Template Version: 1.0  
Reviewed: 15/08/2023

**Construction Environmental Management Plan**

**[Project Name]**

**[Project address/location]**

**Applicant:**

**[Organisation Name]**

**[Address]**

**[City, State, Postcode]**

**[Date]**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Plan Rev No.** | **Date** | **Comments** | **Prepared by** | **Reviewed and Approved By** |
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# Introduction

The overall purpose of the Construction Environmental Management Plan (CEMP) is to identify the potential environmental risks associated with this project and outline the controls that will be implemented to minimise potential impacts on the environment.

Once completed, the Construction Environmental Management Plan must be approved by Airport Development Group (ADG) Environment before being submitted to the Airport Building Control (ABC)/Airport Environment Officer (AEO) as part of the building approval process.

This plan has two key sections:

* **Section 1** outlines the environmental management requirements that are to be addressed and adhered to throughout the project where applicable and as identified by the contractor/business in Section 2.6 – Project Environmental Risk Assessment.
* **Section 2** **must be completed by the contractor/business undertaking the proposed project**. Details required in this section include:
* Scope of Works
* Site Map
* Environmental Management
* Meeting, Communication and Inductions
* Legislation and Other Requirements
* Emergency Contacts
* Project Environmental Risk Assessment

# Section 1

Section 1 outlines the general environmental management requirements that are to be considered throughout the extent of the project by the contractor/business completing the project.

## 1.1 Environmental Induction, Training and Communications – Project Staff/Contractors

* All staff and contractors undertaking work on the project site are required to complete the Working on Airports Induction prior to commencing on-site works.
* All staff and contractors must be made aware of the potential environmental impacts associated with the project and the controls required to manage/minimise these impacts through a site-specific induction. Records of these inductions must be stored on site or be readily available upon request.

**A copy of the Construction Environmental Management Plan (CEMP) must be made available to staff and contractors. Where there is a Site Office located onsite a copy of the CEMP must be readily available.**

## 1.2 Environmental Incident Reporting

All environmental incidents must be reported to ADG Environment via phone and email (refer to Section 1.3 for contact details).

A documented incident record, including photos, details of the incident (time, location, impact(s) to the environment, root cause, actions taken to address the incident and any remediation activities carried out) must be provided to ADG Environment via email.

## 1.3 ADG Environment Contact Details

|  |  |  |
| --- | --- | --- |
| **Contact** | **Contact Number** | **Email** |
| ADG Projects HSE Manager | 0432 486 668 | safety@adgnt.com.au |
| ADG Environment & Sustainability Manager | 0402 389 998 | environment@adgnt.com.au |
| ADG Environment & Sustainability Officer | 0437 776 249 | environment@adgnt.com.au |
| ADG Health & Safety Manager | 0402 782 375 | safety@adgnt.com.au |

## 1.4 Environmental Management Requirements

|  |  |
| --- | --- |
| **Air Quality** | |
| **Potential Impacts:**   * Dust generation * Offensive odours * Impacts to air quality | **Management Requirements:**   * Activities involving pollutants that have the potential to impact air quality such as spray painting are not to be undertaken during windy conditions. * Ensure effective controls are in place to manage and minimise dust and odour generated from activities (i.e. vehicle movements, stockpiles) associated with projects (e.g. water carts, hessian screening and fencing in areas of disturbance). * Emissions from vehicles, plant and equipment are to be minimised to as low as practicable (e.g. turn off vehicles, plant and equipment when not in use). * The burning of fuel and vegetation is strictly prohibited. |
| **Noise and Vibration** | |
| **Potential Impacts:**   * Disturbance of native fauna * Disruption to neighbours and the community | **Management Requirements:**   * Noise and vibration must be kept to as low as practicably possible. * If activities are expected to cause vibration or noise, affected residents and businesses must be notified well in advance (24 hours notice) prior to works commencing. * Works must be undertaken during normal working hours (where possible). Work that is undertaken on Sundays, Public Holidays or outside normal working hours will require prior approval of the ADG Projects HSE Manager or delegate. |

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| **Stockpiling** | | |
| **Potential Impacts:**   * Spread of contaminated materials * Dust/particulates * Loss of material from site * Contamination of stormwater/ waterways * Weed infestation | | **Management Requirements:**  **Imported Materials**   * Any imported soils, sand, or fill materials brought onto site will require a certificate confirming the materials are clean fill or Virgin Excavated Natural Material (VENM). A copy of these certificates must be provided to the ADG Project Manager, including the volume of fill imported, to be submitted to the Airport Building Control/Airport Environment Officer as part of the final approval of the project.   **Stockpile Management**   * All stockpile sites must be located in previously cleared and/or disturbed areas within the project site boundaries. * All stockpiles are not to encroach onto vegetation or be under the canopy of existing vegetation. * Temporary stockpiles to be located >2m from site boundary and >10m from any drainage channels or areas of concentrated water flow. * Stockpiles must be less than 2m in height and/or below the height of the site fence. * Erosion and sediment controls must be installed around temporary stockpiles during the wet season. * ADG Projects HSE Manager must be advised if stockpiling will occur outside of the project site boundary. * Weed control must be undertaken if weeds occur on stockpiles. |
| **Soil Management** | | |
| **Potential Impacts:**   * Soil erosion * Sediment tracked off-site * Fuel, oil or chemical contamination * Spread of potential PFAS contaminated soil | | **Management Requirements:**   * All project activities should be timed and staged to minimise the time and extent where soil is exposed to water and wind. * Reasonable and practical measures must be taken to ensure runoff upstream of the site is diverted around the site. * Site water should be diverted around areas where soil has been disturbed and flow velocities minimised, where possible. * Sediment capture controls must be implemented to retain soil and other pollutants on site. * Erosion and sediment controls must be inspected and maintained regularly. * Disturbed areas must be stabilised progressively during construction and must be reinstated to a condition at least equivalent to its prior condition (i.e. grass replaced with grass, concrete replaced with concrete etc.). * Appropriate landscaping must be considered across the development site wherever possible to minimise stormwater damage and soil erosion. * Where erosion or sediment is identified as a potential risk in Section 2.6, an Erosion and Sediment Control Plan (ESCP) must be prepared and implemented to a level appropriate to the work being undertaken. * The movement of vehicles and equipment from areas of wet bare soil to sealed roads must be avoided where possible to minimise the tracking of soil onto these roads. If unavoidable, sweeping equipment must be used to clean roads and rumble grids must be installed and maintained at site exit locations. * Appropriate reinstatement of roads, tracks and/or carparks to the site upon project completion |
| **Water – Stormwater, Groundwater and Rapid Creek** | | |
| **Potential Impacts:**   * Contamination of surface water or stormwater as the result of soil erosion and/or stockpile material loss * Contamination of surface water, stormwater or groundwater as the result of a fuel, oil or chemical spill * Litter pollution from uncontrolled waste * Spread of existing contamination (PFAS) | | **Management Requirements:**   * Existing drain inlets, stormwater drains and other water features within or in proximity to the project site must be identified on the CEMP Site Map and appropriate protection measures installed. * Effective erosion and sediment control measures must be implemented and maintained throughout the life of the project to minimise erosion and capture sediment. * Chemicals, fuel, oils, other waste liquids or materials must not be disposed of down drain inlets or stormwater drains/channels. * Contaminated stormwater from the project site must be managed within the project site and prevented from discharging to stormwater drains or neighbouring land. * Works in waterways must be postponed during or immediately following heavy rainfall or when waterways are running high. * Chemical storage and handling must be carried out in accordance with the requirements outlined in the Chemicals Section of this Table. * Waste management must be carried out in accordance with the requirements outlined in the Waste Section of this Table.   **Groundwater Management**   * If excavation works will be undertaken, a PFAS statement is required to be submitted to ADG Environment and the Airports Building Control as part of the project approval process. * If groundwater is encountered during any works, works must stop immediately and ADG Environment must be notified. * Due to the potential for groundwater to be contaminated with PFAS, it must be managed in-situ via the appropriate redistribution to an area in close proximity of the works. Redistributed groundwater must only be returned to groundwater, not stormwater drainage lines or surface water bodies (e.g. Rapid Creek). If this is not possible a site-specific plan must be developed in collaboration with ADG Environment and the Airport Environment Officer. |
| **Waste** | | |
| **Potential Impacts:**   * Fines/Prosecution * Soil and/or water contamination * Unnecessary waste to landfill | | **Management Requirements:**   * The types of waste that will be generated and how they will be managed and disposed of must be outlined in Section 2.6 – Project Environmental Risk Assessment. * Waste streams generated during the project must be sorted with the aim of reducing the volume of waste to landfill through recycling, repurposing, reuse (where available) and the appropriate waste receptacles made available on site to collect and store these waste streams. * Waste bins must not be overloaded and should be emptied on a regular basis. * Waste oil and/or other residual chemicals must be sent to an approved disposal facility in line with their Safety Data Sheet. * If concrete washout is done on-site, all wastewater must be contained within a bunded area and collected by a licensed waste contractor. * All waste must be disposed of at licensed waste facilities and a copy of disposal receipts including the volume of waste disposed must be sent to the ADG Project Manager for submission to the Airport Building Control/Airport Environment Officer as part of the final approval of the project upon completion. * No construction waste or other general waste materials to be left on site upon completion of the project. |
| **Chemicals & Hazardous Substances** | | |
| **Potential Impacts:**   * Contamination of soils, stormwater, surface water, groundwater and/or Rapid Creek. * Impacts to flora and fauna. * Fines/Prosecution. * Increased fire risk. | | **Management Requirements:**  **Storage:**   * Chemicals and hazardous substances are to be clearly labelled and kept in a designated storage area with appropriate bunding and signage. * The location of storage areas must not be within 20 metres of any areas of concentrated water flow, flood and poorly drained areas, on slopes above 10ºor near any areas of native vegetation. * Safety Data Sheets (SDS) must be readily available for chemicals and hazardous materials. * Spill kits must be made available in close proximity to chemical storage areas and at their point of use (refuelling/storage facilities etc). * Bunds must be regularly inspected and maintained to ensure they do not fill with rainwater. When draining bunds, approval must be sought from ADG Environment before commencing.   **Handling**   * Refuelling of plant and equipment must be carried out on sealed surfaces (where available) and more than 50 metres away from waterways. * Mixing of chemicals must be carried out on a sealed surface or bunded area (where available). * Spill kits must be made available in close proximity to chemical storage areas and at their point of use (refuelling/storage facilities etc). |
| **Biodiversity – Flora and Fauna** | | |
| **Potential Impacts:**   * Disturbance and/or loss of native flora and fauna or other significant vegetation * Loss of habitat for wildlife * Unapproved removal of vegetation resulting in non-compliance with regulator | | **Management Requirements:**  **Project Site - Planning**   * Existing vegetation within and around the boundaries of the proposed project site, and any vegetation that may be required to be removed, must be identified on a Site Map developed for this CEMP. * Avoidance or alternative options must be considered during the planning phase prior to seeking approval to remove vegetation.   **Vegetation Management Regulatory Requirements**   * The Airports Act identifies ‘land clearing’ as a type of Building Activity, and as such, cannot be undertaken without approval from the Airport Building Control. An ADG Landscape Management Form must be completed by the applicant, approved by ADG Environment and submitted to the Airport Building Control for the removal and/or trimming/pruning of any vegetation in the project area.   **Project Site - Management**   * Parking areas and turning points for plant and equipment must be identified and contained within designated areas to avoid the disturbance and/or loss of native flora and fauna and other significant vegetation. * Significant vegetation and/or vegetation that is to be preserved must be protected by physical barriers to prevent disturbance and/or damage by project activities. |
| **Weeds** | | |
| **Potential Impacts:**   * Introduction of Weeds of National Significance and/or declared weeds to the site * Spread of weeds * Impacts of herbicide application to flora and fauna | | * Any existing weed infestation areas within the project area must be identified on the CEMP Site Map and avoided during construction/ development activities. * Weed infested areas that are programmed for disturbance must be treated appropriately prior to construction to avoid the spread of weed seeds. * Regular monitoring and treatment of weeds within the project site must be carried out. * Plant, equipment and vehicles must arrive at the site in a clean condition, free of seed and/or soil. * Imported fill is required to be certified as clean fill or VENM. * Staff and subcontractors managing and using herbicide must have appropriate training prior to handling and application of these chemicals. Only herbicides registered for use over water may be used within 10m of watercourses. Herbicides must only be applied according to the label requirements and under appropriate weather conditions. * The movement of vehicles and equipment from areas of wet bare soil to sealed roads must be avoided where possible to minimise the tracking of soil onto these roads. If unavoidable, sweeping equipment must be used to clean roads and rumble grids must be installed and maintained at site exit locations. |
| **Indigenous and European Heritage** | | |
| **Potential Impacts:**   * Disturbance or loss of culturally significant objects/sites * Prosecution/Fines | | **Management Requirements:**   * The project construction/development organisation must confirm with the ADG Project Manager if the project or aspects of the project require approval from the traditional custodians of the land on which the work is to occur. * Should any object/site be encountered which is suspected to be of Indigenous or European heritage, all construction work that might affect the object must cease, the area preserved and excluded, and the ADG Project Manager notified immediately. * All personnel working on site must receive training regarding their responsibilities in relation to Indigenous and European heritage and must be made aware of any sites or areas which must be avoided. Such sites or areas must be identified on a site map and made available to all relevant personnel during the works. |
| **Fire Management** | | |
| **Potential Impacts:**   * Loss of flora and fauna * Air pollution issues to adjacent buildings and people | | **Management Requirements:**   * Smoking and/or vaping within a building site must be in a designated smoking area. The designated area must not be within 5 metres of a building or within 15 metres of vegetated areas. * A hot works permit must be obtained prior to commencing any hot works. * The burning of fuel and vegetation is strictly prohibited. |
| Contaminated Materials | | |
| **Potential Impacts:**   * Pollution to the environment * Harm to people via inhalation or absorption * Spread of contamination | **Management Requirements:**   * If contaminated soil (e.g. PFAS, asbestos, polycyclic aromatic hydrocarbons) or materials is identified, the works must immediately stop and the ADG Projects HSE Manager notified. * All personnel working on site must receive training and be made aware of any sites or areas which are to be avoided. * Potential contamination should be identified in Section 2.6 – Project Environmental Risk Assessment with appropriate controls listed and implemented where necessary. | |

# Section 2

## 2.0 Scope of Works, Including Project Delivery Timeframe

*[Please provide the expected project delivery timeframe (commencement date & expected completion); and outline the project scope of works in this Section. Provide as much detail as possible i.e. project location, excavation sizes/depths, any vegetation clearing, plans for site stabilisation/rehabilitation etc.]*

## **2.1 Site Map**

*[Please provide a site map below or as an Appendix identifying the following items (where applicable):*

* *Boundary of project site*
* *Construction/development site*
* *Highlighted Sensitive Receptors (flora, fauna, waterways, buildings/lodgings, public areas etc.)*
* *Stockpile storage areas (imported materials, spoil)*
* *Existing vegetation within and around the boundaries of the proposed project site (trees, shrubs, groundcover)*
* *Any vegetation that will potentially be required to be removed*
* *Existing weed infestation areas*
* *Parking areas and turning points for plant and equipment*
* *Drain inlets, stormwater drains and other water features within or in proximity to the project site*
* *Chemical (inc. fuel & oil) storage area(s)*
* *Equipment/vehicle refuelling locations*
* *Waste receptacle locations.]*

## 2.2 Environmental Management

## Environmental Policy

* Does your organisation have an environmental policy?  Yes  No
* If yes, please attach a copy of your policy to the CEMP.

## Environment Management System

* Does your organisation have an Environmental Management System?  Yes  No
* If yes, is the Environmental Management System certified?  Yes  No
* If yes, please attach a copy of your certification to the CEMP.

**Roles and Responsibilities**

Please enter details in the table below:

|  |  |  |
| --- | --- | --- |
| **Role** | **Name** | **Contact Number** |
| Project Manager (ADG) |  |  |
| Project Manager (Contractor) |  |  |
| Site Supervisor |  |  |
| Administration |  |  |
| Site Safety/Environment Officer(s) |  |  |

## 2.3 Meetings, Communication, Inductions

Please outline team communication processes, items covered and frequency.

|  |  |  |
| --- | --- | --- |
| **Communication type & attendees** | **Items covered** | **Frequency** |
| *i.e. Pre-start meetings – All site staff* | *Work orders, safety, environment concerns* | *Daily* |
| *i.e. Site Specific Induction* | *Project environmental risks and controls* | *Prior to commencing work on the Project* |
|  |  |  |
|  |  |  |

## 2.4 Legislation and Other Requirements

* Has your business reviewed the [Environment Management Information Handbook](https://www.darwinairport.com.au/media/98) for the Airport?  
   Yes  No
* Has your business reviewed the Territory and Commonwealth environmental legislation, regulatory and other requirements specific to this project?  
   Yes  No

Please outline any other environmental legislation or requirements relevant to this project (i.e. *NT Water Act 2016*):

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## 2.5 Emergency Contacts

Please provide the names and contact details for at least two emergency contacts from your organisations in the table below.

|  |  |  |
| --- | --- | --- |
| **Name** | **Position** | **Phone Number** |
|  |  |  |
|  |  |  |
|  |  |  |

## 2.6 Project Environmental Risk Assessment

List all actions/activities with the potential to impact the environment and identify the controls that will be implemented to minimise risks to the environment across the life of the project.

|  |  |  |  |
| --- | --- | --- | --- |
| **2.6.1 Air Quality** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.2 Noise and Vibration** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.3 Stockpiling** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.4 Soil** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.5 Water Quality** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.6 Waste Management** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.7 Chemicals and Hazardous Substances** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.8 Biodiversity – Flora and Fauna** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.9 Weed Management** | | | |
| **Project action/activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.10 Heritage** | | | |
| **Action/Activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.11 Fire Management** | | | |
| **Action/Activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.12 Contamination** | | | |
| **Action/Activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |
| **2.6.13 Other** | | | |
| **Action/Activity** | **Potential Impact** | **Controls** | **Responsible Person** |
|  |  |  |  |