Australian Government

ANSTO

# Project Environmental Protection Requirements

# AP-5400

# Purpose

The purpose of this procedure, Project Environmental Protection Requirements (PEPR - hereafter referred to as the Requirements) is to provide direction for the protection of the environment in relation to construction or other projects that are proposed on ANSTO property or on behalf of ANSTO that will or may have an impact on the environment.

These Requirements form the basis for how the project team shall identify, manage and document any environmental impacts that will or may result within AF-5947 Project / Construction Environmental Management Plan (P/CEMP). All P/CEMP's must be approved by Environmental Management Leader.

These Requirements form part of the These Requirements form part of the AP-2067 ANSTO Environmental Management Process, ANSTO Building Code and the AG-8155 Project Management Lifecycle Framework Guide.

These Requirements extend to contractors, sub-contractors and procurement practices.

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# 1. Application of these requirements to all projects

All projects and maintenance works must consider any environmental impacts and mitigate these impacts as low as reasonably practicable. To ensure appropriate resources to mitigate environmental harm, the project team or maintenance works planner/supervisor should identify these impacts as early as possible. The project governance steps in relation to the management of environmental impacts for all projects is shown in **Figure 1**. To assist projects with the early identification of requirements to meet ANSTO's project environmental governance framework, AF-1376 Project Environmental Planning Checklist shall be completed at the commencement of all projects.

The level of environmental protection and sustainable design assurance to be afforded to any project is determined by the scope, scale and risk of a project. The larger the project's footprint, the higher likelihood for environmental harm, and therefore the greater effort is required to mitigate this harm. The preparation of a Project / Construction Environmental Management Plan (P/CEMP - AF-5947), is a primary tool for larger projects to identify their potential environmental impacts and the mitigating actions to be implemented to reduce the potential for harm to the environment. For smaller projects, the preparation of a Safe Work Method and Environmental Statement (SWMES – AF-2315) may be sufficient, provided the environmental risks are appropriately identified and mitigated – refer to **Figure 1** to whether a project requires a P/CEMP or SWMES.

For any facilities maintenance works where a possible or likely environmental impact has been identified in the SWMES, the Responsible Officer shall have the SWMES reviewed by the Environmental Management Leader prior to the commencement of works.

Examples of facilities maintenance works that would require a review by the Environmental Management Leader include, but not limited to:

| Maintenance activity | Potential/actual environmental impact |
|---|---|
| • Digging a trench to inspect a suspected faulty cable | • Silt displacement to stormwater as a result of soil being piled and re-deposited |
| • Removal of undergrowth vegetation to minimise the risk of snake incursion to buildings | • Loss of faunal habitat, silt displacement and noxious weed seed displacement as a result of exposed soil |
| • Replacement of damaged electrical transformer | • Loss of containment of oil or $SF_6$ |

The Project Team may request the preparation of a P/CEMP by a third-party (such as the Principal Contractor) with specific experience in developing such plans. The Project Team would be expected to seek specialist input (internal or external to ANSTO) to address provisions beyond their scope of expertise.

If a third party is preparing the P/CEMP, Appendix A and B of AF-5947 **do not** need to be completed, however, a copy of the third party P/CEMP must be provided within the AF-5947.

If ANSTO is preparing the P/CEMP, Appendix A and B of AF-5947 **do** need to be completed.

The P/CEMP shall provide sufficient detail on how the Project Team plans to comply with all provisions within these Requirements, ANSTO Environmental Management System (EMS), the ANSTO Building Code (ABC) and ANSTO's environmental legislative requirements.

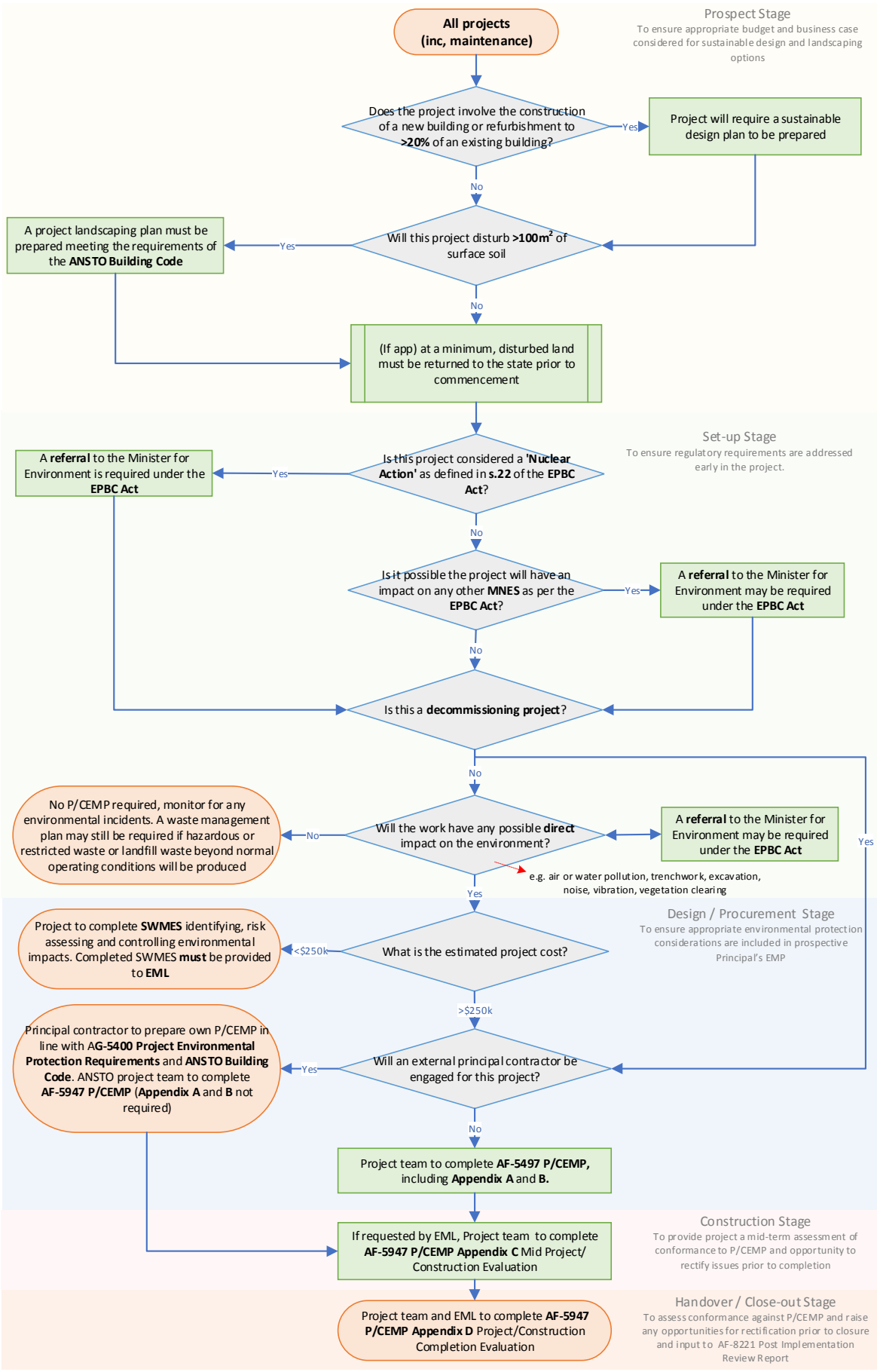



***Image 1: Project Environmental Governance Framework***

# 2. Environmental Compliance Obligations

The Project Team shall determine the applicable environmental compliance obligations relating to all aspects of construction/decommissioning/closure of a site under their control (refer to AP-2069 Environmental Compliance Obligations). Environmental compliance obligations may include relevant Commonwealth environmental legislation and guidance or other best-practice material that ANSTO deems relevant. In addition, all other obligations such as local agreements, community expectations or other contractual agreements of an environmental nature shall be included. Identified compliance obligations must be noted in the P/CEMP along with the controls to ensure compliance is achieved (these should be either detailed in the Principal's P/CEMP or in Appendix A of AF-5947.

# 3. Air Quality

The Project Team must identify all potential air borne pollution sources including but not limited to dust, odours, vapours, and fumes from fossil fuel machinery or other activities that may arise during the course of project activities. Due to the abundance of legacy dump-sites throughout the ANSTO site and Buffer Zone, a thorough assessment of any potential legacy risks must be determined and reported. Legacy risks may include but not limited to, radioactive soil contamination, asbestos contamination and beryllium contamination. The ANSTO Hazards Register should be consulted to assist in this determination.

The Project Team shall ensure that the mitigation and management principles for controlling potential airborne pollution within the NSW EPA Air Quality Guidance Note: Construction Sites is adhered to. All reasonable attempts to plan to mitigate against airborne pollution shall be performed, the controls implemented, assessed and evaluated, and the overall environmental performance reported.

The Project Team shall ensure all mitigation measures are appropriately planned, applied, and performance measured throughout the project as per the guideline listed in this section. Any breaches or complaints are to be recorded in the relevant ANSTO incident management system.

In consultation with the Project Team, the Environmental Management Leader may impose construction emissions KPI's and targets that will be required to be met and reported to the Environmental Management Leader.

# 4. Minimisation of energy and water consumption

Energy and water consumption must be kept to a minimum within the scope of the project to achieve its objectives.

In consultation with the Project Team, the Environmental Management Leader may impose construction energy and water consumption KPI's and targets that will be required to be met and reported to the Environmental Management Leader.

# 5. Land and Surface/Groundwater Contamination Minimisation

The control of surface and ground water quality and quantity is a critical aspect for the minimisation of the project's environmental footprint. This will be achieved through the following measures.

## 5.1. Stormwater and drainage

The Project Team shall determine all potential direct and indirect impacts to ANSTO's stormwater system as a result of project activities. The Project Team shall ensure that all impacts to ANSTO's stormwater system are in-line with the provisions stated within AG-3219 ANSTO Building Code. These impacts include but are not limited to:

- Proposed connections to the established stormwater system;

- Alteration of stormwater flows and the potential impacts on the stormwater load capacity for the ANSTO-site;
- Sediment displacement from construction activities or otherwise;
- Surface water contamination from construction vehicles, ie. oil and grease;
- Other sources of potential contamination.

The Project Team shall assess any potential direct or indirect impacts and develop and implement management plans for the mitigation of any identified potential impacts. The Project Team is responsible for routinely inspecting any controls implemented for suitability and ongoing performance

As guidance material, the Project Team should consider the mitigation principles outlined within NSW Government – Managing urban stormwater: soils and construction – Volume 1 (2004) when applying the appropriate controls.

The Project Team shall ensure all mitigation measures are appropriately planned, applied, and performance measured throughout the project as per the guideline listed in this section. Any breaches or complaints are to be recorded in the relevant ANSTO incident management system.

## 5.2. Temporary access roads

ANSTO accepts that the current ANSTO road network may not be suitable to access a proposed project site, resulting in the requirement for the construction of temporary access roads to enable access. The Project Team shall ensure that all proposed temporary access roads are in accordance with the provisions stated within AG-3219 ANSTO Building Code. As further guidance material, the Project Team should consider the principles outlined within Managing urban stormwater: soils and construction – Volume 2C Unsealed roads 2008 (NSW Government). The Project Team shall perform a pre-construction environmental condition assessment of the site of the proposed temporary access road including soil compaction properties to assist in the assurance of remediating the site to prior-construction condition.

The Project Team shall ensure the construction and ongoing use of a temporary access road will not result in:

- The removal or damage to native vegetation;
- Contamination of surface/groundwater (eg. sediment displacement);
- Damage or disruption to existing services.

The Project Team shall ensure that all appropriate remediation attempts are performed for the entire length of the temporary access road site ensuring that the pre-construction condition is restored. Works to ensure this may include restoring the natural soil compaction, revegetation, and installation of ongoing sediment displacement controls.

The Project Team shall consult with the ANSTO Landlord to determine the most appropriate routes for the temporary access roads in relation to current and proposed site service conduits and other proposed actions for the site.

The Project Team shall ensure all mitigation measures are appropriately planned, applied, and performance measured throughout the project as per the guideline listed in this section. Any breaches or complaints are to be recorded in the relevant ANSTO incident management system.

## 5.3. Excavation

All excavation activities that have the potential to increase erosional potential shall be managed in accordance with AG-3219 ANSTO Building Code,

- Avoid excavation and trenching during periods of heavy rainfall.
- Divert surface water away from excavated areas and trenches using sandbags or other means.
- Limit the length of time trenches are open.

Stockpiling is not to remain longer than 12 months unless approved by the ANSTO Landlord as part of a long-term project or has been identified for use in an upcoming project.

## 5.4. Virgin Excavated Natural Material (VENM)

Virgin Excavated Natural Material (VENM) is generated through the excavation of previously undisturbed areas that have not been subject to contamination of any nature. VENM shall be strictly managed to ensure that contamination of VENM is prevented and can be subsequently utilised for other works.

The Project Team shall define the following:

- Quantity
- Proposed temporary storage location
- Length of time the VENM will be stored
- Actions to prevent erosion or movement of sediments from the contained storage area
- Final disposition of the VENM
- Dust management measures
- Disturbed areas identified for weed proliferation countermeasures
- Excavation area rehabilitation plan

The Project Team shall consult with the ANSTO Landlord to determine the appropriate storage, final disposition and rehabilitation management requirements and ensure ongoing management and rehabilitation of VENM fill will be performed in-line with ANSTO guides.

## 5.5. Other Excavated Material (OEM)

Other Excavated Materials (OEM) are generated where prior site activities have been undertaken and the resulting excavated materials are contaminated with non-native materials. OEM shall be strictly managed to ensure that potential contamination of stormwater, existing soil or VENM is mitigated.

The Project Team shall define the following parameters:

- Quantity
- Characteristics, including an assessment of potential contamination
- Proposed temporary storage location
- Length of time the OEM will be stored
- Action taken to prevent erosion or movement of sediments from the contained area
- Final disposition of the OEM
- Dust management measures
- Disturbed areas identified for weed proliferation countermeasures
- Excavation area rehabilitation plan

The Project Team shall consult with the ANSTO Landlord to determine the appropriate storage, final disposition and rehabilitation management requirements and ensure ongoing management and rehabilitation of OEM fill will be performed in-line with ANSTO guides.

## 5.6. Saw cutting and concrete slurries

Slurry from saw cutting and concreting operations must be contained as it has a high pH that is not reduced by filtering through geotextile.

- contain slurry using a wet-vac
- if not using a wet-vac, use sandbags to contain and recover slurry
- where geotextile/sandbags will be utilised, it is recommended that the filter aid particle size distribution should be no smaller than 5 x the $D_{15}$ and no greater than 5 x the $D_{85}$ of the particle size distribution of the target pollutant, see **Table 1** for further guidance.
- use minimal water during cutting to create a thick slurry which is more readily contained
- sweep slurry into a contained area before it dries
- allow the slurry to dry sufficiently so it can be collected and removed from the site

- in consultation with Waste Operations, dispose of the 'spadeable' slurry as General Solid waste and liquid slurry to a liquid waste treatment facility.

***Table 1: Filter Material Characteristic Calculation***

| Sediment Characteristics | | | Filter aid characteristics | | |
|---|---|---|---|---|---|
| **Material** | **$D_{15}$ Sediment (mm)** | **$D_{85}$ Sediment (mm)** | **$D_{15}$ (mm) No Smaller Than to Maintain Hydraulic Flow *($5xD_{15}$ Sediment)*** | **$D_{15}$ (mm) No Larger Than to Prevent Piping *($5xD_{85}$ Sediment)*** | **Potential Classification of Filter Material** |
| **Pavement grindings** | 0.0016 | 0.017 | 0.008 | 0.085 | Silty sand |
| **Saw cut slurry** | 0.0018 | 0.018 | 0.009 | 0.09 | Silty sand |
| **Portland cement** | 0.0024 | 0.012 | 0.012 | 0.06 | Silty sand |

*Source: Minnesota Department of Transportation – Concrete Slurry, Wash and Loss Water Mitigation, https://www.lrrb.org/pdf/201221.pdf*

## 5.7. Sediment Controls

- Locate sediment fences parallel to the site contours, as close as possible to your site on the downhill side, with small returns to limit the catchment area of any one section.

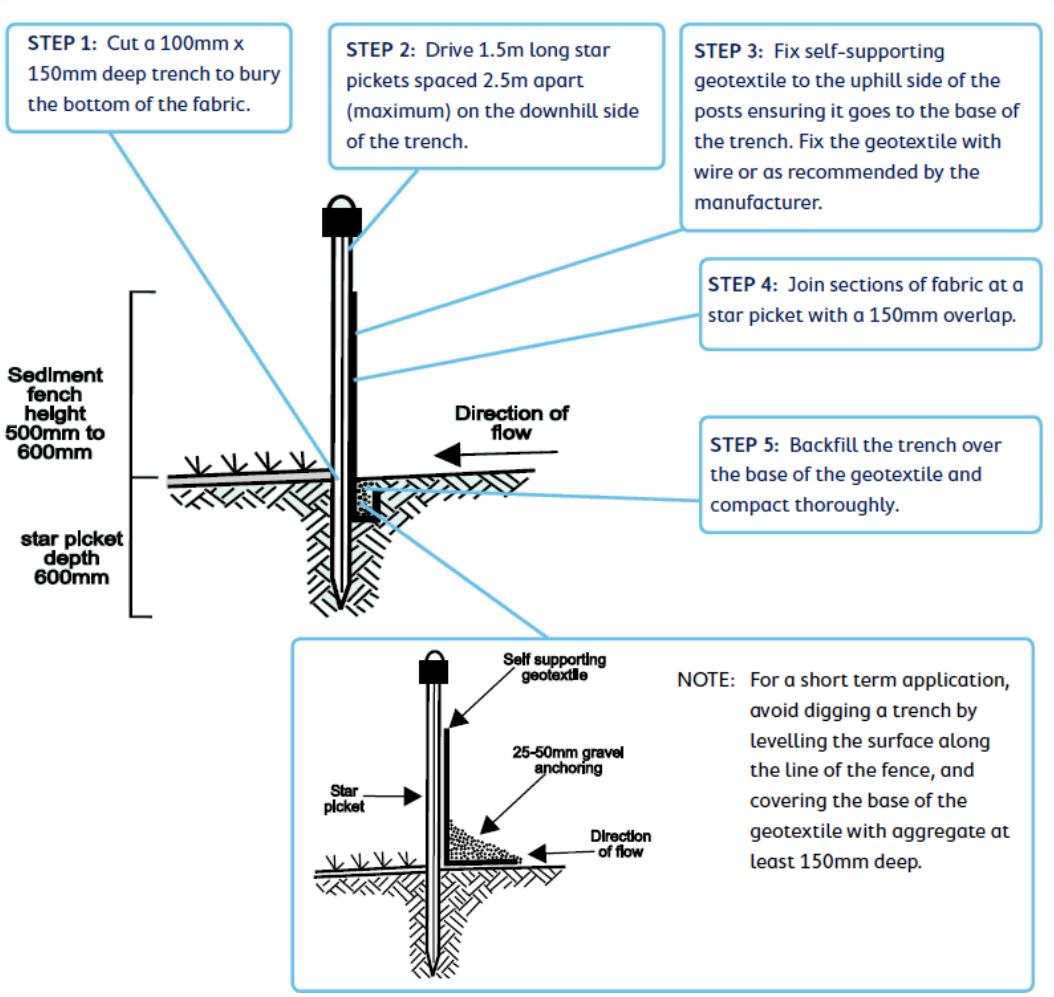



***Image 2: Sediment Fence***

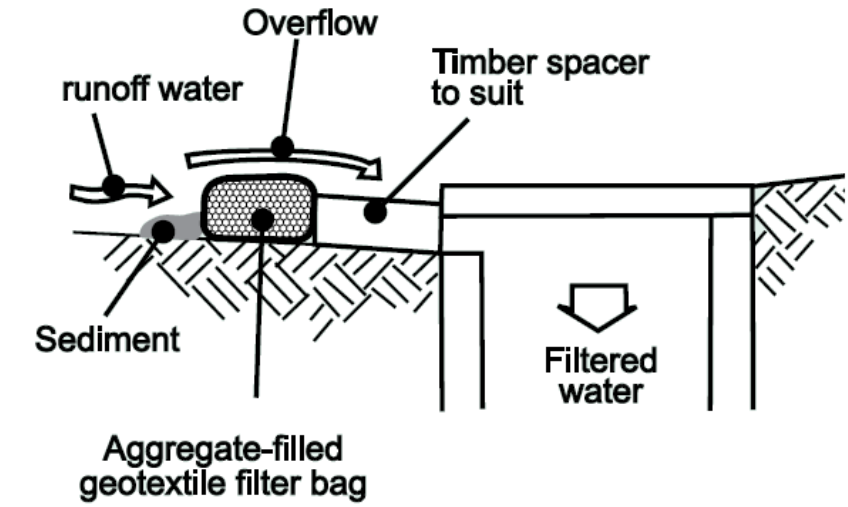
When protecting a gutter:

- geotextile filter bags should be filled to 2/3 capacity with 25 to 50 mm aggregate
- form a seal with the kerb to prevent sediment bypassing the filter bag.

When protecting a drain inlet:

- make the geotextile filter bag longer than the length of the inlet pit, ie. using a silt sock
- use spacer blocks between the filter bag and the kerb inlet.

NOTE: Traditional hessian sandbags do not allow water to filter through. Only woven geotextile filter bags should be used to protect gutters and inlets.



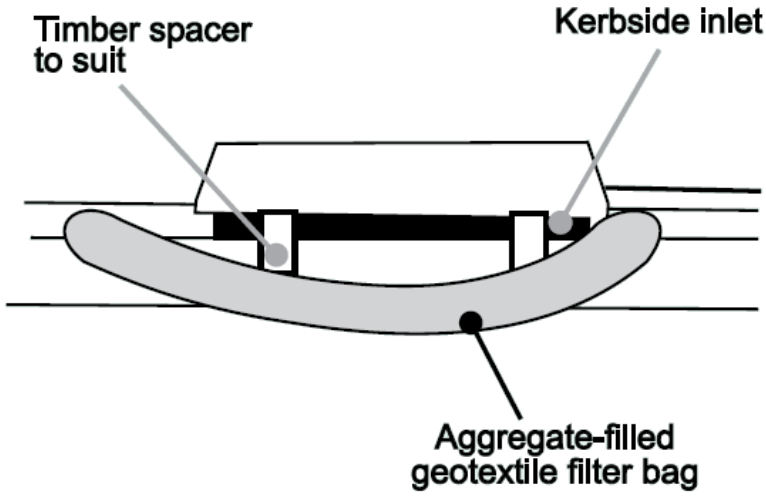




***Image 3: Installing Geotextile Filter Bags***

## 5.8. Construction equipment

Construction equipment is a potential source of contamination through the leakage of fuels and lubricants. The Project Team shall ensure and provide evidence that all equipment is maintained in accordance with the specification provided by the respective manufacturer. The Project Team shall ensure that all active equipment is inspected routinely and any equipment found to be potentially contaminating the environment through fuel or lubricant leakage is taken out of service immediately, any actual contamination managed appropriately, and any further contamination risks mitigated and/or contained.

The Project Team shall ensure any breaches or complaints are to be recorded in the relevant ANSTO incident management system.

## 5.9. Introduced materials

Prior to entry on to the project site, the Project Team shall identify, plan and implement the required control measures for any introduced material. Throughout the project works, the Project Team shall maintain an inventory of all introduced materials that enter the project site.

Introduced materials include:

- top soils
- plants
- waste
- fuels
- flammable materials
- corrosives
- oil/greases/lubricants
- construction materials
- environmentally hazardous chemicals
- other chemicals
- any other materials deemed to be a potential threat to the environment

The Project Team shall ensure the adequacy of all control measure and ensure that any control failure or breach of containment of any introduced material shall be recorded in the relevant ANSTO incident management system.

## 5.10. Requirements to discharge to waters

Construction water must be free from pollutants prior to discharge to drains, surface waters or the ground. Before waters can be discharged, the following parameters must be met:

***Table 2: Criteria to be met to discharge construction water***

| Parameter | Criteria | Method |
|---|---|---|
| Oil and grease | No visible sheen or odour | Visual |
| pH | 6.5-8.5 | pH probe |
| Salinity | <500 µSm/cm | Conductivity probe |
| Total suspended solids | < 50mg/L | Meter |

NOTE: Before waters are permitted to be discharged, approval to discharge must be granted by the Environmental Management Leader.

## 5.11. Groundwater Monitoring

The Project Team shall determine any potential impacts on groundwater flows or quality resulting from any project related activities. Any potential impacts shall be managed and mitigated in consultation with the ANSTO Environmental Monitoring Group (EMG). The ANSTO EMG has an established surface and groundwater monitoring program which may be utilised by the Project Team to assess performance.

Any identified hazardous materials utilised by the Project Team shall be stored and managed appropriately to ensure groundwater contamination is prevented. The storage of hazardous materials must be performed in accordance with the appropriate Australian Standard relevant to the hazardous material, regardless of the time that the hazardous material is in a state of storage.

The Project Team shall ensure all mitigation measures are appropriately planned, applied, and performance measured throughout the project as per the guideline listed in this section. Any breaches or complaints are to be recorded in the relevant ANSTO incident management system.

# 6. Waste

The Project Team is responsible for the management of all waste (including loose litter, construction waste, and hazardous waste) generated throughout the life of the project and shall arrange for all aspects of waste to be removed from the site at the completion of project or is found to be present within their area of influence. The Project Team is responsible for the appropriate characterisation of all waste. Non-radiological waste shall be characterised in accordance with AG-2985 Non-Radioactive Waste Guidelines which directly references the NSW EPA Waste Classification Guidelines as the compliance obligation. All waste generated shall be disposed of in the appropriate manner for that type of waste. Throughout the life of the project, the Project Team shall ensure that any waste that is consolidated within their site does not have an adverse impact on the surrounding environment.

The Environmental Management Leader may request a waste management plan to be developed including a requirement to achieve a minimum landfill diversion rate.

The Project Team shall ensure that the waste management planning is in-line with ANSTO guidelines and that waste-to-landfill is minimised wherever practicable throughout the life of project. All waste is required to be tracked and records of any waste maintained. Any identified deviations from ANSTO waste management guidelines shall be recorded in the relevant ANSTO incident management system.

The Environmental Management Leader may request a waste management plan to be developed including a requirement to achieve a minimum landfill diversion rate.

The Project Team shall maintain a log of all waste receipts and records.

# 7. Flora, Fauna and Heritage Values

The Lucas Heights site contains areas where the protection of native flora and fauna must be considered and the appropriate management planning arrangements implemented. The site also contains Aboriginal and European Heritage sites that also require similar planning arrangements. The Project Team shall ensure that all appropriate actions are performed to preserve these areas and any other area with floral, faunal or heritage values influenced by the project.

The Project Team shall perform the following:

- Identification of areas of remnant native vegetation or sites of heritage value that will or may be impacted by any project activities;
- Where the proposed works will or may have an impact on remnant native vegetation or sites of heritage value, the Project Team shall engage an appropriately qualified consultant to perform a detailed flora and fauna and/or heritage study of the area of influence;

- List all threatened or protected species and ecological communities or migratory species protected under international agreements (hereafter protected species and communities) currently identified by the relevant Commonwealth or State Department that are or may be found within the appropriate distance from the project site. When conducting a Protected Matters Search through the Commonwealth Department of Environment, a default 5 km radius should be considered;
- List all sites of Aboriginal or European Heritage value within the area of influence observed or identified through searches of the relevant Commonwealth or State heritage databases including the heritage sites listed in AG-3219 ANSTO Building Code;
- Impact assessment on all aspects of project related activities and post-construction installations on the habitats of the observed or potential protected species and communities or sites of heritage value identified;
- Detail the proposed mitigation measures to ensure that any observed or potential protected species and communities or sites of heritage value are protected as far as reasonably practicable to the objectives of the project;
- Considering all of the above, the Project Team shall perform a 'Self-assessment' under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). A statement of assessment shall be submitted to the Environmental Management Leader for acceptance outlining:
    - whether the project will be referred to the Minister of Environment; and
    - what criteria were used to determine if a referral is necessary.

  Note: The Environmental Management Leader may request re-assessment if the project was not correctly assessed against the criteria stated in the Act.

  Where a project related activity has been identified through the 'Self-assessment' process as having or is likely to have a significant impact on observed or potential protected species and communities or sites of heritage value, a referral to the Commonwealth Minister for the Environment under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* (Cth) shall be submitted.
- Where a referral to the Minister has been submitted, all conditions shall be adopted by the Project Team.

The Project Team shall ensure all mitigation measures are appropriately applied and performance measured throughout the project as per the impact risk assessment and resultant recommendations. Any breaches or complaints are to be recorded in the relevant ANSTO incident management system which may also require reporting to the Commonwealth Department of Environment where the breach or complaint is in connection to a condition stated within a referral approval granted under the *EPBC Act* (if applicable).

# 8. Noise and Vibration

In order to meet both WHS and EMS objectives, an assessment of potential noise and vibration generating activities and associated mitigation measures is required. All works must adhere to Australian Standard AS 2436 – 2010 Guide to noise and vibration control on construction, demolition and maintenance sites, and guidance within AG-3219 ANSTO Building Code. The principles included within the Interim Construction Noise Guideline 2009 (NSW Government) and the Construction Noise and Vibration Guideline 2016 (NSW RMS) should also be considered.

The Project Team shall develop a list of potentially affected stakeholders as a result of noise and vibration caused by project works, communicate and agree upon a noise and vibration mitigation and management project plan, maintain documented evidence of consultation, and report upon performance throughout the project. AG-3219 ANSTO Building Code identifies the sensitive land areas across site where specific measures must be agreed upon with the affected personnel. The impact on potentially affected ecological communities shall also be assessed and mitigated where appropriate.

The Project Team shall ensure all mitigation measures are appropriately planned, applied, and performance measured throughout the project as per the guidelines listed in this section. Any breaches or complaints are to be recorded in the relevant ANSTO incident management system.

## 8.1. Noise control

The Project Team shall identify all nearby work areas and other sensitive land uses that may be affected by any works on the project. Other sensitive land uses may include sensitive scientific experimental instruments, public places (ie. child care centre, cafeteria) and native bushland. The Project Team shall determine the extent of noise effects on nearby work areas and other sensitive land uses and determine what measures will be enforced to minimise noise to the relevant requirements. The Project Team should avoid wherever possible planning works at night and other times deemed to be controlled in consultation with the affected stakeholder group.

## 8.2. Ground vibration

Heavy impact / vibration emitting construction equipment can significantly impact high sensitivity scientific equipment, building foundations/structures, infrastructure services, heritage sites, faunal species and unconsolidated earth. The Project Team shall identify all potentially impacted buildings, services and other sensitive areas that may be affected by high impact/vibration emitting construction activities. All practicable mitigation measures shall be considered and implemented. The Project Team shall develop a schedule of heavy impact / vibration activities in consultation with the affected stakeholder group.

# 9. Visual Impact and Lighting

## 9.1. Visual impact assessment and considerations

The Project Team shall ensure that all work sheds and construction structures are kept clean and laid out in an orderly manner free from unapproved advertising slogans or any offensive or inappropriate images or writing. The Project Team shall provide details of the area of influence for the project including the controlled site area.

The principal contractor may label equipment including cranes and motor vehicles; however a full statement of this extent of labelling must be provided.

The ANSTO Landlord must be consulted regarding advertising prior to commencing work.

## 9.2. Signposting

All areas of a designated site must be clearly fenced and/or signposted to exclude non-authorised personnel and identify the risks and hazards posed by the activities. The provisions provided in the AG-3219 ANSTO Building Code relating to signposting of spoil and excavations shall be adhered.

## 9.3. Lighting

The Project Team shall take all reasonably practicable measures to ensure that the effects of light spill (artificial light that substantially projects beyond buildings under their control) or sky glow (illumination from artificial light affecting the appearance of the night sky) are controlled and minimised throughout the life of the project. The guidance provided within Section 8.3 of AS/NZS 1680.5: 2012 Interior and workplace lighting – Outdoor workplace lighting, should be followed to ensure the environmental effects of artificial light are minimised.

The Project Team shall ensure all mitigation measures are appropriately planned, applied, and performance measured throughout the project as per the guideline listed in this section. Any breaches or complaints are to be recorded in the relevant ANSTO incident management system.

# 10. Traffic and parking

## 10.1. Contractor worker parking

The number of car parking spaces will be limited to the vehicle entry passes. Parking in unauthorised locations will incur penalties as imposed by ANSTO Security. The location of temporary car parking areas is subject to all other requirements detailed within these Requirements.

All temporary carparks shall be managed similarly to temporary access roads detailed in **Section 5.2** of these Requirements with the provisions within the AG-3219 ANSTO Building Code adhered.

## 10.2. Heavy vehicle access

The Project Team shall detail:

- All heavy vehicle access requirements
- Access routes
- Relevant impacted stakeholders
- Existing condition of proposed access routes;
- Potential environmental impact on the access routes; and,
- Mitigation measures and controls.

The Project Team shall ensure all relevant impacted stakeholders are consulted with respect to all heavy vehicle movements and that ANSTO Security are informed at all times. Any identified deviations from the details provided or incidents resulting from heavy vehicle movements shall be recorded in the relevant ANSTO incident management system.

# 11. Site rehabilitation on completion

The Project Team shall ensure that all disturbed areas within their area of influence will be rehabilitated at the completion of the building works to at least the condition that existed prior to the commencement of project activities. The Project Team should endeavour to landscape any disturbed area with endemic plant species. The Project Team shall ensure that sufficient photographic evidence of the pre-disturbed project area is collected and stored appropriately.

## 11.1. Landscaping

Landscaping of the areas surrounding ANSTO buildings and infrastructure can significantly mitigate against soil erosion and noxious weed propagation, provide sanctuary for endemic fauna and reduce energy costs for adjacent building through passive cooling effects. Successful landscaping in accordance with recognised ecological principles may significantly reduce the ongoing maintenance requirements for a given area, ie. grass cutting, and therefore a forecasted cost-benefit analysis should be considered. Endemic species to this region should be highly considered with non-endemic species considered only where no practicable endemic variety is available for the specified purpose.

All projects where more than 100m$^2$ of land is disturbed, must have a landscaping plan prepared and approved by the ANSTO Landlord and Environmental Management Leader.

All projects where less than 100m$^2$ of land is disturbed, the disturbed must be remediated at a minimum to the state prior to being disturbed.

The Project Team shall consult with the ANSTO Landlord to ensure that all landscaping plans adhere with AG-3219 ANSTO Building Code and any other requirements as stipulated by ANSTO.

# 12. Education and Training

The Project Team shall ensure that all site contractors have the required site-specific training and awareness on environmental issues specific to the project and its surrounding environment, including aspects of this document. Training and awareness tools may include induction and toolbox talks, environmental observations (similar to safety observations), environmental performance updates, and review of environmental incidents.

The Project Team shall detail the frequency of toolbox talks, and training topics related to environment.

The Project Team shall ensure that all contractors are made aware of all relevant impacts identified and the control measures implemented to mitigate harm. All contractors shall also be made aware of the importance of incident reporting and any agreements with ANSTO services with respect to emergency plans.

# 13. Environmental Emergency Planning

The Project Team shall determine all environmental impacts that require an environmental emergency plan to be prepared. Any environmental impact with an inherent risk score of moderate or above where establishing an emergency plan practicably reduces the risk of ongoing environmental harm, shall have an environmental emergency plan established.

The Project Team shall consult with the Emergency Operations Manager to review and establish a testing schedule for any environmental emergency plans.

The Project Team shall periodically test and review all environmental emergency plans based upon their degree of risk.

The Project Team shall review any environmental emergency plan relating to an aspect where an incident has occurred.

# 14. Environmental Incident Reporting

The Environmental Management Leader shall be alerted to any environmental incidents within 24 hours of an environmental incident occurring.

The Project Team shall record all environmental incidents through the ANSTO incident management system that occur either within the project area of influence or resulting from activities related to the project in transit to and from the project area of influence. If the incident investigation is agreed to be performed outside of ANSTO's incident management system (for example through the Principal Contractor's system), the incident investigation may be closed at triage with the investigation attached.

At the completion of the project, the PM shall ensure a consolidated list of incidents is archived and records maintained beyond the life of the project to ensure any legacy issues are traceable.

Any legacy environmental issues that will knowingly persist beyond the life of the project shall be recorded in the ANSTO environmental aspect register.

If an environmental incident occurs that was in relation to an impact not identified within the P/CEMP, the P/CEMP must be updated and the relevant controls implemented to avoid re-occurrence.

# 15. Audits and Inspections

The Environmental Management Leader may request to undertake an inspection or audit of the Project with respect to the management of environmental risks at any stage throughout the project.

# 16. Project/Construction Evaluation

Upon approval of the P/CEMP, the Environmental Management Leader shall determine the requirement for a mid-project/construction evaluation. If deemed required, the Environmental Management Leader shall complete **Appendix C** of the AF-5947 P/CEMP at an agreed time during the project. Any findings from this evaluation shall be implemented within the agreed timeframe and recorded in the relevant action tracking system.

Prior to the completion of a project that has an approved P/CEMP, the Environmental Management Leader shall evaluate conformance of the project and document the evaluation, subsequent findings and agreed actions for the Project Team in **Appendix D** of the AF-5947 P/CEMP. Based upon the environmental outcomes of the project, the Environmental Management Leader shall liaise with the Project Team to whether approval for handover can proceed. The results of this evaluation should be considered by the Project Team when completing the AF-8221 Post Implementation Review and AF-1681 Contractor Performance Review.

# 17. Records

The following records are to be maintained for AF-5947 ANSTO Project Construction Environmental Management Plan.

| File Number | Title | Type | Storage Location | Retention |
|---|---|---|---|---|
| AF-5947 | ANSTO Project / Construction Environmental Management Plan | Form | ACS | 99 years |

# 18. Abbreviations

| | |
|---|---|
| *PEPR* | *Project Environmental Protection Requirements (The Requirements)* |
| *P/CEMP* | *Project / Construction Environmental Management Plan* |
| *EMG* | *Environmental Monitoring Group* |
| *EMS* | *Environmental Management System* |
| *EPBC Act* | *Environment Protection and Biodiversity Conservation (EPBC) Act 1999 (Cth)* |
| *OEM* | *Other Excavated Material* |
| *VENM* | *Virgin Excavated Natural Material* |
| *WHS* | *Work Health and Safety* |

**End of Document**