

Site Environmental Management Plan

Guidelines and Standards Manual

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Introduction

Site Environmental Management Plans (SEMPs) are documents detailing the potential environmental impacts of a proposed development and the ways in which these impacts may be reduced through management strategies and site practices. The SEMP Template and accompanying Guidelines and Standards Manual have been developed to ensure that adequate environmental management procedures are followed during a project's construction in Wyndham City and to streamline Council processes for responding to submitted SEMP.

The SEMP Template and accompanying Guidelines and Standards Manual cover the various aspects of construction site management and provide a range of actions and alternatives to minimise the impacts of activities on the environment in and outside the worksite. They have been designed to assist the development industry to understand Council requirements for SEMP by providing a standard format for SEMP submissions to Council, and clearly stated information and acceptable site management standards required for approval. The SEMP guidelines and standards are designed to assist the development industry to comply with their statutory responsibilities and reduce the likelihood of developers being faced with Council or EPA enforcement and fines, reduce the impacts of works on the environment and neighbours, and improve working conditions on site.

Enforcement and Legislation

All contractors, consultants and developers operating in the Wyndham municipality must comply with these guidelines and standards where applicable, as well as the appropriate legislation, regulations, environmental policies and local planning requirements. Contractors, consultants and developers are responsible for ensuring compliance with all legal obligations. Council Officers conduct regular inspections of construction sites and if breaches of legislation or the SEMP occur, legal action and enforcement proceedings are likely to follow.

Regulatory requirements and additional guidance may include (but are not limited to) the following:

- Aboriginal Affairs Victoria (2007) *Aboriginal Heritage Regulations*
- Environment Protection Authority Victoria (1991) *Construction Techniques for Sediment Pollution Control, Publication 275*
- Environment Protection Authority Victoria (1992) *Bunding Guidelines, Publication 347*
- Environment Protection Authority Victoria (1996) *Best Practice Environmental Management - Environmental Guidelines for Major Construction Sites, Publication 480*
- Environmental Protection Authority Victoria (2003) *Guidelines for Environmental Management: Use of Reclaimed Water, Publication 464.2*
- Environment Protection Authority Victoria (2004) *Doing it Right on Subdivisions – Temporary Environmental Protection Measures for Subdivision Construction Sites, Publication 960*
- Environment Protection Authority Victoria (2008) *Noise Control Guidelines, Publication 1254*
- Environmental Protection Authority Victoria (2008) *Noise from large Residential Subdivision or Urban Development Sites, Publication 1264*
- Environment Protection Authority Victoria (2009) *Industrial Waste Resource Guidelines*
- Melbourne Water *Land Development Manual*
- Victorian Government (2007) *Agricultural and Veterinary Chemicals (Control of Use) Regulations*

- Worksafe Victoria (2005) *Industry Standard - Contaminated Construction Sites, Construction and Utilities*

Relevant legislation may include (but is not limited to) the following:

- Commonwealth of Australia (1999) *Environment Protection and Biodiversity Act*
- Victorian Government (1970) *Environment Protection Act*
- Victorian Government (1975) *Wildlife Act*
- Victorian Government (1986) *Prevention of Cruelty to Animals Act*
- Victorian Government (1987) *Litter Act*
- Victorian Government (1987) *Planning and Environment Act*
- Victorian Government (1988) *Flora and Fauna Guarantee Act*
- Victorian Government (1989) *State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1*
- Victorian Government (1992) *Agricultural and Veterinary Chemicals (Control of Use) Act*
- Victorian Government (1994) *Catchment and Land Protection Act*
- Victorian Government (2003) *State Environment Protection Policy (Waters of Victoria)*
- Victorian Government (2004) *Occupational Health and Safety Act*
- Victorian Government (2006) *Aboriginal Heritage Act*
- Victorian Government (2008) *Public Health and Wellbeing Act*
- Victorian Government (2009) *Environment Protection (Industrial Waste Resource) Regulations*

How to Use the Template and Guidelines and Standards Manual

The SEMP Template includes four sections: a Risk Assessment Checklist, an Environmental Protection Measures section and two different site plans.

The *Risk Assessment Checklist* is used to identify potential issues and the overall risk these issues pose to the environment. The *Environmental Protection Measures* section is used to provide details of the management measures that will be implemented on site to mitigate and manage the potential issues. *Plan 1 - Types and Locations of Environmental Protection Measures* includes a space for a site plan and general notes for details of the types and locations of environmental protection measures on the site. *Plan 2 – Designs of Environmental Protection Measures* includes an area for designs of the environmental protection measures that will be used on site.

The SEMP Guidelines and Standards Manual includes information and reference materials to aid in the development of a SEMP. These include lists of suggested standards for environmental management and options for acceptable types of environmental protection measures. These lists are by no means comprehensive or exclusive, and other measures may be considered by Council provided they are effective and conform to relevant regulatory requirements. The Guidelines and Standards Manual should be used in conjunction with relevant legislation, regulations and guidelines as well as relevant Australian Standards.

All sections of the SEMP must be filled and submitted for Council approval. Please note that where criteria are deemed 'Not Applicable' to a site, an explanation is required – e.g. If no flora and fauna are present on site, evidence is required such as an acceptable flora and fauna assessment and/or Council assessment. Works cannot commence until Council has approved the SEMP. An example of a completed SEMP has been provided to help guide in the preparation of an SEMP.

Risk Assessment Checklist

The Risk Assessment Checklist provides a space to fill in the sources and causes of potential environmental issues, as well as the proximity and nature of the impacted environment. The checklist includes the main environmental aspects of noise, lighting, dust, erosion and sediment, waste, chemicals, significant flora and fauna, weeds and pests and archaeological heritage.

1. Issues

All issues within each environmental aspect must be addressed. An additional space has been provided within each aspect for site specific issues, and a blank section at the end for any other site specific environmental aspects that may need to be included. Additional aspects and issues may be added as necessary. Refer to appropriate legislation and regulations for help and guidance when addressing each issue.

2. Risk Matrix

The Risk Assessment Checklist requires that the overall risk of each environmental aspect of the site be determined using the likelihood of an issue occurring (without preventative measures) and the severity of the consequence of the issue occurring (without preventative measures). These can be determined using the below definitions and risk matrix. The likelihood, consequence and overall risk for each aspect must be recorded in the right hand column of the Checklist.

2.1. Likelihood:

- Rare: Unlikely to occur during a project even if controls are missing.
- Unlikely: May occur once or twice if preventative measures are not applied.
- Likely: Will occur more than once or twice but less than weekly if preventative measures are not applied.
- Certain: Will occur more often than weekly if preventative measures are not applied.

2.2. Consequence:

- Minor: No or minimal adverse environmental or social impacts.
- Moderate: Moderate undesirable environmental or social impacts.
- Major: Major adverse environmental or social impacts.
- Catastrophic: Significant damage or impact on environment or community.

2.3. Overall Risk:

	Consequence			
Likelihood	Minor	Moderate	Major	Catastrophic
Rare	Low	Low	Medium	Medium
Unlikely	Low	Medium	Significant	Significant
Likely	Medium	Significant	Significant	Significant
Certain	Medium	Significant	Significant	Significant

Environmental Protection Measures

The Environment Protection Measures section provides a space to fill in the details of the management measures to be implemented for each environmental aspect. Please note that contractors may choose any method that is acceptable to Council even if it is not stipulated in the measures listed below. Additional measures may be required to address site specific issues and additional aspects may be added as necessary. All measures to be used must be clearly specified in the appropriate space.

3. Management Standards

This section is to provide details of the overall site management and implementation of the SEMP. The following provides details of the information required and some suggestions for acceptable management measures. These may be adjusted where necessary and additional measures may be proposed or required for some sites.

3.1. Responsibilities:

- Include the names and contact details for those responsible for the implementation of the SEMP and works on site (e.g. contractors, site supervisors, superintendents, consultants, developers).

3.2. Informing Residents:

- State when and how this will occur (if necessary), including which residents will be informed.

3.3. Communication of SEMP requirements:

- All contractors, subcontractors and others working on site must be inducted into SEMP.
- SEMP must be displayed in visible location within site compound/office.
- SEMP must be addressed through other forms of communication such as toolbox meetings.

3.4. Associated Documents to be listed and attached may include any or all of the following:

- Inspection checklists.
- Risk assessments.
- Emergency procedures.
- Induction checklists.
- Incident report forms.
- Incident management and procedures.
- Project Management Plan.
- Truck route and Traffic Management Plan.
- Flora and Fauna Assessment.
- Arboricultural reports.
- Tree Management Plan.
- Offset Management Plan.
- Conservation Management Plan.
- Salvage and Translocation Plan.
- Weed Management Plan.
- Cultural Heritage Management Plan.
- Dilapidation reports.
- Fuel/Chemical Spill Response Plan.
- Other associated assessments, plans or reports.

3.5. Inspections and Maintenance:

- SEMP protection measures must be monitored at least once per week.
- Monthly inspections by consultants where significant flora or fauna may be impacted.
- Adaptive management

3.6. Risk and Incident Management:

- Dial before you dig.
- Incident management frameworks and procedures must be clearly displayed in site office and key locations around site. Must include chemical spill, fire, animal rescue, vegetation damage, archaeological/heritage, OH&S and pollution response procedures, flowcharts/checklists and relevant Authority contact details.
- All vehicles and machinery to be parked on established gravel areas.
- All staff to be made aware of Fire Danger Period and days of Total Fire Ban.
- Weather conditions to be monitored during periods of high fire danger.
- Adequate fire suppression equipment on site, including contact number for local CFA.
- Fire hazard prevention e.g. fire breaks and grass slashing, including during reinstatement and maintenance period.

3.7. Staging of Works:

- Clearly state whether works will be staged, and if so, how the staging will occur.
- May include staging in relation to weather conditions.
- Strip in stages where possible to minimise soil exposure.

3.8. Other:

- All sediment, erosion, site refuelling compound and native vegetation protection measures to be inspected by Council prior to works commencing.
- Trigger points/hold points for Council inspection prior to continuing.
- Other site specific management issues.

4. Noise and Lighting Control Standards

This section is to provide details on how the site works will meet the specified requirement (stated on the template) and address any identified risks. The following set of standards provides some suggestions for acceptable management measures. These may be adjusted where necessary for individual sites provided that the requirements are still met. Additional measures may be proposed or required for some sites.

4.1. Working Hours:

- Enter the working hours for the project in the spaces provided.
- Ensure working hours meet acceptable EPA standards and are as per Council approved Traffic Management Plan.

4.2. Noise Minimisation Methods:

- Regular maintenance and inspection of machinery.
- All machinery and vehicles used on site to be fitted with standard noise management equipment.
- Locate works that may generate noise as far away from neighbours as possible.
- Schedule noisy activities for least sensitive times of the day.

4.3. Lighting:

- Site lighting must be designed and used so as to minimise impacts on surrounding land uses.

- Lighting must not illuminate/project onto areas of conservation including wetlands, waterways and habitat for nocturnal fauna and migratory birds.

4.4. Other:

- Other site specific noise or lighting management measures.

5. Dust Control Standards

This section is to provide details on how the site works will meet the specified requirement (stated on the template) and address any identified risks. The following set of standards provides some suggestions for acceptable management measures. These may be adjusted where necessary for individual sites provided that the requirements are still met. Additional measures may be proposed or required for some sites. All measures must adhere to Council and relevant Authority standards.

5.1. Minimising Dust Generation:

- Avoid stripping large areas at once. Strip in stages where possible.
- Encourage establishment of vegetation.
- Regrass filled areas after completion to stabilise exposed soils.
- Reduce traffic speeds on unpaved roads.
- Keep to approved truck route and maintain truck route appropriately.
- Any activity involving the handling and moving of soil to be restricted on dry windy days.

5.2. Dust Suppression:

- Water spray exposed surfaces as necessary.
- All loads of soil being taken off site for disposal must be covered.
- A water truck must be available on site full-time to spray truck routes and exposed surfaces.
- Any hose used for water spraying to be fitted with a trigger nozzle. Check water restrictions with local authorities for guidelines.
- Recycled water (refer to EPA guidelines for controls on usage) to be used for dust suppression.

5.3. Monitoring:

- Weather forecasts must be assessed prior to undertaking stripping.
- Activities generating dust must be monitored and restricted if they reduce visibility onsite and become hazardous.
- Stop work if dust generated from construction on site reaches neighbouring areas or properties, if visibility is affected on adjoining roads or if dust on the work site is a risk to occupational health.

5.4. Other:

- Other site specific dust management measures.

6. Erosion and Sediment Control Standards

This section is to provide details on how the site works will meet the specified requirement (stated on the template) and address any identified risks. The following set of standards provides some suggestions for acceptable management measures. These may be adjusted where necessary for individual sites provided that the requirements are still met. Additional measures may be proposed or required for some sites. Further information and acceptable management measures may be found in the regulatory requirements and guidelines. All measures must adhere to Council and relevant Authority standards.

6.1. Drainage Management:

- Incorporate measures to ensure that stormwater runoff from the site reflects patterns, volume and quality that exist prior to works.
- Drainage lines must be naturalised as much as possible.
- Divert upslope stormwater around areas that do not have a protective vegetation cover to reduce water sheeting.
- Any contaminated flow generated on site must be diverted to a sediment trap or settlement treatment prior to release from site or into receiving waters.
- Outlet drains must be protected by sediment traps placed upstream of outlet points.
- Site runoff must be diverted away from exposed surfaces, batters or stockpiles.
- Include details of wastewater treatment/on site waste water treatment systems.

6.2. Sediment Traps:

- Acceptable sediment control measures include (but are not limited to): straw bales, geotextile sediment fences, grass filter strips, rock bunds, synthetic /biodegradable logs, check dams, and gravel sausages. Designs and specifications of all sediment control measures must be in accordance with relevant Authority guidelines.
- Sediment run-off controls and drainage around all construction areas must be established prior to commencement of any building or works.
- Sediment control measures must have the size and capacity to withstand the flow of a one in five year storm event.
- All sediment control measures must be maintained and intact for the duration of the works (including reinstatement period) and inspected regularly including prior to (and after) rain events to ensure they are functioning properly.
- Immediate repair of sediment control measure damages.
- Extra sediment fencing and other sediment control measures must be stockpiled on site for emergency repairs.
- Sediment fencing (or other acceptable sediment control measures) must be installed downslope of disturbed areas.
- Sediment fencing (or other acceptable sediment control measure) along waterways must be located as far inland as possible.
- Hay bales wrapped in geofabric material (or other acceptable sediment control measure) must be placed inside all side entry pits and in front of their inlet to form a temporary sediment trap and filtration system.
- Filter socks (or other acceptable sediment control measure) must be implemented in any open channels.
- Storm water pits along established roadways subject to sediment deposits must be either fitted with kerb inlet protectors or (geofabric) filter material to capture sediments.

6.3. Soil Stabilisation:

- Grading, excavation and construction must not proceed during periods of heavy rainfall.
- Limit disturbance when excavating and preserve as much native vegetation as possible to reduce erosion and act as natural sediment filter.
- Re-grass or revegetate disturbed areas after completion of civil works before building commences to stabilise exposed soil according to reinstatement standards and Council

satisfaction. Use applicable seed type for area and season, as approved by Council. Application of pulp with no seed may be required in some instances.

- Revegetation to be encouraged to minimise possible sediment runoff and wind erosion.

6.4. Dewatering:

- Where water is of suitable quality, reuse on site (e.g. for dust suppression).
- Treat water if necessary before discharge.
- Site to be graded to avoid water ponding. In the event of water ponding, this water must be pumped into a temporary sump pit and filtered through sediment fencing (or other acceptable sediment control measure) prior to discharge into any drains.
- Sump pit must be located 20-30m away from any outfall drains, drainage inlets, and water courses.

6.5. Stockpile Protection:

- Minimise the number and size of stockpiles – maximum 2:1 height to width ratio.
- Stockpiles must be placed at least 10m away from drainage inlets, open drains, water courses and paved areas.
- A cut off drain with earth bund must be installed on the up slope side of the stockpile to divert runoff away from the stockpile.
- Sediment retention structures must be placed downslope of any stockpile.
- Stockpiles in place for more than 28 days must be temporarily grassed.
- Cover stockpiles with geotextiles, stabilisation matting or other suitable material when necessary.
- Stockpile area must remain secure to prevent illegal dumping including asbestos, garden refuse and acid sulphate soils.

6.6. Vehicle and Road Management (site access, cleaning vehicles, mud on road):

- Only one access point to the site to be used (as per approved Traffic Management Plan and truck route).
- Restrict vehicle movement to stabilised access area.
- Vehicle tracks and parking areas within the site must be covered with gravel to reduce soil disturbance and mud formation in wet weather. Wherever possible, vehicles and machinery must remain on gravelled areas.
- Wash all equipment in designated vehicle wash down area.
- Sediment fencing (or other acceptable sediment control measure) must be erected around vehicle wash down area.
- All vehicles leaving the site must remove any excess sediments and clay.
- Only vehicles and machinery free of weed seed to be allowed on site.
- Install rumble strips (or other acceptable measure) near site access point to minimise carriage of mud and dirt onto roads.
- Existing and finished roads must be inspected regularly and any sediment deposited there must be fully removed until the end of the maintenance period.
- Roads must be cleaned prior to rain/storm events.
- Street sweepers or other physical sweeps of material deposited on roads must not be used as a primary means of sediment control.

6.7. Other:

- Topsoil must be kept separate from sub-soil when stockpiling soil.

- Imported soils, mulch and aggregate must be free of weeds, debris, acid sulphate and other contaminants as per current Australian standards and Authority guidelines.
- Other site specific erosion and sediment management issues.

7. Waste Control Standards

This section is to provide details on how the site works will meet the specified requirement (stated on the template) and address any identified risks. The following set of standards provides some suggestions for acceptable management measures. These may be adjusted where necessary for individual sites provided that the requirements are still met. Additional measures may be proposed or required for some sites. All measures must adhere to Council and relevant Authority standards.

7.1. Movement of Soil and Contaminant Status:

- Indicate whether soil will be moved on or off the site as part of the works.
- Indicate contaminant status of soils.
- Provide details of contamination (if applicable) and risk control methods.
- Refer to EPA guidelines for further information regarding contaminated soil management.

7.2. Waste Minimisation Methods:

- Reduce usage of materials/reuse materials where possible – avoid, reduce, reuse, and recycle.
- Separate recyclable waste and materials from general waste for recycling. Recycling bins must be clearly marked to avoid contamination of recyclable materials.
- Take care not to over order materials.

7.3. Waste Storage and Disposal:

- Store all litter and hard waste in designated area to prevent it being washed or blown away.
- Lidded rubbish and recyclables bins must be provided close to site office and/or lunch eating area for non-construction waste generated on site and emptied before they become full.
- Bins must be locked at the end of each work day to prevent illegal or unwanted waste accumulation. Waste storage areas must be designed so that wind cannot spread waste.
- Contain all waste material on site in accordance with regulatory requirements.
- Adhere to regulatory requirements for waste disposal.

7.4. Other:

- Worksites must be free of litter - any litter visible on site must be collected daily.
- All equipment, construction materials and waste must be removed from the site as part of the site clean-up works.
- Where possible, select recycled materials for use on site.
- Other site specific waste management measures.

8. Chemical Control Standards

This section is to provide details on how the site works will meet the specified requirement (stated on the template) and address any identified risks. The following set of standards provides some suggestions for acceptable management measures. These may be adjusted where necessary for individual sites provided that the requirements are still met. Additional measures may be proposed or required for some sites. All measures must adhere to Council and relevant Authority standards.

8.1. Storage:

- Identify all chemicals that will be stored and/or used on site.
- All fuels, oils, chemicals and other hazardous materials must be stored in appropriate designated area.
- Minimal storage of fuel and other chemicals on site.

8.2. Refuelling Procedures:

- Appropriate refuelling point must be designated.
- Bunding and liners for chemical storage must be installed (see Authority guidelines).
- No refuelling to occur within minimum 10m of any drainage inlet, open drain, wetland, waterway or area of protection (e.g. conservation areas, tree protection zones and recreational infrastructure). Drain seals must be in place prior to refuelling.
- All refuelling and other hazardous materials use to only occur within appropriate bunded or portable sealed bunded area.
- Stormwater/rain protection measures must be installed for bunded areas.
- Minimal refuelling of vehicles to occur on site and wherever possible done off site.

8.3. Spill Management:

- Fuel/chemical spill response plans must be prepared, with key staff trained to undertake emergency containment, clean up and disposal.
- Emergency contact numbers and emergency responses flow charts must be distributed and displayed clearly.
- Weekly inspections of management measures with immediate follow up.
- Relevant authorities must be notified if native vegetation, fauna and/or waterbodies are impacted by spill (i.e. state or federal authorities, wildlife rescue).
- Site compound and designated refuelling areas must be appropriately bunded and graded to a sump at the lowest point where spills collect. Cut-off drains must be installed to direct runoff away from refuelling points.
- All spills must be cleaned up immediately to avoid contamination of the soil or water course. All spills must be reported to the superintendent and relevant Authorities.
- Any soil contaminated from a spill must be removed and disposed of at an appropriate EPA landfill licensed to receive the waste type. The extent of soil contamination must be assessed, classified and removed in accordance with relevant Authority guidelines.
- Spill kits must be kept 10m from chemical storage and refuelling areas (accessible, but safely out of range).
- Spill kits must be placed and clearly marked throughout work site.

8.4. Other:

- Vehicular and machinery maintenance must not occur on site.
- All oily water collected from sumps, interceptors and drip trays must be disposed of at a suitably licensed waste disposal facility as soon as possible.
- Other site specific chemical management measures.

9. Significant Flora and Fauna Protection Standards

This section is to provide details on how the site works will meet the specified requirement (stated on the template) and address any identified risks. Indicate whether any native or significant flora or fauna are present or potentially present on or adjacent to the site. Details must be provided including the type of

flora/fauna, whether an assessment has been completed and any relevant management measures. The following set of standards provides some suggestions for acceptable management measures (where relevant). These standards aim to provide guidance for the level of protection required and may be adapted for individual site requirements. Additional protection measures or changes must be in line with regulatory requirements and are subject to approval by Council and other relevant authorities. Where threatened species are present (e.g. Spiny Rice Flower or Striped Legless Lizard), additional species management plans may be required.

9.1. Significant Flora or Fauna includes (but is not limited to):

- Native or landscaped vegetation.
- Native flora or fauna species.
- Mature or memorial trees.
- Habitats, breeding areas or wildlife corridors for fauna.
- Rare, vulnerable, endangered or threatened species.

9.2. Environmental Protection and Biodiversity Act (1999) and Flora and Fauna Guarantee Act (1988) approval may be required before works commence, including:

- Specific species protection requirements and management plans.
- Salvage and translocation plans.

9.3. Vegetation Protection Zones (VPZs):

- All significant flora, fauna and habitat on or adjacent to the site must be protected and signed accordingly.
- Vegetation Protection Fencing must be erected around all native vegetation (including trees) and protected fauna habitat to be retained (VPZs); fencing must be cyclone fencing (or similar), with specifications to relevant Australian standards and Council satisfaction.
- Signage on Vegetation Protection Fencing marking area as a 'Vegetation Protection Area – No Unauthorised Personnel, Materials or Equipment Beyond this Point' must be clearly posted at all times for the duration of works.
- All Vegetation Protection Fencing must be installed from the construction site, with no entry to the VPZs. All waste materials must be sensitively removed immediately. Vegetation within protection areas must not be impacted during installation of fencing.
- No access at any time to VPZs. Areas within VPZs not to be used for vehicular or pedestrian access, trenching, soil excavation, storage/dumping of tools, equipment materials or waste and storage of any vehicles, machinery, equipment or other materials. VPZs may only be accessed by suitably qualified contractors for the purposes of weed control or other Council or Authority approved maintenance or inspection where necessary. Protected vegetation must not be damaged or destroyed.
- Each VPZ must be established prior to works commencing and fencing and signage must be maintained and intact until completion of works.
- Vegetation Protection Fencing must be monitored regularly. If protection fencing is damaged, it must be immediately repaired and secured along original alignment from construction site, with no entry or damage to VPZ.
- Vegetation Protection Fencing is not to be removed or relocated without prior approval from Council.

- Interface treatment between VPZ and roads/development must be to satisfaction of Council, other relevant Authorities and relevant stakeholders.

9.4. Tree Protection:

- All trees to be retained must be protected in Tree Protection Zones (TPZs). The radius of the TPZ is to be calculated by multiplying the trunk diameter measured at 1.4 m above ground (the diameter at breast height, DBH) x 12, with a minimum radius of 2m, unless otherwise stated by Council Arborist.
- Trees must be protected by Vegetation Protection Fencing erected around the TPZs.
- Any encroachment into TPZs must only be undertaken in accordance with Council requirements and approval.
- Any works in the vicinity of street trees must only be undertaken in accordance with Council Arborist requirements.
- No disturbance within the drip line and damage to the bark, roots and limbs of trees and shrubs to be retained.
- Trenching must not occur within the drip line of trees with a trunk diameter of 10cm or higher at Breast Height without Council approval.
- An approved tree management plan is required for retained trees and any work in the vicinity of trees.

9.5. Vegetation Removal:

- Restrict the removal of trees and other vegetation to the minimum required.
- Retain/relocate hollow bearing trees, hollow logs and trees containing large nests where possible.
- Where possible, salvage native vegetation approved for removal and using in any associated landscaping or reinstatement works. Only to be undertaken with Council and relevant Authority approval.
- Roots and limbs permitted to be removed must be removed by a suitably qualified practitioner.
- Within the construction site where native grassland has been permitted to be removed, slash grasslands one week prior to removal to a height of 15cm, then again two days prior to 3cm to encourage native fauna to move out.
- Permits and offsets may be required where vegetation is removed. Illegal damage and removal is enforceable under relevant legislation.
- Suitably qualified wildlife rescue/animal handling contractors must be present during the removal of trees, native vegetation and other potential animal habitat.

9.6. Vehicle Management:

- No parking or storage of any vehicles, equipment or materials outside of the construction site.
- No vehicles, plant or equipment to be driven over or stored on roadside vegetation (including grassed areas).

9.7. Other:

- Stormwater and dust management controls must be regularly inspected to ensure no damage to native vegetation.
- All contractors, subcontractors and others working on site must be made aware of VPZs and associated requirements.
- Other site specific flora and fauna management measures.

10. Weed and Pest Control Standards

This section is to provide details on how the site works will meet the specified requirement (stated on the template) and address any identified risks. All Council and relevant Authority requirements must be adhered to in relation to weed and pest animal control. Provide details on weeds or pests present on site and management measures. The protection of significant flora and fauna must be taken in to account when controlling weeds and pests on site.

- 10.1. Catchment and Land Protection Act (1994), Agricultural and Veterinary Chemicals (Control of Use) Act (1992) and Agricultural and Veterinary Chemicals (Control of Use) Regulations (2007) must be complied with for weed and pest control, along with manufacturer's instructions with any herbicide use.
- 10.2. Any weed or pest animal control is to be undertaken by a suitably qualified contractor.
- 10.3. Site must be kept free from all target weeds for the duration of works and the reinstatement and maintenance period. Target weeds include all noxious weed species and highly invasive weeds including Chilean Needle Grass, Cane Needle Grass, Galenia, Brassica species and Thistle species.
- 10.4. Weed/Pest Control:
 - Herbicide use in or adjacent to water bodies and drainage lines must be minimised, with waterway sensitive products used where necessary.
 - Weeds are to be controlled by spot spraying with appropriate, non-residual herbicide, no off-target killing of native flora species via herbicide drift/herbicide over spraying.
 - Other weed control options may include mechanical and manual removal, subject to native vegetation protection.
 - Any weed disposal must be undertaken according to relevant Authority standards.
 - Rabbit baiting (if required) to be conducted twice yearly, in autumn and spring, in conjunction with adjacent landowners (if possible). Adjoining landowner notification and signage required.
- 10.5. Weed/Pest Spread Control:
 - All contractors, sub-contractors and others working on site must be trained in issues relating to weed hygiene at a compulsory induction prior to commencing works.
 - Slashing must not occur when the targeted weeds are setting seed.
 - To prevent spreading chytrid (a fungus affecting frogs) in frog habitat, wash down any machinery and vehicles that have come into contact with mud or water off-site by first scraping off all soil and then sterilising with a disinfectant containing benzalkonium chloride in designated wash down area. Thoroughly rinse sterilised vehicles and machinery with clean water.
 - Hosing down, air-blasting and vacuuming of vehicles, equipment and machinery to removing weed seeds must occur when entering and leaving site (in designated wash down area only).
 - Shade-cloth must be installed on the perimeter fence to catch weed seeds and prevent the spread of seed by wind where necessary.
 - Commence working with clean machinery in weed-free areas and subsequently move into weed affected areas where possible.
- 10.6. Wash Down Area:
 - Machinery, vehicles and equipment entering and leaving site must be cleaned of excess soil and organic matter in designated wash down area only.

- Periodic cleaning of excess soil and organic matter from vehicles, machinery and equipment as required in designated area.
- Sediment fencing (or other approved sediment control measure) must be located around the wash-down area to prevent water and sediment runoff.
- Any weeds that might germinate from soil accumulated in wash down area to be controlled.

10.7. Site Inspections:

- Site must be inspected and surveyed regularly for any noxious or highly invasive weeds.
- Any infestations of target weed species must be immediately eliminated prior to seeding during the period of construction and the duration of the reinstatement and maintenance period.

11. Archaeological and Heritage Protection Standards

This section is to provide details on how the site works will meet the specified requirement (stated on the template) and address any identified risks. Indicate whether any places, sites and/or objects of archaeological or heritage value are or are likely to be present on site, and provide details of management techniques and/or specific Cultural Heritage Management Plan. Management measures should be included on SEMP even when nothing of archaeological or heritage value is present on site or a Cultural Heritage Management Plan is not required. The following set of standards provides some suggestions for acceptable management measures.

11.1. Develop Cultural Heritage Management Plan (if required) for approval.

11.2. Should any artefacts be uncovered during the process of the works the superintendent must be contacted immediately and relevant procedures followed.

11.3. Management Measures:

- Contact community/traditional landowners.
- Procedures and monitoring.
- Collection and relocation by relevant authorised persons.
- Design changes.
- Stop works.
- Protection zones.
- Any other management measures as identified in approved Cultural Heritage Management Plan.

11.4. Other site specific archaeological and heritage management measures.

12. Reinstatement Standards

This section is to provide details on how you will ensure that the site works will meet the specified requirement (stated on the template). A separate landscaping or reinstatement plan may be required for approval. All reinstatement works and maintenance must be to Council and relevant Authority satisfaction. The following set of standards provides some suggestions for acceptable reinstatement standards and management measures.

12.1. Develop full detailed landscape/revegetation plan for Council approval (if necessary), including quantity, density and types of species.

12.2. Topsoil:

- Topsoil must be carefully removed, stored and replaced to maximise the potential for native vegetation recovery. All weeds must be controlled according to Weed Control Standards.
- If appropriate, topsoil replacement must be evenly spread over the disturbed area. All sites must be top dressed with clean soil. Imported soils, mulch and aggregate must be free of weeds, debris, acid sulphate and other contaminants as per current Australian standards and relevant Authority guidelines.
- No surface rocks or soil clods in areas of landscaping and mowing.

12.3. Revegetation:

- Where possible seed of locally native species is to be collected before commencing construction and/or during construction to provide seed stock for revegetation purposes to the satisfaction of a qualified bushland regeneration specialist.
- Reinstatement/revegetation must include whole work zone, including all disturbed areas.
- Rehabilitate and revegetate works of extracted strips progressively.
- Adequate stabilisation must be maintained until plant cover is established.
- Minimum 95% cover in year 1 and each subsequent year.
- When sowing fails to establish and meet requirements, re-sowing must occur.
- Erect Vegetation Protection Fencing around all areas to be revegetated or fencing/bollards as detailed in the Council approved landscape/reinstatement plan.
- Re-sown grasses/forbs must be established and percentage groundcover target achieved before temporary fencing can be removed.
- Only timber mulch appropriate to situation must be used in revegetation (and specifically native revegetation). Refer to Council's Subdivision Landscape Works: Standards and Specifications Manual for more information.
- Nature strips, batters and other disturbed surfaces must be topsoiled, seeded and cultivated to establish a consistent grass cover according to Council satisfaction.

12.4. Weed and Pest Control:

- Control target weed species on areas of reinstated soil prior to sowing and following the first significant rainfall event (at least 5mm).
- Undertake follow up weed control (e.g. spot spraying) for revegetation areas every 3 months for the duration of the works and maintenance period.
- Control populations of rabbits that may threaten the success of revegetation works in accordance with relevant legislation and regulations.

12.5. Other:

- Interval between clearing, soil stabilisation and replanting must be kept to an absolute minimum.
- Site must be reinstated and landscaped (if required) to Council satisfaction before handover.
- Dilapidation report must be submitted to Council prior to commencement of use of the approved access point. Once works are finished, the access and any other assets damaged during the course of construction must be reinstated to Council satisfaction.
- Consent must be obtained from Council to work within Council road reserves.
- Other site specific reinstatement measures.

Site Plans

The Site Plans must provide an overview of the work site and a visual representation of the environmental controls detailed in the previous sections of the SEMP. There are two site plans to be provided.

13. Site Plan 1 – Types and Locations of Environmental Protection Measures

This Site Plan is to provide a map of the site and surrounding area along with the types and locations of environmental protection measures and other relevant site features. A space for general notes is also provided. The plan must be clear and easily interpreted, with all necessary protection measures and features to Council satisfaction.

13.1. Site Plan 1 must include (but is not limited to) the following:

- Aerial image of site and minimum 50m around all sides of work site including locations of noise, lighting, dust, erosion and sediment receptors.
- Legend.
- North arrow.
- Scale.
- Work site boundary.
- Sediment control measures.
- Stockpiles.
- Site office.
- Site drainage patterns including exit points.
- Refuelling area.
- Chemical storage area.
- Wash down area.
- Bunding and spill kits.
- Access point(s).
- Site parking.
- Truck route.
- Existing water bodies on and adjoining site (within at least 200m).
- Overhead and underground utilities.
- Areas of native vegetation including trees (both to be retained and removed).
- Protection measures for flora and fauna.
- Areas of cultural heritage sensitivity.
- All protection zones (including vegetation, tree and heritage).
- Environmental Significance Overlay (if applicable).

14. Site Plan 2 - Designs of Environmental Protection Measures

This plan is to show the designs and specifications of all the environmental protection measures detailed in the SEMP. A space for general notes is also provided. All designs and specifications must meet Council and relevant Authority standards.

14.1. Designs and specifications must include (but are not limited to):

- Sediment control measures.

- Erosion control measures.
- Bunding.
- Site compound details.
- Site access points.
- Flora, fauna and tree protection measures.
- Waste containment measures.
- Water diversion structures.
- Stockpile storage.
- Waste containment measures.
- Vehicle cleaning measures.

The SEMP must then be signed by all staff relevant to the development and implementation of the SEMP (such as the developer, consultant and contractor) prior to works commencing.

For further information and questions relating to the SEMP Guidelines and Standards Manual and SEMP Template should be directed to Wyndham City Council on 9742 0777 or mail@wyndham.vic.gov.au.