular removal of combustible materials from the Site.

In addition, to help limit the potential for off-site fires to impact the Site, a fire break would be maintained around the active sections of the Site.

Finally, the Applicant would extend the existing reticulated water supply system within the Site to provide adequate water supply to enable any fires that do occur to be quickly and safely extinguished. The following measures are proposed to be adopted to minimise fire risk:

- *Limit the size of stockpiles of combustible materials.*
- *Maintain separate stockpiles of combustible materials so that, in the event that a stockpile did catch fire, the fire would not spread to other stockpiles.*
- *Regularly remove stockpiles of combustible material so that the risk of spontaneous combustion is minimised.*
- *Ensure that emplaced waste materials with high proportions of combustible materials are covered regularly to minimise the risk a fire within the landfill cell.*

- *Regularly inspect all residual waste, recyclable material and green waste stockpiles and active landfill cells for fires and any potential fire risks.*
- *Maintain a buffer zone (in the form of an unsealed track road and/or stormwater diversion channel) around the active sections of the Site.*
- *Oxidise gas generated from the putrescible waste using means that does not risk initiating a fire.*
- *Restrict public entry to the Site to identified operating hours and ensure that the Site is staffed during these hours.*
- *Maintaining appropriate fire extinguishers and other fire fighting equipment within the Site.*

The above measures should be applied via inclusion within the LEMP.

- A Fire Management Plan shall be prepared and shall form part of the LEMP. The FMP shall be consistent with the mitigation measures outlined in Section 4.8.3 of the EIS.

3.17.2 VEHICLE ACCIDENTS

Potential exists for accidents involving vehicles that have transported waste to the facility. Mitigation measures for vehicles whilst on site are proposed to be included in LEMP and/or consent conditions.

- The mitigation measures outlined in Section 4.10.3 of the EIS shall be provided as an ongoing condition of consent.

3.17.3 EXPLOSION HAZARDS

The development has the potential to result in the build up of methane gas. The EIS states that, due to the minimal quantities of waste to be collected at the facility, that measures to monitor, capture or dispose of land fill gas (LFG) would not be required (Corkery, 2013a).

LFG would be monitored on the surface of the landfill to ensure it does not build up and the need for ongoing monitoring would be reviewed after 2 years. The LEMP must address monitoring of LFG.

- The LEMP shall provide details of proposed LFG monitoring including proposed measures to address any rise in levels.

3.18 CLIMATE CHANGE

3.18.1 BACKGROUND

Recent LEC proceedings[1] have held that, if relevant, consideration must be given to climate change: both how the development contributes to climate change and how the development would be impacted upon by climate change.

3.18.2 CONTRIBUTION TO CLIMATE CHANGE

The National Greenhouse Inventory (DIICCRTE, 2011) identified that Greenhouse Gas (GHG) emissions from the waste sector in 2011 accounted for 2.2% of the national total, down from 3% in 2005. In the waste sector, emissions are predominantly methane and in relation to solid waste, the sources of emissions are:

> *emissions resulting from anaerobic decomposition of organic matter in landfills; methane generated from this source accounted for 86.5% of total emissions from the waste sector in 2005 (DEWR 2007b:13).*

[1] Walker v Minister for Planning [2007] NSWLEC 741.

Methane emissions from solid waste landfills were identified to have declined between 1990 and 2005, largely as a result of an increase in methane recovery.

> *The waste degradation process occurs slowly and methane emissions continue long after waste is placed in landfill. Estimates in any year include a large component of emissions resulting from waste disposal over the preceding 50 years. This means that recent changes in waste management practices only impact reported methane emission levels over time (DEWR 2007b:14).*

The NSW Greenhouse Plan (NSW Government 2005) identifies the following means for reducing GHG emissions from landfills:

- Consideration of non-energy GHG emissions during environmental impact assessment (EIA) of new projects. The NSW Greenhouse Plan identifies that the NSW Department of Planning (DoP) will develop guidelines for energy and greenhouse in EIA. It is understood that these are yet to be prepared;
- Reduce waste to landfill – facilitated through the *Waste Avoidance and Recovery Act 2001*; and
- Encourage capture and use of methane from landfills. It is proposed that DECC will revise the existing landfill guidelines to require consideration of gas measurement, capture and/or oxidation at existing and new landfills. It is understood these are yet to be revised.

The EIS does not contain any specific consideration of the impacts of climate change. Notwithstanding this, the following comments in relation to the proposal and climate change are provided:

- The development would be generally consistent with the objects of the *Waste Avoidance and Recovery Act 2001*, being: avoidance, resource recovery, and then disposal*; and*
- The Proposal includes a dedicated recycling program whereby selected recyclable materials received within the proposed waste management facility would be sorted and sent off-site for reuse, recycling and reprocessing, and would enable Council to increase the proportion of waste material diverted from landfill to the greatest extent possible.

3.18.3 IMPACT OF CLIMATE CHANGE ON THE DEVELOPMENT

The DECCW document NSW Climate Impact Profile (DECCW, 2010) identifies that the western region is likely to see the following impacts as a result of climate change:

- Hotter and drier landscape;
- Increase run off and stream flow in summer but a decrease in winter and spring;
- A decline in plant cover on the drier western slopes and plains but an increase in the warmer tablelands. Sheet, rill and gully erosion are likely to worsen on the western slopes but ease on the most vulnerable soils on the tablelands. Soil acidification is expected to lessen on the tablelands and slopes;
- Likelihood of flooding from urban streams is likely to increase;
- Widespread changes in natural ecosystems are likely. Smaller woodlands are particularly likely to be under substantial threat.

It is not considered that any of the above matters require a specific response in the context of the proposed development. In the context of the final dot point above, the proposed plantings of Myall EEC consistent species would provide some protection from threats to this small (11 trees) existing woodland, and in this context the development is seen as positive.

3.19 SAFETY, SECURITY & CRIME PREVENTION

Fencing and signage are proposed to discourage unauthorised entry. Adequate measures have been provided to restrict the public from entry to unauthorised areas of the facility. The site would see controlled hours of operation and operational staff implemented for the first time, further improving access controls and security.

The EPA GTA's contain specific conditions to control unauthorised entry and by virtue of their adoption would ensure that site access is adequately controlled and therefore does not need to be separately addressed via the conditions of consent of this DA, thereby avoiding unnecessary duplication and negating any potential future compliance conflicts (refer **Appendix C**).

3.20 SOCIAL IMPACT

As defined by the NSW Government Office on Social Policy, social impacts are significant events experienced by people as changes in one or more of the following are experienced:

- peoples' way of life (how they live, work or play and interact with one another on a day-to-day basis);
- their culture (shared beliefs, customs and values); or
- their community (its cohesion, stability, character, services and facilities).

The proposed development is unlikely to have an adverse impact on people's way of life. From the assessment of impacts of the development throughout this section of the report it can be seen that the development can be appropriately managed to ensure that the development would not generate significant adverse impacts that would impact on people's way of life.

The proposed development is unlikely to have an adverse impact on people's culture. Further, the development is unlikely to have an adverse impact on the community's cohesion, stability, character, services or facilities.

3.21 ECONOMIC IMPACT

3.21.1 GENERAL COMMENTS

3.21.1.1 Benefits

The proposed development would secure the ongoing employment of the existing Council workforce of approximately two people on a full time equivalent basis.

The Proposal would also support employment within the Bogan Shire through flow-on benefits, including processing of recycled materials, the purchase of consumables and spending of employee wages.

3.21.1.2 Costs

The economic costs of the development are identified as:

- Capital cost; and
- On-going monitoring costs.

3.21.2 PROPERTY VALUES

There is no conclusive evidence that indicates that a landfill does or does not adversely impact on property values. However, the proper management, operation, and maintenance of such a facility are important factors in maintaining local amenity.

The EPA is satisfied that the impacts of the development can be appropriately managed on site to ensure it would not cause unacceptable impacts beyond its boundaries. Further, the development is required via the EPA GTAs to be monitored to ensure compliance with the conditions of a future EPL (refer **Appendix C**). Therefore it can be concluded that the development is consistent with the land uses in the locality and as such would not result in a significant or unreasonable impact on the amenity of properties in the locality.

3.22 CONSTRUCTION IMPACTS

3.22.1 TRAFFIC

Construction of the facility is expected to occur over a twenty two month period. Construction traffic is likely to involve:

- heavy vehicles delivering equipment and materials for construction; and
- light vehicles driven by council staff and licensed contractors.

- A traffic management plan shall be prepared by a suitable qualified consultant and approved by Council prior to any works commencing on site. This includes prior to any delivery of construction equipment to the site. The TMP shall be implemented during the entire construction phase of the development.

3.22.2 NOISE

No specific assessment of construction noise is contained within the EIS. Notwithstanding this, it is considered that noise impacts associated with the construction period of the site can be adequately addressed via conditions of consent.

3.22.3 DUST

During construction the potential exists for the generation of dust. Mitigation measures are the best means for controlling such impacts. Further, the design of the development i.e. the stated intention to stage construction of the cells, would minimise the area disturbed at one time, thus minimising the potential for impact.

- The following measures shall be implemented into the LEMP and adopted during construction works:
  - During times of high wind, all construction works to cease.
  - Water carts be employed during construction to minimise transfer of dust off site.
  - Establish fencing around the site with mesh screening.
  - Any stockpiles existing on site for a period longer than 3 months are to be revegetated, with vegetation being maintained.
  - Establish a complaints register and follow-up procedures including required corrective actions.

3.22.4 EROSION & SEDIMENT CONTROL

Potential exists for sediment to migrate off site during construction. A Erosion and Sediment Control Plan (ESCP) is required to be prepared as a condition of the GTA's issued by the EPA for the construction period in accordance with *Managing Urban Stormwater: Soils and Construction Guidebook* (refer **Appendix C**).

- The LEMP shall require adoption of the ESCP during construction works.

3.23 CUMULATIVE IMPACTS

Cumulative impacts can take effect over a number of different forms, including:

- Time crowded effects, where individual impacts occur so close in time that the effects of one are not dissipated before the next;
- Space crowded effects, where individual impacts occur so close in space that the effects overlap;

- Nibbling effects, where often minor impacts erode environmental conditions; and
- Synergistic, being different types of disturbances interacting to produce an effect which is greater or different than the sum of the separate effects.

The proposed development would not result in unacceptable adverse impact on amenity as outlined throughout this section. Nor are there any other developments in the locality that combined with this development would result in unacceptable adverse impacts on amenity in the locality. In this regard, it is unlikely that the proposed development would result in adverse cumulative impacts for the locality.

The EIS does not outline any potentially cumulative impacts.

Suitability of the Site

4.1 DOES THE PROPOSAL FIT IN THE LOCALITY?

There are a number of matters to consider in determining whether the proposal fits into the locality. These are discussed below.

4.1.1 PRINCIPLES OF SITE SELECTION

Section 4 of the NSW Department of Urban Affairs and Planning's (DUAP) *EIS Guideline: Landfilling* (the guideline) (1996) provides principles of site selection for landfilling. The guideline states that:

> *Consideration must be given to whether:*
>
> - *the location has been identified in any strategic waste management plan*
> - *the land use is permissible*
> - *environmentally sensitive areas are avoided*
> - *the use is compatible with nearby land uses*
> - *initial site investigations indicate the site is fundamentally suitable for landfill.*

Each of these principles is discussed below.

4.1.1.1 Strategic Waste Management Plan

BSC does not have a Strategic Waste Management Plan. BSC does however have a *Community Strategic Plan 2026* which provides a strategic direction for waste management and identifies the following goal:

> *To support the current and long-term liveability of our Shire by enhancing and protecting our environment through sound urban planning, managing our waste stream and sewerage services, and providing potable water supplies that are economically sustainable, reliable and environmentally responsible.*

A key outcome of the above goal is identified in as ensuring:

> *our waste stream is effectively managed, reducing waste to landfill and maximising resource recovery through recycling.*

In light of the above, it is considered that the proposed waste facility expansion accords with the Council's strategic waste goals.

4.1.1.2 Permissibility

As outlined in **Section 3**, the proposed development is permissible with consent.

4.1.1.3 Avoidance of Environmentally Sensitive Areas

The guideline states:

> *It is inappropriate to locate landfills in areas of high environmental value, or in areas subject to a significant environmental constraint with associated high environmental risks.*
>
> *On environmental grounds, areas in Table 1 should be excluded from further consideration from the outset. This table may not be exhaustive and there may be other areas of high environmental significance protected under other legislation. As part of the site selection process, early consultation with relevant councils and government authorities will help identify any areas of the type identified in Table 1.*

> *For most sites identified in Table 1, landfills are unlikely to be a permissible land use under existing planning controls. If they are permissible, it is possible that an application for a landfill in these types of areas would be refused on merit grounds. To ensure consistency in the environmental protection of these areas, government authorities responsible for management or regulation of landfill facilities should consider the recommendations of Table 1 in their own landfill policies* (DUAP 1996:15).

Table 1 from DUAP 1996 is reproduced below with comments regarding the subject site. From this it can be seen that the development is not located in an environmentally sensitive area.

Table 4.1 – Environmentally Sensitive Areas to be Avoided

Area	Objective	Comment
A site within 250 metres of an area of significant environmental or conservation value identified under relevant legislation or environmental planning instruments, including: • national parks, marine national parks • historic and heritage areas, building or sites protected under the Heritage Act or National Parks and Wildlife Act or areas on the register of the National Estate • any reserves for environmental protection, e.g. aquatic, marine, nature, karsts • areas covered by a conservation agreement or identified as a critical habitat under the Threatened Species Conservation Act • wilderness areas identified or declared under the Wilderness Act • world heritage areas • areas mapped under SEPP 14— Coastal Wetlands, SEPP 26— Littoral Rainforests • areas zoned under a LEP or REP for environmental protection purposes, e.g. high conservation, scenic, scientific, cultural or heritage • other areas protected under the National Parks and Wildlife (NP&W) Act, Crown Lands Act Fisheries Administration Act or any other legislation.	To avoid the risk of damaging areas of high environmental value	The subject site is **not** located within 250m of: • national parks or marine national parks; • historic or heritage areas etc protected under the Heritage Act, NPW Act or the Register of National Estate; • any reserves for environmental protection • areas covered by a conservation agreement or identified as Critical Habitat; • Wilderness areas; • World Heritage Areas; • SEPP 14, SEPP 26; • The site is not zoned under an LEP or REP for environmental protection purposes; or • Any other protected area protected under NPW Act, Crown Lands Act, Fisheries Administration Act.
Sites within an identified sensitive location within a drinking water catchment, including: • any lands nominated or mapped as 'special areas' under the Sydney Water Regulation • lands within 3 kilometres from the top water level of the following storages: Wingecarribee Reservoir, Fitzroy Falls Reservoir, and the Tallowa Dam. • any lands nominated as Special Areas (or similar wording) by local water supply • authorities or in the vicinity of a groundwater bore used as drinking water	To avoid the risk of polluting drinking water should failure of the landfill occur	• The site is not identified as being located within a drinking water catchment. • No bores in the vicinity of the site identified as being used for drinking water.
Sites within 250 metres: • of a residential zone • of a dwelling, school or hospital not associated with the facility	To protect the amenity of residential areas	• The subject site is not within 250 metres of a residential zone or a residential dwelling.
Sites located: • in or within 40 metres of a permanent or intermittent waterbody (including rivers, lakes, bays or wetlands) • in an area overlying an aquifer which contains drinking water quality groundwater which is vulnerable to pollution (consult DLWC for criteria to determine the vulnerability of groundwater)	To protect groundwater and surface water resources	• The site is not within 40 metres of a permanent or intermittent waterbody • The site is not identified as being in an area of groundwater vulnerability.
Sites located: • within a karst region (either protected under the NP&W Act or not) • with substrata which are prone to land slip or subsidence	To avoid sites with unsuitable substrata	The subject site is not known to be within a karst region or have substrata which is prone to land slip or subsidence.
Sites within a floodway which may be subject to washout during a major flood event. Councils should be consulted for information about local flooding characteristics. A major flood event is considered to be a 1 in 100 year event	To avoid landfill washout risk if a significant flood event was to occur	The site is identified to be within an area with an ARI of 200 years. Measures are proposed to minimise the impact of flooding.

Source: Adapted from DUAP 2006:16

4.1.1.4 Compatibility of Nearby Land Uses

The guidelines states:

> *The proximity of a site to nearby existing or proposed land uses should be considered as part of the site selection process. Sites which incorporate separation distances to preserve the amenity of land uses permitted in surrounding zonings are more likely to be acceptable. Where possible, this buffer area should be owned or controlled by the operator of the landfill.*
>
> *The need for and extent of buffer areas should be determined on a case specific basis.*
>
> *Table 2 suggests land uses which might require separation from nearby landfills and suggests performance objectives which could be used to determine an appropriate separation distance.*
>
> *As the establishment of buffer areas around landfill facilities can lead to unacceptable land sterilisation, the use of separation distances should not be the preferred option for containing emissions or reducing loss of amenity. Rather, they are a secondary feature, providing backup for the primary controls* (DUAP 1996:15).

Table 2 is replicated below with comments provided as to the development addresses each of the factors.

Table 4.2 – Appropriate Separation Distances from Certain Land Uses

Land Use	Performance Objective	Factors for determining appropriate separation distances	Comment
Residential areas	• Protect residential amenity and health: odour, visual amenity, noise, dust, seepage	• What is the likelihood of the performance objectives being achieved by the mitigation measures alone? • What is the likelihood of the mitigation measures failing? • What is the likelihood of an 'incident' (e.g. accident, system failure, natural disaster (which will result in a failure to meet the performance objectives? • What backup mitigation measures are available? • What is the likely geographic extent of impacts, taking into consideration the proposed performance of mitigation measures and the local environment (topography, climate)? • What is the likely geographic extent of the impacts if mitigation measures fails or an 'incident' occurs, taking into consideration the local environment (e.g. topography, climate)? • What separation distances are required to achieve the performance objective: • under normal operational and mitigation performance conditions • if mitigation measures fail or an 'incident' occurs? • What is the extent of separation distances required by any legislation?	By virtue of EPA issuing it's GTAs for the development, it can be reasonably assumed that EPA has confidence the development can operate within the required licence conditions, thus providing acceptable levels of amenity to the nearest residential receptors (refer **Appendix C**). In terms of visual amenity, following development of the proposed vegetation buffer the site would be reasonably well concealed, with the exception of a few viewpoints. The health screening vegetation should be monitored closely following planting to ensure it is establishing.
Surface waters	• Ensure that surface waters are protected from pollutants in the waste • Ensure that no existing or likely future uses of surface waters are compromised • Ensure that no significant impacts occur to flora and fauna which use the waters • Ensure that the ecological value of the waters will be maintained		NOW has considered the details of the application and raise no objections to the proposed management measures. Further the EPA has issued its GTAs for the required EPL, thus indicating the development can operate with an "acceptable" level of impact on surface or ground water (refer **Appendix C**).
Groundwater recharge zones	• Ensure that there is no deterioration in the quality of the groundwater • Ensure that no existing or likely future uses of groundwater are compromised		Groundwater to be protected by a composite clay liner system. Groundwater monitoring to be conducted. In issuing its GTAs for the development, EPA have demonstrated their satisfaction that the proposed methods of protection for groundwater resources are adequate (refer **Appendix C**).
Environmentally sensitive areas	• Ensure that environmental qualities of the particular area are not compromised by the landfill		No environmentally sensitive areas (as identified in any EPIs or other planning documents) nearby to the subject site.

From the above table it can be seen that there is sufficient separation between the development and surrounding land uses.

4.1.1.5 Is the Site Fundamentally Suitable for Landfill?

The historical incident free use of the site for landfilling purposes, together with the extensive mitigation measures and improvements proposed, confirms suitability of the site for landfilling purposes.

4.1.2 ARE THE CONSTRAINTS POSED BY ADJACENT DEVELOPMENTS PROHIBITIVE?

As outlined in **Section 4** of this report, there are no land use conflicts from existing adjacent land uses that would be prohibitive to the proposed development.

4.1.3 IS THE AIR QUALITY AND MICROCLIMATE APPROPRIATE FOR THE DEVELOPMENT?

By virtue of EPA issuing its GTAs for the development, the air quality and microclimate impacts are construed as being appropriate for the development (refer **Appendix C**).

4.1.4 ARE AMBIENT NOISE LEVELS SUITABLE FOR THE DEVELOPMENT?

The noise assessment has established that noise-related impacts associated with the Proposal are unlikely to be significant, with no increase in existing noise emissions and the closest residence being more than 2km from the Site. By virtue of EPA issuing its GTAs for the development, the noise impacts are construed as being appropriate for the development (refer **Appendix C**).

4.1.5 HOW CRITICAL IS THE SITE TO THE WATER CYCLE IN THE CATCHMENT?

No indications have emerged throughout assessment, including consultations with NOW, to suggest any fundamental conflict with the existing water cycle.

4.2 ARE THE SITE ATTRIBUTES CONDUCIVE TO DEVELOPMENT?

4.2.1 IS THE SITE SUBJECT TO NATURAL HAZARDS INCLUDING FLOODING, TIDAL INUNDATION, SUBSIDENCE, SLIP, MASS MOVEMENT, AND BUSHFIRES?

The site is known to be affected by an ARI 200 year flood occurrence. Measures are proposed to ensure that these impacts are appropriately mitigated –refer **Section 2.6.1.3**.

4.2.2 ARE THE SOIL CHARACTERISTICS ON THE SITE APPROPRIATE FOR DEVELOPMENT?

The summary of the soil environment and the anticipated impacts provided at **Section 3.11** confirms the adequacy of the soil characteristics of the site for the proposed use.

4.2.3 IS DEVELOPMENT COMPATIBLE WITH PROTECTING ANY CRITICAL HABITATS OR THREATENED SPECIES, POPULATIONS, ECOLOGICAL COMMUNITIES AND HABITATS ON THE SITE?

The EA supporting the EIS states that through the proposed use of species that are consistent with the Weeping Myall EEC would likely lead to overall improvements to the EEC (Corkery, 2013d). Given that the plantings would result in an increase in the community at a ratio of 40:1 (being an additional 440 plantings) this is not an unreasonable statement.

4.2.4 IS THE SITE PRIME AGRICULTURAL LAND AND WILL DEVELOPMENT PREJUDICE FUTURE AGRICULTURAL PRODUCTION?

The area of the site within which expansion is proposed is zoned for primary production but is currently identified as a TSR and therefore is not currently in consistent use for traditional primary production purposes (such as cropping and grazing). Its linkage to primary production activities is not in question. The proposed expansion would not jeopardise the ongoing TSR usage. The proposed site closure/rehabilitation measures are identified within Section 2.12.2 of the EIS as seeking to ensure that future primary production usage remains viable in the future (Corkery, 2013a). Whether this is in fact is a reality is questionable, however given the small area of land involved and the mitigation measures proposed, it is not considered that the approval of this development would prejudice future agricultural production to such an extent as to warrant refusal of the application.

4.2.5 WILL DEVELOPMENT PREJUDICE THE FUTURE USE OF THE SITE FOR MINERAL AND EXTRACTIVE RESOURCES?

The subject site is not known to contain any mineral or extractive resources and as such the proposed development is not expected to prejudice the extraction of any mineral or extractive resources.

Submissions Received

The DA was publicly exhibited and notified as follows:

- Via a sign posted on the site;
- Via target consultation letters to potentially affected nearby land owners during the period 17 July 2013 to 30 August 2013;
- Via advertising in the Nyngan Observer for a period of 30 days from 14 August 2013, via advertisements placed on the 14th and 31st August 2013; and
- Via advertising in the Sydney Morning Herald for 30 days from the 19 September 2013, via advertisements placed on the 19th September 2013 and 3rd October 2013.

5.1 PUBLIC AGENCY SUBMISSIONS

All agencies were supportive of the project provided strict conditions were in place to prevent and monitor any environmental impacts. Copies of agency submissions are in **Appendix C** and summarised in **Table 3.1**.

Table 5.1 – Public Agency Submissions

Agency	Summary of Comments
Roads and Maritime Services	Responded to the referral but provided no specific submission.
Environment Protection Agency	General terms of approval issued – attached as **Appendix C**. A separate application to be lodged with the EPA to gain an Environment Protection Licence.
NSW Department of Primary Industries Office of Water (initial response)	• In relation to the relevant licence applications for the monitoring bores Council are requested to ensure that IMPAX group lodge these with the NSW Office of Water within a 1 month period from the date of this letter. Inclusion of relevant bore log details are also requested in support of the applications. The installation of these bores are outside of the scope of this DA. • It is recognised the site is an area that may receive water during flood periods however this water is likely to be relatively still and form part of a flood storage area rather than an active flowing part of the floodplain. In terms of the proposed for a 1.5m bund to protect the site from flood water the following is recommended: - Council consider the proximity of houses with flood levels below the height of the proposed bund and the potential to impact flood levels at these houses - Council confirm the road heights on the Canonba Road and Moonagee Road and the potential to impact flood levels on these roads.
NSW Department of Primary Industries Office of Water (following response)	• The response provided indicates the minimal potential for flood related impacts due to the project. Amendments to the proposed bund and clean water diversion structure may require further comment from the NSW Office of Water. • Your interpretation of the response timeframe in relation to GTAs is consistent with the understanding of the NSW Office of Water. However, as you are probably aware, the NSW Office of Water is not an integrated approval body for this development as the Water Management Act 2000 was not selected on the development application form. It is understood that applications for the existing monitoring bores are not part of the current development application. • It is recommended that a Construction Management plan be developed to address the following: - Clean water diversion design and management to ensure stability; - Dirty water management within the site; - Sediment and Erosion Control; and - Consistency with the guidelines, “Managing Urban Stormwater: Soils and Construction (Landcom 2004). • It is recommended the proposed Groundwater Monitoring form a part of the operational management plan for the site.

Table 5.1 – Public Agency Submissions

Agency	Summary of Comments
Office of Environment and Heritage (initial response)	*Cultural heritage* – no issues raised *Biodiversity* <u>Flora and Fauna Assessment</u> • Concern with accuracy of identification of vegetation communities and with lack of identification of condition of vegetation communities and habitat components. • No indication as to whether a full BioBanking analysis has been conducted. • OEH recommends that an appropriate offset for all vegetation communities be cleared, particularly in light of possible future expansion • Further assessment of the impacts of the proposal on native fauna is required. <u>Threatened Species</u> • Threatened species assessment fails to assess the impact of change in pest species populations • Threatened species to be expanded to also assess a further 9 potentially affected species <u>Pest Management</u> • There is no assessment of the potential impact of pests, vermin or noxious weeds included in either the EIS or Terrestrial Ecology Assessment except for one sentence in section 2.5.2.5 of the EIS, • OEH considers that a detailed assessment of pests is required. In particular, the following issues should be addressed: - Pest animals (particularly rodents, foxes and feral cats and dogs) currently present at the site, - Whether populations of these species are likely to increase due to the proposal, - What the impact of pest species is likely to be on native species (in particular threatened species). For example, threatened birds such as Grey-crowned Babblers may experience an increase in predation from foxes, cats and native predators. Predatory birds (such as Black Kites and Barking Owls) and Spotted-tailed Quolls may prey on rodents attracted to the waste facility, - A weed and pest animal control plan should be developed. This should include methods to minimise potential bait uptake and/or secondary poisoning by native species and should be included in the Statement of Commitments.
Office of Environment and Heritage (following response)	OEH officer Liz Mazzer confirmed via an email dated 18 November 2013 that OEH did not intend to provide any further comments in light of the Council's final submission.
NSW Trade and Investment Crown Lands	The proposal has been reviewed and the Department of Trade & Investment, Crown Lands has no further comment. It is noted that Council is in the process of undertaking a compulsory acquisition of the site and that as an interim measure, has lodged an application for a Crown Lands Act licence to authorise Council's use and occupation of the site until such time as the acquisition is finalised.

5.2 SPECIAL INTEREST GROUPS

No SIG submissions received.

5.3 INDIVIDUAL SUBMISSIONS

No individual submissions received.

The Public Interest

6.1 OBJECTS OF THE ACT

6.1.1 INTRODUCTION

It has been held in various NSW Land and Environment Court (LEC) proceedings that the objects of the EP&A Act are a relevant consideration, under the heading of public interest in Section 79C, where they have relevance to an issue. The objects of the Act are:

(a) to encourage:

(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,

(ii) the promotion and co-ordination of the orderly and economic use and development of land,

(iii) the protection, provision and co-ordination of communication and utility services,

(iv) the provision of land for public purposes,

(v) the provision and co-ordination of community services and facilities, and

(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and

(vii) ecologically sustainable development, and

(viii) the provision and maintenance of affordable housing, and

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and

(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

Those matters of relevance are discussed below:

6.1.2 PROPER MANAGEMENT, DEVELOPMENT & CONSERVATION OF RESOURCES

The area within which the waste facility expansion is proposed is currently jointly owned by BSC (Lots 107 and 108) and the CWLHPA (Lot 109). Lot 109 is identified for use as a TSR. The use of the residue of Lot 109 as a TSR is able to be continued post development.

Through the planting of vegetation screening at a ratio of 40:1 (by comparison to the existing community size) the development would likely result in an improvement to the EEC on site.

6.1.3 PROMOTION & CO-ORDINATION OF THE ORDERLY & ECONOMIC USE & DEVELOPMENT OF LAND

Through the continued use of an existing site via expansion by contrast to developing a new site, the Council has provided the most orderly and economic provision of a waste facility for the LGA.

6.1.4 PROTECTION OF THE ENVIRONMENT

By virtue of issuing it's GTA's for the EPL, it can be construed that the EPA is satisfied the environment is adequately protected as part of the proposed development (refer **Appendix C**).

6.1.5 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Ecologically Sustainable Development (ESD):

> *requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:*
>
> *(a) the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*
>
> *In the application of the precautionary principle, public and private decisions should be guided by:*
>
> *(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
>
> *(ii) an assessment of the risk-weighted consequences of various options,*
>
> *(b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*
>
> *(c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*
>
> *(d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:*
>
> *(i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
>
> *(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
>
> *(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

These matters, where relevant, are discussed below.

6.1.5.1 Precautionary Principle

The EIS provides the following conclusion in respect of the precautionary principle:

> *The precautionary principle has been considered during all stages of the design and assessment of the Proposal. The approach adopted, ie. consultation, specialist investigations and safeguarded design, provides a high degree of certainty that the Proposal would not result in any major unforeseen impacts. (Corkery, 2013a)*

6.1.5.2 Intergenerational Equity

The EIS provides the following conclusion in respect of intergenerational equity:

> *The intergenerational equity has been considered during all stages of the design and assessment of the Proposal. The approach adopted prevents and minimises impacts for future generations. (Corkery, 2013a)*

6.1.5.3 Conservation of Biological Diversity and Ecological Integrity

The EIS provided the following comments on conservation of biological diversity and ecological integrity:

> *The protection of biodiversity and maintenance of ecological processes and systems are central goals of sustainability. It is important that developments do not threaten the integrity of the ecological system as a whole or the conservation of Threatened species in the short or long term. The Proposal has been designed specifically to avoid impact on the Myall Woodland EEC and the threatened Grey-crowned Babbler. It also achieves compliance with this principle through the planned planting of species representative of the Myall Woodland EEC as part of a visual screen on the Site. (Corkery, 2013a)*

6.1.5.4 Improved Valuation, Pricing and Incentive Mechanisms

The EIS provided the following comments on improved valuation, pricing and incentive mechanisms:

> *The issues that form the basis of this principle relate to the acceptance that the polluter pays, all resources are appropriately valued, cost-effective environmental stewardship is adopted and the adoption of user-pays principle based upon the full life cycle of the costs. A reflection of these issues on the Proposal is set out below.*
>
> ***Identification of Proposal Objectives***
>
> *It is the Applicant's objective to operate the Proposal in a safe and environmentally responsible manner, which demonstrates value has been placed on elements of the existing environment.*
>
> ***Design of Proposal Components and Integration of Safeguards and Procedures***
>
> *The extent of research, planning and design of environmental safeguards and mitigation measures to divert potentially recoverable resources from landfill is evidence of the value placed by the Applicant on these resources. Importantly, the re-instatement of a landform suitable for grazing would be beneficial. (Corkery, 2013a)*

6.1.5.5 Conclusion

The proposed development would be licensed as a scheduled premise under the POEO Act and as such prohibit or stipulate enforceable limits to the pollution able to be generated. This act further manages pollution through the imposition of financial penalties or requirement for rehabilitation for those polluting the environment.

6.2 OTHER MATTERS OF PUBLIC INTEREST

6.2.1 OVERALL COMMUNITY WELFARE

The PAC review of the Orange Waste Facility Project took a broad view of the term "public interest" in noting it related to the overall community welfare. Specifically, the PAC stated

> *that the public interest is best served by the Orange region achieving a sustainable solution to waste management with minimal impact on people in the region, businesses and the environment*[2].

Taking this notion further, it is not unreasonable to place a high value on the function served by a waste facility in the context of community welfare. This value may justify some minor impacts to the environment.

[2] Planning Assessment Commission (PAC) 2010, *Review of Orange Resource Recovery and Waste Management Project* .p. 27.

6.2.1.1 Waste Diversion

The EIS confirms the following in relation to waste diversion:

> *The Applicant is committed to moving towards the goals of the NSW Waste Avoidance and Resource Recovery Strategy 2007 framework. The Applicant notes that given the location of the Bogan LGA, achieving the identified increase in resource recovery to 66% by 2014 through reuse, recycling and reprocessing of recyclable materials is unlikely to be achievable within the existing or proposed facility. The Proposal includes a dedicated recycling program whereby selected recyclable materials received within the proposed waste management facility would be sorted and sent off-site for reuse, recycling and reprocessing, and would enable Council to increase the proportion of waste material diverted from landfill to the greatest extent possible. (Corkery, 2013a)*

6.2.1.2 Essential Community Infrastructure

The EIS states that the existing BSC landfill facilities would reach capacity it March 2013; given that this date is now passed, the need for a new site to facilitate the BSC waste disposal needs is required. Existing opportunities for expansion are available adjacent to the existing facility. The extent of the current facility prior to this project did not meet current standards and has limited land availability for extension. With the purchase of Lot 108 and the licensing of a portion of Lot 109, the proposed development, with a 16 year life expectancy (and beyond subject to further applications) would provide such a solution.

6.2.1.3 Loss of Agricultural Land

The site of the expansion is currently identified for use as a TSR. The transition of a small portion of the TSR to a waste facility would not significantly reduce available agricultural land. Providing the development is appropriately managed, it is not expected to adversely impact upon the agricultural pursuits of others in the locality.

6.2.1.4 Environmental Benefits

Due to the need for the project, the proposed development is considered to be in the public interest. If the project was not to proceed, locating a site suitable for such a development that is consistent with the new Infrastructure SEPP guidelines would take several years. It would seem unlikely that the site selection and approvals processes could be undertaken before the existing landfill facility would be at capacity.

Considering the above, as a whole the proposed development is considered to be in the public interest.

Conclusion

7.1 CONCLUSION

The proposed development is for the establishment and use of a Waste Management Facility on Lots 107, 108 and 109 Canonba Road, Nyngan.

The proposed development is prohibited in the RU1 zone pursuant to the *Bogan Local Environmental Plan 2011* (LEP) however is permitted with consent by virtue of clause 121 of the ISEPP.

The development has been assessed against the provisions of the Bogan LEP, SEPP 33, SEPP 44, Infrastructure SEPP and Bogan DCP 2012 and is considered generally acceptable. There are no proposed instruments relevant to this development. There are no planning agreements entered into, or any draft planning agreements offered by the developer. No provision of the Regulations (specified for the purpose of s.79C(1)(a)(iv) of the Act are applicable to this development.

As outlined throughout this report, the development (operating with the recommended mitigation measures) is not expected to result in any significant adverse impacts.

7.2 RECOMMENDATION

It is recommended that the DA be approved, subject to:

- Council's standard consent conditions and referral conditions in **Appendices C** and **D**; and
- Incorporation of the recommendations (as outlined throughout this report and as summarised in **Appendix E**) into conditions of consent.

References

Bogan Shire Council (BSC). 2013, *Bogan Shire Council Community Strategic Plan 2026,* BSC, Nyngan

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R W Corkery & Co Pty Ltd. 2013a, *Nyngan Waste and Resource Management Facility EIS Main Report and Appendices 1 - 3*, R W Corkery, Orange.

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R W Corkery & Co Pty Ltd. 2013c, *Nyngan Waste and Resource Management Facility EIS Appendix 5*, R W Corkery, Orange.

R W Corkery & Co Pty Ltd. 2013d, *Nyngan Waste and Resource Management Facility EIS Appendix 6*, R W Corkery, Orange.

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R W Corkery & Co Pty Ltd. 2013f, *Nyngan Waste and Resource Management Facility EIS Appendix 8*, R W Corkery, Orange.

R W Corkery & Co Pty Ltd. 2013g, *Nyngan Waste and Resource Management Facility EIS Corrigendum*, R W Corkery, Orange.

Appendix A

ENVIRONMENTAL ASSESSMENT INCLUDING ADDITIONAL INFORMATION

Appendix A will be provided under separate cover

Appendix B

SUBMISSIONS INCLUDING DIRECTOR GENERAL REQUIREMENTS

NSW GOVERNMENT | Planning & Infrastructure

Contact: Andrew Hartcher
Phone: (02) 9228 6503
Fax: (02) 9228 6466
Email: Andrew.hartcher@planning.nsw.gov.au

File: 12/15941

Mr Derek Francis
General Manager
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Dear Mr Francis

Director General's Requirements
Landfill Extension, Nyngan - DGR ID No: 676

For your information, I have attached a copy of the Director-General's requirements for the preparation of an Environmental Impact Statement (EIS) provided to Bald Hill Quarry Pty Ltd for the above proposal.

If a Development Application (DA) and EIS are subsequently lodged with Council, you should forward three (3) copies of the documents to the Department (marked "Attention: Director, Major Development Assessment") prior to the commencement of the public exhibition period. This will enable the concurrent exhibition of the DA and EIS in the Department's Head Office and, where appropriate, relevant regional office.

As soon as practicable after the exhibition period, Council must send the Department a copy of all the submissions it has received on the proposal, in accordance with Clause 81 of the *Environmental Planning and Assessment Regulation 2000*. If the Department does not respond within 21 days of receiving these submissions, Council may determine the application. **Please note, the Department will only respond during the 21 day statutory period if there is an issue of major significance involved.**

Following determination, it would be appreciated if Council would forward a copy of the determination of the Development Application to the Department.

Should you have any enquiries regarding the above, please contact me on (02) 9228 6503.

Yours sincerely,

Andrew Hartcher
Environmental Planner
Major Development Assessments

NSW GOVERNMENT | Planning & Infrastructure

Mining & Industry Projects
Contact: Andrew Hartcher
Phone: 9228 6503
Fax: 9228 6466
Email: andrew.hartcher@planning.nsw.gov.au

Our ref: 12/15941

Mr Dean Woods
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Dear Mr Woods

Landfill Extension, Nyngan (DGR 676)
Director-General's Requirements

I refer to your request for the Director-General's Requirements (DGRs) for the preparation on an Environmental Impact Statement (EIS) for the above development proposal.

I have attached a copy of these requirements.

These DGRs have been provided on the basis that Bogan Shire Council is satisfied that the proposal would not be State Significant Development pursuant to Clause 23 (1) of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011*.

In your Form A, you indicated that your proposal is not integrated development. Notwithstanding this, the Department has consulted with the Environment Protection Authority (EPA) and the Office of Environment and Heritage (OEH). A copy of the OEH's requirements for your EIS are attached (Attachment 1) to this letter. Unfortunately, the EPA was unable to respond in time, therefore, you are advised to consult with them directly for their requirements for your EIS.

If integrated approvals are identified before the DA is lodged, you must undertake your own consultation with the relevant agencies, and address their requirements in the EIS.

When you lodge the DA for the proposal, you must provide:
- Three (two hard and one electronic) copies of the EIS to the Department;
- A suitable number of copies of the EIS to each integrated approval authority (you should consult each agency to determine the number of copies required); and
- A cheque for $320 to each integrated approval authority, to offset costs involved in the review of the DA and 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 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 Department of Sustainability, Environment, Water, Population and Communities (dSEWPaC) in Canberra on 6274 1111 or www.environment.gov.au.

If you have any enquiries about these requirements, please contact Andrew Hartcher on 9228 6503.

Yours sincerely

8/11/12

Chris Ritchie
Manager – Industry
Major Projects Assessment
as delegate for the Director-General

Director-General's Requirements

Section 78A (8) of the *Environmental Planning and Assessment Act 1979.*

Designated Development

DGR Number	676
Proposal	Landfill Extension, Bogan Shire local government area
Location	Canonba Road, Nyngan (Lot 107 DP 822472 and Part Lot 7301 DP 1161404)
Applicant	Bogan Shire Council
Date of Expiry	November 2014
General Requirements	The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.*
Key Issues	• **waste management** – including: – an analysis of whether there is justifiable demand for the proposal in accordance with the *Infrastructure SEPP;* – the measures that would be implemented to ensure that the proposal is consistent with the aims, objectives, and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2007* and the EPA's (formerly DECC's) *Guidelines for Solid Waste Landfills;* – details of the source, quantities and classification of waste to be received and landfilled; – details on the location and size of stockpiles of unprocessed and processed/recycled waste at the premises; and – details on landfill hole design and integrity. • **soils and water** – including: – impacts on surface water (including erosion and sedimentation run-off) and groundwater resources; – impacts on nearby sensitive water bodies; – impacts on stormwater management, wastewater management and flooding; – a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to manage and mitigate surface and groundwater impacts; – details of water requirements including water supply; – the potential for soil and groundwater contamination; and – details of leachate collection and management. • **air quality** – including odour, dust and greenhouse gas emissions in accordance with relevant EPA guidelines. This assessment must consider any potential impacts on nearby private receptors; • **hazards and risk** – including an assessment of dangerous goods storage and handling, and fire management (including bushfires); • **traffic and transport**; • **noise** – during construction, operation and traffic in accordance with relevant EPA guidelines. This assessment must consider any potential impacts on nearby private receptors; • **flora and fauna** - including: – accurate estimates of any vegetation clearing associated with the proposal; – a detailed assessment of the potential impacts of the proposal on any threatened species, populations, ecological communities or their habitats; and – a detailed description of the measures that would be implemented to avoid or mitigate impacts on biodiversity. • **heritage** – including Aboriginal cultural heritage; • **pest, vermin and noxious weeds**; • **landform and visual amenity**– including: – a staged rehabilitation strategy, including detailed justification for the proposed final landform taking into consideration visual amenity impacts and the aims and objectives of any strategic land use

	plans/policies; and – the measures that would be undertaken to ensure sufficient financial resources are available to implement the proposed rehabilitation strategy.
Environmental Planning Instruments	The EIS must assess the proposal against the relevant environmental planning instruments, including but not limited to • *State Environmental Planning Policy (Infrastructure) 2007;* • *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development;* • *Bogan Local Environmental Plan 2009;* and • relevant development control plans and section 94 plans.
Guidelines	During the preparation of the EIS, you must consult the Department's EIS Guideline - *Landfilling*. This guideline is available for purchase from the Department's Information Centre, 23-33 Bridge Street, Sydney or by calling 1300 305 695.
Consultation	During the preparation of the EIS, you should/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 surrounding landowners and occupiers that are likely to be impacted by the proposal. Details of the consultations carried out and issues raised must be included in the EIS.

ATTACHMENT No. 1 – OEH REQUIREMENTS

NSW GOVERNMENT | Office of Environment & Heritage

Your reference:
Our reference: DOC12/42096
Contact: Robert Taylor 68835354

Andrew Hartcher
Environmental Planner - Industry
Major Development Assessment
NSW Department of Planning & Infrastructure
GPO Box 39,
Sydney NSW 2001

Dear Andrew

RE DGRs for Nyngan Landfill extension

Thank you for your email (dated 8th October 2012) seeking the requirements of the Office of Environment and Heritage (OEH) for the preparation of an Environmental Impact Statement (EIS) for the above proposal.

In summary, the OEH's key information requirements for the proposal include an adequate assessment of:

1. Impacts to Aboriginal cultural heritage objects; and
2. Impacts on flora, fauna, threatened species, populations, communities and their habitats.

OEH can provide advice on the EIS where it deals with natural and cultural heritage conservation issues. OEH may also comment on the legitimacy of the conclusions reached regarding the significance of impacts by the proposed development to these components of the environment.

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that the EIS should fully describe the proposal, the existing environment and impacts of the proposal.

This letter directs you primarily to our generic guidance material. However please note that it is up to the proponent (and later the consent/determining authority after appropriate consultation) to determine the detail and comprehensiveness of the surveys and level of assessment required to form legally defensible conclusions regarding the impact of the proposal. The scale and intensity of the proposed development should dictate the level of investigation. It is important that all conclusions are supported by adequate data.

The OEH has responsibilities under the:

- *National Parks and Wildlife Act 1974* - namely the protection and care of Aboriginal objects and places, the protection and care of native flora and fauna and the protection and management of reserves; and the

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- *Threatened Species Conservation Act 1995* which aims to conserve threatened species of flora and fauna, populations and ecological communities to promote their recovery and manage processes that threaten them.
- *Native Vegetation Conservation Act 2003* – ensuring compliance with the requirements of this legislation.

It is the responsibility of the proponent and consent authority to adequately consider the requirements under the *Environmental Planning and Assessment Act 1979* (EP&A Act), including flora, fauna, threatened species, populations and ecological communities and their habitats, and cultural heritage.

OEH understands from the correspondence that the proposed activity is a Part 4 application pursuant to the *EP&A Act 1979*. As such OEH only has a statutory role in assessing such an activity if the determining authority determines that:

a) the activity is likely to significantly affect a threatened species, population, ecological community, or its habitat, as listed under the *Threatened Species Conservation (TSC) Act 1995*; and/or

b) An Aboriginal Heritage Impact Permit is required.

Flora, Fauna and Threatened Species

A copy of our generic Environmental Assessment Guidelines is included in Attachments A and B.

These guidelines address requirements under the *Environmental Planning and Assessment Act 1979* and OEH's areas of responsibility relating to flora, fauna and threatened species, populations and ecological communities and their habitats.

In addition to these guidelines, we also recommend that the issue of connectivity be specifically addressed as the Travelling Stock Route that the development sits in has been identified by OEH as a part of a priority connectivity link.

Cultural Heritage

The importance of protecting Aboriginal Cultural Heritage is reflected in the provisions under Part 6 of the *NP&W Act 1974*, as amended. That Act clearly establishes that Aboriginal objects and places are protected and may not be harmed, disturbed or desecrated without appropriate authorisation. Importantly, approvals under Parts 4 and 5 of the *EP&A Act 1979* do not absolve the proponent of their obligations under the *NP&W Act 1979*.

Under the *NP&W Act 1974*, it is the responsibility of each individual proposing to conduct ground disturbance works to ensure that they have conducted a due diligence assessment to avoid harming Aboriginal objects by the proposed activity. OEH has produced a generic due diligence process, which is not mandatory to follow, however any alternative process followed must be able to demonstrate their process was reasonable and practicable in attempts to avoid harm to Aboriginal objects.

Consultation must also be in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010) as set by OEH if impact to cultural heritage is unavoidable.

Further advice regarding Aboriginal cultural heritage can be found on the OEH web-site at: http://www.environment.nsw.gov.au/licences/achregulation.htm. and within guidance documents listed in Attachment 2.

Should you require further information on flora, fauna or cultural heritage please contact me on (02) 68835354.

Yours Sincerely,

R. Taylor

ROBERT TAYLOR
Manager, Environment and Conservation Programs
Conservation and Regulation Division

ATTACHMENT A: EIS REQUIREMENTS FOR THE NYNGAN LANDFILL EXTENSION

1 Environmental impacts of the project

1.1. Impacts related to the following environmental issues need to be assessed, quantified and reported on:

- Aboriginal cultural heritage
- Biodiversity

The Environmental Impact Statement (EIS) 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 is at **Attachment C**.

2. Aboriginal cultural heritage

The EIS report should contain:

- A description of the Aboriginal objects and declared Aboriginal places located within the area of the proposed development.
- A description of the cultural heritage values, including the significance of the Aboriginal objects and declared Aboriginal places, that exist across the whole area that will be affected by the proposed development, and the significance of these values for the Aboriginal people who have a cultural association with the land.
- A description of how the requirements for consultation with Aboriginal people as specified in clause 80C of the National Parks and Wildlife Regulation 2009 have been met.
- The views of those Aboriginal people regarding the likely impact of the proposed development on their cultural heritage. If any submissions have been received as a part of the consultation requirements, then the report must include a copy of each submission and your response.
- A description of the actual or likely harm posed to the Aboriginal objects or declared Aboriginal places from the proposed activity, with reference to the cultural heritage values identified, and the need apply for a Aboriginal Heritage Impact Permit (AHIP).
- A description of any practical measures that may be taken to protect and conserve those Aboriginal objects or declared Aboriginal places.
- A description of any practical measures that may be taken to avoid or mitigate any actual or likely harm, alternatives to harm or, if this is not possible, to manage (minimise) harm.
- A specific Statement of Commitment that the proponent will complete an Aboriginal Site Impact Recording Form and submit it to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through the proposed development.

In addressing these requirements, the proponent must refer to the following documents:

a) *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010) - http://www.environment.nsw.gov.au/licences/consultation.htm. This document further explains the consultation requirements that are set out in clause 80C of the National Parks and Wildlife Regulation 2009. The process set out in this document must be followed and documented in the Environmental Assessment Report.

b) *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010) - http://www.environment.nsw.gov.au/licences/archinvestigations.htm. The process described in this Code should be followed and documented where the assessment of Aboriginal cultural heritage requires an archaeological investigation to be undertaken.

Notes:

1. An Aboriginal Site Impact Recording Form (http://www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecordingForm.htm) must be completed and submitted to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through archaeological investigations required or permitted through these environmental assessment requirements.

2. Under section 89A of the *National Parks and Wildlife Act* 1974, it is an offence for a person not to notify OEH of the location of any Aboriginal object the person becomes aware of, not already recorded on the Aboriginal Heritage Information Management System (AHIMS). An AHIMS Site Recording Form should be completed and submitted to the AHIMS Registrar (http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm), for each Aboriginal site found during investigations.

3 Biodiversity

Biodiversity impacts can be assessed using **either** the BioBanking Assessment Methodology (scenario 1) or a detailed biodiversity assessment (scenario 2). The requirements for each of these approaches are detailed below.

The BioBanking Assessment Methodology can be used to assess impacts of a proposal and to determine required offsets. Offset options may be developed in consultation with OEH officers and in accordance with the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects.'

Scenario 1 - Where a proposal is assessed using the BioBanking Assessment Methodology (BBAM)

1. Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets, and a BioBanking Statement is not being obtained, the EIS should contain a detailed biodiversity assessment and all components of the assessment must be undertaken in accordance with the *BioBanking Assessment Methodology and Credit Calculator Operational Manual* (DECCW, 2008).

2a. The EIS should include a specific Statement of Commitments which:
- is informed by the outcomes of the proposed BioBanking assessment offset package;
- sets out the ecosystem and species credits required by the BioBanking Assessment Methodology and how these ecosystem and/or species credits will be secured and obtained;
- demonstrates how all options have been explored to avoid red flag areas; and
- includes all relevant 'BioBanking files (e.g. *.xml output files), data sheets, underlying assumptions (particularly in the selection of vegetation types from the vegetation types database), and documentation (including maps, aerial photographs, GIS shape files, other remote sensing imagery etc.) to ensure that the OEH can conduct an appropriate review of the assessment.

3. Where the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects' is being used then the proponent must stipulate which level(s) of offset is being offered in relation to each of the vegetation communities and threatened species that require species credits. In accordance with

the interim policy, justification must be provided as to why it is appropriate to apply the Tier 2 ('no net loss') or Tier 3 ('mitigated net loss') outcomes. In considering whether the mitigated net loss standard is appropriate, justification must be provided on: (i) whether the credits required by the calculator are available on the market; (ii) whether alternative offset sites (other than credits) are available on the market; and (iii) the overall cost of the offsets and whether these costs are reasonable given the circumstances'. This must be to satisfaction of, and in consultation with, OEH.

4. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Please refer to the *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water* (DECCW, 2010).

5. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify and assess any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

Scenario 2 - Where a proposal is assessed outside the BioBanking Assessment Methodology:

1. The EIS should include a detailed biodiversity assessment, including assessment of impacts on threatened biodiversity, native vegetation and habitat. This assessment should address the matters included in the following sections.

2. A field survey of the site should be conducted and documented in accordance with 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
   - Threatened species survey and assessment guideline information on www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm.
   - Commonwealth survey requirements (birds, bats, reptiles, frogs, fish and mammals): http://www.environment.gov.au/epbc/publications/guidelines.html. These are relevant when species or communities listed under the *Environment Protection and Biodiversity Conservation Act* are present.

It is preferable for proponents to use the Interim Vegetation Mapping Standard data form to collect the vegetation plot data for the project site, and any offset site associated with the project. This will provide data that is useful for vegetation mapping as well as in the BioBanking Assessment Methodology. This is available at http://www.environment.nsw.gov.au/research/VISplot.htm.

If a proposed survey methodology is likely to vary significantly from the above methods, the proponent should discuss the proposed methodology with the OEH prior to undertaking the EIS, to determine whether the OEH considers that it is appropriate.

Recent (less than five years old) surveys and assessments may be used. However, previous surveys should not be used if they have:
- been undertaken in seasons, weather conditions or following extensive disturbance events when the subject species are unlikely to be detected or present, or
- utilised methodologies, survey sampling intensities, timeframes or baits that are not the most appropriate for detecting the target subject species,

unless these differences can be clearly demonstrated to have had an insignificant impact upon the outcomes of the surveys. If a previous survey is used, any additional species listed under the TSC Act since the previous survey took place, must be surveyed for.

Determining the list of potential threatened species for the site must be done in accordance with the *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft* (DEC, 2004) and the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005). The OEH Threatened Species website http://www.environment.nsw.gov.au/threatenedspecies/ and the *Atlas of NSW Wildlife* database must be the primary information sources for the list of threatened species present. The BioBanking Threatened Species Database, the Vegetation Types databases (available on OEH website at http://www.environment.nsw.gov.au/biobanking/biobankingtspd.htm and http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm, respectively) and other data sources (e.g. PlantNET, Online Zoological Collections of Australian Museums (http://www.ozcam.org/), previous or nearby surveys etc.) may also be used to compile the list.

3. The EIS should contain the following information as a minimum:
   a. The requirements set out in the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005);
   b. Description and geo-referenced mapping of study area (and associated spatial data files), e.g. overlays on topographic maps, satellite images and /or aerial photos, including details of map datum, projection and zone, all survey locations, vegetation communities (including classification and methodology used to classify), key habitat features and reported locations of threatened species, populations and ecological communities present in the subject site and study area. Separate spatial files (.shp format) to be provided to the OEH should include, at a minimum, shapefiles of the project site, impact footprint, vegetation mapping and classification for both the impact and any offset site(s);
   c. Description of survey methodologies used, including timing, location and weather conditions;
   d. Detailed description of vegetation communities (including classification and methodology used to classify) and including all plot data. Plot data should be supplied to the OEH in electronic format (eg MS-Excel) and organised by vegetation community;
   e. Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EIA;
   f. Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status;
   g. Description of the likely impacts of the proposal on biodiversity and wildlife corridors, including direct and indirect and construction and operation impacts. Wherever possible, quantify these impacts such as the amount of each vegetation community or species habitat to be cleared or impacted, or any fragmentation of a wildlife corridor;
   h. Identification of the avoidance, mitigation and management measures that will be put in place as part of the proposal to avoid or minimise impacts, including details about alternative options considered and how long term management arrangements will be guaranteed;
   i. Description of the residual impacts of the proposal. If the proposal cannot adequately avoid or mitigate impacts on biodiversity, then a biodiversity offset package is expected (see the requirements for this at point 6 below); and
   j. Provision of specific Statement of Commitments relating to biodiversity.

4. An assessment of the significance of direct and indirect impacts of the proposal must be undertaken for threatened biodiversity known or considered likely to occur in the study area based on the presence of suitable habitat. This assessment must take into account:
   a. the factors identified in s.5A of the EP&A Act; and
   b. the guidance provided by *The Threatened Species Assessment Guideline – The Assessment of Significance (DECCW, 2007)* which is available at: http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf

5. Where an offsets package is proposed by a proponent for impacts to biodiversity (and a BioBanking Statement has not been sought) this package should:

a) Meet either the OEH's *Principles for the use of biodiversity offsets in NSW*[1], which are available at: www.environment.nsw.gov.au/biocertification/offsets.htm, or the *OEH Interim policy on assessing and offsetting biodiversity impacts of part 3A developments*;
b) Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites; and
c) Include an appropriate Management Plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.

6. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Refer to the *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water* (DECC, 2010).

7. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

[1] Please note that the OEH's *Principles for the use of biodiversity offsets in NSW* ('the Principles') and the *Interim policy on assessing and offsetting biodiversity impacts of Part 3A developments* ('the Interim policy') require offsets to be based on a quantitative assessment of the loss in biodiversity from the proposal and the gain in biodiversity from the offset. The methodology must be based on the best available science, be reliable, and used for calculating both the impact and offset sites. Even where a proponent does not intend to use the BioBanking Assessment Methodology and Credit Calculator (Scenario 1), use of a suitable alternative metric, justified in the EA, is necessary to demonstrate that the proposal is consistent with the Principles or the Interim policy. Ultimately the proponent is expected to demonstrate quantitatively that the biodiversity losses associated with the project will be adequately compensated for by the improvement in vegetation condition and security expected from the offset site. This cannot be properly determined by a hectare comparison alone.

ATTACHMENT B: EIA REQUIREMENTS - FLORA AND FAUNA

INTRODUCTION

The *Environmental Planning and Assessment Act (1979)* (*EP&A Act*) requires that proponents of a development/activity and the Consent/Determining Authorities adequately assess the impact of a development or activity in any Environmental Impact Assessment (EIA) documents. These EIA documents include:

- Statement of Environmental Effects (SoEE), or
- Review of Environmental Factors (REF), or
- Environmental Impact Statement (EIS).

These are introductory, generic specifications of the Office of Environment and Heritage (OEH) for an adequate assessment of the impacts of a development proposal on native flora and fauna (ie including protected and threatened species). However, OEH recognises that the scale and complexity of the project will to some extent, dictate the level of information that is required to address the questions posed below. Consequently, flora and fauna assessments need to be tailored to suit the proposal. For example, a development which is proposed on land which has already been totally (or substantially) cleared should address the issues raised below but the amount of work required to address these issues may be substantially less than if the area comprised undisturbed bushland and, therefore, of more significant wildlife habitat value. A preliminary assessment, including a desktop investigation and a preliminary site inspection, may indicate the need for a detailed survey of the site.

It is up to the proponent (and later the consent and/or determining authorities after appropriate consultation) to determine the detail and comprehensiveness of assessment required to form legally defensible conclusions regarding the impact of the proposal. The scale and intensity of the proposed development should dictate the detail of investigation.

It is important that all conclusions are supported by adequate data and that these data are clearly presented in EIA documentation.

OEH will consider the following issues when reviewing an EIA document:

1. **Concerns** - What are OEH's concerns regarding the conservation of natural and cultural heritage in accordance with the relevant legislation? Is the proposal likely to affect natural and cultural heritage? How?
2. **Provision of Information** - Is adequate information provided for a valid assessment of the impacts?
3. **Validity of Conclusions** - Has the proponent arrived at valid conclusions as a result of the assessment of impacts?
4. **Recommended Conditions to Consent** - Should Consent or Approval be granted, what conditions (if any) are required to ensure that the project is developed, and thereafter managed in accordance with natural and cultural heritage conservation and the provisions of legislation administered by OEH?

Thus the EIA document should fully describe the existing environment including flora and fauna, so that future impacts can be properly assessed and then reviewed (eg during the public participation phase).

FLORA

Background

The Australian flora comprises many endemic taxa and is therefore unique in the world.

OEH is concerned at the extent to which vegetation has been cleared and otherwise modified in north-western NSW. This high level of modification has been highlighted in the National State of the Environment Reports (1996 and 2001). Evidence strongly suggests that many plant species and communities are threatened with extinction.

Although the proposed site may be disturbed by various landuses, any remnants of native vegetation are of significant natural heritage value, including riparian and wetland areas. The area of vegetation and habitat at the proposed site may provide an area of high biological diversity, high conservation value or may not be well represented or protected elsewhere. It may also act as a corridor or migratory route for wildlife, drought refuge habitat or have other important values.

The NSW community places a high value on those areas of native vegetation that remain. OEH is committed to the protection, appropriate management, and where necessary, rehabilitation of native vegetation. For these reasons, OEH considers that careful planning should precede any development that involves further vegetation clearance or other significant impact within areas of remnant vegetation.

Negative impacts to native vegetation (eg clearing) should be avoided where possible. Where impacts cannot be avoided, the EIA should detail how a "maintain or improve" outcome for biodiversity will be achieved. Biobanking provides a voluntary mechanism through which this can be achieved. The Biobanking assessment methodology allows quantification of impacts and assessment of the value of offset areas and associated management regimes for those areas. The biobanking scheme provides an alternative path for proponents to the current threatened species assessment of significance process.

Information about Biobanking is located on OEH's website at http://www.environment.nsw.gov.au/biobanking/

Report Requirements

The EIA documentation should include a report on the flora that includes the following:

- detailed location map and identification of the area surveyed (including the location of photographs, transects, areas of significance etc),
- at least one of the following: a land satellite image, vegetation communities map, aerial photograph, or a remnant vegetation map,
- A map identifying the vegetation communities located in the study area and the areas of each vegetation community to be impacted.
- a complete plant list (including scientific names of those plants) of all tree, shrub, ground cover and aquatic species, categorised according to country of origin (ie., native versus exotic),
- a detailed description of vegetation structure (in terms of a scientifically accepted classification system) and spatial distribution (i.e. plant densities and patterning) on the site, including a vegetation map,
- describe the condition and integrity of the vegetation including a description of any past disturbance,
- an account of the likely original vegetation communities (pre-, or at early settlement), and an assessment of the likely regional distribution of the original communities,
- an assessment of whether the plant communities are adequately represented in conservation reserves or otherwise protected,

- an account of the hydrology of the area and how this relates to the dynamics of the vegetation communities,
- a list of **known** and **likely** threatened species as listed under Schedules 1 & 2 (*Threatened Species Conservation Act 1995*) which might occur at the site. The OEH database needs to be accessed and the likelihood of occurrence of threatened flora species determined,
- an assessment of the impacts of the proposal on flora, on-site and off-site (eg siltation, water availability or drainage changes) and measures to mitigate these impacts,
- an assessment of the significance of the impact of the development at both the site and at the regional scale,
- a detailed rehabilitation/management plan including a list of the plant species to be used during rehabilitation (if required),
- detail methodologies used and a list of the reference literature cited, and
- any other issues that may be considered relevant.

The above guidelines will provide some of the information necessary to conduct an Assessment of Significance required for threatened flora and fauna under Section 5a of the *EP&A Act*, should threatened species be likely or known to occur in the locality of the subject development proposal. Similarly, it will provide some of the information required if an application is found to be necessary under the *Native Vegetation Act (2003)*. However the above relates mostly to the specific environmental assessment processes under the *EP&A Act* and does not constitute an Assessment of Significance.

Similarly, the above guidelines will provide some of the information required for Biobanking, but may not be sufficient for Biobanking offset calculations. Please refer to the Biobanking website or contact OEH for specific information relating to Biobanking assessment requirements. The Biobanking scheme provides an alternative path for proponents to the current threatened species assessment of significance process.

FAUNA

Background

Evidence suggests that Western NSW has suffered the highest extinction rate for indigenous mammals of any region in the world. Many other vertebrate species are currently threatened. One of the major reasons for such a high level of extinction has been the destruction of habitat. Native vegetation including wetland, riparian and remnant environments are very significant areas of fauna habitat. Therefore any development in such areas should fully consider the impact on fauna and its habitat.

Report Requirements

The EIA document should include a report on the fauna (including protected and threatened species), that includes the following:

- detailed location map and identification of the area surveyed (including the location of photographs, transects, areas of significance etc),
- at least one of the following: a land satellite image, vegetation communities map, aerial photograph, or a remnant vegetation map,
- a complete list of all **known** and **likely** terrestrial and aquatic species (eg birds, mammals, reptiles and amphibians including scientific names). It is suggested that invertebrates also be considered as they form part of the food chain for many fauna species,

- those species which are protected, threatened or listed under any international agreements, as well as introduced species,
- those species known or likely to breed in the area,
- any species which have specific habitat requirements found within the project area,
- those species or populations which may be near the limit of their geographic range or are a disjunct/isolated population,
- assessment of the importance or otherwise of the location as a corridor, migratory route or drought refuge, in relation to other remnant vegetation, riparian and wetland areas or habitat in the region,
- assessment of the impacts of the proposal on all fauna and its habitat, at both the site and at the regional scale,
- identification of any mitigation measures proposed to limit or ameliorate the impact of the proposal,
- detailed methodologies used and a list of the reference literature cited, and,
- any other issues that may be considered relevant.

Again, the above guidelines will provide some of the information required for the Threatened Species component of Biobanking, but may not be sufficient for Biobanking offset calculations. Please refer to the Biobanking website or contact OEH for specific information relating to Biobanking assessment requirements

SEPP No. 44 - Koala Habitat Protection

The Shire may be listed in Schedule 1 of SEPP No. 44 - Koala Habitat Protection. If so, the requirements of the SEPP regarding Koala habitat protection should be considered by the proponents.

THREATENED SPECIES OF FAUNA AND FLORA

Background

Apart from the need to consider the impact on protected species, the proponent will need to address the requirements of legislation that currently governs threatened species protection and impact assessment in NSW.

The *Threatened Species Conservation Act (1995)* (*TSC Act*) protects all threatened flora and fauna native to NSW (excluding fish and marine plants). The proponent will need to consider the provisions of this Act.

The *TSC Act* contains lists of threatened species, which are divided into a number of categories – those presumed extinct, endangered species, critically endangered species and vulnerable species. It also contains lists of endangered populations, endangered ecological communities, critically endangered ecological communities and vulnerable ecological communities. This Act also allows for the declaration of critical habitat, key threatening processes and the preparation of both Recovery Plans and Threat Abatement Plans. These listings and plans must be considered as part of the EIA process.

If an activity or development is proposed in a locality likely or known to be occupied by a threatened species, population, ecological community or critical habitat, any potential impact to that threatened species must be taken into account during the development assessment process. However under the *EP&A Act*, some types of development are not required to go through approval processes. Please note that a licence may still be required under the *TSC Act* if such a development/activity is likely to harm a threatened species, population or ecological community.

Proponents can voluntarily use BioBanking to minimise and offset their impacts on biodiversity. The scheme provides an alternative path for proponents to the current threatened species assessment of significance process.

Assessment of Significance & Species Impact Statements

If during the flora or fauna assessment or survey, threatened species are **found** or are **likely** to occur in the area, the proponents must undertake an Assessment of Significance as outlined in section 5A of the *EP&A Act* to determine whether or not the development would be likely to have a significant impact upon threatened species.

The Assessment of Significance is a statutory mechanism which allows decision makers to assess whether a proposed development or activity is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats.

The Assessment of Significance is contained within section 5A of the *EP&A Act* and consists of seven factors which need to be addressed for informed decisions to be made regarding the effect of a proposed development or activity on threatened species, populations or ecological communities, or their habitats. A copy of OEH's *Threatened species assessment guidelines: The assessment of significance* can be obtained from the OEH website at:

http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf

Following threatened species assessment via the Assessment of Significance, it may be necessary to prepare a Species Impact Statement (SIS). The proponent will need to prepare a SIS in the following circumstances:

- If (after having addressed Section 5A) the flora/fauna assessment concludes that there is likely to be a significant impact to threatened species, or
- The proposed development is likely to affect critical habitat declared under the TSC Act.

If a SIS is required, the proponent (not the consultant) must write to OEH for any formal requirements for the SIS that he might deem appropriate. The SIS must then be prepared in accordance with these requirements and provided to the OEH. In some instances the Minister for the Environment will also need to be consulted for approval.

Methods to reduce the impact on the protected and threatened species should be considered fully, and are considered an integral requirement within any SIS document.

The OEH advises that conducting an Assessment of Significance or an SIS according to the provisions of the *EP&A Act* and the *TSC Act* is a complex task and should be undertaken by suitably qualified person(s).

AVAILABLE DATA

OEH can supply, at the standard cost, fauna prediction data and recorded fauna sightings data (Wildlife Atlas of NSW) to help in the investigation. The following information on site recordings of Flora and Fauna is available from OEH:

- A general search for flora and fauna records can be conducted through the Atlas of NSW Wildlife at: http://www.bionet.nsw.gov.au/

  Please note that not all the information associated with the individual records is available on this website. You can apply to the Office of Environment and Heritage for more detailed information about individual sightings (terms and conditions apply). Contact the Wildlife Data Unit for more information on (02) 9995 5000.

- Detailed information relating to threatened species, populations, ecological communities and their habitats can be obtained from the OEH Threatened Species website at:

  http://www.threatenedspecies.environment.nsw.gov.au/index.aspx

Other reference literature may be available for the subject locality/region. The proponent should explore this possibility thoroughly.

Attachment C – Guidance Material

Title	Web Address
Commonwealth Environment Protection & Biodiversity Conservation Act 1999	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Threatened Species Conservation Act 1995	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Aboriginal Cultural Heritage	
Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (2005)	Available from DoP.
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/licences/consultation.htm
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	http://www.environment.nsw.gov.au/licences/archinvestigations.htm
Due Diligence Code for the Protection of Aboriginal Objects in NSW (DECCW 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecordingForm.htm
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Biodiversity	
BioBanking Assessment Methodology (DECC, 2008)	http://www.environment.nsw.gov.au/resources/biobanking/08385bbassessmethod.pdf
BioBanking Assessment Methodology and Credit Calculator Operational Manual (DECCW, 2008)	http://www.environment.nsw.gov.au/biobanking/calculator.htm
Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna –Amphibians (DECCW, 2009)	http://www.environment.nsw.gov.au/resources/threatenedspecies/09213amphibians.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
Survey requirements (birds, bats, reptiles, frogs, fish and mammals) for	http://www.environment.gov.au/epbc/publications/guidelines.html

species listed under the EPBC Act	
DECCW Threatened Species website	http://www.environment.nsw.gov.au/threatenedspecies/
Atlas of NSW Wildlife	http://www.environment.nsw.gov.au/wildlifeatlas/about.htm
BioBanking Threatened Species Database	http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/home_species.aspx
Vegetation Types databases	http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm
PlantNET	http://plantnet.rbgsyd.nsw.gov.au/
Online Zoological Collections of Australian Museums	http://www.ozcam.org/
Threatened Species Assessment Guideline - The Assessment of Significance (DECCW, 2007)	http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf
Principles for the use of biodiversity offsets in NSW	http://www.environment.nsw.gov.au/biocertification/offsets.htm

Transport
Roads & Maritime
Services

WST13/00117

Mr David Walker
Town Planner
Geolyse Pty Ltd
PO Box 1963
ORANGE NSW 2800

RECEIVED
29 OCT 2013
BY:

Dear Sir

DA2013/015: Lot 107 DP 822472 and Part Lot 7301 DP 1161404;
Canonba Road, Nyngan; Nyngan Waste and Resource Management Facility

Thank you for your email on 11 October 2013 referring development application DA2013/015 to Roads and Maritime Services for comment.

The Environmental Impact Statement prepared by RW Corkery & Co has been reviewed and Roads and Maritime notes the following:

- The proposed development is an extension to the existing waste management facility and will extend the life of the facility by 16 years.
- Waste cells will be provided as needed (expected to be 1 new cell every 9 months). Cells will be excavated using machinery which is garaged and operated at the waste management facility.
- The proposed development will not generate any additional operational traffic.
- Construction traffic will be limited to the construction and delivery of a site office for staff.

After consideration of the Environmental Impact Statement, Roads and Maritime makes no submission in relation to the development application.

Please forward a copy of Council's determination of the development application to Roads and Maritime at the same time it is sent to the applicant. Should you require further information please contact Andrew McIntyre on (02) 68611453.

Yours faithfully

29 OCT 2013

Tony Hendry
Road Safety & Traffic Manager
Western

Department of Primary Industries
Office of Water

Contact Tim Baker
Phone 02 6841 7403
Mobile 0428 162 097
Fax 02 6884 0096
Email Tim.Baker@water.nsw.gov.au

Our ref ER22540

Timothy Riley
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Dear Timothy

Environmental Impact Statement for the Nyngan Waste and Resource Management Facility

I refer to your letter dated 17th July 2013 requesting comments from the NSW Office of Water in relation to the exhibited Environmental Impact Statement (EIS) for the Nyngan Waste and Resource Management Facility. The NSW Office of Water appreciates the opportunity to comment and recommends the following points be considered and incorporated prior to determination of the project.

- It is recognised an existing groundwater monitoring network is installed. Based on a license search of the area no licences could be identified for the installed monitoring bores. The NSW Office of Water advises a Part 5 licence under the *Water Act 1912* is required for monitoring bores hence this represents non-compliance. It is recommended contact be made with the Office of Water at Dubbo to confirm the licensing requirements.
- The proposed groundwater monitoring program is supported.
- Section 4.3.2 refers to a statement that the site is not flood prone. Further justification is requested to confirm this including a map of the flood extent during the 1991 flood in relation to the site and the Annual Recurrence Interval (ARI) of that event.
- Section 4.3.3 and the Statement of Commitments refers to the proposal to extend an existing surface water diversion bund to prevent clean water entering the site. It is recommended design is in accordance with the guidelines, *Managing Urban Stormwater* (Landcom 2004). The following is requested in relation to this structure:
    - A plan indicating the existing and proposed bund and to confirm the flow paths.
    - Concept cross-sectional and slope design.
    - An assessment of the potential impacts of diverting the flows to the downstream lands.
    - Proposed mitigating measures to stabilise the bund and discharge points.

Should you have any further queries in relation to this submission please do not hesitate to contact Tim Baker on (02) 6841 7403.

Yours sincerely

Vickie Chatfield
Manager Water Regulation Central/Far West
29 August 2013

Department of Primary Industries
Office of Water

Contact Tim Baker
Phone 02 6841 7403
Mobile 0428 162 097
Fax 02 6884 0096
Email Tim.Baker@water.nsw.gov.au

Our ref ER22540

David Walker
Geolyse Pty Ltd
PO Box 1963
ORANGE NSW 2800

Dear David

Environmental Impact Statement for the Nyngan Waste and Resource Management Facility – additional information

I refer to your email dated 1st October 2013 and a supporting email from Mitchell Bland (R.W. Corkery & Co.) in response to a letter from the NSW Office of Water dated 24th September 2013. The NSW Office of Water has reviewed the information and provides the following comments to assist in determining the proposal:

- The response provided indicates the minimal potential for flood related impacts due to the project. Amendments to the proposed bund and clean water diversion structure may require further comment from the NSW Office of Water.
- Your interpretation of the response timeframe in relation to GTAs is consistent with the understanding of the NSW Office of Water. However, as you are probably aware, the NSW Office of Water is not an integrated approval body for this development as the *Water Management Act 2000* was not selected on the development application form. It is understood the applications for the existing monitoring bores are not part of the current development application.
- It is recommended a Construction Management plan be developed to address the following:
    - Clean water diversion design and management to ensure stability,
    - Dirty water management within the site,
    - Sediment and Erosion Control,
    - Consistency with the guidelines, "*Managing Urban Stormwater: Soils and Construction* (Landcom 2004).
- It is recommended the proposed Groundwater Monitoring form a part of an Operational Management Plan for the site.

Should you have any further queries in relation to this submission please do not hesitate to contact Tim Baker on (02) 6841 7403.

Yours sincerely

Vickie Chatfield
Manager Water Regulation Central/Far West
4 October 2013

Department of Primary Industries
Office of Water

Contact Tim Baker
Phone 02 6841 7403
Mobile 0428 162 097
Fax 02 6884 0096
Email Tim.Baker@water.nsw.gov.au

Our ref ER22540

Timothy Riley
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Dear Timothy

Environmental Impact Statement for the Nyngan Waste and Resource Management Facility

I refer to your email and supporting information dated 20th September 2013 responding to a letter from the NSW Office of Water in relation to the exhibited Environmental Impact Statement (EIS) for the Nyngan Waste and Resource Management Facility. The NSW Office of Water has reviewed the information and provides the following recommendations to Council to assist in finalising the proposal:

- In relation to the relevant licence applications for the monitoring bores Council are requested to ensure the IMPAX group lodge these with the NSW Office of Water within a 1 month period from the date of this letter. Inclusion of relevant bore log details are also requested in support of the applications.
- It is recognised the site is an area that may receive water during flood periods however this water is likely to be relatively still and may form part of a flood storage area rather than an active flowing part of the floodplain. In terms of the proposal for a 1.5m bund to protect the site from flood water the following is recommended:
    - Council consider the proximity of houses with floor levels below the height of the proposed bund and the potential to impact flood levels at these houses.
    - Council confirm the road heights on the Canonba Rd and Moonagee Rd and the potential to impact flood levels on these roads.

Should you have any further queries in relation to this submission please do not hesitate to contact Tim Baker on (02) 6841 7403.

Yours sincerely

Vickie Chatfield
Manager Water Regulation Central/Far West
24 September 2013

Office of Environment & Heritage

Your reference:
Our reference: DOC13/42929
Contact: Liz Mazzer 68835325
Date: 14th August 2013

General Manager
Bogan Shire Council
PO Box 221
Nyngan NSW 2825

Dear Sir

RE Proposed Expansion of the Nyngan Waste and Resource Management Facility

Thank you for your letter (sent by RW Corkery on 12th February 2013) seeking advice from the Office of Environment and Heritage (OEH) regarding the Environmental Impact Statement (EIS) for the proposed expansion of the Nyngan Waste and Resource Management Facility.

OEH responsibilities

The OEH can provide advice on the EIS where it deals with natural and cultural heritage conservation issues. The OEH may also comment on the legitimacy of the conclusions reached regarding the significance of impacts by the proposed development to these components of the environment.

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that the EIS should fully describe the proposal, the existing environment and impacts of the proposal.

Please note that it is up to the proponent (and later the consent authority after appropriate consultation) to determine the detail and comprehensiveness of the surveys and level of assessment required to form legally defensible conclusions regarding the impact of the proposal. The scale and intensity of the proposed development should dictate the level of investigation. It is important that all conclusions are supported by adequate data.

The OEH has responsibilities under the:

- *National Parks and Wildlife Act 1974* - namely the protection and care of Aboriginal objects and places, the protection and care of native flora and fauna and the protection and management of reserves; and the
- *Threatened Species Conservation Act 1995* which aims to conserve threatened species of flora and fauna, populations and ecological communities to promote their recovery and manage processes that threaten them.
- *Native Vegetation Conservation Act 2003* – ensuring compliance with the requirements of this legislation.

It is the responsibility of the proponent and consent authority to adequately consider the requirements under the *Environmental Planning and Assessment Act 1979* (EP&A Act), including flora, fauna, threatened species, populations and ecological communities and their habitats, and cultural heritage.

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Level 1 48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5312 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

OEH understands from the correspondence that the proposed activity is a Part 4 application pursuant to the *EP&A Act 1979*. As such OEH only has a statutory role in assessing such an activity if the consent authority determines that:

a) the activity is likely to significantly affect a threatened species, population, ecological community, or its habitat, as listed under the *Threatened Species Conservation (TSC) Act 1995*; and/or

b) An Aboriginal Heritage Impact Permit is required.

Cultural Heritage

OEH considers that the Aboriginal Cultural Heritage (ACH) assessment is adequate, and has no major issues to raise with regard to the report's findings, recommendations, and how the ACH assessment was conducted.

Biodiversity

Flora and fauna assessment

Section 4.4.2 of the EIS states that a field survey was conducted over one day on the 27th May 2010, and therefore a detailed flora and fauna survey has not been conducted. The vegetation communities have been identified, mapped and aligned with the *BioMetric* Database. Section 2.1.2 of the Terrestrial Ecology Assessment states,

Detailed botanical survey for native plants was carried out and the observed species composition within the community was aligned to the BioMetric database.

No details of species recorded during the survey, or maps of locations of survey transects, have been included in the EIS or Terrestrial Ecology Assessment. Therefore, the accuracy of identification of the vegetation communities cannot be verified. In addition, condition of the vegetation communities and habitat components, such as groundcover, shrub layers or fallen timber, have not been identified.

While the vegetation communities have been aligned with those in the BioMetric database, there is no indication as to whether a full BioBanking analysis has been conducted. This would be required to calculate offset requirements for impacts on all affected native vegetation communities.

OEH recommends that Council considers an appropriate offset for all vegetation communities to be cleared, particularly if the facility is to be further expanded in the future as outlined in section 2.1.2 of the EIS.

Further assessment of the impacts of the proposal on native fauna is required. This includes whether there is likely to be any use of the leachate evaporation pond by native species and the impacts of pest species on native fauna.

Threatened species

OEH supports the modification of the proposal to avoid the Myall Woodland EEC, and the planting of Myall Woodland species as screening vegetation.

The threatened species assessment only addresses Grey-crowned Babbler and Superb Parrot, and does not consider the potential impacts of changes in pest species populations on these birds.

Other species that will be potentially impacted by this proposal have not been assessed. There are a number of additional threatened species that have been recorded within ten kilometres of the site. The presence/absence of appropriate habitat components, potential impacts of clearing of native vegetation, possible use of the leachate evaporation pond and possible changes to introduced species populations should be considered for the following additional species at a minimum:

- Barking Owl
- Diamond Firetail
- Little Eagle
- Spotted Harrier
- Yellow-bellied Sheathtail Bat
- Brown Treecreeper
- Hooded Robin
- Major Mitchell's Cockatoo
- White-fronted Chat

The Assessment of Significance should be conducted for the additional species and expanded for the Grey-crowned Babbler and Superb Parrot.

Pest management

The Director-General's requirements issued on 8th November 2012 includes a requirement,

The EIS must outline pest, vermin and noxious weeds.

There is no assessment of the potential impact of pests, vermin or noxious weeds included in either the EIS or Terrestrial Ecology Assessment except for one sentence in section 2.5.2.5 of the EIS,

Implement appropriate weed and pest animal control (e.g. rodents).

OEH considers that a detailed assessment of pests is required. In particular, the following issues should be addressed:

- Pest animals (particularly rodents, foxes and feral cats and dogs) currently present at the site,
- Whether populations of these species are likely to increase due to the proposal,
- What the impact of pest species is likely to be on native species (in particular threatened species). For example, threatened birds such as Grey-crowned Babblers may experience an increase in predation from foxes, cats and native predators. Predatory birds (such as Black Kites and Barking Owls) and Spotted-tailed Quolls may prey on rodents attracted to the waste facility,
- A weed and pest animal control plan should be developed. This should include methods to minimise potential bait uptake and/or secondary poisoning by native species and should be included in the Statement of Commitments.

Should you require further information, please contact Liz Mazzer on (02) 68835325 or email liz.mazzer@environment.nsw.gov.au.

Yours sincerely,

SONYA ARDILL
Team Leader, Planning
North-West Region

Gloria Barclay

From: Liz Mazzer [Liz.Mazzer@environment.nsw.gov.au]
Sent: Monday, 18 November 2013 11:48 AM
To: David Walker
Subject: RE: 211054 - Your Ref: DOC13/42929 Expansion of Nyngan Waste Management Facility

Dear David

The additional information sent to OEH on 11th September 2013 has addressed issues raised in our submission dated 14th August 2013.

Based on the information provided, we have no further comments to make on the proposal at this stage. Please note that if subsequent information indicates that areas within the OEH's responsibility require further investigation, we may provide future input.

Please contact me if you have any further queries

Regards

Liz Mazzer

From: David Walker [mailto:dwalker@geolyse.com]
Sent: Monday, 18 November 2013 11:30 AM
To: Mazzer Liz
Cc: Orange Document Control
Subject: 211054 - Your Ref: DOC13/42929 Expansion of Nyngan Waste Management Facility

Good morning Liz,

Geolyse is currently preparing an assessment report of the DA for the expansion of the Nyngan Waste Management Facility on behalf of Nyngan Shire Council.

We note the comments provided by OEH in relating to this application via correspondence dated 14 August 2013. We also note the response to this prepared by Bogan Shire Council and R W Corkery's dated 11 September 2013. We do not have a record of receiving any further comment on this matter subsequent to the Council's last letter. Can you please confirm whether OEH intends to respond to the matters raised in the most recent correspondence or whether OEH are now satisfied with the application?

I look forward to your response.

Kind regards,

David Walker
Town Planner
Geolyse Pty Ltd
154 Peisley St
PO Box 1963
Orange NSW 2800
Ph: 02 6393 5000
Fx: 02 6393 5050
Mob: 0437 621 057
Email: dwalker@geolyse.com
Web: www.geolyse.com

.....

Reference: DOC13/120491

The General Manager
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Attention: Mr T Riley, Manager Development and Environmental Services

Dear Mr Riley,

Environmental Impact Statement –
Nyngan Waste and Resource Management Facility

Reference is made to your letter dated 17 July 2013 in regard to the proposed Nyngan Waste and Resource Management Facility.

The proposal has been reviewed and the Department of Trade & Investment, Crown Lands has no further comment.

It is noted that Council is in the process of undertaking a compulsory acquisition of the site and that as an interim measure, has lodged an application for a Crown Lands Act licence to authorise Council's use and occupation of the site until such time as the acquisition is finalised.

If you have any queries in regard to this matter please do not hesitate to contact me direct on 6883 5410.

Yours sincerely,

Elizabeth Burke
Group Leader, Property Management Services, Central West

26 August 2013

Appendix C

REFERRAL CONDITIONS INCLUDING EPA GTA'S

Our reference: EF13/8584 ; DOC13/76301
Contact: Michelle Gibson, 02 68 835 330

The General Manager
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Attention: Mr Tim Riley

Dear Mr Riley

Thank you for your letter relating to the Environment Protection Authority's (EPA's) draft General Terms of Approval (GTA'S) for development application ref 2013/015 for the Nyngan Waste and Resource Management Facility, DA 2013/015 received by the Environment Protection Authority (EPA) on 16 October 2013.

Additionally I refer to:

- Request for comments and draft GTA's from the EPA to Bogan Shire Council dated 30 September 2013.

The EPA has reviewed your comments on the draft GTA's. In response to Councils comments the EPA would like to provide the following advice.

Conditions L6.1, M7.1 and M7.2
The EPA concurs with Councils request to omit the need for a weather station and rely on data from the Nyngan Airport. This will remain in the GTA's, however will not be included on the Environment Protection Licence (EPL) for the premise once issued. The need for an onsite meteorological station will be revisited in the event of complaints received or if offsite dust or noise impacts are encountered.

Condition O11.4
The EPA concurs and has amended this Condition.

Condition O21.1
The EPA concurs and has amended this Condition.

Condition M2.1
The EPA disagrees with this request for amendment. Methane monitoring has been required on similar sized licenced landfills. However the EPA is amenable to reviewing the need for methane monitoring if results are satisfactory over a reasonable period of time to demonstrate methane emissions are negligible. The EPA believes two years from the issue of the EPL would be a reasonable period of time to establish this.

The EPA concurs with the proposed annual monitoring from the Leachate collection dam and this condition has been amended accordingly. The EPA disagrees with the proposed groundwater monitoring amendments. The intention of this condition is to allow for timely

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detection of groundwater impacts. However, the EPA is amendable to reviewing this condition pending the outcomes of monitoring over a reasonable period of time to demonstrate the premise is not impacting on groundwater.

Condition R4.2
The EPA concurs and has amended this Condition.

The EPA have revisited the draft GTA's as outlined above and the GTA's have now been issued.

Should you have any further enquiries regarding this matter please contact Michelle Gibson at the Dubbo Office of the EPA by telephoning (02) 6883 5330.

Yours sincerely

28/10/13

BRADLEY TANSWELL
Acting Head Far West Operations
Environment Protection Authority

Enclosed General Terms of Approval Notice 1517118

Protection of the Environment Operations Act 1997

General Terms of Approval - Issued

Notice No: 1517118

The General Manager

Bogan Shire Council

PO Box 221

NYNGAN NSW 2825

Attention: Mr Tim Riley

Notice Number	1517118
File Number	LIC12/618
Date	28-Oct-2013

Re: "Nyngan Waste and Resource Management Facility - DA 2013/015"

Issued pursuant to Section 91A(2) Environmental Planning and Assessment Act 1979

I refer to the development application and accompanying information provided for the Nyngan Waste and Resource Management Facility received by the Environment Protection Authority (EPA) on 14 February 2013.

Additionally I refer to:

- EPA request for additional information letter dated 5 April 2013;
- Letter from Bogan Shire Council dated 17 July 2013 and enclosed approval body fee of $320;
- EPA Letter to Bogan Shire Council dated 25 July 2013;
- Additional Information response from Bogan Shire Council, dated 20 August 2013 and
- Response from Bogan Shire Council, dated 16 October 2013

The EPA has reviewed the information provided and has determined that it is able to issue a licence for the proposal, subject to a number of conditions. The applicant will need to make a separate application to EPA to obtain this licence.

The EPA would like to take this opportunity to remind the proponent that Scheduled Development Works or Scheduled Activities associated with the proposed expansion are not permitted onsite until Scheduled Development Work and Scheduled Activity licenses are issued by the EPA.

The general terms of approval for this proposal are provided at **Attachment A.** If the Joint Regional Planning Panel grants development consent for this proposal these conditions should be incorporated into the consent.

Protection of the Environment Operations Act 1997

General Terms of Approval - Issued

Notice No: 1517118

These general terms relate to the development as proposed in the documents and information currently provided to EPA. In the event that the development is modified either by the applicant prior to the granting of consent or as a result of the conditions proposed to be attached to the consent, it will be necessary to consult with EPA about the changes before the consent is issued. This will enable EPA to determine whether its general terms need to be modified in light of the changes.

The EPA advises that the proponent will need to submit the reports outlined in the Pollution Studies and Reduction Programs in **Attachment A** when submitting the application form for a scheduled activity Environment Protection Licence (EPL) to the EPA. The EPA cannot issue an EPL until these plans have been received and approved by the EPA.

The EPA would like to advise Council that every Protection of the Environment Operations Act 1997 (POEO) licence will contain a number of mandatory conditions. A copy of the mandatory conditions has been included as a separate attachment to the general terms of approval and is provided as **Attachment B.**

The proponent should also be aware of their obligations to prepare a Pollution Incident Response Management Plan (PIRMP) for the premises as required by the Protection of the Environment Legislation Amendment Act 2011. Guidelines on the preparation of the PIRMP can be found at http://www.environment.nsw.gov.au/resources/legislation/201200227egpreppirmp.pdf . The proponent is also required to submit the PIRMP for the premises with the scheduled activity licence application form.

If you have any questions, or wish to discuss this matter further please contact Brad Tanswell on 02 68 835 330.

Yours sincerely

.....

Bradley Tanswell

Acting Head Pesticides, Operations & Planning Unit

North - Dubbo

(by Delegation)

General Terms of Approval - Issued

Notice No: 1517118

Attachment A - Administrative conditions

A1. Information supplied to the EPA

A1.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the development application DA 2013/015 submitted to Bogan Shire Council on 17 July 2013;
- "Bogan Shire Council Environmental Impact Statement for the Nyngan Waste and Resource Management Facility, February 2013" *("EIS")* relating to the development; and
- all additional documents supplied to the EPA in relation to the development, including;
  - All attachments and appendices provided with the EIS;
  - Letter from Bogan Shire Council dated 17 July 2013; and
  - Additional Information response from Bogan Shire Council, dated 20 August 2013.

A2. Fit and Proper Person

A2.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

A2.2 The applicant must apply for and receive an environment protection licence from the EPA prior to commencing any activity associated with the proposal, including construction activities.

A2.3 The liner system for landfill cells must comprise either:

a) re-compacted clay or similar material at least 90 centimetres thick with an in-situ co-efficient of permeability less than 10^{-9} metres per second covering ; or

b) an alternative liner system of equivalent or better performance approved in writing by the EPA..

A2.4 The design of the leachate collection, conveyance, storage and disposal system must:

a) be on the basis that disposal options for leachate are limited to evaporation, irrigation over the active landfill cell/s, or disposal at a facility licensed to accept such waste;

b) incorporate leachate evaporation pond/s that are lined with either :

i) re compacted clay or similar material at least 90 centimetres thick with an in situ co-efficient of permeability of less than 10 -9 metres per second; or

ii) an alternative equivalent barrier with equivalent or better performance approved in writing by the EPA.

A2.5 The licensee must obtain and retain documentation form an appropriately qualified person to demonstrate the liners for all structures referred to in conditions A2.3 to A2.5 meet the permeability requirement specified above.

Discharges to air and water and applications to land

P1.Location of monitoring/discharge points and areas

P1.2 The following points referred to in the table below are identified in this general terms of approval for the purposes of monitoring and/or the setting of limits for the emission of pollutants to water from the point.

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Air

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
To be determined	Methane Gas Monitoring		To be determined.

Water and land

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
To be determined	Leachate quality monitoring		To be determined.
To be determined	Groundwater quality monitoring		To be determined following submission of information in licence application

Limit conditions

L1. Pollution of waters

L.1.1 Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

L1.2 The applicant must ensure that the level of leachate above the basal cell liner is maintained less than 300mm, or another depth approved by the EPA.

L5. Waste

L5.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

L5.2 This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.

L5.3 The applicant must ensure that only the following types of waste are disposed of at the premises:

Code	Waste	Description	Activity	Other Limits

	General Solid Waste (non-putrescible) excluding biosolids	As defined in Schedule 1 of the POEO Act, as in force from time to time	Waste Disposal (application to land)	NA
	Waste Tyres	As defined in Schedule 1 of the POEO Act, as in force from time to time	Waste Disposal (application to land)	NA
	Asbestos Waste	As defined in Schedule 1 of the POEO Act, as in force from time to time	Waste Disposal (application to land)	NA
	Clinical Waste	As defined in Schedule 1 of the POEO Act, as in force from time to time	Waste Disposal (application to land)	The total quantity of clinical waste disposed of at the premises must not be in loads which exceed 200kg each time
	General Solid Waste (putrescible)	As defined in Schedule 1 of the POEO Act, as in force from time to time	Waste Disposal (application to land)	NA

L5.5 Tyres stockpiled on the premises must:

(f) not exceed fifty (50) tonnes of tyres at any one time; and
(g) be located in a clearly defined area away from the tipping face; and
(h) be managed to control vermin; and
(i) be managed to prevent any tyres from catching fire.

L6. Noise limits

L6.1 Noise generated at the premises must not exceed the noise limits in the table below.

		NOISE LIMITS dB(A)		
Locality	Location	Day	Evening	Night
		LAeq (15 minute)	LAeq (15 minute)	LAeq (15 minute)
Any Residential Receiver	*All residences not associated with the development.*	35 dBA	35 dBA	35 dBA

L6.2 For the purpose of condition L6.1;

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.

- Evening is defined as the period 6pm to 10pm.
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.

L6.3 The noise limits set out in condition L6.1 apply under all meteorological conditions except for the following:

a) Wind speeds greater than 3 metres/second at 10 metres above ground level;
b) Stability category F and G temperature inversion conditions.

L6.4 For the purposes of condition L6.3:

a) Data recorded by the meteorological station identified as EPA Identification Point (TBA) must be used to determine meteorological conditions; and
b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.

L6.5 To determine compliance:

a) with the Leq(15 minute) noise limits in condition L6.1, the noise measurement equipment must be located:

- approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
- within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
- within approximately 50 metres of the boundary of a National Park or a Nature Reserve.

b) with the LA1(1 minute) noise limits in condition L6.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.

c) with the noise limits in condition L6.1, the noise measurement equipment must be located:

- at the most affected point at a location where there is no dwelling at the location; or
- at the most affected point within an area at a location prescribed by conditions L6.5(a) or L6.5(b).

L6.6 A non-compliance of condition L6.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed by conditions L6.5(a) and L6.5(b); and/or
- at a point other than the most affected point at a location.

L6.7 For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

Monitoring Conditions

M7.1 The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in condition M7.2.

M7.2 For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units

of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Point # TBA - Weather Monitoring Station

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Air temperature	°C	Continuous	1 hour	AM-4
Wind direction	°	Continuous	15 minute	AM-2 & AM-4
Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4
Sigma theta	°	Continuous	15 minute	AM-2 & AM-4
Rainfall	mm	Continuous	15 minute	AM-4
Relative humidity	%	Continuous	1 hour	AM-4

Additions to Definition of Terms of the licence

- NSW Industrial Noise Policy - the document entitled "New South Wales Industrial Noise Policy published by the Environment Protection Authority in January 2000."
- Noise - sound pressure levels' for the purposes of conditions L7.1 to L7.4

Hours of operation

L7.1 All landfilling operations and construction work at the premises must only be conducted between 7:00am to 18:00pm, Monday to Saturday.

L7.2 Public access to the premises must only be conducted between:

- 7:00am to 16:00pm Monday to Friday; and
- 6:00am to 18:00pm Saturday.

L7.3 This condition does not apply to the delivery of material outside the hours of operation permitted by condition L6.1 or L6.2, if that delivery is required by police or other authorities for safety reasons; and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification is provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency.

L7.4 The hours of operation specified in conditions L6.1 and L6.2 may be varied with written consent if the EPA is satisfied that the amenity of the residents in the locality will not be adversely affected.

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Operating conditions

O1. Odour

O1.1 No condition in this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.

Note: Section 129 of the Protection of the Environment Operations Act 1997 provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

O2. Dust

O2.1 Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

O2.2 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

O3. Stormwater/sediment control - Construction Phase

O3.1 An Erosion and Sediment Control Plan (ESCP) must be prepared and implemented. The plan must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The ESCP should be prepared in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing).

O4. Stormwater/sediment control - Operation Phase

O4.1 A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in Managing Urban Stormwater: Council Handbook (available from the EPA).

O5. Leachate Management

O5.1 Water which contacts waste, other than virgin excavated natural material, must be managed as leachate.

O5.2 Leachate must only be disposed of by:

a) evaporation,

b) irrigation within the active cell of the landfill, or

c) disposal at a facility licensed to accept such waste.

O5.3 Irrigation of leachate musts only be undertaken:

a) during dry weather, and

b) such that ponding or run off within the active cell does not occur and if the active tipping face is enclosed by a 300mm high earthen bund.

O6 Management of surface waters

O6.1 The perimeter of the area where waste has been landfilled must be contoured to prevent stormwater running on to these surfaces from all storm event less than or equal to a 1 in 10 year 24 hour duration storm event.

O6.2 Surface drainage must be diverted away from any area where waste is being or has been landfilled.

O6.3 The drainage from all areas at the premises which will liberate suspended solids when stormwater runs over these areas must be diverted into sedimentation basins.

O6.4 All practicable measures must be undertaken to manage all sediment dams such they have sufficient capacity to store run-off from the 90th percentile 5 day rainfall event.

O6.5 The stormwater control plans required by conditions O3.1 to O4.1 must address the requirements of conditions O6.1 to O6.4 above.

O7. Fire risk reduction works

O7.1 The licensee must have in place and implement procedures to minimise the risk of fire at the premises.

O8. Burning of waste

O8.1 There must be no incineration or burning of any waste at the premises.

O9. Screening of waste

O9.1 The licensee must have in place and implement procedures to identify and prevent the disposal of any waste not permitted by this general terms of approval to be disposed of at the premises.

O10. Completion of landfill cells

O10.1 The licensee must ensure that the landfill cells are capped progressively.

O11. Unauthorised entry

O11.1 The licensee must take all practicable steps to control entry to the premises.

O11.2 The licensee must install and maintain a stockproof perimeter fence around the premises.

O11.3 The licensee must install and maintain lockable security gates at all access and departure locations.

O11.4 The licensee must ensure that all gates are locked whenever the landfill is non operational.

O12. Degradation of local amenity

O12.1 The licensee must have in place and implement a litter management program.

O13. Tracking of mud and waste

O13.1 The licensee must minimise the tracking of waste and mud by vehicles.

O14. Covering of waste

O14.1 Cover material must be "virgin excavated natural material" as defined in Schedule 1 of the Protection of the Environment Operations Act 1997 and must be applied in accordance with the following requirements:

(b) Daily cover
Cover material must be applied to a minimum depth of 15 centimetres over all exposed landfilled waste prior to ceasing operations at the end of each day.

(c) Intermediate cover
Cover material must be applied to a depth of 30 centimetres over surfaces of the landfilled waste at the premises which are to be exposed for more than 90 days.

(c) Cover material stockpile

At least two weeks cover material must be available at the premises under all weather conditions. This material may be won on site, or alternatively a cover stockpile must be maintained adjacent to the tip face.

O15. Control of pests, vermin and weeds

O15.1 The licensee must control pests, vermin and weeds at the premises.

O16. Fire extinguishment

O16.1 The licensee must extinguish any fires at the premises immediately.

O17. Fire fighting capability

O17.1 The licensee must have adequate fire prevention measures in place, and ensure that facility personnel are able to access fire-fighting equipment and manage fire outbreaks at any part of the premises.

O18. Staff training

O18.1 The licensee must ensure that adequately trained staff are available at the premises in order to administer the requirements of this general terms of approval.

O19. Closure Plan

O19.1 The licensee must submit to the EPA within twelve months prior to the last load of waste being landfilled a closure plan in accordance with Section 76 of the Protection of the Environment Operations Act 1997.

O20. Environmental Management System (EMS)

O20.1 The licensee must operate this waste facility in accordance with the LEMP (as required in Condition U1.1).

O21. Filling Plan

O21.1 The licensee must maintain a filling plan that identifies areas to be used in the future for the disposal of waste. The filling plan must be updated at intervals of no greater than twelve months determining the remaining volume of the landfill.

O22 Clinical Waste

O22.1 Any clinical waste disposed of at the premises must be packaged in accordance with the requirements set out in the document called NSW Health: Waste Management Guidelines for Health Care Facilities" issued by the Department of Health and dated August 1998.

O22.2 Any clinical waste received at the premises must be:

a) buried; or

b) immediately contained

In a manner that prevents the waste coming into contact with any person or animal, and in accordance with Clause 43 of the *Protection of the Environment Operations (Waste) Regulation 2005.*

Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions M1.2 and M1.3.

M1.2 All records required to be kept by the licence must be:

- in a legible form, or in a form that can readily be reduced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and
- produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;

- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

M2. Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/ discharge point or utilisation area specified below (by a point number), the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column

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1. The applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

Air

POINTS # TBA - Methane gas monitoring

Pollutant	Units of measure	Frequency	Sampling Method
Methane	%by volume	Quarterly	Special Method 1

For the purposes of the table above Special Method 1 means sampling is to be undertaken in accordance with Benchmark technique No. 17 (Surface Gas Emission Monitoring) and Benchmark technique No. 18 (Gas Accumulation monitoring) defined in the document "Environmental Guidelines: Solid Waste Landfills, NSW EPA 1996."

Water and Land

POINT # TBA - Leachate at leachate collection dam

Pollutant	Units of measure	Frequency	Sampling Method
Alkalinity (as $HCO3^-$ and $CO3^{2-}$)	mg/L	Every six months	Grab sample
Aluminium	mg/L	Annually	Grab sample
Arsenic	mg/L	Annually	Grab sample
Barium	mg/L	Annually	Grab sample
Benzene	mg/L	Annually	Grab sample
Cadmium	mg/L	Annually	Grab sample
Calcium	mg/L	Annually	Grab sample
Chloride	mg/L	Annually	Grab sample
Chromium (total)	mg/L	Annually	Grab sample
Cobalt	mg/L	Annually	Grab sample
Conductivity	uS/cm	Annually	Grab sample
Copper	mg/L	Annually	Grab sample
Ethylbenzene	mg/L	Annually	Grab sample
Fluoride	mg/L	Annually	Grab sample
Lead	mg/L	Annually	Grab sample
Magnesium	mg/L	Annually	Grab sample
Manganese	mg/L	Annually	Grab sample
Mercury	mg/L	Annually	Grab sample
Nitrate + Nitrite (oxidised nitrogen)	mg/L	Annually	Grab sample
Nitrogen - ammonia	mg/L	Annually	Grab sample
Organochlorine pesticides	mg/L	Annually	Grab sample
Organophosphate pesticides	mg/L	Annually	Grab sample
pH	pH	Annually	Grab sample
Polycyclic aromatic hydrocarbons	mg/L	Annually	Grab sample
Potassium	mg/L	Annually	Grab sample
Sodium	mg/L	Annually	Grab sample
Sulfate	mg/L	Annually	Grab sample
Toluene	mg/L	Annually	Grab sample
Total dissolved solids	mg/L	Annually	Grab sample

Total organic carbon	mg/L	Every six months	Grab sample
Total Petroleum Hydrocarbons	mg/L	Annually	Grab sample
Total phenolics	mg/L	Annually	Grab sample
Xylene	mg/L	Annually	Grab sample
Zinc	mg/L	Annually	Grab sample

Groundwater monitoring points - Monitoring points to be determined.

Pollutant	Units of measure	Frequency	Sampling Method
Alkalinity (as $HCO3^-$ and $CO3^{2-}$)	mg/L	Quarterly	Groundwater sample – grab
Aluminium	mg/L	Annually	Groundwater sample – grab
Arsenic	mg/L	Annually	Groundwater sample – grab
Barium	mg/L	Annually	Groundwater sample – grab
Benzene	mg/L	Annually	Groundwater sample – grab
Cadmium	mg/L	Annually	Groundwater sample – grab
Calcium	mg/L	Quarterly	Groundwater sample – grab
Chloride	mg/L	Quarterly	Groundwater sample – grab
Chromium (total)	mg/L	Annually	Groundwater sample – grab
Cobalt	mg/L	Annually	Groundwater sample – grab
Conductivity	uS/cm	Quarterly	In situ
Copper	mg/L	Annually	Groundwater sample – grab
Ethylbenzene	mg/L	Annually	Groundwater sample – grab
Fluoride	mg/L	Annually	Groundwater sample – grab
Lead	mg/L	Annually	Groundwater sample – grab
Magnesium	mg/L	Quarterly	Groundwater sample – grab
Manganese	mg/L	Annually	Groundwater sample – grab
Mercury	mg/L	Annually	Groundwater sample – grab
Nitrate + Nitrite (oxidised nitrogen)	mg/L	Quarterly	Groundwater sample – grab
Nitrogen - ammonia	mg/L	Quarterly	Groundwater sample - grab
Organochlorine pesticides	mg/L	Annually	Groundwater sample – grab
Organophosphate pesticides	mg/L	Annually	Groundwater sample – grab
pH	pH	Quarterly	In situ
Polycyclic aromatic hydrocarbons	mg/L	Annually	Groundwater sample - grab
Potassium	mg/L	Quarterly	Groundwater sample – grab
Sodium	mg/L	Quarterly	Groundwater sample – grab
Standing water level	m AHD	Quarterly	In situ
Sulfate	mg/L	Quarterly	Groundwater sample – grab
Toluene	mg/L	Annually	Groundwater sample – grab
Total dissolved solids	mg/L	Quarterly	Groundwater sample - grab
Total organic carbon	mg/L	Quarterly	Groundwater sample – grab
Total Petroleum Hydrocarbons	mg/L	Annually	Groundwater sample – grab
Total phenolics	mg/L	Annually	Groundwater sample – grab
Xylene	mg/L	Annually	Groundwater sample – grab
Zinc	mg/L	Annually	Groundwater sample – grab

Note: The monitoring requirements may be varied by the EPA subject to ongoing review and assessment of monitoring results.

M4. Testing methods - concentration limits

M4.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:

- any methodology which is required by or under the POEO Act 1997 to be used for the testing of the concentration of the pollutant; or
- if no such requirement is imposed by or under the POEO Act 1997, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or
- if no such requirement is imposed by or under the POEO Act 1997 or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Clean Air (Plant and Equipment) Regulation 1997 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".)

M4.2 Monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with:

- the Approved Methods Publication; or
- if there is no methodology required by the Approved Methods Publication or by the general terms of approval or in the licence under the Protection of the Environment Operations Act 1997 in relation to the development or the relevant load calculation protocol, a method approved by the EPA in writing before any tests are conducted,
- unless otherwise expressly provided in the licence.

Reporting conditions

R1.1 The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

R2. Reporting of Fires

R2.1 In the event of a fire at the facility the applicant must record:

d) the time and date when the fire started or was reported;
e) whether the fire was authorised by the applicant, and, if not, the circumstances which ignited the fire;
f) the time and date that the fire ceased and whether it burnt out or was extinguished;
g) the location of fire (eg. clean timber stockpile, putrescible garbage cell, etc);
h) the prevailing weather conditions;

i) any observations made in regard to smoke direction and dispersion;
j) the amount of waste that was combusted by the fire;
k) the action taken to extinguish the fire; and
l) proposed actions by the licensee to prevent re-occurrence.

R2.2 The applicant or its employees or agents must notify the EPA immediately after becoming aware of all fires at the premises in accordance with Part 5.7 of the Protection of the Environment Operations Act 1997.

R3. Reporting of Leachate Discharge

R3.1 Whenever leachate is discharged to surface waters from the premises the licensee must notify the event to the EPA immediately in accordance with Part 5.7 of the Protection of the Environment Operations Act 1997.

R3.2 The licensee must provide written details of any leachate discharge(s) which exit the premises to the EPA within 7 days of the date on which the incident occurred.

R2.5 The written details referred to in the above condition must be provided as a report. The report must include the following information:

a) the volume of the leachate discharged and over what time period the discharge occurred;
b) the date and time of the commencement of the overflow;
c) the weather conditions at the time of the discharge, specifying the amount of rainfall on a daily basis that had fallen:
   - on the day(s) of the discharge; and
   - for the one week period prior to the discharge;
d) the most recent monitoring results of the chemical composition of the leachate;
e) an explanation as to why the discharge occurred;
f) the location(s) of the discharge; and
g) a plan of action to prevent a similar discharge in the future.

R4. Special Reporting

R4.1 The LEMP required by condition U1.1 must include trigger response levels for groundwater monitoring.

R4.2 If the results of the groundwater or leachate collection dam monitoring required by condition M2.1 indicate concentrations of any pollutant above trigger response levels identified in the LEMP, the Licensee must contact the EPA within one business day of receiving that information and advise it of the results of that monitoring.

G1. General Conditions

G1.1 The location of EPA point number(s) (TBA) must be clearly marked by signs that indicate the point identification number used in this licence and be located as close as practical to the point.

U1. Pollution Studies and Reduction Programs

U1.1 The licensee must prepare a Landfill Environmental Management Plan (LEMP) for the premises including but not limited to addressing items outlines in section 2.5 of the EIS.

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The LEMP must systematically address (but not be limited to) the following points as detailed in "Environmental Guidelines: Solid Waste Landfills"(EPA, 1996):

- Site overview
- Landfill structure and operations
- Management of Pollutants
- Emission of pollutants
- Land management and conservation
- Prevention of hazard and loss of amenity
- Identification of trigger response levels for air and water monitoring and trigger response actions.

The abovementioned Guidelines identify goals and benchmarks for managing these issues and also identify matters pertaining to the development of an LEMP.

The LEMP should focus on providing an operational document that will ensure:

- Compliance with the relevant provisions of the *Protection of the Environment Operations Act 1997* (POEO Act) and the *Protection of the Environment Operations (Waste) Regulation 2005*;
- Compliance with any environment protection licence held for the Nyngan Waste Facility (see below); and
- Best Practice waste management as identified in the abovementioned Guidelines (or other relevant document) are met.

The LEMP must be submitted to the Environment Protection Authority (EPA) in conjunction with the application for a scheduled activity Environment Protection Licence under the *Protection of the Environment Operations Act 1997* for the project.

Attachment B – Mandatory Conditions for all EPA licences

Operating conditions

Activities must be carried out in a competent manner

Licensed activities must be carried out in a competent manner.

- This includes:

  the processing, handling, movement and storage of materials and substances used to carry out the activity; and

  the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

Maintenance of plant and equipment

- All plant and equipment installed at the premises or used in connection with the licensed activity:

  must be maintained in a proper and efficient condition; and

  must be operated in a proper and efficient manner.

Monitoring and recording conditions

Recording of pollution complaints

The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

- The record must include details of the following:

  the date and time of the complaint;

  the method by which the complaint was made;

  any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;

  the nature of the complaint;

  the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and

  if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made.

The record must be produced to any authorised officer of the EPA who asks to see them.

Telephone complaints line

The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

This condition does not apply until 3 months after this condition takes effect.

Reporting conditions

Annual Return documents

What documents must an Annual Return contain?

- The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

  a Statement of Compliance; and

  a Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

An Annual Return must be prepared in respect of each reporting, except as provided below

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

- Where this licence is transferred from the licensee to a new licensee,

  the transferring licensee must prepare an annual return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and

  the new licensee must prepare an annual return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

- Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on

in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or

in relation to the revocation of the licence – the date from which notice revoking the licence operates.

Deadline for Annual Return

The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load can not be calculated

Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date.

- The notification must specify:

  the assessable pollutants for which the actual load could not be calculated; and

  the relevant circumstances that were beyond the control of the licensee.

Licensee must retain copy of Annual Return

The licensee must retain a copy of the annual return supplied to the EPA for a period of at least 4 years after the annual return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

(a) the licence holder; or

(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement of Compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review this licence.

Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act

Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Written report

Where an authorised officer of the EPA suspects on reasonable grounds that:

(a) where this licence applies to premises, an event has occurred at the premises; or

(b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

- The request may require a report which includes any or all of the following information:

  the cause, time and duration of the event;

  the type, volume and concentration of every pollutant discharged as a result of the event;

  the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and

  the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;

  action taken by the licensee in relation to the event, including any follow-up contact with any complainants;

  (details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;

  (any other relevant matters.

The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

Copy of licence kept at the premises or on the vehicle or mobile plant

A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

Appendix D

SUMMARY OF RECOMMENDATIONS

Deferred Commencement

- This consent is a deferred commencement consent under Section 80(3) of the Environmental Planning and Assessment Act 1979. This consent shall not operate until the applicant (Bogan Shire Council) has formally gained a Crown Lands Licence pursuant to the provisions of the *Crown Lands Act 1989* for the 7.5 hectare area of Lot 109 DP1182342, within two years of the issue of this notice.

General

- Within 12 months of the date of this notice of consent, Lots 107 and 108 are to be consolidated, for the purposes of ensuring that access to the site is maintained in perpetuity.
- All car parking spaces shall be designed in accordance with AS2890.1 and 2890.2.
- Construction of the car park area shall be undertaken in accordance with Appendix A to Bogan Development Control Plan 2012.
- A minimum 20,000L rainwater tank shall be installed to capture roof water and shall be maintained as static supply for fire fighting, to the RFS's requirements. Any surplus volume may be utilised in the office building.
- Any roof water collection for potable use on-site (i.e. office/amenities) should be monitored for bacteriological and chemical quality. The monitoring and maintenance program for the rainwater tank(s) should be included in the facilities Landfill Environmental Management Plan (LEMP).
- An Erosion and Sediment Control Plan (ESCP) shall be developed and implemented prior to and during construction, and throughout operation of the development.
- The LEMP shall be implemented during construction and throughout operation of the development.
- Implement all reasonable and feasible measures to recover resources from the waste stream before disposing any residual waste at the NWRMF;
- Monitor the effectiveness of the resource recovery measures; and if necessary adjust the waste strategy to achieve better resource recovery rates.
- Vegetation to be removed would be restricted to the Waste Management Area (Impact Footprint) and potentially the Project Site Boundary area. Should additional clearing be required further environmental impact assessment will be needed to meet statutory guidelines;
- Both State and National levels of government aim to maintain, enhance or improve biodiversity, through the developer. The most effective offset for this project would be to:
  - Offset for the removal of Myall (Acacia pendula) from the Weeping Myall EEC. Plant out areas between the Waste Management Area and Project Site Boundary with 440 Myall. This will provide a visual screen and windbreak to prevent the distribution of windblown rubbish, provide further habitat for the Grey-Crowned Babbler and migratory Superb Parrot and will be consistent with a 'maintain or improve' outcome.
    - Follow up / audit the results in a year's time, replant trees where required, make a file note and attach it to this report;
  - Scatter removed timber in surrounding area. If this is not appropriate then discuss offsets with the Bogan Shire Council Environmental Manager about the possibility of using large timber as environmental offsets in other Bogan Shire reserves
- Any eucalypts lopped or removed would be managed by a qualified arborist;
- To ensure there are no errors during vegetation clearing, all vegetation within the Impact Footprint will be required to be marked in the field so as to clearly identify them from trees to be retained. Avoiding unnecessary tree clearing would have flow on effects on dependant fauna;
- Prior to lopping or clearing, inspect trees with bird nests before pushing or felling to ensure any nests are vacant (no nests were observed during the assessment). Inspection should occur immediately before pushing or felling. If a bird is in the nest, clear the trees around it first to see

if the animal will disburse. If the bird is nestling all measures should be taken to collect the bird3 and remove to a safe location;

  - Grey-crowned Babblers are laborious flyers and are potentially at risk of being killed by construction traffic when feeding on the ground. These impacts could be managed through a stringent Traffic Control Plan which would be incorporated within internal Council administrative controls and could address issues such as increased traffic flow and vehicle speed in the Project Site Boundary.

- Stockpile small limbs from removed trees and excess topsoil and spread the material over the disturbed area or within land to be used for offsets after the works are complete;
- Have an appropriate plan in place and equipment on site to cater for injured animals. Seek advice from a qualified wildlife veterinarian prior to preparing this plan and ensure veterinary assistance has been organised prior to work commencing. Note – do not allow any person to handle any species of bat. Potential exists for the transmission of a virus that is detrimental to the health of humans;
- No vegetation would be burnt on site (requirement of the POEO Act);
- All soil works would be undertaken according to The NSW Department of Housing Blue Book "Managing Urban Stormwater- Soil and Conservation" (2004) to minimise the disturbance and exposure of soils;
- An Erosion and Sediment Control Plan (ESCP), would be prepared for the works, included as part of the *LEMP*. A copy of the plan shall be kept on-site and made available to Council's officers on request. All erosion and sediment control measures would be maintained in a functional condition throughout the duration of the works. Good examples of these can be found in the RTA Code of Practice for Water Management (1999) and implement a suitable plan as soon as possible. Other examples include the RTA Road Design Guide 1989, Section 8-Erosion and Sedimentation, the NSW DOH 2004 publication Managing Urban Stormwater-Soils and Construction as well as relevant DIPNR soil conservation guidelines such as Construction Site Erosion and Sediment Control Manual;
  - Maintenance and checking of the erosion and sedimentation controls would be undertaken on a regular basis and records kept and provided at anytime upon request. Sediment would be cleared from behind barriers on a regular basis and all controls would be managed in order to work effectively at all times;
  - All vehicle and machinery movements would be restricted to the existing road alignment and table drains and areas of disturbance.
- An appropriately qualified weeds officer would undertake an inspection of the Study Area prior to, during and three months after ground surface disturbing works. Noxious weeds identified within the Project site such as African Boxthorn would be destroyed and continuously suppressed as required under the Noxious Weeds Act, 1993;
- The Proponent would undertake a pre-clearing and post-clearing audit such that it can be demonstrated that adequate systems were in place in the event that DECCW are required to investigate unauthorised impacts;
- All personnel undertaking works would be inducted such that they are aware that any stand of native vegetation is protected and as such there are legislative consequences of deliberately or accidently impacting it without approval of the EP&A Act. Evidence of all personnel receiving an induction would be kept on file (signed induction sheets etc.) Should an incident happen followed by a DECCW investigation, this process is likely to reduce the severity of the repercussions to Proponent whilst encouraging the willingness to comply with the ground crews; and
- Vehicles and machinery would be parked in cleared areas and not under the drip-line of retained vegetation or trees. Retained vegetation or trees would not be smothered by stockpiles, sediment or by the storage of materials and equipment.

Prior to works commencing

- The applicant shall lodge and gain a construction certificate with respect to the development of any buildings on site prior to the development of those buildings.
- Engineering details including pavement design and compaction analysis to confirm the suitability of the use of the soil on site within the proposed surface water diversion bund and flood diversion bund shall be provided to, and approved by, Council prior to commencement. The approved design shall be used in the construction of these features. Any change to the approved design must first be approved in writing by Council.
- Preparation of a landscape management plan as part of the LEMP, detailing landscaping requirements including timing for development.
- Landscaping would incorporate the use of species identified in the OzArk Ecological Assessment, being *Acacia Pendula* (Weeping Myall).
- A Erosion and Sediment Control Plan (ESCP) shall be prepared for the proposed development and submitted to council for approval prior to commencement of the development. The ESCP shall be consistent with the measures outlined in Sections 2.5 and 4.3.3 of the EIS, EPA Benchmark Technique 3 and perimeter control measures are to be established prior to the first phase of earthworks
- A LEMP shall be prepared by a suitable qualified consultant and approved by Council prior to commencement of the development, consistent with the mitigation measures in Sections 2.5 and 4.3.3 of the EIS and as follows:
  - The LEMP shall require adoption of the ESCP during construction works.
  - It is recommended the recommended mitigation measures identified at Section 2.5.6 of the EIS be included in the LEMP for the development.
  - Include suitable pest deterrent measures in the LEMP including the development of a monitoring program for vermin and pest species, to be incorporated in a pest management plan and incorporated in a LEMP.
  - The above measures to manage litter shall be included into the Landfill Environmental Management Plan (LEMP), to be prepared and submitted to Council for approval prior to commencement of the development.
  - The mitigation measures relative to pest and vermin control outlined in Section 2.5.4 of the EIS and further identified in the applicants correspondence of 11 September 2013 to the Office of Environment and Heritage shall be included into the Landfill Environmental Management Plan (LEMP), to be prepared and submitted to Council for approval prior to commencement of the development.
  - The LEMP shall include screening and recording procedures in accordance with the EPA's *Environmental Guidelines: Solid Waste Landfills*.
  - A Fire Management Plan shall be prepared and shall form part of the LEMP. The FMP shall be consistent with the mitigation measures outlined in Section 4.8.3 of the EIS.
  - A Litter Management Plan that should form part of a Landfill Environmental Management Plan (LEMP), to be prepared and submitted to Council for approval prior to commencement of for the development.
  - It is recommended these mitigation measures (to be imposed in the event that odour complaints are received once the facility has commenced operation) be included in the LEMP for the development, which would be required to be prepared by a condition of any consent granted for the development.
  - For the avoidance of doubt, the mitigation measures outlined in the following sections of the EIS shall be included into the LEMP.
    - Sections 4.2.3, 4.3.3, 4.4.4, 4.5.3, 4.6.3, 4.7.3, 4.8.3, 4.9.3, 4.10.3, 4.11.3, 4.12.3 and summarised in Appendix 8 of the EIS

  - The following measures shall be implemented into the LEMP and adopted during construction works:
    - During times of high wind, all construction works to cease.
    - Water carts be employed during construction to minimise transfer of dust off site.
    - Establish fencing around the site with mesh screening.
    - Any stockpiles existing on site for a period longer than 3 months are to be revegetated, with vegetation being maintained.
    - Establish a complaints register and follow-up procedures including required corrective actions.
- Establishment of landscape and boundary plantings along the western, southern and eastern site boundaries
- Establishment of chain link fencing surrounding the site with mesh screening.
- All contractors are to be made aware of the conditions of the Development Consent prior to commencing site works.
- All contractors who work within the confines of the study area should be made aware of the NP&W Act 1974 (as amended) and the fact that is an offence to move, disturb or destroy Aboriginal objects without the written permission of the Director-General of the OEH.
- All contractors who work within the confines of the study area should be made aware of the *NSW Heritage Act 1977* and the fact that it is an offence to move, disturb or destroy a relic or deposit as defined by the *Act*.

During Construction

- Dust be suppressed during construction utilising water carts to wet the construction site or other measures as confirmed by Council as appropriate. Details should be provided within the LEMP, to be approved by Council prior to commencement of the development.
- Monitoring and maintenance of landscape and boundary plantings along the site boundaries.
- Maintenance of a complaints register and promptly investigating and responding to complaints.
- Continuous observation of wind conditions to ensure that control methods are appropriate.
- Implementation of effective dust control measures and monitoring of dust emissions.
- Maintenance of a complaints register and promptly investigating and responding to complaints.
- Initiation of any corrective actions on the site.
- In line with the NSW legislation protecting heritage, specifically Section 139 of the NSW *Heritage Act*, should any underground remains be discovered on site; works are to stop in that area. At that stage the project supervisor is to contact an archaeologist who will come to inspect the remains, record the remains via photography and possibly measured drawings and provide advice on the next steps to take.
- If objects of suspected Aboriginal heritage significance are encountered during construction, the 'unanticipated finds protocol' identified in OzArk (2012) would be adhered to (refer to Appendix 3 of Appendix 7 of the EIS).
- The LEMP, including ESCP, shall be implemented during construction and throughout operation of the development.

Prior to Commencement

- Provision should be made for a minimum of two (2) staff car parking spaces adjacent to the workshop/office
- Three (3) short term parking spaces shall be provided within the waste drop off area for standing during waste drop off.

During Operation

- Monitoring and maintenance of landscape and boundary plantings along the site boundaries.
- Minimising the size of the active tipping face.
- Installation of litter screens around the NWRMF as required.
- Regular site inspections for litter.
- Shaping the NWRMF profile to minimise the potential for waste to transported by wind.
- Continuous observation of wind conditions to ensure that control methods are appropriate.
- Ensuring that the vegetation on the proposed bund wall, which provides flood screening as well as effective screening of the facility from the road, is maintained.
- Ensuring that as tipping areas are filled, they are closed, rehabilitated and revegetated as soon as possible to improve the amenity of the facility and in accordance with the approach set down in Section 2.12 of the EIS.
- Ensuring cleanliness of roads.
- Implementation of effective dust control measures and monitoring of dust emissions.
- Implementation of effective vermin control measures as appropriate.
- Maintenance of a complaints register and promptly investigating and responding to complaints.
- Initiation of any corrective actions on the site.
- Implementation of the LEMP incorporating the Litter Management, Erosion and Sediment Control and Pest and Vermin Control Plans.
- Ensure that all Council-related drivers are required to adhere to Bogan Shire Council's "Driver Code of Conduct" during the delivery of materials to the site or transport of materials from the site
- Regularly inspect and clear long grass and bushes that grow on the Canonba Road shoulder to maintain the maximum possible sight distance.
- Restrict vehicle speed to 20km/hr within the Site.
- Ensure that public drop-off of materials is be restricted to the nominated operating hours
- Ensure that the waste placement measures identified in Section 2.5.4 of the EIS are implemented throughout the life of the proposal, including managing placement of waste and implementation of intermediate covers.
- Construct and progressively relocate a litter fence around the active landfilling cell(s) throughout the life of the proposal.
- Implement a litter inspection program within and surrounding the site during periods of high winds and collect windblown litter as required.
- Continuous observation of wind conditions to ensure that control methods are appropriate.
- Ensuring that as soon as cells are filled, they are closed, rehabilitated and revegetated as soon as possible as per Section 2.5.4 of the EIS to restore the amenity of the facility.
- Identification of effective vermin control measures as appropriate within the LEMP and implementation.
- Maintenance of a complaints register and promptly investigating and responding to complaints.
- Initiation of any corrective actions on the site.
- Ensure that all council-related drivers are required to adhere to Bogan Shire Council's "Driver Code of Conduct" during the delivery of materials to the site or transport of materials from the site.

- Regularly inspect and clear long grass and bushes that grow on the Canonba Road shoulder to maintain the maximum possible sight distance.
  - Ensure that land preparation and rehabilitation is undertaken progressively to minimise the total disturbed area any one time;
  - Ensure that the boundaries of areas to be disturbed are clearly marked on the ground to minimise the potential for inadvertent over clearing;
  - Ensure that the existing area of Myall Woodland EEC is fenced and signs erected indicating the presence and importance of the community and indicating that disturbance is not permitted;
  - Establish the visual amenity screens as identified in Section 2.4 using species representative of the Myall Woodland EEC; and
  - Manage weeds within Council-controlled land, with particular focus on managing African Boxthorn.
- The LEMP shall provide details of proposed LFG monitoring including proposed measures to address any rise in levels.
- A review of methane levels shall be undertaken in accordance with the requirements of the EPA, as per condition M2.1 of the GTA's issued by that authority.