Aged care facility extension, 181 Furlong Road, St Albans

Construction environmental management plan

Prepared for De Nova Group Pty Ltd

19 September 2019

Biosis offices

NEW SOUTH WALES

Albury
Phone: (02) 6069 9200
Email: albury@biosis.com.au

Newcastle
Phone: (02) 4911 4040
Email: newcastle@biosis.com.au

Sydney
Phone: (02) 9101 8700
Email: sydney@biosis.com.au

Wollongong
Phone: (02) 4201 1090
Email: wollongong@biosis.com.au

VICTORIA

Ballarat
Phone: (03) 5304 4250
Email: ballarat@biosis.com.au

Melbourne (Head Office)
Phone: (03) 8686 4800
Email: melbourne@biosis.com.au

Wangaratta
Phone: (03) 5718 6900
Email: wangaratta@biosis.com.au

Document information

Report to:	De Nova Group Pty Ltd
Prepared by:	Lachlan Milne Lucy Wilson Tim Dredge

Biosis project no.: 28667

File name: 28667.181FurlongRd.DeNova.CEMP.FIN06.20190919

Citation: Biosis 2018. Aged care facility extension, 181 Furlong Road, St Albans; Site Environmental Management Plan. Report for De Nova Group Pty Ltd. Authors: Milne. L, Wilson. L, Biosis Pty Ltd, Melbourne. Project no. 28667

Document control

Version	Internal reviewer	Date issued
Draft version 01	BRH	20/02/2019
Final version 01	TD	7/03/2019
Final version 02	TD	9/04/2019
Final version 03	TD	1/05/2019
Final version 04	TD	20/05/2019
Final version 05	TD	23/05/2019
Final version 06	TD	19/9/2019

Acknowledgements

Biosis acknowledges the contribution of the following people and organisations in undertaking this study:

- De Nova Group Pty Ltd: Ben Tzirkas
- Brimbank City Council: Mel McGregor

Contents

1. Introduction 3

1.1 Introduction 3
1.2 Site location 4
1.3 Project description 4
1.4 CEMP objectives 4
1.5 How to use this CEMP 4

2. Project management 6

2.1 The Project manager responsibilities 6
2.2 Responsibilities of all staff or contractors on site 6
2.3 Management responsibilities 7
2.4 Construction Schedule 7
2.5 Environmental approvals / permits and applicable legislation 7
2.6 Enforcement 7
2.7 Environmental site induction of personnel 7
2.8 Environmental information to be provided on site 8
2.9 Project monitoring 8
2.10 Easements and existing service locations 8

3. Site environmental values 10

3.1 Ecological values 10
3.2 Water quality 10

4. Environmental aspects, management objectives and risk assessment 12

5. Environmental management plan 14

6. Environmental management map 19

7. Earthen mound removal 21

7.1 Earthen mound removal works 21
7.2 Salvage of fossorial fauna 21
7.3 Rehabilitation 21

8. Post construction site remediation and reporting 22

8.1 Site clean up 22
8.2 Site stabilization and remediation 22
8.3 Reporting 22

9. Glossary 23

10. Useful information resources: 24

11. References 25

Appendices 26

Appendix 1 Contractor induction sheets 27

Tables

Table 1 Project manager contact details 6
Table 2 Components of the action (Or attach revised works schedule) 7
Table 3 Water quality variables and values 11
Table 4 Project Risk Assessment 12
Table 5 Environmental management plan 14
Table 6 Works schedule for mound removal 21

Figures

Figure 1 Environmental management map (main works) 20

1. Introduction

1.1 Introduction

Biosis was commissioned by De Nova Group Pty Ltd to prepare a Construction environmental management plan (CEMP) to support their project to construct an extension to existing aged care facility at 181 Furlong Road, St Albans.

A CEMP is a document detailing the potential environmental impacts of a proposed use and/or development and the ways that these impacts may be avoided or mitigated. This CEMP, including the Environmental Management Map (EMM) identifies potential environmental impacts arising during the construction phase of the project and provides guidance to avoid or manage these impacts. This CEMP is to be implemented in close association with the Fauna Conservation Management Plan (FCMP) (Biosis, 2019) which has also been prepared for this project.

This document has been prepared in response to condition 12 of the amended Planning Permit P622/2011 issued by Brimbank City Council for the proposed development as follows:

> *"Prior to any works commencing and to the removal of native vegetation and identified habitat a Construction Environmental Management Plan (CEMP) must be submitted to and approved by the Responsible Authority. When approved this Construction Environmental Management Plan will form part of this permit. This plan must incorporate, but is not limited to, the following information:*
>
> *(a) Measures to ensure that no polluted water and/or sediment laden runoff is discharged directly or indirectly into stormwater drains during construction.*
>
> *(b) Control of site emissions and noise during construction.*
>
> *(c) Management of weeds during construction and disposal of weed and vegetation material removed from the site and must follow the guidelines set in the Catchment and Land Protection Act 1994.*
>
> *(d) Location of legal sites for the placement of fill/excess material – all excess material is to be taken to legal disposal site with relevant approvals. The Responsible Authority must be notified if disposal sites change.*
>
> *(e) The location of the retained vegetation, the design and signage which reads 'vegetation protection zone no work permitted' is required and the implications if any damage occurs to the vegetation within this area.*
>
> *(f) Management of fauna during the removal of vegetation within the site.*
>
> *(g) Measures to ensure that all works are undertaken wholly within the site boundaries.*
>
> *(h) All contractors and subcontractors are to be inducted into the requirements of this Plan.*
>
> *(i) The CEMP must be prepared to the satisfaction of the Responsible Authority."*

A copy of the amended Planning Permit P622/2011 is attached to this document.

Additionally, as part of the Planning Permit, Brimbank City Council have requested the removal of the Earthen Mound along the shared boundary in the south-eastern corner of the site. This CEMP has now been updated to include mapping of the mound removal. All works to do with the earthen mound removal are not to commence until approval for the proposed development of the Aged Care Facility project has been granted by the Commonwealth Government. The Environmental Management Map that outlines the details for the vegetation removal is provided in Appendix 1.

1.2 Site location

The project site is located at 181 Furlong Road, St Albans. The project site includes an existing aged care facility, landscaped gardens and other associated infrastructure.

1.3 Project description

The amended Planning Permit P622/2011allows the construct an extension to existing aged care facility at the project site and removal of the earthen mound along the shared boundary with Council land.

1.4 CEMP objectives

The objectives of this CEMP are to:

- Protect the identified site environmental values
- Prevent inadvertent environmental damage or harm to fauna and flora during construction
- Prevent off site impacts from dust or pollution
- Ensure mitigation measures are in place to manage environmental incidents
- Ensure compliance with environmental regulation and legislation

1.5 How to use this CEMP

The CEMP is presented over six sections (Sections 2 – 7). These sections detail the site values, the potential risks to these values and actions required to avoid or mitigate the risks. The six sections and their purpose are described below.

Section 2 – Project management

This section details aspects of the plan that relate to overall project management. This section contains the following:

- Identifies responsibilities for delivery of the CEMP
- A generalised construction schedule
- Disclaimer on easements and service locations
- Relevant environmental approvals
- Requires input of details of people responsible for delivery of the CEMP and the construction schedule.

Section 3 – Site environmental values

This section identifies the site environmental values to be protected by the CEMP.

Section 4 - Environmental aspects, management objectives and risk assessment

This section identifies the potential risks to the site values posed by the project and detail the management objectives to be achieved.

Section 5 – Environmental management action plan

This section is presented as an action matrix. The environmental risks identified are detailed with associated actions to be taken to address the risk. Monitoring responses and responsibilities are also provided.

Section 6 – Environmental management map (EMM)

This section comprises an environmental management plan map that shows the location of required CEMP features or structures such as sediment controls, location of stock piles and so on.

Section 7 – Earthen mound removal

This section discusses some of the key issues associated with removal of the mound.

Section 8 – Post construction site remediation

This section details requirements for post construction site remediation.

2. Project management

Responsibility for delivery of the CEMP lies with the Project manager. The Project manager may delegate any tasks and responsibilities as required provided that the details of the delegate and their responsibilities are documented. Section 2.3 provides a table to record the details of delegates and their responsibilities.

Table 1 Project manager contact details

Item	Detail
Name	
Role	
Company	
Address	
Email	
Telephone	
Mobile	

2.1 The Project manager responsibilities

- Implement CEMP and Fauna Conservation Management Plan (FCMP)
- Deliver site inductions to ensure all personnel (including contractor/sub-contractors) are aware of contents of the CEMP and what their responsibilities are.
- Monitor and report on CEMP implementation and outcomes
- Be available for on-site meetings when required.
- Ensure all staff and contractors comply with all CEMP and FCMP requirements.
- Include the CEMP, EMM and FCMP as part of any enforceable contracts and that the compliance with the CEMP is part of all internal personnel job descriptions.

2.2 Responsibilities of all staff or contractors on site

- Work according to this plan and the FCMP.
- Work within designated impact areas only.
- Report any issues or incidents to the Project manager.

2.3 Management responsibilities

Position	Responsibilities
Project manager:	• Implement the CEMP • Monitor progress and outcomes. • Delegate tasks as required.
All personnel and Contractors	• Comply with CEMP requirements and directions of the Project manager.

2.4 Construction Schedule

An indicative construction schedule is outlined in Table 2. The timeframe will be updated by the Project manager once the construction plan has been finalised.

The key items of construction should be undertaken in the following sequence.

Table 2 Components of the action (Or attach revised works schedule)

Component	Timeline
Pre-construction surveys	Completed
Tender award	Completed
Mound removal and site establishment	Mid-2019 (upon approval/TBC)
Construction	Following mound removal (within one year)
Post-construction remediation	Following construction

TBC – to be confirmed.

2.5 Environmental approvals / permits and applicable legislation

Brimbank Planning Scheme - *Planning and Environment Act 1987* (PE Act)

The amended Planning Permit P622/2011 allows for: *Buildings and works to an existing nursing home including the creation of 7 additional bedrooms, a reduction in the standard car parking requirements and the removal of native vegetation in accordance with the endorsed plans.*

Australian Government - *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act)

Pending approval. Vegetation removal must not commence until Commonwealth approval has been obtained.

2.6 Enforcement

Compliance with this approved CEMP is mandatory because this CEMP is a condition of the amended Planning Permit P622/2011and breaches may be subject to enforcement by Brimbank City Council.

2.7 Environmental site induction of personnel

The Project manager will conduct or delegate site inductions for all personnel or contractors working on site into this CEMP and the FCMP. A detailed Site Induction Program has been prepared for use by the Project Manager. To accompany this, Biosis have prepared ecological contractor induction sheets (Appendix 2).

The project site induction will address the content in this CEMP and FCMP. Site induction will define minimum expectations of all personnel and contractors working on the project site. In particular the aspects of the FCMP relating to identification and management of Striped Legless Lizard should any be discovered during salvage or construction will be given priority attention.

2.8 Environmental information to be provided on site

The following environmental management information will be available at the project site:

- This Construction environment management plan (CEMP) and Environment Management Maps, including for the removal of the earth mound
- Fauna conservation management plan (FCMP) (Biosis, 2019)
- Biodiversity Assessment: 181 Furlong Road, St Albans, Victoria (Biosis , 2018).

2.9 Project monitoring

The environmental risks associated with construction will be monitored on a regular basis. The Project manager will be responsible for undertaking a general daily assessment of positive and negative impacts during the construction program and appropriate written and photographic records will be kept. Specialist advice on environmental issues will be sought as required from a suitably qualified environmental professional during the construction period.

The Project manager will keep records of the implementation of the CEMP during the construction phase. These records may take the form of an email, spread sheet or word document or other format that can easily be supplied to the relevant authority in the event of an audit or incident. Minimum records content must cover:

- Construction progress (simple notes).
- Summary of activities flagged for reporting in Table 3 of the CEMP at the recommended frequency.
- Any environmental issues encountered.
- Responses implemented to address issues encountered.
- Dated photographs of key issues and responses – or links to an archive (e.g. DropBox, Evernote).

The construction monitoring program for identified environmental risks is outlined in Table 5.

2.10 Easements and existing service locations

This plan does not provide details of any easements or utility services that may be present within the project impact area. The Project manager is responsible for managing any impacts on easements and utility services. As a minimum, the Project manager should:

- Obtain easement and utility service details from Land Victoria (http://www.land.vic.gov.au/) 'Dial Before You Dig' and liaise with the utility to identify permitted, controlled or prohibited activities within the easement.
- Contact the 'Dial Before You Dig' service (phone 1100 or web www.1100.com.au) to identify where all existing easements, services and infrastructure are located.
- Contact the relevant service utility, service provider or council to determine what measures need to be implemented to best protect service assets. (For Information regarding Telstra: Telstra Network Integrity Services 1800 810 443).

- Review this CEMP if required. Where results of Dial Before You Dig or easement discovery require changes to this CEMP, the CEMP must be reviewed to incorporate any changes necessary. Re-approval from Brimbank City Council is also likely to be required.

3. Site environmental values

3.1 Ecological values

Significant ecological values have been identified on site. These values are documented in the Biosis report *Biodiversity assessment: 181 Furlong road, St Albans, Victoria* (Biosis , 2018). The ecological values on the site are:

- Patches of Heavier-soils Plains Grassland ecological vegetation class (EVC 132_61; Bioregional conservation status: Endangered).
- Habitat for *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Flora and Fauna Guarantee Act* (FFG Act) listed species, Striped Legless Lizard.
- EPBC Act listed Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP).

Native vegetation to be retained or permitted for removal is shown on the EMM at page 17.

The impact area contains native vegetation, including 0.255 hectares of native vegetation permitted for removal under the PE Act, but that is yet to be approved under the EPBC Act. Pending EPBC Act approvals, this area will be cleared for the development of the aged care facility extension. All other native vegetation beyond the impact area is protected and must not be impacted by development works. Areas of native vegetation to be retained will be shown on all construction plans and shown as a 'No Go Area'. Retained native vegetation will be secured by appropriate exclusion fencing as detailed in Figure 1.

While not recorded during targeted surveys, the Project site does support habitat for protected native fauna, particularly Striped Legless Lizard and other fossorial fauna. A Fauna Conservation Management Plan has been prepared for this project and must be implemented in close conjunction with this CEMP. This includes the placement of fauna-proof fencing (Figure 1) along the edges of works, particularly between the earthen mound and Council land.

There is additional native vegetation adjacent to the eastern side of the earthen mound. Construction vehicles are prohibited to operate on Council land other than removing the mound. Revegetation of the mound, as requested by Council, will be conducted by hand.

3.2 Water quality

The project works must comply with the State Environmental Protection Policy (Waters) (SEPP) (EPA Victoria, 2018). Specifically the project manager must:

> *(a) ensure their activities are managed to minimise the risks to **beneficial uses**, so far as reasonably practicable, including risks from dewatering, land disturbance, soil erosion or the discharge of sediments and other pollutants to waters; and*
>
> *(b) monitor surface waters where the construction activity adjoins or crosses surface waters to assess if beneficial uses are being protected; and*
>
> *(c) comply with guidelines published or approved by the Authority in relation to the construction activity.'*

Environmental quality objectives and indicators are defined in the SEPP to protect 'beneficial uses'. Beneficial uses include water quality for the protection of ecological values, human consumption, agriculture and industry, recreation, spiritual values and other uses (EPA Victoria, 2018).

Impacts to surface and ground water quality must not result in changes that exceed background levels and / or the range of environmental objectives (biological, nutrient, water quality) specified for the area in which the

construction activity occurs. Where background levels exceed the specified environmental objectives (Table 3), water quality must align to background levels (EPA Victoria, 2018).

The SEPP maps different areas of Victoria as 'segments' based on generalised physical characteristics that help determine background water quality. This project fall within the segment:

Urban (Highly modified) - Tributaries of Werribee and Maribyrnong Rivers

The Project manager must ensure that direct and indirect impacts to surface water quality (e.g. runoff) do not exceed the background levels and/or water quality objectives set in the SEPP for this segment.

The background water quality variables to be achieved for water leaving the construction area in the segment - 'Urban (Highly modified) - Tributaries of Werribee and Maribyrnong Rivers' are:

Table 3 Water quality variables and values

Variable	Statistical level	Target value
Total phosphorus (µg/L)	75t percentile	≤110
Total nitrogen (µg/L)	75th percentile	≤1200
Dissolved oxygen (% saturation)	25th percentile	≥60
Dissolved oxygen (% saturation)	Maximum	130
Turbidity (NTU)	75th percentile	≤30
Electrical Conductivity (µS/cm@25°C)	75th percentile	≤3000
pH (pH units)	25th percentile	≥6.5
pH (pH units)	75th percentile	≤8.2
Toxicants Water	% protection	90
Toxicants Sediment	N/A	Low

This CEMP provides measures to ensure water quality is not impacted by the construction of the communications facility. See Table 5, part 5

Water quality monitoring

Provided all sediment controls are in place, regularly inspected and maintained; water quality monitoring is not mandatory for this project. The project manager may choose to monitor water quality to check water quality leaving the site meets SEPP requirements. Minimum variables to monitor are, turbidity, pH, and salinity.

Any water physically discharged from the site must be tested and treated to ensure it complies with SEPP requirements.

4. Environmental aspects, management objectives and risk assessment

This section identifies the potential risks and their likelihood and consequence associated with the project. According to the Project Risk Assessment outlined in Table 4 below.

Table 4 Project Risk Assessment

Environmental factor	Environmental and heritage values / assets	Management objectives	Risk factors	Likelihood	Consequenc	Overall Risk
Flora/ Fauna	The impact area does include native vegetation and habitat for threatened species. The proposed development will result in permitted loss of native vegetation (PE Act & EPBC Act). All other native vegetation (flora) within the surrounding area of the subject site is protected and must not be disturbed, traversed or used to stock pile materials or plant. Deliberate or inadvertent access to native vegetation adjacent the site must be prevented to reduce the likelihood of harm to native flora and fauna. Considering that the subject site is in a residential area, there is a minor possibility that fauna may enter the site during the construction period. However, the site should be adequately secured to prevent the fauna from entering the site.	• No harm to flora and fauna arising from the project, other than as approved. • Areas with flora and fauna present and not permitted for removal secured by a physical barrier and clearly designated a 'no-go' area. • Measures in place to salvage fauna (See associated Fauna conservation management plan).	• Deliberate or accidental clearing of protected vegetation. • Deliberate or accidental physical injury or death of protected fauna. • Work activities that disturb vegetation or soil. • Deliberate or accidental removal of nesting or roosting sites • Potential isolated deaths of fauna due to works. • Inappropriate location of stockpiles on protected vegetation. • Vehicle / plant movement through protected areas. • Introduction of soil or invasive plant seed on dirty vehicles. • Pollution arising from erosion or fuel / chemical spills.	Likely	High	Significant
Water pollution – Erosion and sediment	Construction works will expose soil to erosion which could potentially lead to sediment movement by water within and beyond the impact area. Sediment movement in water is a pollutant of waterways and is a serious environmental risk that must be mitigated. Land owners and Project managers have responsibilities under law to prevent erosion and sediment pollution of waterways under the Environment Protection Act 1972 (EPA Act) and the Catchment and Land Protection Act 1994 (CaLP Act). Sediment management is required to meet requirements under the EPA State Environmental Protection Policy (Waters) (EPA Victoria, 2018)	• No discharge of sediment laden runoff from the impact area directly or indirectly to waterways or stormwater. • No removal of vegetation beyond the impact area. (Retained vegetation helps reduce sediment movement.) • Any potential erosion / sediment source of pollution will be contained within the impact area.	• Erosion and sediment sources including cut/fill surface, exposed batters, stockpiles, waterway crossings and access tracks. • Potential erosion and sediment receptors include downslope storm water drains. • Extent of exposed earth and duration of time exposed: Access track and construction area. Exposed for 18 mths approximately. • Soil type and erosivity: Basalt – low erosivity due to limited slope • Site drainage regime: Urban stormwater system- surface water drains naturally to the urban storm water system. • Rainfall: Variable – thunderstorms possible • Slope: Flat • Vehicle movements on and off site: Vehicle movements will be continuous, measures required to manage vehicle soil transport.	Likely	Moderate	Significant
Invasive species	Invasive plants (weeds) and animals pose serious threats to native ecosystems and are costly to control once established. The impact area is currently free of significant noxious or environmental invasive plants. Spread of invasive plants is a significant risk arising from construction activities. All contractors are required to ensure that all plant and equipment brought onto or removed from the impact area are clean and free of invasive plant seeds, soil and other propagules that could spread invasive plants onto, within or beyond the impact area.	• Prevent invasive plants and animals from establishing in the impact area. • Ensure all vehicles and equipment are cleaned before entry to and exit from the impact area.	• Invasive plants introduced to the site during construction by vehicles or materials. • Existing invasive plants impacts expand due to construction and other disturbance. • Invasive plants spread to neighbouring properties or beyond.	Likely	Moderate	Significant
Fuel and chemical spill	Spills of fuel, oils or chemicals can cause temporary or persistent environmental pollution that may be hazardous to people and the environment and may be difficult to remediate. Prevention of spills is the most effective way to prevent pollution by fuels or chemicals. Fuels and oils are most likely to be spilled during refuelling or due to equipment failure. The risk of spills can be reduced by planning, the use of appropriate equipment, providing appropriate storage and having clean up kits accessible in the event of an accident. Use of hazardous chemicals will be avoided on site during construction. Fuels and oils will only be used to refill construction equipment and will not be stored on site.	• No spills or pollution arising from the use of fuels, oils and chemicals during the project. • Management practices will be in place to help prevent spills or clean up spills. • Appropriate clean up kits will be available on site during at all times during construction.	• Types of chemicals and fuels used on site: Petrol, diesel, paint, solvent (no chemical storage permitted on site). • Quantities of chemicals and fuels used and/or stored on site: <200l (fuels) <20l (other). • Potential chemical receptors: Personnel, soils, vegetation, nearby adjacent ephemeral waterways, fauna. • Proximity to potential chemical receptors: Immediate.	Likely	Moderate	Significant

Environmental factor	Environmental and heritage values / assets	Management objectives	Risk factors	Likelihood	Consequenc	Overall Risk
Waste disposal and litter	Waste generation and disposal is costly and can generally be avoided by forward planning and by recycling which is usually free. Adequate waste / recycling materials storage facilities will be provided on the construction site at all times to help make recycling the easy option. Waste must be secured on site at all times to prevent it being blown beyond the impact area or being accessed by fauna.	• All contractors and staff commit to reducing waste and recycling materials where practical. • All waste or recycling materials secured on site against wind / water movement or disturbance by wildlife until it can be legally removed to landfill or a recycling facility. • All waste disposed of legally with records kept. • All waste management and recycling storage maintained with lockable lid, fit for purpose, in a tidy condition and emptied regularly.	• Nature of waste to be generated: Spoil (soil from excavation), general, building waste. • Presence of waste on site prior to work commencement: Nil. • Quantity of waste anticipated: < 40 cubic metres. • Potential waste receptors: Local residents. • Proximity to potential waste receptors: Immediate.	Likely	Moderate	Significant
Dust air pollution	Dust raised during construction is a serious issue for the health and safety of employees and the public. Dust can also be a traffic hazard that can limit visibility or distract drivers. During dry periods dust is easily suppressed by water sprinkler from a fixed system or a truck.	• Dust will not reach a volume that causes a health hazard to employees or the public. • Dust will not reach a volume that causes a traffic hazard. • Dust will be managed by water sprinkler from a fixed system or truck.	• Dust sources: Soil disturbance by vehicles and equipment in dry weather. Vehicle movements on dirt surfaces in dry weather. • Potential dust receptors: Workers, local residents, roadway, waterways. • Proximity of works to dust receptors: Immediate. • Extent of exposed earth and duration of time exposed: 18 mths • Wind conditions: Exposed.	Likely	Moderate	Significant
Noise	Construction noise can be obtrusive, stressful and disruptive. The project impact area is located in a residential area. Impacts on neighbours are likely to be significant. Good-will of immediate neighbours should be fostered by consulting with them prior to commencing construction works. The Project manager should seek to understand their neighbour's tolerance of noise and to identify any specific sensitivity that can then be managed by negotiation. All plant and equipment shall be maintained in accordance with manufacturer's specifications to help prevent unnecessary noise.	• Noise generated from construction does not cause a nuisance to neighbours. • Neighbours consulted with to communicate potential noise impacts and to identify any sensitivity. • Manage noise according to EPA Victoria Environment Protection (Residential Noise) Regulations 2008 (EPA Victoria, 2008)	• Nature of noise generating works: Construction activities, power tools, large machinery reversing vehicles, radios. • Potential noise receptors: Workers, local residents. • Proximity of works to noise receptors: 25 metres.	Certain	Moderate	Significant
Neighbour relations	Changes in land use or land development regularly raise community concerns or objections. Often these concerns relate to real or perceived environmental impacts or losses to amenity or local connection. Timely communication can often prevent or defuse local tensions in the community or between neighbours. As a precautionary action neighbours should be informed of the development and the timing of the works. Conversations are recommended to help detect any latent tensions or concerns that may not yet be apparent; but which dialogue could help resolve.	• Communicate with the local community about the project and how environmental and amenity issues are being carefully managed.	• Proximity of works to neighbours: 25m neighbours in a quiet residential area.	Certain	Moderate	Significant

5. Environmental management plan

This section provides an Environmental management plan that responds to the addresses all environmental factors, management objectives and risks identified in the Project Risk Assessment as outlined in Section 4.

Table 5 Environmental management plan

Environmental aspect or management activity	Actions to address risk	Monitoring response	Frequency of monitoring	Responsibility	Documentation
1. Impact area preparation and identification	Prior to the commencement of works the Project manager will ensure that the impact area and key site features are clearly established and identifiable on-ground and on plans according to the EMM (Figure 2). The following items must be established and clearly identified: – Impact area – establish the impact area with exclusion fencing appropriate to the site. All construction works must be confined to the defined impact area. – Access points for the impact area must be made obvious to all staff and contractors prior to commencement of works and at all times during the construction process. Any access areas other than those identified in the EMM must be closed during construction. – Stockpile locations. – Site facilities and vehicle parking area. – Site sediment and erosion controls. – Site fencing, including other fencing to protect environmental or heritage values within the impact area. – Site waste and recycling storage facilities. – Chemical spill clean-up facilities or kits.	• Document impact area preparation and identification including photographs	• Prior to commencement of works	• Project manager	• Project records • Photographs
2. Site induction	• Site induction to be provided for all personnel working on site, including sub-contractors. Induction must be undertaken by the Project manager before all personnel commence work. • The induction will cover all the content of the CEMP and FCMP relevant to the role of the personnel. A Site induction program has been prepared to support inductions. • Emphasis will placed on providing identification of Striped Legless Lizard and the required response should any be located during habitat removal or construction. • Site inductions will emphasise that No Go Areas are No Go Areas to all personnel or contractors, particularly the retained native grassland and the Council reserve east of the mound removal. • Details of the induction and content covered will be recorded for each person. The induction process will describe the location of copies of the CEMP and will provide the contact details for the Project manager and Project manager. • 'Ask before acting' will be emphasised and encouraged to help prevent incidents.	• Document delivery of site inductions and details of participants	• Prior to personnel commencing work on site	• Project manager	• Project records
3. Removal of native vegetation	• No trees, dead or alive, or native vegetation is to be removed, lopped or adversely impacted upon by the construction process, unless in accordance with the endorsed plans. • Native vegetation permitted to be removed will be clearly marked as on site by the Project manager prior to removal, in accordance with the endorsed plans. Document marked area with photographs. • Native vegetation to be retained will be secured by exclusion fencing with signage attached reading 'Vegetation Protection Zone – No Work Permitted'.	• Photos of site with tree protection fencing in place prior to commencement of works	• Weekly or in response to reports	• Project manager	• Photos of any changes • Summary notes of changes

Environmental aspect or management activity	Actions to address risk	Monitoring response	Frequency of monitoring	Responsibility	Documentation
4. Local erosion and sedimentation as a result of exposed soil within the impact area.	• Sediment controls will be installed according to the EMM, prior to the commencement of works, to intercept sediment laden run-off and minimise any impacts on surrounding vegetation. • Crushed rock must be maintained on all access tracks at all times. • Storm water drains - Appropriate sediment control measures include silt traps, geotextile fabric filters, side entry drain pit protection, and portable bunding, drain covers, and drain wardens shall be placed at any stormwater drain entry points within or downstream of the impact area. • A rumble grid and wash down facility shall be provided to remove loose soil from vehicles prior to exit of the impact area. • The roadway adjacent the site entry point will be maintained clear of soil at all times. • Stockpile locations will be predetermined and sediment controls to prevent material movement will be implemented if required. • Sediment controls will be maintained until the construction project has been completed. • All sediment control measures must have a size and capacity to withstand a 1 in 2 year ARI 6 hour storm (EPA 480). • All soil stockpiles must be covered with an appropriate fabric to minimise its potential to become an erosion, dust and sedimentation source. Sediment controls must be installed down slope of stockpiles if they are not covered. • All stockpiles of materials must be placed in locations away from drainage lines, roadside channels and culverts unless adequately protected from erosion by diversion drains, sediment traps, bunds or similar works. • Monitor weather and avoid soil disturbance works in advance of and during extreme weather events.	• Visual inspections of the of sediment control measures supported by photographs. • Sediment control measures will be checked and maintained weekly • Water quality measurements for parameters described in Section 3.2, measured where water leaves the impact area.	• Weekly • Daily inspection of access points • Following any rain event.	• Project manager.	• Marked up plan indicating sediment traps have been placed. • Project records • Water quality records • Site photographs.
5. Disturbance and sedimentation of waterways, drainage systems and aquatic habitats, including beds and banks beyond the impact area.	• No activity or access is permitted beyond the impact area. All stockpiles, materials, vehicle movements and so on must be contained within the impact area or as shown in EMM. • Sediment controls will be installed where sedimentation risks are identified. • No vegetation is to be removed within or beyond the impact area, other than vegetation approved for removal, including the earthen mound.	• Visual inspection of all sediment controls • Observe water movements during rainfall events and modify sediment traps to ensure they are located where they are most effective • Observe water movements during rainfall to check that flows are not being concentrated which could lead to offsite erosion or creek bank instability.	• Weekly during works in these areas. • During and after rain events.	• Project manager.	• Project records • Photographs of site condition. • Documentation of any remediation works.
6. Community concern for environmental protection or loss of amenity during works.	• Communicate project plan with neighbours or community, provide CEMP to the public on request.	• Communications project with neighbours.	• 1 month prior to works and as needed during.	• Project manager	• Project records • Media release, flyer signage etc.

Environmental aspect or management activity	Actions to address risk	Monitoring response	Frequency of monitoring	Responsibility	Documentation
7. Movement of invasive plants (weeds) and soil pathogens onto or off site.	• Prior to entering or leaving the impact area, any vehicles, machinery, equipment and PPE will be washed down to remove soil and invasive plant seeds / propagules at a wash down area to be provided during construction. The wash-down bay must not be located within 30m of retained vegetation. • All construction and landscaping materials must be certified free of contamination by invasive plant seeds / propagules or pathogens by the contractor/supplier. • All works contracts are to specify the contractor is responsible for prevention or follow up control of any invasive plants or pathogens introduced to the site for a minimum of 12 months post construction • Fill, soil and landscaping materials imported onto the impact area must be certified free of pest plant seed / propagules, soil pathogens and pollutants. The Project manager must be satisfied that the materials are obtained from legal sources. • Any invasive plants germinating within the impact area must be eradicated and not be allowed to flower and produce seed. • Any soil or material contaminated with weed seed or propagules must be disposed of onsite or according to the requirements of the Catchment and Land Protection Act 1994.	• Contractor and Project manager to sign a statement that all vehicles have been washed down as prescribed and inspected. • Follow up visual inspections to detect invasive plant germination and signs of soil pathogen infection. • Appropriate contract specification clauses included to allow for vehicle wash-down procedures. • Retain quality statements for soil, fill and landscaping materials • Record details of all contaminated soil/material disposal locations.	• As required for vehicles entering and leaving the impact area • Weekly during construction and monthly for 1 year after construction completion. • Monitoring will be part of ongoing project management.	• Project manager.	• Contract specification • Project records • Signed statement for each vehicle recording wash-down and inspection measures. • Certification that materials not contaminated.
8. Disturbance or injury to terrestrial or aquatic wildlife	• Disturbance or injury to wildlife is unlikely if all works are restricted to the impact area. • Site security fencing must be installed prior to construction in such a way as to provide a barrier to the movement of fauna into the impact area according to the Fauna Conservation Management Plan. • Prior to tree removal any subject tree must be inspected by an appropriately qualified zoologist to determine the presence of any native animals living or nesting in the tree. Should any native animals be detected they must be caught and relocated to a site deemed appropriate by the zoologist. • Appropriate animal handling permits must be in place prior to wildlife salvage (organised by the zoologist) • If injured wildlife is encountered the Project manager will be immediately notified and a licenced wildlife handler/carer or local veterinarian will be consulted**.** • **Wildlife Victoria – ph. 1300 094 535 or *www.wildlifevictoria.org.au***	• Visual inspection of fences to ensure that there are no access points suitable for fauna to enter the impact area. • Document salvage process	• Weekly. • During habitat removal	• Project manager	• Project records • Photographs • Record any incidents and notify DELWP if native animals are injured or killed.
9. Litter, waste and recycling	• Waste is to be reduced by selecting, in this order of preference, avoidance, reduction, reuse and recycling methods. Construction should involve the reuse of materials and the recycling of waste wherever possible. • Impact areas must be kept free of litter at all times. Litter must be prevented from being blown or washed from the impact area and secured from wildlife. • Adjacent areas must be checked for litter monthly and at the completion of works. • All litter, recyclable or waste materials introduced to the work site must be removed frequently basis for legal disposal or recycling. Waste storage must not be allowed to overflow. • Adequate storage for waste and recycling materials must be provided to ensure recycling is as easy and practical as possible. Storage facilities must be located greater than 30m from retained vegetation • No waste may be disposed of in the impact area. • All unused construction materials and waste must be removed from the site when the project is completed. • Collection of waste must be undertaken in accordance with the Waste Management Plan from Green Change Solutions (December 2017). • No waste to be disposed of in domestic kerbside collection bins.	• Visual inspections of storage and machinery/equipment lay down areas.	• Daily	• Project manager	• Project records • Incident reporting as required.

Environmental aspect or management activity	Actions to address risk	Monitoring response	Frequency of monitoring	Responsibility	Documentation
10. Dust and air pollution	• Schedule activities to minimise dust generation and impacts, avoid receiving bulk deliveries on days of strong wind • Reduce speed through worksite • Cover storage areas either temporary or permanently • Regularly inspect boundaries of worksite for dust build up • All complaints from neighbours concerning dust to be recorded • A water truck shall also be available on site to assist in any necessary dust suppression as need	• Observe weather and wind conditions daily • Note weather forecasts in advance of works and plan for water sprinkler use during dry and windy conditions	• Daily or as required when conditions are dry and windy.	• Project manager	• Project records • Record when dust mitigation measures are taken.
11. Noise	• Work will only occur between the hours of 7.00 am and 8.00 pm week days and 9.00am and 8.00pm on weekends and public holidays. Refer to EPA Victoria Environment Protection (Residential Noise) Regulations 2008 (EPA Victoria, 2008) • Consultation with immediate neighbours to identify sensitivities that can be managed or negotiated around. • Plant maintained in good order, particularly mufflers and other sound emitting components.	• Record consultation process including details of who has been consulted. • Enforce work hours	• As required	• Project manager	• Project records • Record of consultation.

12. Inadvertent environmental damage or works without necessary permits. Non-compliance with Environmental Legislation	• Ensure all required permits have been obtained and that design meets any permit requirements or other legislative requirements for the works. Ensure all personnel are aware of the permitted works activities and the extent of the impact area.
	• Permit check list –
	  • Planning Permit (obtained – review and comply with conditions)
	  • Regulatory compliance checklist – Construction design will meet standards of key legislation and regulation including the Water Act, EPA Act, CALP Act, Planning and Environment Act, if this CEMP is complied with
		• Prepare a permit and regulatory compliance checklist.	• Project planning stage prior to the commencement of construction	• Project manager	• Permits obtained
					• Completed management plans to address regulatory compliance.

13. Storage areas for construction materials and transport of excavation spoil / fill off site	• The storage of all equipment, waste and building materials must be contained within the impact area. • No soil is to be removed from the site without written consent of the Project manager. Any loads of excavation materials being taken off site must be covered and taken to a legal point of use or disposal. The Project manager must confirm that the destination for excavation material is legal and keep records of the source and destination of the material. • Parking of vehicles, creation of stockpiles and similar disturbance must not occur within 30m of retained native vegetation.	• EMM map specifies suitable stockpile locations • Record details of any material transported off site provide evidence of its destination.	• As required	• Project manager	• EMM • Project Records

Environmental aspect or management activity	Actions to address risk	Monitoring response	Frequency of monitoring	Responsibility	Documentation
14. Fuel, oil and chemical spill or pollution	• Use of hazardous chemicals or materials will be avoided as far as practical. The works generally do not require the specific use of any hazardous substances other than machinery fuels and oils or standard construction materials. • No fuels, oil or any potential harmful substance will be stored or used on site without the prior written consent of the Project manager. • Spill kits will be available, easily accessible and kept on the construction site at all times and all employees will be trained in their use. • Daily plant safety procedures for all plant shall be completed at the start of each day. • All refuelling shall be conducted at least 30 m away from waterways using a built for purpose fuel tender that is in good condition and does not have defects or leaks. The tender vehicle must have materials at hand to manage and clean up any spill incidents. • Machinery servicing and oil changes will not be performed on-site without the written consent of the Project manager. The Project manager will specify measures to manage risks associated with any machinery servicing. • When hazardous materials are used, the following controls measures will be put in place; – The Project manager will verify that staff or contractors have the relevant qualifications to use chemicals or hazardous materials. – Lids to be kept securely closed on containers of chemicals. – Containers on vehicles to be secure. – Ensure no leaks and all taps and pipes are securely isolated. – MSDS's are available on site for all relevant chemicals or materials. – Storage of chemicals, temporary or otherwise' in the vicinity of a waterway is not permitted. • Storage - Separate designated area shall be identified for the storage of chemicals and fuels that meets current work standards. The following practices shall be adopted; – Storage areas kept clean and tidy. – MSDS's available for all chemicals on site. – All chemicals and fuels labelled correctly. – Spills shall be reported immediately to Project manager. • Treatment of fuel / oil / chemical spills shall be immediately reported to the Project manager. • Disposal of contaminated soil materials shall be at locations acceptable to EPA requirements.	• Inspect the condition of any fuel tender before access is granted to the impact area. • Inspect condition of spill kits. • Observation of staff contractor behaviour with fuels / oils / chemicals and ensure safe work practices are followed.	• Monthly	• Project manager	• Project records • Maintain a spread sheet or similar recording inspections and outcomes. • Maintain a register of spill incidents and the action taken.

Flora and fauna
- CEMP to follow from Fauna Conservation Management Plan salvage and relocation
- No works or access to No Go Area vegetation
- All personnel and contractors to be observant for Striped Legless Lizard
- Stop work and refer to CEMP and FCMP if any fauna are found during works

Sediment controls
- Place Modular Sediment Barrier (MSB) at any point of potential concentrated surface water flow.
- More than one MSB may be required at each point to filter all water. Refer to EPA 960 p34.
- Indicative locations for MSB and silt fencing are shown.
- Place sediment controls according to detailed design or to terrain.
- For Sediment fence refer to EPA 960 p30.
- **Hay bales or straw bales not permitted.**

No Go Areas
- No personnel or contractors are permitted in No Go Areas
- No parking, storage of materials or stockpiles permitted in No Go Areas

Fuels, oils and chemicals
- No fuel or chemical storage on site
- Machinery fueling to be completed using portable bunding
- Spill kit to be provided on all plant or on site

N

Villatone Dr
Furlong Rd
St Albans Rd
Walker Ct
Gray Ct

No-Go area
No-Go area
No-Go area
Rumble grid
No-Go area
Site office
Main building requiring excavation and grading
No-Go area
No-Go area
Earthen mound removal using excavator and trucks
Temporary access track for earth mound removal (pre building construction)

Legend
- Property bounary
- Works footprint
- Impact area

Vegetation
- To be removed
- To be retained

Construction management plan
- Sealed rubbish and recycle bins
- Gravel sausage or rock log
- Site access
- Stockpile site
- Vehicle hygiene wash down
- Vehicle/plant parking
- Drain warden
- Fauna exclusion fence
- Silt fencing
- <all other values>
- Construction footprint
- Existing access
- Landscaping
- Temporary access track
- No-Go Area
- Rumble grid
- Temporary access track
- Site office
- Earthen mound to be removed - Council propoerty
- Earthen mound to be removed

Stockpile management
- Stockpiles must be constructed according to EPA 960 p.24-26.
- Sediment controls such as sediment fence must be in place.
- A catch drain must be constructed upslope, and runoff directed through MSB
- Appropriate dust suppression must be in place at all times.
- No stockpiles within 30m of retained vegetation

Figure 1 Environmental management map (EMM)

[redacted]

0 10 20 30 40
Metres
Scale 1:1,000 @A3
Coordinate system: GDA 1994 MGA Zone 55

Matter: 28667, Date: 23 May 2019,
Checked by: TD, Drawn by: LW, Last edited by: lmilne
Location:P:\28600s\28667\Mapping\28667_SEMP_V2.aprx
Acknowledgements: Vicmap ©State of Victoria, Nearmap

6. Environmental management map

The Environmental management map (EMM) shows the location of areas with environmental or heritage values. It also shows the locations of the minimum requirements for environmental management required to protect these values as specified in the Section 5 Environmental management plan.

The construction works for this project must be implemented according to this EMM for the project to fully meet the planning permit conditions (i.e. the earthen mound removal), or other approvals for this project.

The EMM maps form part of the CEMP and must be provided to the contractor.

Written approval of Project manager must be obtained if EMM needs to be amended in any way. All works must be implemented according to this plan.

Digital data included in these maps is available upon request.

Note –Existing easements / services locations are not shown. The Project manager is responsible for identifying all relevant easements and service locations.

7. Earthen mound removal

In accordance with condition 8 of the amended planning permit, prior to any works commencing and to the removal of native vegetation and identified habitat, a plan must be developed to deliver the removal of the earthen mound on the shared boundary (181 Furlong Road and 173A Denton Avenue, St Albans) to the satisfaction responsibility authority. In order to satisfy this requirement, the mound location and extent is provided within the EMM, including the location of proposed no-go fencing on the Council land, as well as the new boundary fence to be established.

The project management will be responsible to oversee the earthen mound removal, including that the disposal of all removal waste and document all waste movements, including for disposal or recycling.

7.1 Earthen mound removal works

The earthen mound should be removed with excavators and trucks, ensuring that no parts of native grasslands or areas of no-go as outlined in the EMP are encroached upon. In order to retain the quality of nearby native vegetation, works should not occur during or after moderate to heavy periods of rainfall.

All trees required to be removed should not be felled into Council land, nor into the native grasslands to be retained. Therefore careful planning of the tree removal must be considered. The key schedule for earth mound removal is outlined below.

Table 6 Works schedule for mound removal

Stage	Date/timing
Site Establishment (i.e. site facilities, temporary access tracks, sediment controls, fauna exclusion fencing)	Mid 2019 (upon approval of Project)
Mound removal (excavation of mound, temporary stockpile, remove from site)	Mid 2019
Site clean-up, rehabilitation and border fencing	Before end of 2019

7.2 Salvage of fossorial fauna

The mound may provide habitat for fossorial fauna, which may be disturbed during removal works. Initial disturbance to the top layers of soil (~30cm) should be supervised by a Zoologist in order to salvage any individuals that are exposed. This should be conducted in accordance with the Fauna Conservation Management Plan.

Additionally, fossorial fauna-fencing is to be installed on the eastern edge of the mound to ensure animals do not enter the construction site from Council land (Figure 1).

7.3 Rehabilitation

Following removal of the earthen mound, the area will need to be rehabilitated with native vegetation, as per condition 8(d). This is to be done in conjunction with Brimbank City Council and should only utilise species suitable for the area. Care should be taken to source species that are of local provenance.

Finally, in order to separate the land parcels, a boundary fence is to be established in accordance with Condition 8(e) of the planning permit.

8. Post construction site remediation and reporting

This section outlines the approach required to stabilise and rehabilitate the impact area post construction. This is not a landscape plan.

Site remediation will be achieved within the specification and design of the aged care facility, as detailed in the approved design or landscape plan. The objective of the aged care facility design with respect to remediation is to ensure all disturbed surfaces are secured against further disturbance by erosion and sediment control measures.

8.1 Site clean up

Removal all temporary structures and fencing.

Dispose of all construction waste to recycling or legal landfill. The Project manager must document all waste movements from site and retain evidence of all waste disposal or recycling.

Dispose of all excess spoil to a legal disposal point. Disposal site for any spoil removal from site and truck route is to be submitted to and approved by the Brimbank City Council chief executive officer and/or their representative in writing prior to the commencement of any works.

8.2 Site stabilization and remediation

Minimum post construction stabilisation and remediation methods to implemented are:

- Batters or other areas of exposed soil covered with permeable, biodegradable matting, e.g. durable jute matting securely pinned to soil surfaces sufficient to prevent soil movement for 18 months or spray seeded with native grass species (*Microlaena stipoides*) or sterile rye-grass. Kikuyu should not be used on this project, as Kikuyu is an invasive plant in reserves and waterways.
- Minimum of soil disturbance must be achieved, i.e. no soil disturbance other than that required to construct the aged care facility. No disturbance beyond these areas.
- Revegetation on exposed soil surfaces following the removal of the temporary access tracks will be spay-seeded or hand-seeded with native grass seed – *Microlaena stipoides* var *stipoides* or sterile rye-grass.
- If it is determined that there has been insufficient growth of the Microlaena seed or grass seed within twelve months and the disturbed soil area has become colonised with invasive plant species, the proponent will be required to undertake invasive plant control and follow up seeding of the area.
- **No use of viable non-native vegetation such as lawn seed mixes or grass / straw bales anywhere on site. Final revegetation to be approved by Brimbank City Council.**

8.3 Reporting

The Project manager must compile all records in a suitable format and make a brief summary report on the implementation of the CEMP, noting positive and negative outcomes.

9. Glossary

Term	Definition
Impact area	The area within a site required for all works, including access tracks, stockpiles, temporary facilities, plant, the construction footprint and so on. Anywhere likely to be disturbed or impacted on by the works.
Native vegetation	Plants that are indigenous to Victoria including trees, shrubs, herbs and grasses (from the Victorian planning provisions – note this may include planted vegetation in addition to naturally occurring native vegetation)
Invasive plants	An invasive plant species is a species occurring, as a result of human activities, beyond its accepted normal distribution and which threatens valued environmental, agricultural or other social resources by the damage it causes. Invasive species have a major impact on Australia's environment, threatening our unique biodiversity and reducing overall species abundance and diversity.
Invasive animals	An invasive animal species is a species occurring, as a result of human activities, beyond its accepted normal distribution and which threatens valued environmental, agricultural or other social resources by the damage it causes.

10. Useful information resources:

SEPP (Waters)

State Environmental Protection Policy (Waters) 2018- http://www.gazette.vic.gov.au/gazette/Gazettes2018/GG2018S499.pdf

EPA publications

Environmental Guidelines for Major Construction Sites (EPA Publication 480) - https://www.epa.vic.gov.au/~/media/Publications/480.pdf

Construction Techniques for Sediment Pollution Control (EPA Publication 275) - https://www.epa.vic.gov.au/~/media/Publications/275.pdf

Doing it Right on Subdivisions: Temporary Environment Protection Measures for Subdivision Construction Sites (EPA Publication 960) – https://www.epa.vic.gov.au/~/media/Publications/960.pdf

Current design specifications for sediment and erosion control measures

Some example control measures are provided here, a full range of specifications can be sourced from the Catchment and Creeks website - https://www.catchmentsandcreeks.com.au/index.html. All content from this website is freely available for reproduction and use.

Standard controls

Sediment fence - https://www.catchmentsandcreeks.com.au/docs/SF-1.pdf

Filter sock / rock sausage - https://www.catchmentsandcreeks.com.au/docs/FS-1.pdf

Concentrated flows

Modular sediment trap - https://www.catchmentsandcreeks.com.au/docs/MST-1.pdf

Check dam sediment traps- https://www.catchmentsandcreeks.com.au/docs/CDT-1.pdf

Filter tube dam - https://www.catchmentsandcreeks.com.au/docs/FTD-1.pdf

Instream sediment controls

Filter tube barrier - https://www.catchmentsandcreeks.com.au/docs/I-FTB-1.pdf

Site access

Rumble / Vibration grid - https://www.catchmentsandcreeks.com.au/docs/V-Exit-1.pdf

Wash bay - https://www.catchmentsandcreeks.com.au/docs/W-Exit-1.pdf

Storm water management

Urban stormwater best practice environmental management guidelines - State Environmental Protection Policy (Waters) - http://www.gazette.vic.gov.au/gazette/Gazettes2018/GG2018S499.pdf

Noise

EPA Victoria: Environment Protection (Residential Noise) Regulations 2008- http://www.legislation.vic.gov.au/domino/web_notes/LDMS/LTObject_Store/LTObjSt4.nsf/d1a8d8a9bed958efca25761600042ef5/6ffcb6621349aaafca2577610035fbb6/$FILE/08-121sr001.pdf

11. References

Biosis . (2018). *Biodiversity assessment: 181 Furlong Road, St Albans, Victoria.* Melbourne: Biosis Pty Ltd.

Biosis. (2019). *181 Furlong Rd, St Albans: Fauna Conservation Management Plan.* Melbourne: Biosis.

EPA Victoria. (2008). *Environmental Protection (Residential Noise) Regulations 2008.* Melbourne: EPA Victoria.

EPA Victoria. (2018). *State Environment Protection Policy (Waters).* Melbourne: EPA Victoria.

Appendices

Appendix 1 Contractor induction sheets

Aged care facility extension, 181 Furlong Road, St Albans

Site induction program

Prepared for De Nova Group Pty Ltd

20 May 2019

Biosis offices

NEW SOUTH WALES

Albury
Phone: (02) 6069 9200
Email: albury@biosis.com.au

Newcastle
Phone: (02) 4911 4040
Email: newcastle@biosis.com.au

Sydney
Phone: (02) 9101 8700
Email: sydney@biosis.com.au

Wollongong
Phone: (02) 4201 1090
Email: wollongong@biosis.com.au

VICTORIA

Ballarat
Phone: (03) 5304 4250
Email: ballarat@biosis.com.au

Melbourne (Head Office)
Phone: (03) 8686 4800
Email: melbourne@biosis.com.au

Wangaratta
Phone: (03) 5718 6900
Email: wangaratta@biosis.com.au

Document information

Report to:	De Nova Group Pty Ltd
Prepared by:	Lachlan Milne Lucy Wilson Tim Dredge

Biosis project no.: 28667

File name: 28667.181FurlongRd.DeNova.Induction.DFT01.20190226.docx

Citation: Biosis 2018. Aged care facility extension, 181 Furlong Road, St Albans; Project site personnel induction plan. Prepared for De Nova Group Pty Ltd. Authors: Milne. L, Wilson. L, Biosis Pty Ltd, Melbourne. Project no. 28667

Document control

Version	Internal reviewer	Date issued
Draft version 01	BRH	20/02/2019
Final version 01	TD	7/03/2019

Acknowledgements

Biosis acknowledges the contribution of the following people and organisations in undertaking this study:

- Client: De Nova Group Pty Ltd

Biosis staff involved in this project were:

- Lachlan Milne
- Lucy Wilson
- Tim Dredge

Contents

1. Introduction 2

1.1 Background 2

1.2 Induction objectives 2

2. Project management 2

2.1 Project manager responsibilities 3

2.2 Responsibilities of all staff or contractors on site 3

2.3 Enforcement 3

2.4 Reporting 3

2.5 Environmental information to be provided on site 3

3. Site environmental values 4

3.1 Environmental values and personnel responsibilities 4

3.2 Native vegetation Values 4

3.3 Fauna values 5

3.4 Water quality 6

4. Environmental management requirements for personnel 7

5. Useful information resources: 11

6. References 11

7. Striped Legless Lizard information sheet 12

Tables

Table 1 Contact details for the Project manager: 2

Table 2 Site environmental values 4

Table 3 Environmental management requirements for personnel 7

Figures

Figure 1 Environmental management map 10

1. Introduction

1.1 Background

This Site induction program (SIP) is intended for use by the project manager to induct all personnel and contractors into the environmental risk management requirements specified in the Construction environmental management plan (CEMP), associated Environmental management maps (EMM) and Fauna for the project:

Aged care facility extension, 181 Furlong Road, St Albans.

All personnel are required to follow the requirements of the CEMP that are relevant to their role.

1.2 Induction objectives

The objectives of the induction and CEMP are to:

- Protect the identified site environmental values.
- Prevent inadvertent environmental damage or harm to fauna and flora during construction.
- Prevent off site impacts from dust or pollution.
- Ensure mitigation measures are in place to manage environmental incidents.
- Ensure compliance with environmental regulation and legislation.

2. Project management

Responsibility for delivery of the CEMP lies with the Project manager. The Project manager may delegate any tasks and responsibilities as required provided that the details of the delegate and their responsibilities are documented.

Table 1 Contact details for the Project manager:

Item	Detail
Name	
Role	
Company	
Address	
Email	
Telephone	
Mobile	

2.1 Project manager responsibilities

- Implement CEMP and Fauna Conservation Management Plan.
- Ensure all personnel (including contractor/sub-contractors) are aware of contents of the CEMP and what their responsibilities are.
- Be available for on-site meetings when required.
- Ensure all staff and contractors comply with all CEMP and FCMP requirements.
- Include the CEMP, EMM and FCMP as part of any enforceable contracts and that the compliance with the CEMP is part of all internal personnel job descriptions.

2.2 Responsibilities of all staff or contractors on site

- Work according to the CEMP and FCMP.
- If you are uncertain ***ASK BEFORE ACTING*** – seek advice from the Project manager if you think you could harm an environmental value.
- Work within designated impact areas only.
- Report any issues or incidents to the Project manager.

2.3 Enforcement

All personnel and contractors must be aware that compliance with this approved CEMP is mandatory. The CEMP is a legally binding document to all personnel and contractors working on the project site.

This CEMP is a condition of the amended Planning Permit P622/2011and breaches may be subject to enforcement by Brimbank City Council.

The implementation of the CEMP may also be a condition under other legislation such as the *Environment Protection Biodiversity Conservation Act 1999* or the *Environment Protection Acts 1970 / 2017.*

Environmental values have legal protections. Individuals and companies may be held liable under law for any deliberate or accidental harm to environmental values.

Depending on the breach of environmental legislation, individuals or companies may be subject to fines, incarceration and full costs of ongoing environmental remediation. Companies may impose their own penalties on employees who breach environmental legislation such as disciplinary action or dismissal.

2.4 Reporting

The Project manager must compile all records in a suitable format and make a brief summary report on the implementation of the CEMP, noting positive and negative outcomes.

2.5 Environmental information to be provided on site

The following environmental management information will be available at the project site:

- Construction environment management plan (CEMP) and Environment Management Maps
- Fauna conservation management plan (FCMP) (Biosis, 2019)
- Biodiversity Assessment: 181 Furlong Road, St Albans, Victoria (Biosis , 2018)

3. Site environmental values

3.1 Environmental values and personnel responsibilities

Significant environmental values exist on or near the project and are described in Table 2. Locations of environmental values are shown in the EMM and described in detail in the CEMP.

All personnel are responsible for:

- Being aware of what environmental values are present and where they are located.
- Working according to the CEMP and FCMP for the project.
- Preventing harm to environmental values.
- Making sure others do not harm environmental values.
- Reporting any environmental incidents.

Table 2 Site environmental values

	Environmental feature	Value
1	**Native vegetation**	Native grasslands (endangered).
2	**Native fauna**	Potential habit for Striped Legless Lizard (vulnerable to extinction).
3	**Waterways**	No adjacent waterways.
4	**Cultural heritage**	No cultural heritage values identified.
5	**Stormwater drains**	Storm water leaving the construction area must meet EPA water quality standards.
6	**Parks and reserves**	Council land surrounds the construction area to the north and east. Protected native vegetation is present in these reserves
7	**Residential amenity**	Residents are nearby that could be impacted by noise, dust, access changes and other construction activities.
8	**Invasive plants and animals spread**	Spread of invasive plants and animals onto or off the construction area must be prevented.

3.2 Native vegetation Values

The native vegetation has been surveyed (Biosis , 2018) and values on the site are:

- Patches of Heavier-soils Plains Grassland ecological vegetation class (EVC 132_61; Bioregional conservation status: Endangered).
- EPBC Act listed Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP).

Native vegetation to be retained or permitted for removal is shown on the EMM (Figure 1).

The impact area contains native vegetation, including 0.255 hectares of native vegetation permitted for removal, this area will be clearly marked and cleared for the project.

All other native vegetation beyond the impact area is protected and must not be impacted by any development works, used for parking, stockpiles or any other purpose.

Areas of native vegetation to be retained are be shown on all construction plans and shown as a 'No Go Area'. Retained native vegetation will be secured by appropriate exclusion fencing as detailed in Table 3.

The project site does support habitat for protected native fauna. A Fauna Conservation Management Plan has been prepared for this project and must be implemented in conjunction with this CEMP. It must be implemented to protect fauna from construction impacts.

Key requirements

- Do not remove or alter any site fencing or signage.
- Do not enter or undertake any activities within 'NO GO AREAS'.
- ASK BEFORE ACTING if you are uncertain.
- If involved with vegetation or habitat removal, follow the directions of the Project manager and Zoologist.

3.3 Fauna values

The native fauna values on the site are:

- Suitable habitat for Striped Legless Lizard.

There is potential that Striped Legless Lizard could be present in the project site.

A Fauna conservation management plan (Biosis, 2019) has been prepared for the project detailing management of fauna salvage and relocation, protective fencing and processes for dealing with any fauna encountered during construction.

Fauna habitat includes all native vegetation on the project site. Fauna may also utilise non-native vegetation for habitat.

Site exclusion fencing will be constructed to incorporate fauna exclusion fencing and will be signed as a 'No Go Area'.

Key requirements

- Be familiar with the species identification and information sheets for striped legless lizard provided with the SIP
- Do not remove or alter any site fencing or signage.
- Do not enter or undertake any activities within 'NO GO AREAS'.
- ASK BEFORE ACTING if you are uncertain.
- If involved with vegetation or habitat removal, follow the directions of the Project manager and Zoologist.
- Stop work immediately and contact the Project manager if any fauna (including frogs, lizards, birds, mammals or snakes) are encountered. Do not recommence work until fauna have been safely removed from the project area.

3.4 Water quality

The project works must comply with the State Environmental Protection Policy (Waters) (SEPP) (EPA Victoria, 2018)

Environmental quality objectives and indicators are defined in the SEPP to protect 'beneficial uses', such as water quality for the protection of ecological values, human consumption, agriculture and industry, recreation, spiritual values and other uses (EPA Victoria, 2018).

Impacts to surface and ground water quality must not result in changes that exceed background levels and / or the range of environmental objectives (biological, nutrient, water quality) specified for the project site. (EPA Victoria, 2018).

Key requirements

- Do not remove or alter any erosion or sediment controls within the project area without approval of the Project manager.
- Any water physically discharged from the site must be tested and treated to ensure it complies with SEPP requirements. Refer to the CEMP.
- ASK BEFORE ACTING if you are uncertain.

4. Environmental management requirements for personnel

This section sets out environmental management requirements for all personnel and contractors working on the project.

Table 3 Environmental management requirements for personnel

Environmental aspect or management activity	Requirements
1. Construction area	• Only work within the construction area shown in the EMM.
2. Native vegetation	• No trees, dead or alive, or native vegetation is to be removed, lopped or adversely impacted upon by the construction process. • Native vegetation permitted to be removed will be clearly marked by the Project manager prior to removal. • Stay out of No Go Areas - Native vegetation to be retained will be secured by exclusion fencing with signage attached reading 'Vegetation Protection Zone – No Work Permitted' or 'No Go Area'.
3. Erosion and sediment control	• Do not disturb sediment controls • Sediment controls will be installed according to the EMM prior to the commencement of works. • Wash down all soil contaminated vehicles prior to entry or departure of the site using the wash bay provided. • Use predetermined stock pile areas only. • Cover all stockpiles with appropriate geo textile to prevent dust, erosion or sediment movement. Sediment controls must be installed down slope of stockpiles if they are not covered. • Monitor weather and avoid soil disturbance works in advance of and during extreme weather events.
4. Community concern for environmental protection or loss of amenity during works.	• Be considerate, polite and respectful to neighbours and community members at all times. • Minimise noise and dust as far as possible. • Refer questions regarding the project to the Project manager
5. Movement of invasive plants (weeds) and soil pathogens onto or off site.	• Before entering or leaving the project area, any vehicles, machinery, equipment and PPE must be washed down to remove soil and invasive plant seeds / propagules at a wash down area to be provided during construction. • Fill, soil and landscaping materials imported onto the impact area must be certified free of pest plant seed / propagules, soil pathogens and pollutants. • Do not move any soil or material off site without written permission of the Project manager

Environmental aspect or management activity	Requirements
6. Disturbance or injury to wildlife	• Disturbance or injury to wildlife is unlikely if all works are restricted to the impact area. • Site security fencing will help prevent fauna entering the site. • A Fauna Conservation Management plan is in place, follow its requirements. • If injured wildlife is encountered notify the Project manager immediately. A licenced wildlife handler/carer or local veterinarian will be consulted**.** • **Wildlife Victoria – ph. 1300 094 535 or *www.wildlifevictoria.org.au***
7. Litter, waste and recycling	• Reduce waste by avoidance, reduction, reuse and recycling methods. Construction should involve the reuse of materials and the recycling of waste wherever possible. • The project area must be kept free of litter at all times. Litter must be prevented from being blown or washed from the impact area and secured from wildlife. • Adjacent areas must be checked for litter monthly and at the completion of works. • Waste storage must not be allowed to overflow. • Use waste and recycling storage provided on site • No waste may be disposed of in the project area. • All unused construction materials and waste must be removed from the site when the project is completed. • No waste to be disposed of in domestic kerbside collection bins.
8. Dust and air pollution	• Schedule activities to minimise dust generation and impacts, avoid receiving bulk deliveries on days of strong wind. • Reduce speed through worksite. • Cover stockpiles with temporary geo-fabric to suppress dust. • Report complaints from neighbours concerning dust to the Project manager.
9. Noise	• Work will only occur between the hours of 7.00 am and 8.00 pm week days and 9.00am and 8.00pm Saturdays. Refer to EPA Victoria Environment Protection (Residential Noise) Regulations 2008 (EPA Victoria, 2008) • Maintain plant and equipment in good order, particularly mufflers and other sound emitting components.
10. Storage areas for construction materials and transport of excavation spoil / fill off site	• The storage of all equipment, waste and building materials must be contained within the impact area. • No site materials, parking, temporary facilities to be located within 30 m of the retained native vegetation area. • No soil is to be removed from the site without written consent of the Project manager. Any loads of excavation materials being taken off site must be covered and taken to a legal point of use or disposal. The Project manager must confirm that the destination for excavation material is legal and keep records of the source and destination of the material.

Environmental aspect or management activity	Requirements
11. Fuel, oil and chemical spill or pollution	• As far as possible do not use hazardous chemicals or materials other than machinery fuels and oils or standard construction materials. • Do not store any fuels, oil or any potential harmful substance on site without the prior written consent of the Project manager. • Keep spill kits will available, easily accessible on the construction site at all times. • Complete all daily plant safety procedures for all plant as required. • All refuelling shall be conducted at least 30 m away from waterways using a built for purpose fuel tender that is in good condition and does not have defects or leaks. The tender vehicle must have materials at hand to manage and clean up any spill incidents. • Machinery servicing and oil changes will not be performed on-site without the written consent of the Project manager. The Project manager will specify measures to manage risks associated with any machinery servicing. • When hazardous materials are used, the following controls measures will be put in place; – The Project manager will verify that staff or contractors have the relevant qualifications to use chemicals or hazardous materials. – Lids to be kept securely closed on containers of chemicals. – Containers on vehicles to be secure. – Ensure no leaks and all taps and pipes are securely isolated. – MSDS's are available on site for all relevant chemicals or materials. – Storage of chemicals, temporary or otherwise' in the vicinity of a waterway is not permitted. • Storage - Separate designated area shall be identified for the storage of chemicals and fuels that meets current work standards. The following practices shall be adopted; – Storage areas kept clean and tidy. – MSDS's available for all chemicals on site. – All chemicals and fuels labelled correctly. – Spills shall be reported immediately to Project manager. • Treatment of fuel / oil / chemical spills shall be immediately reported to the Project manager. • Disposal of contaminated soil materials shall be at locations acceptable to EPA requirements.

Flora and fauna
- CEMP to follow from Fauna Conservation Management Plan salvage and relocation
- No works or access to No Go Area vegetation
- All personnel and contractors to be observant for Striped Legless Lizard
- Stop work and refer to CEMP and FCMP if any fauna are found during works

Sediment controls
- Place Modular Sediment Barrier (MSB) at any point of potential concentrated surface water flow.
- More than one MSB may be required at each point to filter all water. Refer to EPA 960 p34.
- Indicative locations for MSB and silt fencing are shown.
- Place sediment controls according to detailed design or to terrain.
- For Sediment fence refer to EPA 960 p30.
- **Hay bales or straw bales not permitted.**

No Go Areas
- No personnel or contractors are permitted in No Go Areas
- No parking, storage of materials or stockpiles permitted in No Go Areas

Fuels, oils and chemicals
- No fuel or chemical storage on site
- Machinery fueling to be completed using portable bunding
- Spill kit to be provided on all plant or on site

Rumble grid
No-Go area
Landscape planting
Site office
Main building requiring excavation and grading
No-Go area
No-Go area
Earthen mound removal using excavator and trucks
Temporary access track for earth mound removal (pre building construction)
St Albans Rd
Toora Ct

Legend
- Property bounary
- Works footprint
- Impact area

Vegetation
- To be removed
- To be retained

Construction management plan
- Sealed rubbish and recycle bins
- Gravel sausage or rock log
- Site access
- Stockpile site
- Vehicle hygiene wash down
- Vehicle/plant parking
- Drain warden
- Fauna exclusion fence
- Silt fencing and fauna proof fencing
- Replacement boundary fence
- Works footprint
- Existing access
- Landscaping
- Temporary access track
- No-Go Area
- Rumble grid
- Proposed paving
- Site office
- Earthen mound to be removed - Council propoerty
- Earthen mound to be removed
- Proposed building footprint

Stockpile management
- Stockpiles must be constructed according to EPA 960 p.24-26.
- Sediment controls such as sediment fence must be in place.
- A catch drain must be constructed upslope, and runoff directed through MSB
- Appropriate dust suppression must be in place at all times.
- No stockpiles within 30m of retained vegetation

Figure 1 Environmental management map (EMM)

biosis®

0 10 20 30 40
Metres
Scale 1:800 @A3
Coordinate system: GDA 1994 MGA Zone 55

Matter: 28667, Date: 17 May 2019,
Checked by: TD, Drawn by: LW, Last edited by: jprasad
Location:P:\28600s\28667\Mapping\28667_SEMP_V2.aprx
Acknowledgements: Vicmap ©State of Victoria, Nearmap

5. Useful information resources:

EPA publications

Environmental Guidelines for Major Construction Sites (EPA Publication 480) - https://www.epa.vic.gov.au/~/media/Publications/480.pdf

Construction Techniques for Sediment Pollution Control (EPA Publication 275) - https://www.epa.vic.gov.au/~/media/Publications/275.pdf

Doing it Right on Subdivisions: Temporary Environment Protection Measures for Subdivision Construction Sites (EPA Publication 960) – https://www.epa.vic.gov.au/~/media/Publications/960.pdf

Current design specifications for sediment and erosion control measures

Some example control measures are provided here, a full range of specifications can be sourced from the Catchment and Creeks website - https://www.catchmentsandcreeks.com.au/index.html. All content from this website is freely available for reproduction and use.

Standard controls

Sediment fence - https://www.catchmentsandcreeks.com.au/docs/SF-1.pdf

Filter sock / rock sausage - https://www.catchmentsandcreeks.com.au/docs/FS-1.pdf

Concentrated flows

Modular sediment trap - https://www.catchmentsandcreeks.com.au/docs/MST-1.pdf

Check dam sediment traps- https://www.catchmentsandcreeks.com.au/docs/CDT-1.pdf

Filter tube dam - https://www.catchmentsandcreeks.com.au/docs/FTD-1.pdf

Instream sediment controls

Filter tube barrier - https://www.catchmentsandcreeks.com.au/docs/I-FTB-1.pdf

Site access

Rumble / Vibration grid - https://www.catchmentsandcreeks.com.au/docs/V-Exit-1.pdf

Wash bay - https://www.catchmentsandcreeks.com.au/docs/W-Exit-1.pdf

Noise

EPA Victoria: Environment Protection (Residential Noise) Regulations 2008- http://www.legislation.vic.gov.au/domino/web_notes/LDMS/LTObject_Store/LTObjSt4.nsf/d1a8d8a9bed958efca25761600042ef5/6ffcb6621349aaafca2577610035fbb6/$FILE/08-121sr001.pdf

6. References

Biosis . (2018). *Biodiversity assessment: 181 Furlong Road, St Albans, Victoria.* Melbourne: Biosis Pty Ltd.

Biosis. (2019). *181 Furlong Rd, St Albans: Fauna Conservation Management Plan.* Melbourne: Biosis.

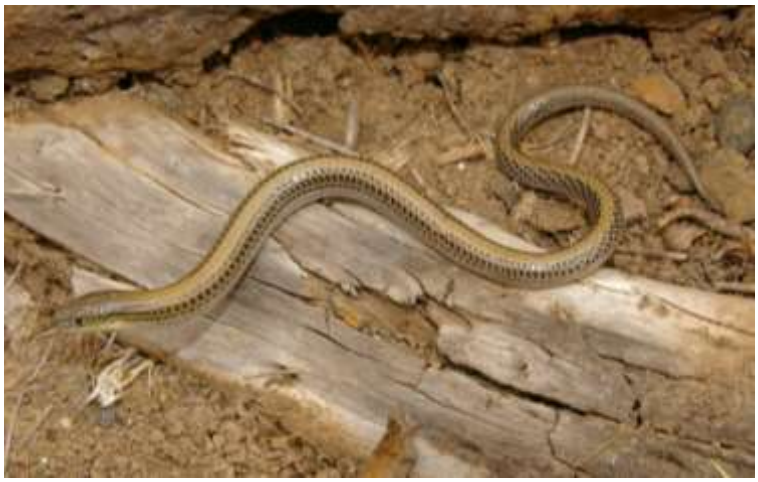
EPA Victoria. (2008). *Environmental Protection (Residential Noise) Regulations 2008.* Melbourne: EPA Victoria.

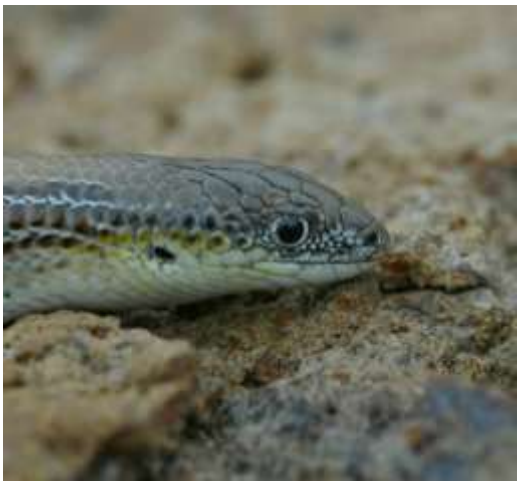
EPA Victoria. (2018). *State Environment Protection Policy (Waters).* Melbourne: EPA Victoria.

7. Striped Legless Lizard information sheet

Striped Legless Lizard (*Delma impar)* Fact Sheet

The Striped Legless Lizard is a nationally threatened species. It is listed as vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* and as endangered in Victoria under the Department of Environment, Land, Water and Planning (DELWP) Advisory list of threatened vertebrate fauna. The species is also listed as threatened under the *Victorian Flora and Fauna Guarantee Act 1988.*





General Appearance

Striped Legless Lizards grow up to 30 centimetres in length and are generally tan in colour, with a dark head and yellow throat. They usually have numerous stripes along the length of the body, although these can be indistinct in some individuals. Often mistaken for a snake, Striped Legless Lizards can be distinguished by the presence of ear openings and a fleshy, rounded tongue (i.e. not forked like a snake's tongue).

Habitat

Striped Legless Lizards inhabit grasslands and grassy woodlands where they are generally encountered under rocks, in deep cracks in soil and in grass tussocks.

What should you do if a Striped Legless Lizard is found?

Stop works and contact Biosis on (03) 8686 4800 .