Endeavour Energy

Environmental Guidelines Handbook

October 2026

Amendment 3 – BSE0002



POWER together

Disclaimer

It is the responsibility of all Endeavour Energy workers and ASPs to ensure that Endeavour Energy work practices are adequately managed in accordance with current environmental legislative requirements and the Endeavour Energy Environment Management System. The information in this Handbook has been provided as a guide for this purpose.

Endeavour Energy may change the information in this document without notice. All changes take effect on the date they are made. The Handbook will be reviewed as required, or on a minimum annual basis.

Workers and ASPs are required to implement any mitigative measures derived from environmental assessments relevant to their work but must continue to identify environmental risks and introduce appropriate mitigative measures in the course of their work. This Handbook may assist in identifying environmental risks and mitigative measures.

Endeavour Energy disclaims any and all liability to any person for any procedure, process or other thing done or not done because of this Handbook. This Handbook does not cover Work Health and Safety (WHS) requirements.

A print version is always an uncontrolled copy.

Preface

Endeavour Energy's Environmental Guidelines Handbook is issued as required by the Sustainability Policy.

The Handbook has been developed for Endeavour Energy workers and Accredited Service Providers (ASPs) to provide a practical translation of Endeavour Energy's Environment Management System into day-to-day operations. It prescribes the **minimum** environmental controls for work carried out by workers and ASPs and aims to supplement mitigation for identified environmental risks in Environmental Management Plans.

It also provides a reference for Endeavour Energy employees to manage environmental risks relevant to fault, emergency and maintenance works and will assist in the preparation of eWHRA documentation.

ASPs are cautioned that some parts of the Handbook are relevant only to Endeavour Energy employees, and ASPs are required to address such matters according to their own procedures.

The Handbook should be made available to all workers and ASPs so it can be referenced at the worksite.



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1. Sustainability Policy

Vision/ Commitment

Endeavour Energy as an electricity distributor aims to power communities for a brighter future. We commit to enhancing our sustainability including environmental performance, focusing on our material aspects such as climate change. We do this through protecting the environment, integrating sustainable practices into our daily activities and choices, and focussing on continuous improvement.

Purpose

We seek to achieve our commitment through:

- Identifying, considering and prioritising sustainability risks and opportunities in our activities or decisions we make
- Target setting, monitoring and measuring our environmental and sustainability performance to drive results and continually learn and improve
- Implementing our Corporate and Sustainability Strategies, sustainability programs and partnerships and integrating them into business processes
- Empowering staff to foster a sustainability culture through provision of appropriate training and awareness
- Engaging with employees, communities, contractors, suppliers, and other external stakeholders on sustainability initiatives and performance.

Application

Activities, products, and services carried out by Endeavour Energy Group and its related entities which may have an impact on the environment and our sustainability objectives. Workers including those working for and on behalf of Endeavour Energy and related entities, such as contractors, vendors, and suppliers (including upstream and downstream in our value chain). This Sustainability Policy may change. Changes to this policy will be reflected in the Sustainability Policy on our website from time to time. This policy was last updated June 2026.

Sustainability Policy Statement

The Board supports management and workers to achieve our commitment to sustainability.

Renewable Revolution: We are evolving our business towards a net zero future, and strengthening the resilience of our network to keep our customers reliably connected. We commit to:

- Support the transition to a low carbon grid
- Reduce our carbon footprint for Scope 1, 2 and 3 emissions
- Identify and manage climate related risks and opportunities
- Improve the resilience of our network
- Integrate climate action into business and planning decisions

Resilient Communities: We are empowering the health, wellbeing and inclusion of our people, customers and communities. We commit to:

- Causing no harm to workers and the public
- Contribute to the wellbeing of our people
- Employ, develop and protect the rights of a diverse workforce and develop an open and inclusive culture, where each team member feels respected and valued.
- Continue to build and strengthen respectful relationships with our Aboriginal and Torres Strait Islander communities in accordance with commitments to progressing reconciliation and the connection to First Nations peoples both within our organisation and the communities that we serve.
- Be customer focused and respect the community.
- Provide a safe and reliable electricity supply for customers, especially those who require it for their life support equipment.
- Manage the impact of our network and operations on the community in which we work
- Provide a high standard of safety, reliability, security statutory compliance of our network infrastructure.
- Support the needs of our community, beyond providing them access to electricity, such as through employee volunteering, workplace giving and community grants.
- Enable and engage with a range of stakeholders to act on climate and social initiatives.
- Conduct timely community and stakeholder engagement when delivering capital and maintenance projects.
- Encourage responsible business practices and support the safety and wellbeing of our suppliers.
- Maintain there is no modern slavery in our supply chain or in any part of our business.

Regenerative Economy: We are supporting nature, improving biodiversity and contributing to a circular economy. We commit to:

- Prevent pollution and protect the environment for future generations by applying the mitigation hierarchy of avoid, minimise, restore and offset impacts.
- Improve our ecological footprint where possible and aim to regenerate more habitat than we remove in our operations and construction.
- Maintain our biodiversity offset areas whilst generating broader benefits to the community.
- Promote a circular economy and sustainable resource use, including with suppliers to improve circularity and life cycle considerations across our supply chain (both upstream and downstream).
- Avoid waste sent to landfill and find better ways to reuse, recycle and recover materials.

Governance: We have a robust framework of corporate governance and sustainability reporting, to maintain integrity and transparency on how we implement sustainability. We commit to:

- Implement and continually improve our certified Environmental Management System (EMS).
- Comply with relevant environmental and sustainability compliance obligations and reporting requirements and align to relevant best practice standards. This includes completion of mandatory climate-related financial disclosures and climate transition planning.
- Participate in international sustainability benchmarking and reporting to improve transparency to stakeholders.
- Foster a culture of corporate compliance, ethical behaviour and good corporate governance.
- Embed and maintain a positive culture of risk management in all business processes and operations. This includes for environmental, social, governance and climate change aspects.
- Effectively manage the confidentiality, integrity and availability of information, and comply with privacy legislation.

Our Sustainability Strategy

Powering a
Brighter Future

Our sustainability strategy sets out our priorities and key goals.

Impact Areas

Renewable Revolution



We're leading a smooth transition to a clean-energy grid and making sure our communities stay reliably connected

Resilient Communities



We're empowering health, wellbeing and inclusion to help our people, customers and communities thrive

Regenerative Economy



We're supporting nature, improving biodiversity and contributing to a circular economy

Our Goals

- **Net Zero by 2040 (scope 1, 2, and 3)**
  from FY21 baseline and subject to AEMO Step Change scenario
- **Integrate climate action into business and planning decisions**
- **Cultivate an inclusive culture that embraces diversity**
- **Achieve top quartile employee engagement by 2030**
- **Nature Positive by 2030**
  in operations and construction
- **Zero operational waste to landfill by 2030**
  aligned to NABERS and excluding hazardous and toxic waste

How We're Getting There

- Working towards a 100% zero-emissions fleet by 2040
- Reducing sulphur hexafluoride (SF_6) emissions by implementing initiatives to improve leakage detection and management and introducing non-SF_6 assets
- Enabling customers to connect solar systems and batteries, empowering them to participate in a sustainable energy future
- Leveraging advancements in grid management, storage, and customer energy flexibility to enhance our ability to accommodate higher levels of renewable generation
- Implementing a scope 3 emissions data maturity and initiatives program, starting with a review of our emission boundary setting and material categories

- Creating more opportunities for Aboriginal and Torres Strait Islander team members, apprentices, suppliers and communities through our Innovate Reconciliation Action Plan (RAP)
- Empowering the next generation of women in STEM and expanding our support across culturally and linguistically diverse backgrounds, disability, neuro-diverse individuals, and the LGBTQIA+ community
- Prioritising the wellbeing of our team and communities with enhanced safety initiatives and broader uptake of our wellbeing programs
- Investing in the communities we serve through our Powering Community grants program

- Planting trees and restoring habitat to ensure we're regenerating more than we remove within our operations and construction
- Maintaining our biodiversity offset areas whilst generating other environmental co-benefits
- Avoiding waste sent to landfill and finding better ways to reuse and recycle through innovative partnerships and internal behaviour change campaigns
- Engaging suppliers to improve circularity across our supply chain

Sustainability by Design

Apply Sustainability by Design early in investment, planning and concept design — where decisions have the greatest influence on whole-of-life outcomes.

Use the Sustainability by Design framework and process chart as a practical decision-support tool at each asset lifecycle stage.

Identify ESG risks and opportunities proactively, rather than managing them after design or delivery decisions have already been made.

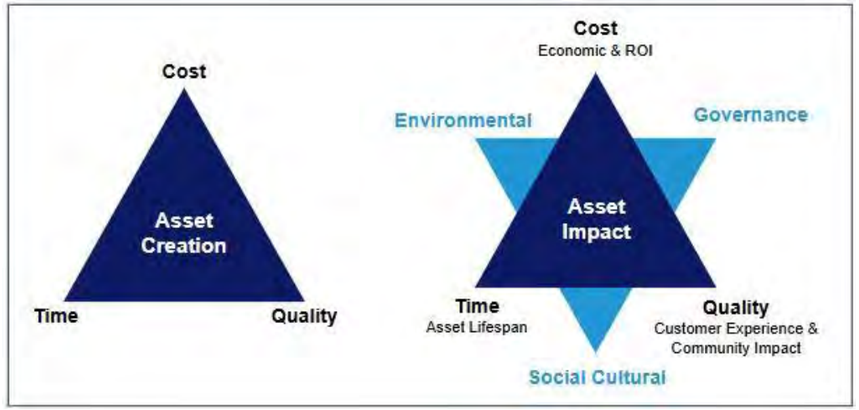
Make trade-offs transparent between cost, time, quality, risk and sustainability outcomes.

Embed sustainability considerations across acquisition, design, delivery, operation and end-of-life, not just during approvals or close-out.

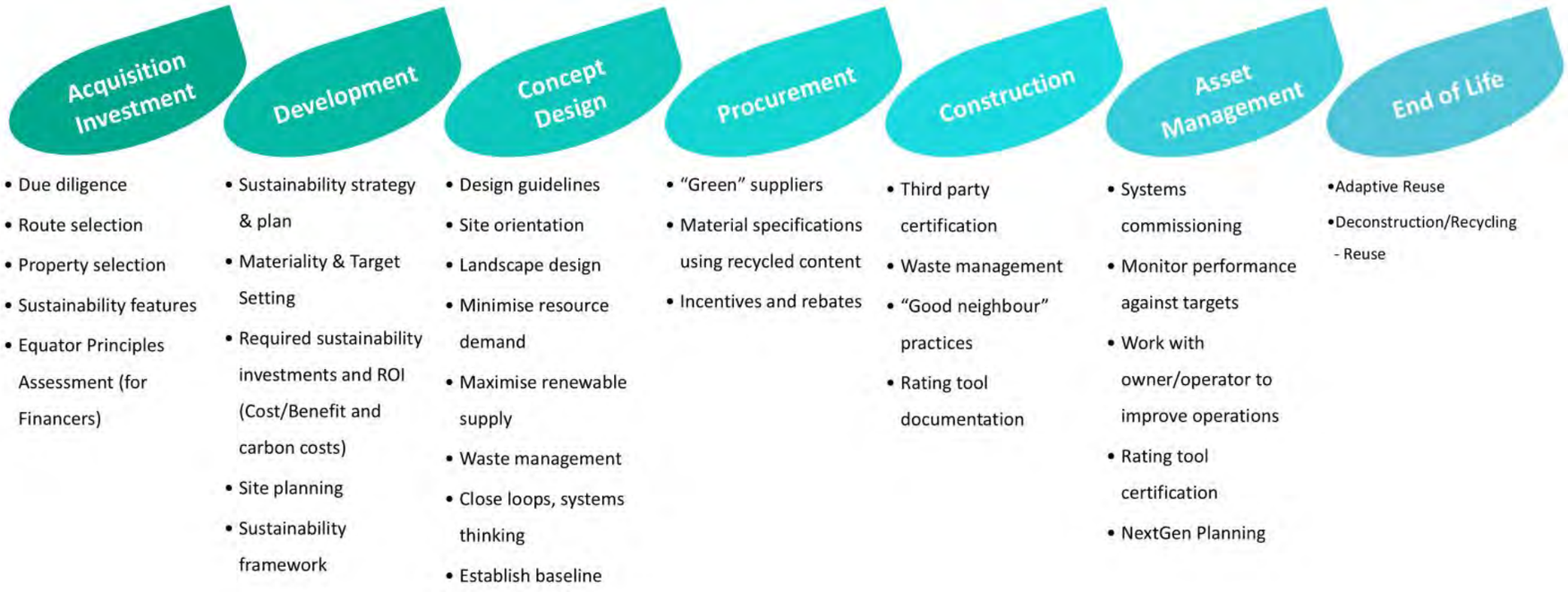
Consider environmental, social and governance impacts, including resilience, environmental footprint, community outcomes, stakeholder engagement and Indigenous engagement where feasible.

Review modern slavery and sustainability risks during procurement and approach-to-market activities.

Monitor, refine and improve sustainability performance over time, aligned with business objectives such as safety, asset reliability, regulatory compliance and community trust.



Sustainability by Design



The Sustainability by Design process illustrates how sustainability considerations are integrated at each stage of the asset lifecycle—from initial investment decisions through to end-of-life.

Asset creation decisions (time, cost, and quality) directly influence broader asset impacts, including economic return, environmental outcomes, social and community impacts, governance, and asset lifespan.

The Sustainability by Design framework and process chart (above) should be used as a practical decision-support tool, guiding project teams to ask the right ESG questions at each stage and to understand how individual decisions contribute to overall asset impact.

By embedding sustainability deliberately and consistently across acquisition, design, delivery, operation, and end-of-life, major substations can deliver assets that are resilient, efficient, trusted by communities, and aligned with long-term business and ESG objectives

Endeavour Energy

Environmental Topics

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Environmental Management System

- Endeavour Energy has an Environmental Management System (EMS) certified to International Standard ISO 14001. It is a condition of our Distributor's licence under the Electricity Supply Act 1995 that our EMS remains certified to this standard.
- The EMS consists of environmental management standards, procedures and policies, in addition to this Handbook.
- This Handbook provides a practical translation of the EMS for all workers and ASPs involved in the construction and maintenance of the Endeavour Energy network.



bsi.

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

Endeavour Energy
Head Office
8 Parramatta Square
10 Darcy Street
Parramatta NSW 2150

Holds Certificate Number: **EMS 678812**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

Operations and maintenance activities relating to the distribution of electricity.

For and on behalf of BSI:

Charlene Loo, Managing Director, BSI Group Australia & New Zealand

Original Registration Date: 2017-12-14
Latest Revision Date: 2026-02-18

Effective Date: 2023-12-14
Expiry Date: 2026-12-13

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...making excellence a habit.™

General environmental responsibilities



All workers and ASPs

- Comply with all relevant environmental documents (REF, EMP, CEMP).
- Use due care, skill and foresight to minimise environmental harm.
- Act in good faith when performing your job.
- Raise issues with your supervisor when a document is missing or cannot be followed, something appears wrong, you are unsure what to do, or something could be improved.
- Discuss and document environmental risks and controls when preparing an eWHRA.
- Immediately report environmental incidents to your Supervisor or the Endeavour Energy Call Centre 13 10 03.



Supervisors and managers

- Understand environmental risks and legal requirements for your area of responsibility.
- Check there are specific procedures and instructions for your workers (e.g. Project Specific Documents or this Handbook).
- Make environmental documents (EMP, CEMP) including this handbook accessible to your workers.
- Check workers have adequate supervision, training and resources to comply.
- Have appropriate contingency plans for environmental emergencies.
- Investigate all relevant environmental concerns and share information across the company.
- Evaluate the operational performance of your workers and discuss results with your manager.



Uncertain how to manage an environmental risk? Contact your Environmental Specialist.
Report incidents immediately: 13 10 03

Environmental Impact Assessment

- Under the Environmental Planning and Assessment Act 1979, development is either exempt, permitted with consent, permitted without consent or prohibited.
- An Environmental Impact Assessment is generally undertaken to determine the appropriate environmental planning approval pathway for an activity. For most EE activities, this would be development permitted without consent.
- For development permitted without consent, EE must assess the environmental impacts of our activities before proceeding.
  The assessment is recorded in a Review of Environmental Factors (REF) document.
- In general, EE can approve most development that is for the purpose of an electricity distribution network after considering the matters affecting or likely to affect the environment by reason of the activity in a manner that is proportionate to the nature and risk of the activity (REF Determination).
- Some development cannot be approved by EE, including prohibited development, State Significant Infrastructure (SSI) and/ or State Significant Development (SSD).
- EE will consider if an REF is appropriate for proposed development associated with an SSI or SSD project (e.g. BESS projects or connections to datacentres) on a case-by-case basis, and on the nature and extent of environmental impacts expected.
- The REF is a statutory document that, read in conjunction with the REF Determination, describes the project and approval conditions that apply during its construction, operation and decommissioning.
- All relevant Development Applications and their approval conditions (for development previously approved by local councils, for example) must be reviewed when considering new work at existing Field Service Centres. Copies of all Development Applications and conditions of approval must be provided to the EE Environmental Services team for inclusion in our Compliance Obligations Register.

EMS 0001

Environmental impact assessment and environmental management plans

Scan to open the EMS standards folder, then select EMS 0001.

Construction Project Specific Documents

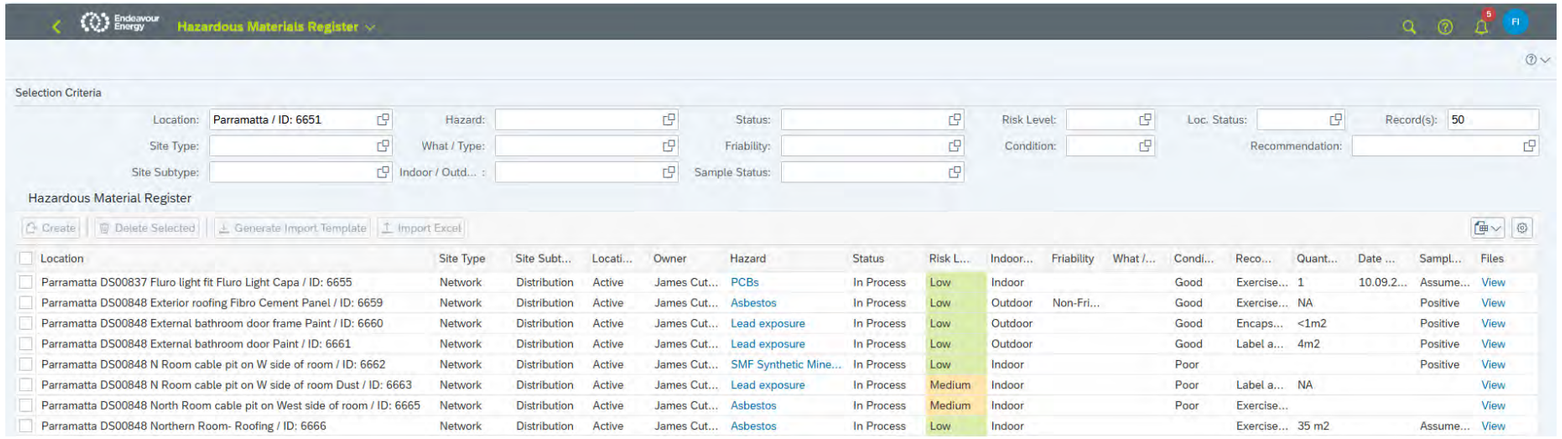
Project specific documents may include:

- Environmental Planning Approvals – e.g. REF and/or other approvals or concurrence.
- Licences and Permits.
- Environmental Aspects and Impacts Register or Environmental Risk Assessment (e.g. eWHRA for internal staff)
- Environmental Management Plan (EMP) or Construction EMP (CEMP) and their supporting documents, where applicable. This document identify project-specific environmental risks and how to manage them.
- Design drawings — environmental risks may be included in the notes
- Hazardous Materials Register



All contractors and ASP prepared project specific documents shall be provided to EE prior to the commencement of works and updated in accordance with any EE comments and/ or requirements, and as required throughout the project delivery.

Project Specific Documents - Examples



Endeavour Energy Hazardous Materials Register

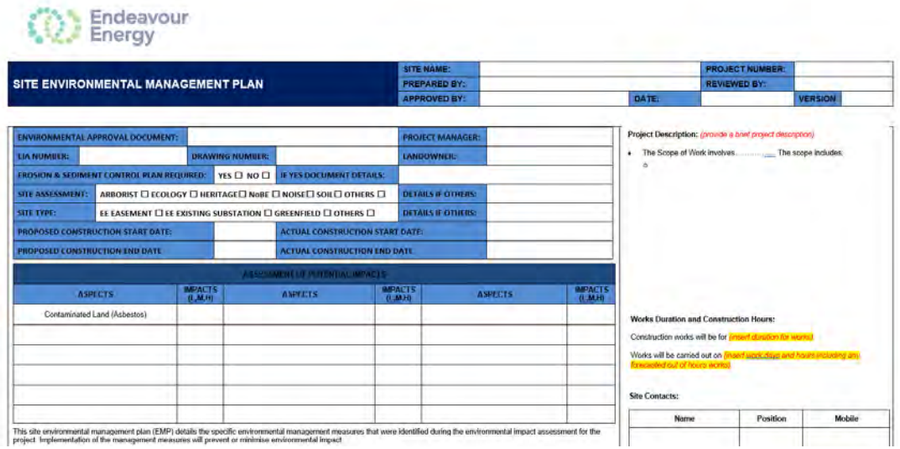
Selection Criteria

Location: Parramatta / ID: 6651 | Hazard: | Status: | Risk Level: | Loc. Status: | Record(s): 50
Site Type: | What / Type: | Friability: | Condition: | Recommendation:
Site Subtype: | Indoor / Outd... : | Sample Status:

Hazardous Material Register

Create | Delete Selected | Generate Import Template | Import Excel

Location	Site Type	Site Subt...	Locati...	Owner	Hazard	Status	Risk L...	Indoor...	Friability	What /...	Condi...	Reco...	Quant...	Date ...	Sampl...	Files
Parramatta DS00837 Fluro light fit Fluro Light Capa / ID: 6655	Network	Distribution	Active	James Cut...	PCBs	In Process	Low	Indoor			Good	Exercise...	1	10.09.2...	Assume...	View
Parramatta DS00848 Exterior roofing Fibro Cement Panel / ID: 6659	Network	Distribution	Active	James Cut...	Asbestos	In Process	Low	Outdoor	Non-Fri...		Good	Exercise...	NA		Positive	View
Parramatta DS00848 External bathroom door frame Paint / ID: 6660	Network	Distribution	Active	James Cut...	Lead exposure	In Process	Low	Outdoor			Good	Encaps...	<1m2		Positive	View
Parramatta DS00848 External bathroom door Paint / ID: 6661	Network	Distribution	Active	James Cut...	Lead exposure	In Process	Low	Outdoor			Good	Label a...	4m2		Positive	View
Parramatta DS00848 N Room cable pit on W side of room / ID: 6662	Network	Distribution	Active	James Cut...	SMF Synthetic Mine...	In Process	Low	Indoor			Poor				Positive	View
Parramatta DS00848 N Room cable pit on W side of room Dust / ID: 6663	Network	Distribution	Active	James Cut...	Lead exposure	In Process	Medium	Indoor			Poor	Label a...	NA			View
Parramatta DS00848 North Room cable pit on West side of room / ID: 6665	Network	Distribution	Active	James Cut...	Asbestos	In Process	Medium	Indoor			Poor	Exercise...				View
Parramatta DS00848 Northern Room- Roofing / ID: 6666	Network	Distribution	Active	James Cut...	Asbestos	In Process	Low	Indoor				Exercise...	35 m2		Assume...	View



Endeavour Energy

SITE ENVIRONMENTAL MANAGEMENT PLAN

SITE NAME:		PROJECT NUMBER:	
PREPARED BY:		REVIEWED BY:	
APPROVED BY:	DATE:	VERSION	

ENVIRONMENTAL APPROVAL DOCUMENT:		PROJECT MANAGER:	
EIA NUMBER:	DRAWING NUMBER:	LANDOWNER:	
EROSION & SEDIMENT CONTROL PLAN REQUIRED:	YES ☐ NO ☐	IF YES DOCUMENT DETAILS:	
SITE ASSESSMENT:	ARBORIST ☐ ECOLOGY ☐ HERITAGE ☐ NoBE ☐ NOISE ☐ SOIL ☐ OTHERS ☐	DETAILS IF OTHERS:	
SITE TYPE:	EE EASEMENT ☐ EE EXISTING SUBSTATION ☐ GREENFIELD ☐ OTHERS ☐	DETAILS IF OTHERS:	
PROPOSED CONSTRUCTION START DATE:		ACTUAL CONSTRUCTION START DATE:	
PROPOSED CONSTRUCTION END DATE		ACTUAL CONSTRUCTION END DATE	

ASSESSMENT OF POTENTIAL IMPACTS

ASPECTS	IMPACTS (L,M,H)	ASPECTS	IMPACTS (L,M,H)	ASPECTS	IMPACTS (L,M,H)
Contaminated Land (Asbestos)					

This site environmental management plan (EMP) details the specific environmental management measures that were identified during the environmental impact assessment for the project. Implementation of the management measures will prevent or minimise environmental impact

Project Description: *(provide a brief project description)*

- The Scope of Work involves..... The scope includes:
  -

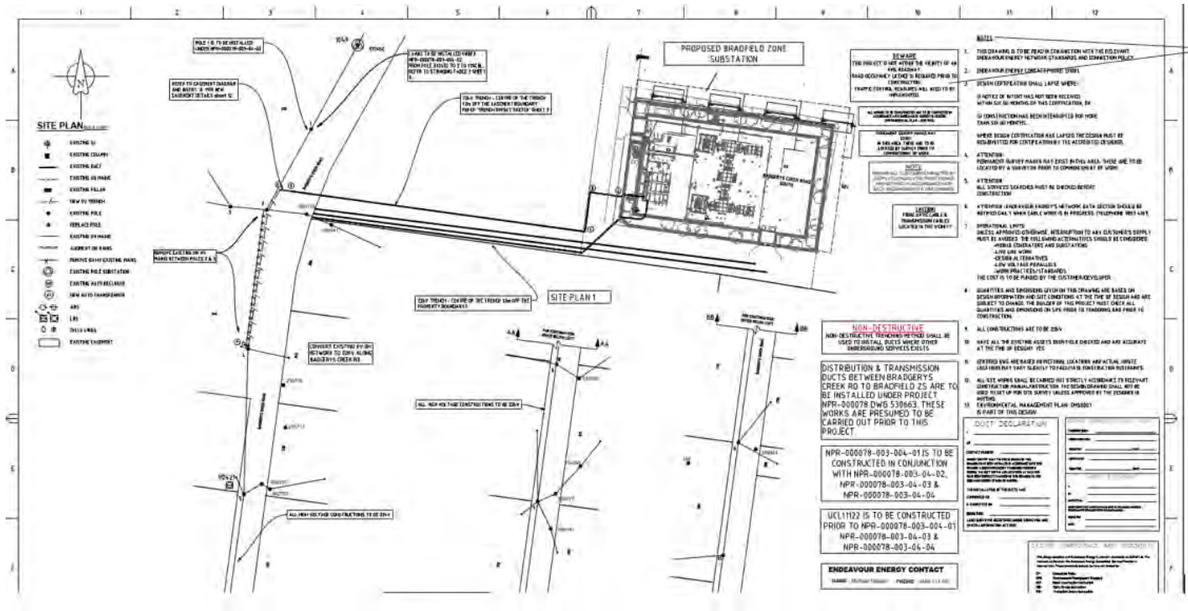
Works Duration and Construction Hours:

Construction works will be for *(insert duration for works)*

Works will be carried out on *(insert work days and hours including any forecasted out of hours works)*

Site Contacts:

Name	Position	Mobile

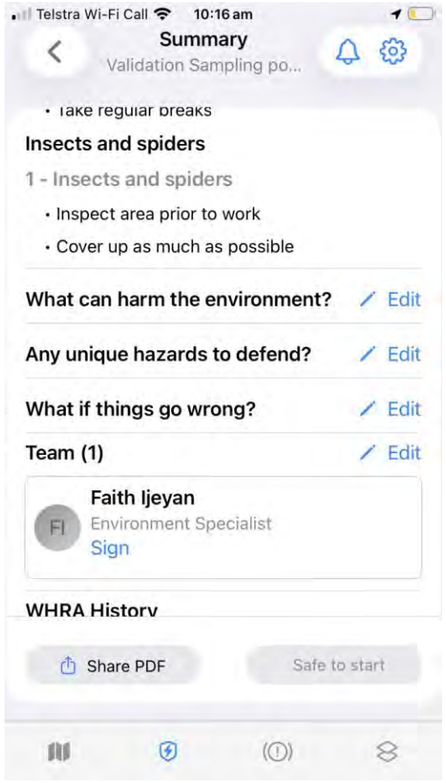


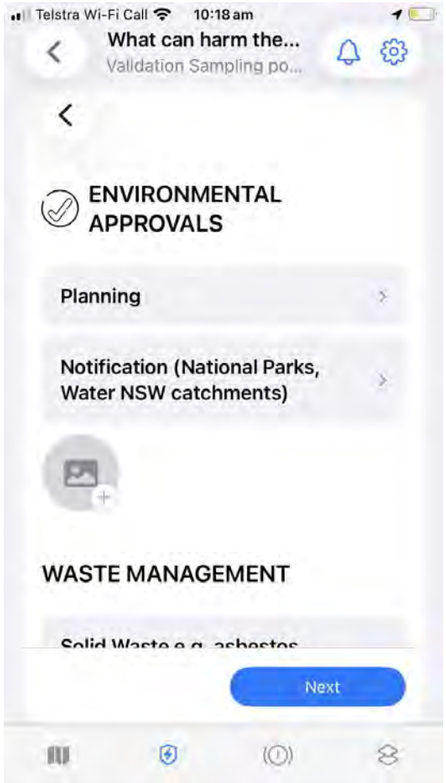
Site specific information can be found in drawing notes and comments.

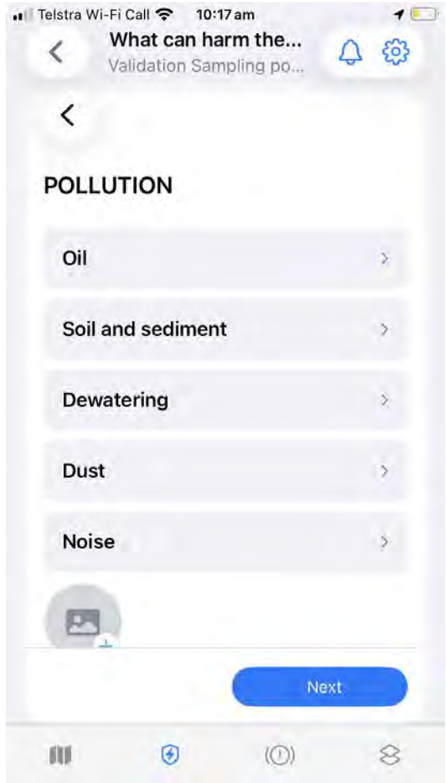
eWHRA

EE Employees: Tips for eWHRA – using HSE App

- Expand each environmental risk to view suggested environmental controls
- Select the controls required to be implemented to manage each environmental risk
- Consider whether additional controls are required to be included
- Discuss with workers the environmental controls that are to be implemented







ASPs & Contractors must complete their own environmental risk assessment prior to the commencement of works.

Environmental Requirements: Before Commencing Works

Planning and Design

- Confirm project scope, footprint, design construction methodology, access route, etc.
- Complete an application via the Pega EIA Tool. Ensure all potential and actual environmental impacts are identified, assessed and mitigated in the application.
- Consider work site access and potential impacts on environmentally sensitive items when deciding whether works are exempt development. For works deemed exempt, contact EE Environmental Services team for review.
- Complete consultation and notification requirements and ensure feedback received are incorporated in the project's environmental planning documentation, which is generally an REF.
- Ensure environmental controls and conditions of approval are communicated to the project delivery/ construction team.

Construction

- Check your work package for the project EIA (which is generally an REF) and project-specific environmental documentation, permits and/ or approvals.
- Review the approved project EIA for consistency with the project work package.
- Seek guidance from the Environmental Services team for any inconsistencies (e.g. scope, design, footprint, methodology etc.) between the approved project and the corresponding environmental documents.
- If the approved project was subject to an REF, submit a consistency assessment application via the Pega EIA Tool, to consider if an REF Addendum is required. This may be required for changes to the approved scope of works that would result in increased environmental impacts.
- Develop and implement project-specific documents that outline appropriate environmental controls.
- Brief all workers on environmental risks and associated controls.

Seek guidance from the Environmental Services team as needed.

Environmental Requirements: During and After Works

During Construction

- Reassess all project modifications and changes for environmental impacts and identify and implement controls accordingly.
- Update project risk assessment and environmental management documentation in response to any environmental incidents or changes to site conditions.
- Submit a consistency assessment application via the Pega EIA Tool to address modifications or changes to the approved project.
- Conduct regular and frequent environmental inspections.
- Maintain, review and update project specific environmental management documentation as needed.
- Carry out consultation and notification requirements, and incorporate feedback into project delivery, risk assessments and management plans.

After Construction

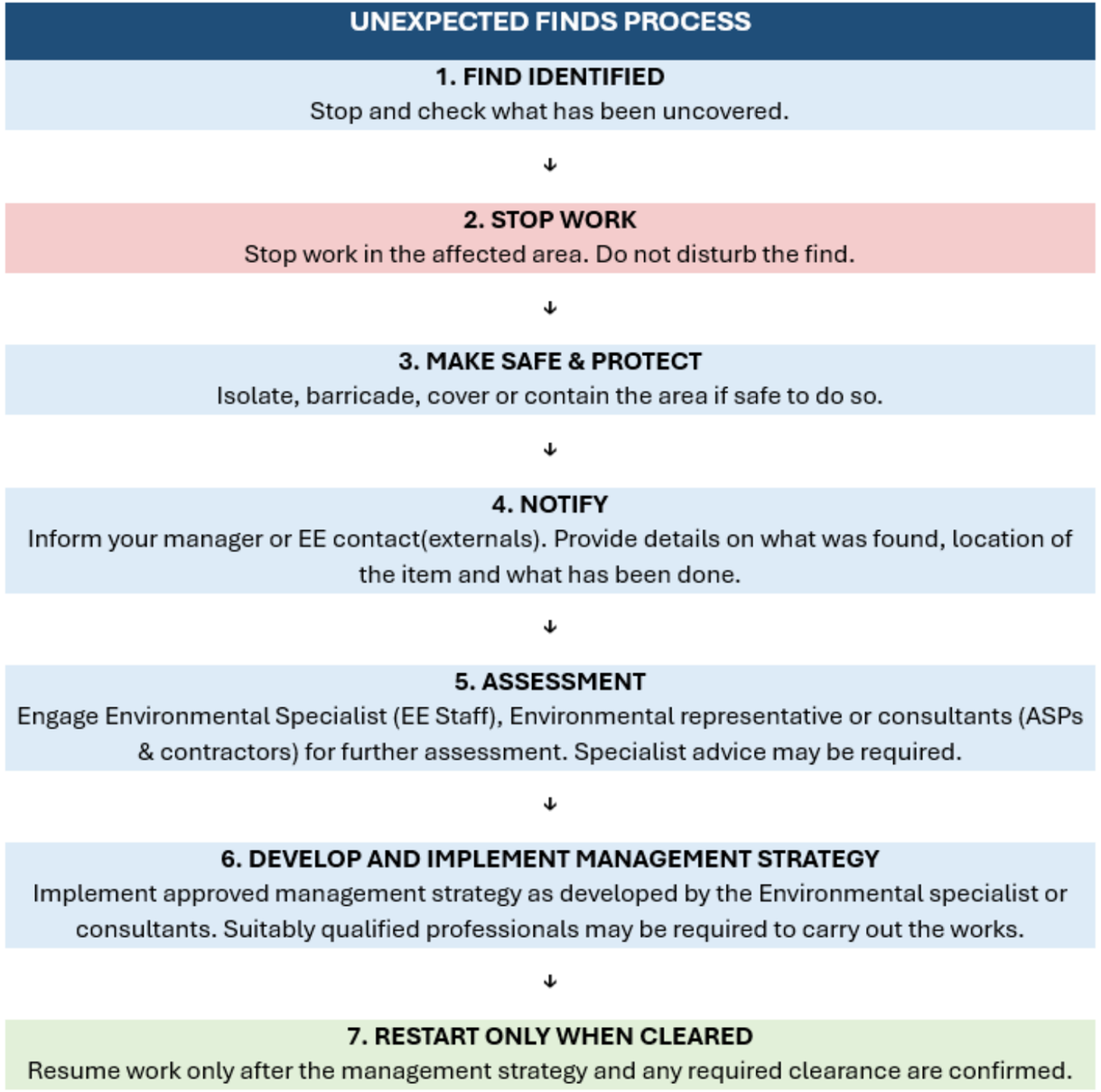
- For large capital projects, EE Environmental Services team may undertake a close-out inspection at the completion of works.
- Rectify and close all non-conformances identified prior to site handback.
- Ensure the site is environmentally stable and stabilised prior to site handback.
- Complete all environmental records and documentation.
- Prepare and submit the environmental close out report.

Projects require an approved EIA and controls in place before work proceeds. Modifications to the approved project require additional assessment before additional works may proceed.

Unexpected Finds

Use the process to manage unexpected finds such as:

- Biodiversity – threatened plant or animal, active nest or breeding site, hollow-bearing tree, endangered ecological community (EEC), etc.
- Contamination – asbestos, contaminated soil, buried or dumped waste, etc.
- Heritage items – human remains, scarred trees, aboriginal artefacts etc.



Community & Stakeholder Engagement

What is our aim?

To engage with the community in an open, respectful and honest way, consider the community and garner their support for Endeavour Energy's business operations.

Background?

Activities may affect the community through changes to traffic and pedestrian flow, increased noise and vibration, accidental releases, visual amenity impacts or changes to electromagnetic fields (EMF). Effective engagement with the community, businesses, councils and other groups helps manage expectations and operations.

Engagement Process

Identify → Assess → Notify → Inform → Consult → Respond → Record



Identify all stakeholders likely to be impacted and engage Communication Specialists where support is required.



Assess impacts at design stage — e.g. traffic, visual, noise and EMF, which must stay below 2,000 mG.



Notify the right parties: regulators, council, adjoining occupiers, affected community and customers.



Inform stakeholders with clear work information that highlights the impacts on them.



Consult further where impacts are more than minimal; ensure feedback shapes REF mitigation.



Respond promptly to all complaints and feedback received.



Record all feedback and complaints throughout the project lifecycle.

EE Stakeholders Consultation Requirements



Identify stakeholders

When — Early project planning
Who — Community, councils, agencies, landowners
Action — Identify who may be affected and plan the engagement approach.



Council notification

When — Before REF determination
Who — Local council
Action — Provide 40 days for council review and submissions.



Landowner consultation

When — Before REF determination and/or works start
Who — Landowners
Action — Obtain consent where required and document outcomes.



Submissions and complaints

When — Whenever received
Who — All stakeholders
Action — Consider, respond, resolve where required and document outcomes.



Community consultation

When — Before REF determination (if relevant) and works start
Who — Residents, businesses, landowners, community groups
Action — 21 days for REF, 7 days before construction, 5–14 days for out-of-hours works, 4 business days for planned interruptions.



Agency consultation

When — Where agency interests or assets are affected
Who — Relevant government agencies
Action — Notify, describe impacts, seek submissions and consider responses — allow 20 business days.



Modified projects

When — Where changes bring new or increased impacts
Who — Previously and newly affected stakeholders
Action — Consider re-consultation case-by-case before re-determination.



Record keeping

When — All consultation activities
Who — All consultation records
Action — Retain written records for five years.

Community & Stakeholder Engagement Principles



Be open, respectful and honest

Consultation is conducted through transparent, two-way communication.



Engage early

Consider whether early community consultation is required during REF preparation.



Consider feedback

Stakeholder submissions and community feedback must shape decisions and mitigation measures.



Inclusive engagement

Consider groups facing participation barriers: disability, CALD and Aboriginal communities, youth and elderly people.



Fit-for-purpose engagement

Match the consultation method to project scale, impacts, duration and stakeholder profile.



Document outcomes

The REF must document consultation undertaken, issues raised and responses provided.

What am I responsible for?



Identify stakeholders

Identify everyone likely to be impacted early in project planning and engage Communication Specialists where support is required.



Assess impacts

Assess traffic, noise, vibration, visual and EMF impacts at design stage, keeping EMF below 2,000 mG.



Notify and inform

Notify regulators, council, adjoining occupiers and customers, and give clear information on how the works affect them.



Consult within timeframes

Allow 21 days for the REF, 40 days for council, 20 business days for agencies, 7 days before construction and 4 business days for planned interruptions.



Respond to feedback

Respond promptly to complaints and submissions, and let feedback shape the mitigation measures in the REF.



Record and retain

Record all consultation, feedback and complaints across the project lifecycle and keep written records for five years.

Environmental Incidents

What is our aim?

To prevent and appropriately manage environmental incidents safely and with minimum harm to the environment.

Background?

An environmental incident is any unplanned event that causes or has the potential to cause harm to the environment.

“Harm to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution” (POEO Act).

Incidents can arise from our own works or from third-party activity on our land and range from pollution and physical damage through to breaches of environmental approvals and codes.

EMS 008
Environmental Incident Response Management — scan to open the standard.

What Counts as an Environmental Incident?



Pollution and emergencies

Leaks and spills into water, air or land, sediment runoff from work sites, explosion or fire at sites, premises or assets.



Land and heritage damage

Damage to lands managed by WaterNSW or NPWS, or to heritage items (Aboriginal and non-Aboriginal) without approvals.



Trees and biodiversity

Damage without approvals to trees on a council significant tree register, or to threatened species ecological communities and/or their habitats.



Waste, noise and dumping

Unlawful waste management practices, creation of offensive noise, and illegal dumping.



Compliance breaches

A breach of conditions of environmental approvals or regulation, and complaints relating to activities where an environmental assessment has been prepared.

Environmental Incidents

Prevention



Risk identification and assessment

Identify and assess environmental risks on the work site and implement relevant control measures.



Risk and control records

Record risks and controls in the relevant project-specific documentation.



Control implementation

Put the identified control measures in place before work starts and check they remain effective for the duration of the job.

Preparedness



Spill kit availability

An appropriate spill kit must be available near oil and chemical storage areas, on all plant containing hydraulic oil, and on designated vehicles transporting oil-filled equipment.



Spill kit inspections

Spill kits at FSCs are inspected annually; vehicle spill kits during Safety Days every six months.



Bunds and separators

Maintain bunds, sediment basins, gross pollutant traps, oil water separators and stormwater treatment systems.



Site inspections

Inspect spill kits, weeds, drains and gross pollutant traps per SMI 106 at substations, and at least annually at FSCs.

Response



Immediate reporting

Report all incidents immediately to your supervisor/manager, EE representative or the Endeavour Energy Call Centre (13 10 03).



Spill containment

Minimise spread by not moving leaking equipment unnecessarily; use spill kit items to contain spills, protecting stormwater drains and surface water receptors.



Correct waste disposal

Place used materials in contaminated waste bags and dispose in the brown oily waste bins at FSs; refer to “Spoil Management” for removing impacted spoil.



Spill kit restocking

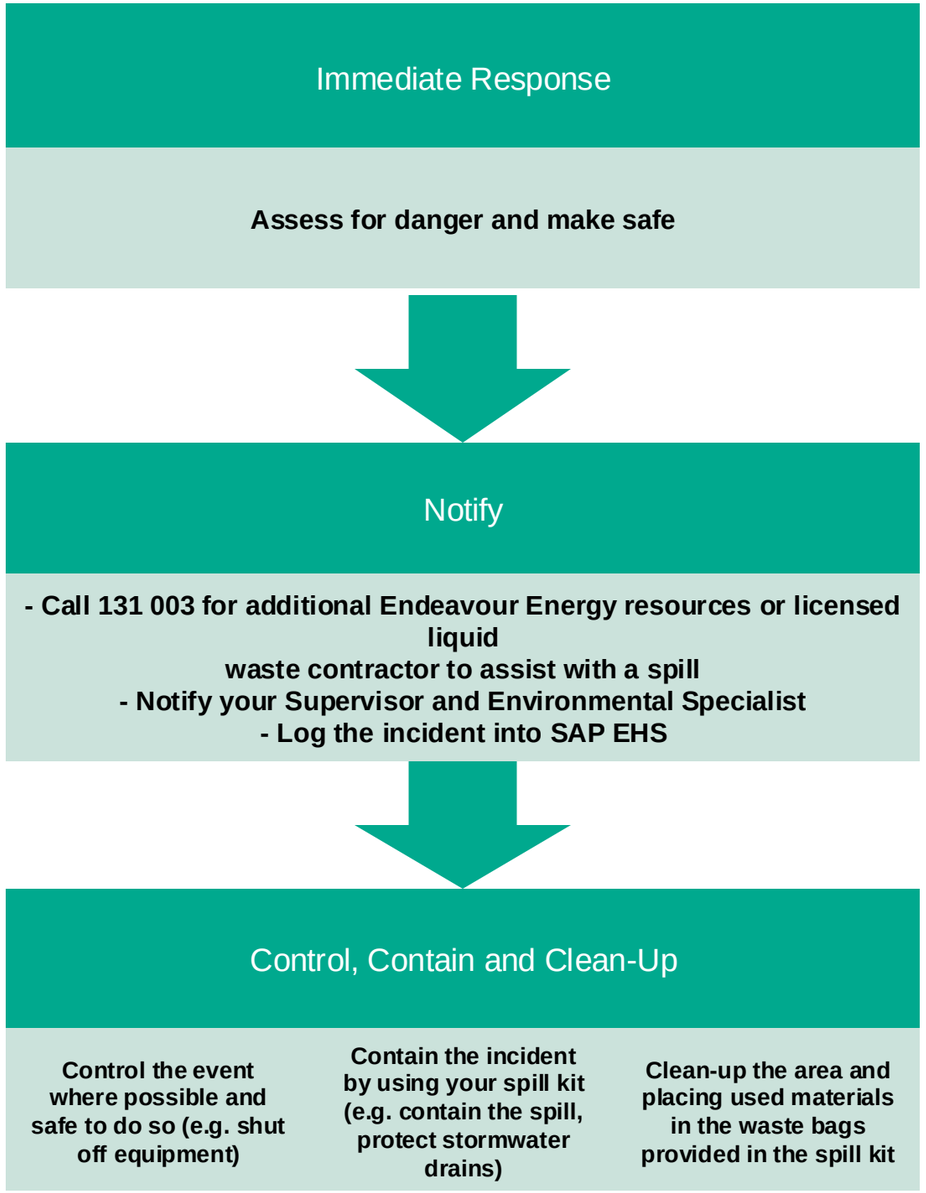
Restock spill kits after use; field spill kits (140 L, red lids, 2-person lift) are held at FSCs for crews to respond in their area.



Coordination and reporting

The Worksite Coordinator controls the spill, allocates resources, escalates to the regional Environmental Specialist, and confirms reporting in SAP EHS. Follow SWM/SIS 1.056 (employees).

Environmental Incident Response Flowchart



Incident response: assess, notify, contain, clean up

← Back to Contents

Incidents - What am I responsible for?



Immediate reporting

Report incidents immediately they occur or you become aware of them.



Hazard identification

Identify and report environmental hazards.



Control implementation

Implement controls for environmental risk identified.



Spill kit readiness

Ensure spill kits are adequate and well stocked.

Acid Sulfate Soils

What is our aim?

To minimise the impact on the environment from the disturbance of Potential and Actual Acid Sulfate Soil.

Background?

Acid sulfate soils (ASS) occur naturally in coastal (tidal) and inland (freshwater) environments, typically below 5 m above sea level. When exposed to air it can produce sulfuric acid, impacting aquatic life and water quality.

Potential ASS are soils that contain iron sulfides or sulfidic materials that have not been exposed to air and thus are not oxidised. The pH of these soils in their undisturbed state is 5.5 or more, making them neutral or slightly alkaline.

Actual ASS contain highly acidic soil horizons or layers resulting from the aeration of soil materials that are rich in sulfides, primarily iron sulfide. This oxidation produces more hydrogen ions than the sediment is able to neutralise, resulting in soils with a pH of 5.5 or less when measured in dry season conditions.

Annexure B

Generic Acid Sulfate Soils Management Plan

Scan to open the EMS standards folder, then select Annexure B.

Mapping of PASS; neutralise with agricultural lime

Indicators of ASS?



Sulfidic soils

Soft, buttery, blue-grey or dark greenish-grey



Oxidised ASS

Yellow or orange staining



Sulfur compounds

Rotten egg smell



Water impacts

Milky blue/green water



Location

Mangroves, wetlands, swamps, estuaries, land below 5m AHD elevation

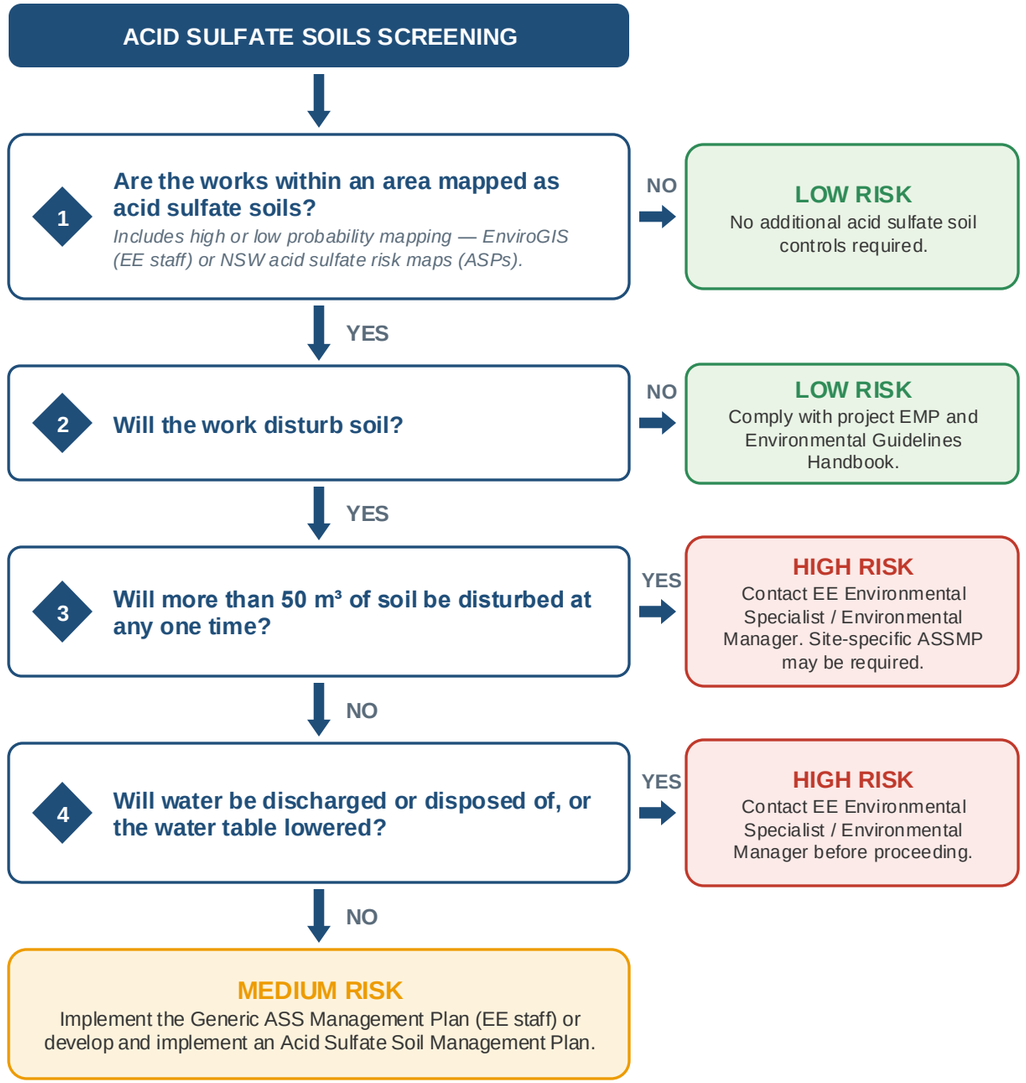


Disturbed ASS

White crusting or acidic drainage

Acid Sulfate Soils Risk Assessment Flowchart

Use this flowchart to determine the required environmental controls before commencing works. Screening questions lead to one of three risk outcomes.



Not sure?

Where uncertainty exists regarding acid sulfate soil risk, seek advice from the EE Environmental Specialist (EE staff only) or Environmental Manager/Consultant (ASPs) before commencing ground disturbance or water discharge activities.

Endeavour Energy

Management of ASS

When working in ASS, you should…



Avoid disturbance
Avoid disturbance of Potential ASS where possible.



Minimise disturbance
Minimise disturbance where avoidance is not possible.



Shallow works
Keep soil disturbance to a minimum and as shallow as possible.



Non-destructive digging
Consider non-destructive digging with water.



Stockpile controls
If stockpiling is necessary, cover stockpiles separately on plastic or in a skip bin to minimise exposure to air, keep damp and install sediment controls.



Seek Assistance from an Environmental Specialist
Prior to re-using or disposing Potential and Actual ASS seek advice from your Environmental Specialist.



Re-bury within 24 hours
May re-bury Potential ASS as soon as possible (within 24 hours) at the same depth it originated from.



Licensed disposal
May be disposed of at an appropriately licenced waste facility within 16 hours of being dug up; notify the facility and discuss neutralisation requirements first.

When working in PASS, do not…



Expose PASS to air where possible.



Stockpile PASS if possible.



Re-use PASS on other work sites.

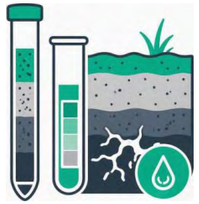
What am I responsible for?



Assess the risk

Check ASS risk mapping (EnviroGIS (internals) or NSW Government Acid sulfate risk maps (ASPs)) and project documents before any soil is disturbed.

For fault/emergency and maintenance works, use acid sulfate soil mapping to populate the eWHRA.



Identify ASS

Identify potential ASS before starting works and confirm with field or laboratory testing where required.



Manage and report

Apply the controls identified in project documents and ASS management plans, keep records and report any unplanned ASS disturbance.



Dispose correctly

Dispose ASS at a facility licensed to accept it when reuse on site isn't possible. ASS must be disposed within 16hours of being dug up.

Air Quality

What is our aim?

To minimise impacts on the environment, community, workers and property from dust, fumes, odours and greenhouse gas emissions, including sulphur hexafluoride (SF6).

Background?

Air quality can be affected by:

- Dust from excavation, vegetation clearing and spoil handling.
- Vehicle and plant exhaust emissions.
- Fuel, oil and chemical vapours.
- Refrigerant gases.
- SF6 leaks from electrical equipment.
- Smoke from hot works or bushfires.
- Odours from waste, stagnant water or contaminated materials.



Dust suppression during excavation on a network worksite

Why does Air Quality Matter?

Nearby residents and businesses
Affect nearby residents and businesses.

Traffic hazards
Create traffic hazards by reducing visibility.

Worker health and safety
Impact worker health and safety.

Community complaints
Generate community complaints.

Greenhouse gas emissions
Contribute to greenhouse gas emissions.

Incidents and regulatory action
Result in environmental incidents and regulatory action.

Management of Air Pollutants

Dust Controls

- Minimise disturbance areas
- Cover stockpiles during windy conditions
- Apply water suppression where required
- Cover loads during transport
- Restrict speeds on unsealed roads
- Maintain good housekeeping
- Remove excess spoil promptly

Do Not …

- Allow visible dust leave site boundaries.

Vehicle and plant exhaust emissions

- Turn off equipment when not in use.
- Minimise vehicle idling.
- Maintain equipment in accordance with manufacturer requirements.
- Position generators away from sensitive receivers.
- Use appropriately sized equipment.

Do Not …

- Leave vehicles idling unnecessarily.
- Operate poorly maintained equipment that emits excessive smoke.

Management of Air Pollutants

Odours and Vapours



Keep fuels and chemicals containers closed.



Store fuels and chemicals correctly. Clean up spills immediately.



Remove waste regularly.



Report unusual odours.

Refrigerant Gases



Only licensed personnel may handle refrigerants.



Manage refrigerants in accordance with Endeavour Energy's Refrigerant Trading Authorisation.



Prevent gas releases to atmosphere. Report significant losses or leaks.

Management of Sulphur Hexafluoride (SF6)

What is our aim?

To prevent the release of sulphur hexafluoride (SF6) gas into the atmosphere during the installation, maintenance and decommissioning of equipment.

Background?

SF6 is an inert gas about five times heavier than air and a potent greenhouse gas (around 23,900 times more potent than CO2). It provides exceptional electrical insulation and arc quenching but partly decomposes under high temperatures (e.g. arcs), producing mainly metal fluorides as a fine grey powder. Refer to SMI 122, WRG 0526 and Toolbox Talk TBX048.

SMI 122

Scan to open the EE standards folder, then select SMI 122.

What am I responsible for?



Closed-cycle handling

SF6 losses to the atmosphere must be avoided — all gases must be handled in a closed cycle.



Recover 99.9%

Recover SF6 using a commercially available recovery machine, aiming to recover at least 99.9% from the equipment.



SF6 powder clean-up

If SF6 powder is present, follow the clean up guidance in WRG 0526.



Never wash to drain

Do not wash SF6 powder down the drain.



Report leaks immediately

Report any SF6 leaks or losses immediately into SAP EHS (see Environmental Incidents), and to the relevant Transmission Manager for prompt investigation and rectification.



Evacuate on a major leak

Evacuate if there is a major leak, e.g. catastrophic equipment failure or an audible leak.

Biodiversity

What is our aim?

To avoid and/or mitigate impacts on biodiversity (plants and animals).

Background?

Threatened plants, animals and communities are protected under State and Commonwealth legislation (Matters of National Environmental Significance). Removing or damaging threatened species and/or their habitat can result in individual and corporation penalties. Important habitat includes native vegetation, tree hollows, water bodies and rocky outcrops.



Sublime Point Pomaderris

Important habitat features to Look out for?



Tree hollows



Fallen logs



Wetlands



Drainage lines



Native grassland



Rock outcrops

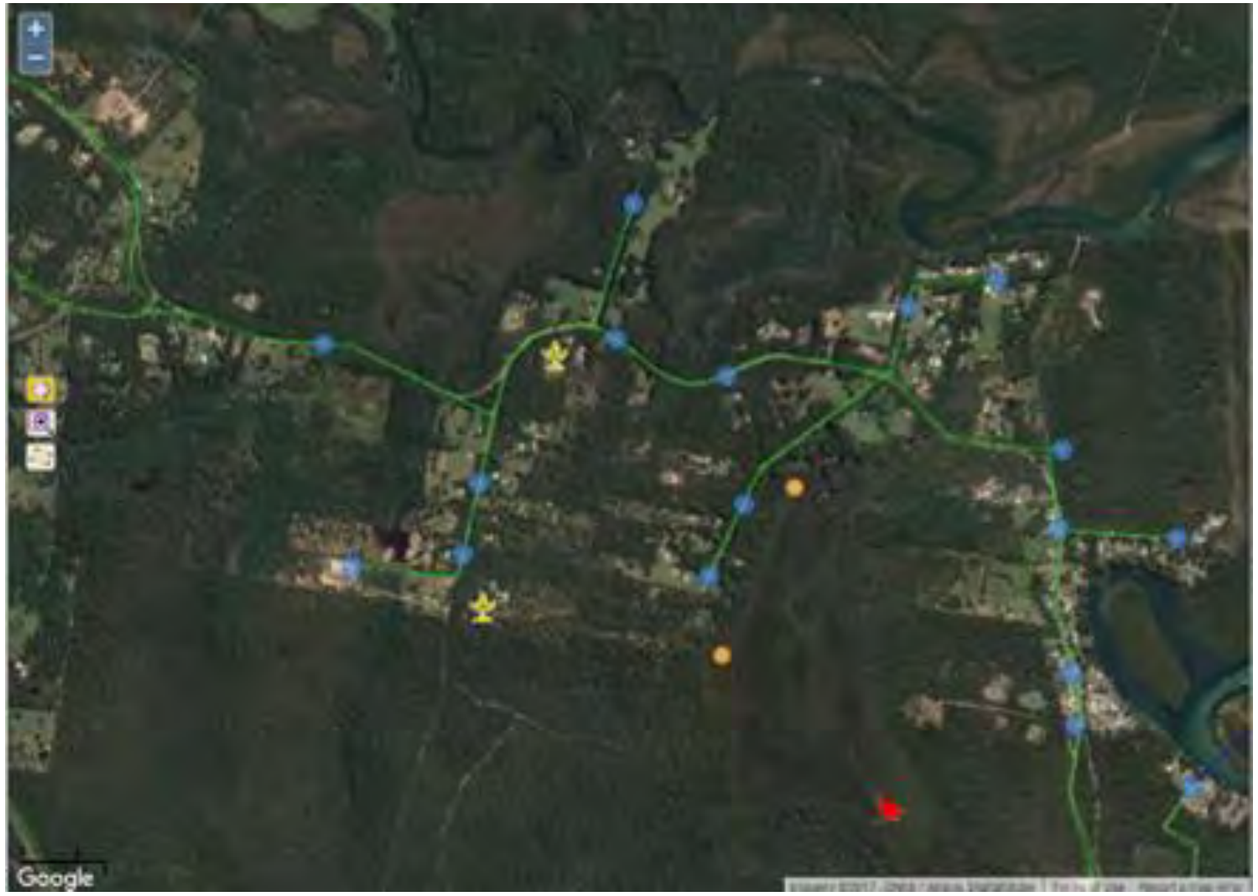


Nesting activity



Large trees with gnarled bark

Biodiversity



Example of mapping of Threatened Plants and Animals



Example of mapping of Ecological Communities

Biodiversity

What am I responsible for?

Before Works

- Check work package/project documents for threatened species and follow mitigation measures in the EMP.
- Follow the environmental assessment process and seek approval before removing vegetation, unless for safety clearances of electrical assets as defined in MMI 0013.
- Use EnviroGIS (EE staff only) or NSW Seed Map (ASP & contractors) to identify threatened plants, animals and significant vegetation prior to carrying out vegetation impacting activities.
- Avoid disturbing previously undisturbed areas by using established access tracks.
- Adhere to land manager controls (e.g. NPWS) and protect existing vegetation — use existing tracks, minimise clearing, barricade protected vegetation and designate storage areas.
- When working in national parks and WaterNSW special areas, complete relevant inductions and notifications, refer to EMS0012 - Notification of access to National Parks and Water NSW Special and Controlled Areas.

During Works

- Avoid disturbing habitat such as hollow bearing trees, intact vegetation and drainage lines.
- Contact wildlife services (13 000 WIRES) to salvage injured or displaced fauna; live bats may harbour disease. For dead bats, follow SWM 6.014 (employees).
- Prevent sediment tracking into stormwater drains and waterways.
- Maintain riparian vegetation and use existing crossing
- Contact your environmental specialist prior to conducting any works in water ways e.g. underbore, establishing new crossings.
- Refer to pest, weeds and diseases section, when working in environmentally sensitive areas or areas known to contain biosecurity threats.
- Implement unexpected finds protocol if threatened species. endangered ecological communities(EECs) or fauna are found.
- Report unauthorised vegetation clearing, damage to habitat trees, threatened species, EECs, injury or death of threatened fauna and sediment entering drains and waterways immediately to your environmental representative.

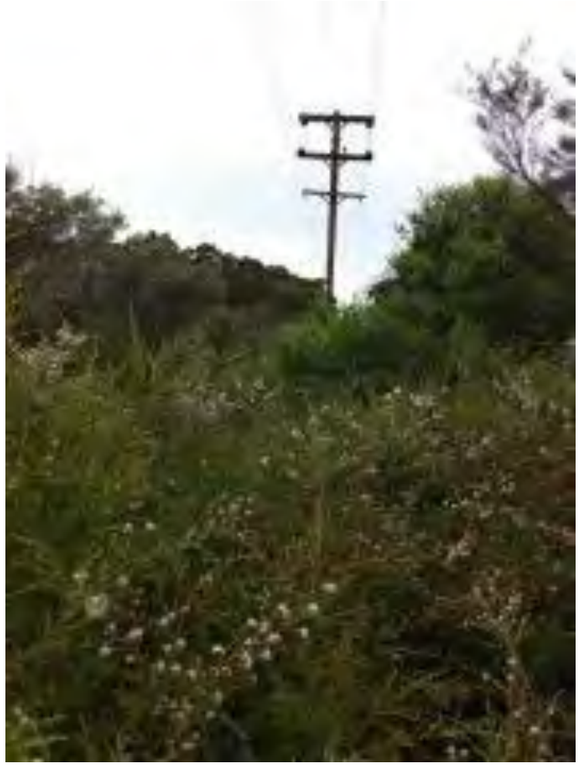
Mapping of threatened plants and animals

Biodiversity

Do Not…..

- Remove vegetation unless approved or permitted under MMI 0013 vegetation clearance requirements.
- Clear vegetation, prune trees or modify habitats outside the approved work area.
- Disturb important habitat features unless specifically approved.
- Store spoil, mulch, equipment or construction materials within environmentally sensitive areas, trees drip line or within designated exclusion zones.
- Leave rubbish, weed cuttings, spoil or contaminants in environmentally sensitive areas.
- Move plant, equipment or vehicles from weed-infested or disease-affected sites without implementing appropriate hygiene controls.
- Continue work if threatened species, EECS, significant habitat or unexpected ecological constraints are discovered. Stop work and contact your Environmental Specialist.
  Wash sediments into stormwater drains.

If in doubt, stop work, protect the area and contact your Environmental Specialist before proceeding.



Coastal Upland Swamp EEC

Mapping of threatened plants and animals

Vegetation Management

What is our aim?

To be Nature Positive by 2030 — to first minimise and then improve the impacts on vegetation from our activities.

Background?

Minimising impacts on vegetation, protecting the soil around trees and using correct trenching and pruning procedures helps maintain healthy vegetation.

EMS0004

Managing Vegetation Near Electrical Infrastructure and Pest Weed and Disease Mitigation

Scan to open the EMS standards folder, then select EMS0004.

What am I responsible for?

Before Works



Check work package documents for significant trees and approval documentation. Significant trees are protected under local government legislation or a Significant Tree Register.



Seek approval before removing any vegetation, except for safety clearances of electrical assets as defined in MMI 0013.



Before removing vegetation access if works can be completed without vegetation disturbance e.g. alternate methods, pruning in place of clearing etc.



Engage qualified personnel (e.g. arborists) to carry out vegetation works, including pruning per AS 4373.



Establish exclusion and protection zones.

Vegetation Management

What am I responsible for?

During Works - Do

- Engage qualified personnel (e.g. arborists) to carry out vegetation works, including pruning per AS 4373.
- Manage mulch generation per EMS 0004 — do not apply mulch to environmentally sensitive areas if generated outside them.
- Install protection (e.g. barrier fencing) around exclusion and protection zones and other significant trees and vegetation that could be damaged.
- Avoid disturbance to roots in the Tree Protection Zone; if unavoidable, contact your Environmental Representative. Additional approval may be required.
- Use existing access tracks

During Works – Do Not

- Clear vegetation outside approved work area
- Park vehicles or equipment on native vegetation or EECs.
- Stockpile or store spoil or other materials beneath tree trip line.
- Conduct pruning outside the requirements of AS 4373.
- Damage retained vegetation with machinery



Liquid Ambers—Significant Trees in the Blue Mountains LGA

Vegetation Management

Good Practices – Protects our environment



Use existing tracks
Minimise disturbance by using established access tracks.



Protect retained vegetation
Clearly mark and isolate habitat trees and sensitive vegetation.



Prune, don't clear
Only remove vegetation as approved and where required for safety.



Use designated areas
Store machinery, materials and spoil in approved areas away from vegetation.



Manage mulch responsibly
Keep mulch in designated locations and prevent spread to bushland.



Rehabilitate and restore
Reinstate disturbed areas with native species where required.

Vegetation Management

Poor Practices – Avoid these



Clearing outside approved area
Do not remove vegetation beyond the approved work area.



Driving off track
Do not park or drive vehicles in native vegetation.



Damaging retained trees
Do not damage retained vegetation with machinery or during works.



Stockpiling in sensitive areas
Do not stockpile spoil, mulch or materials within tree drip lines, near waterways or in exclusion zones.



Leaving vegetation waste
Do not leave cut vegetation, rubbish or contaminants in environmentally sensitive areas.



Causing erosion and sediment run-off
Do not disturb soil or vegetation in a way that leads to sediment entering drains or waterways.

Good vegetation management keeps our network safe, protects biodiversity and leaves a positive legacy.

Think before you clear

Endeavour Energy

Pests, Weeds and Diseases

What is our aim?

To reduce the potential for pests, weeds and diseases to spread across the network area in conjunction with construction and maintenance works.

Background?

Pests, weeds and diseases threaten agriculture, human health and the environment and can be spread by vehicles, personnel, machinery, mulch and imported spoil. Priority weeds such as Fireweed contain toxins lethal to cattle. It is an offence to knowingly transport or use machinery containing priority weeds. Diseases such as Myrtle Rust, Phytophthora (‘root rot’) and Chytrid fungus cause dieback and threatened species mortality.

EMS0004

Managing Vegetation Near Electrical Infrastructure and Pest Weed and Disease Mitigation

Scan to open the EMS standards folder, then select EMS0004.

Common Priority Weeds and Diseases

Weeds



Fireweed



African Lovegrass



Serrated Tussock



Chilean Needle Grass

Diseases

- Myrtle Rust
- Phytophthora
- Chytrid Fungus

For the current priority weed list, refer to NSW WeedWise (Department of Primary Industries) or your Environmental Representative.

Pests, Weeds and Diseases

What am I responsible for?

Before Works

- Check work package/project documents for pests, weeds and diseases and implement identified mitigation measures in the EMP.
- For fault and maintenance works, look out for biosecurity signs and adhere to land manager (e.g. NPWS, WaterNSW and farmers) controls to prevent the spread of weeds and diseases.
- Consult stakeholders to identify areas harbouring soil and water borne fungal pathogens.
- Avoid disturbing previously undisturbed areas by using established access tracks.

During Works

- Remove weed cuttings by sealing in plastic bags and disposing in general waste.
- Check and clean boots, vehicles, plant and equipment when leaving weed infested sites, per the Hygiene Protocol in EMS 0004.
- Control priority weeds on network owned property, in consultation with your Environmental Representative, to prevent spread to adjoining land.
- Ensure imported material comply with the requirements of EMS 0013.
- Inspect imported materials prior such as mulch, topsoil and spoil prior to use on site.

Pests, Weeds and Diseases
Good Practices – Stop the spread



Clean before you leave
Remove soil, plant material and mud from boots, vehicles, plant and equipment when leaving site.



Use hygiene controls
Clean down machinery and tools in a designated area and dispose of washdown appropriately.



Know what to look for
Be able to identify high risk weeds (e.g. Fireweed) and report new sightings to your Environmental Representative.



Report and prevent spread
Report suspected pests, weeds or diseases and follow landholder and biosecurity requirements.



Dispose of weed material correctly
Seal weed cuttings in plastic bags and dispose of in general waste (unless otherwise directed).



Follow landholder and site requirements
Adhere to signage and directions from landholders (e.g. NPWS, WaterNSW, farmers) to prevent the spread of pests, weeds and diseases.

Pests, Weeds and Diseases
Poor Practices – Avoid these



Moving between sites without cleaning
Do not move plant, equipment or vehicles from weed-infested or disease-affected sites without cleaning.



Transporting soil or plant material
Do not transport soil, mulch, vegetation or spoil from infested sites to new areas.



Ignoring high risk weeds
Do not ignore or clear known noxious weeds (e.g. Serrated Tussock, African Lovegrass, Chilean Needle Grass).



Spreading plant diseases
Do not move contaminated soil or plant material, which can spread diseases such as Phytophthora.



Leaving vegetation waste on site
Do not leave cut vegetation, rubbish or contaminants in environmentally sensitive areas, bushland or near waterways.



Creating muddy tracks and erosion
Do not create or leave muddy tracks, which can spread weeds and diseases and lead to erosion and sediment runoff.

Clean equipment. Stop the spread. Protect our land, water and biodiversity.

Healthy environments support healthy communities.

Endeavour Energy

Pesticides

What is our aim?

To provide guidance on the environmental requirements for the use and handling of pesticides.

Background?

Pesticides are used across the network to control pests and protect network assets and the community. The Pesticides Regulation 2017 provides guidance on recording and notification requirements for pesticide use.

GPE 0004

Pesticide Use

Scan to open GPE 0004 Pesticide Use.

What are my responsibilities?

Before Works

- Complete the relevant training required for non-domestic pesticide use.
- Check that the chosen pesticide is approved and that its application follows GPE 0004 Pesticide Use.
- Ensure pesticide labels and SDS are available and easily accessible.
- Check work package/project documents and implement identified mitigation measures in the EMP.

Pesticides

What are my responsibilities?

During Works

- Application requirements set out on the label or permit must be met.
- Suitable PPE must be worn.
- Equipment in use should not drip.
- Spraying should take place only when conditions allow.
- Mixing of pesticides is to be done within a bunded area or portable bund.
- Target vegetation only should be sprayed.
- Wastewater from washdown that contains pesticide residue requires containment and correct disposal, never release into stormwater drains.

After Works

- Where a pesticide is applied for non-domestic purposes, records must be created within 24 hours and kept for at least three years.
- The Endeavour Energy Pesticide Use Notification Plan in GPE 0004 - Pesticide Use Procedure applies.
- The pesticide notification sign is to be displayed for timber poles treated with liquid residual termiticide or dust termiticide, and for vegetation management involving hand application (spot spray, cut and paint) of Glyphosate.

Pesticide Use – Good Practices

Use responsibly. Protect people and the environment.



Read and follow the label and SDS
Ensure you are trained and use the correct product, rate and method.



Use the right PPE
Wear the required personal protective equipment (PPE).



Apply only to the target species
Use spot spraying or cut and paint methods to minimise off-target impacts.



Check weather conditions
Only apply when conditions are suitable to prevent spray drift and runoff.



Protect waterways and sensitive areas
Observe label buffer distances and avoid spraying near drains, waterways and non-target vegetation.



Notify and keep records
Display a notification sign (where required) and complete records within 24 hours (retain for at least 3 years).

Pesticide Use – Poor Practices

These can harm people, wildlife and the environment.



Using unlabelled or incorrect products
Do not use products without a label or outside the label instructions.



Inadequate PPE
Do not apply pesticides without the required PPE.



Spray drift to non-target areas
Do not spray in windy conditions or where drift could affect people, crops, native vegetation or habitats.



Mixing or washing near drains
Do not mix, load or wash equipment where runoff can enter stormwater drains or waterways.



Spills and poor storage
Do not leave chemical containers unattended or allow spills. Keep products in secure, bunded areas.



Applying into waterways
Do not apply pesticides directly into waterways unless specifically permitted on the label.

Right product. Right place. Right way.

Responsible pesticide use keeps our people, communities and environment safe.

Endeavour Energy

Bushfires

What is our aim?

To appropriately manage bushfire risks associated with our network and works.

Background?

Much of Endeavour Energy's network is in bushfire prone areas. The Bushfire Risk Management Plan outlines steps to manage the risk. Special restrictions apply during declared bushfire danger periods and Total Fire Ban (TOBAN) days.



Vegetation and clearances managed in bushfire prone country

Managing bushfire risk on site

Before Works

Design out the risk
Select sites, routes and access that avoid bushfire prone land and consider engineered options such as ABC conductor (policy 9.2.5 – Network Asset Design, SDI 536, EMS 005).

Confirm bushfire prone land
Check the project documents or EnviroGIS (EE staff) to confirm whether the worksite sits on bushfire prone land.

Check for a Total Fire Ban
Establish whether a Total Fire Ban (TOBAN) applies before work begins.

Know the seasonal controls
Refer to GAM 0011, GSY 0013 (EE staff) and project specific documents for controls during the gazetted bushfire danger period and TOBAN days.

During Works

Vegetation management
Manage vegetation near network assets per MMI 0013.

Reduce fuel loads
Clear excess leaf litter and rubbish from substations and FSCs.

Hot works permits
Obtain and comply with required hot works permits.

Monitor the work area
Monitor the work area during and after completion.

Weather conditions
Monitor weather conditions.

Keep debris clear
Do not leave vegetation debris near ignition sources.

Asset clearances
Maintain asset clearances.

Fire extinguishing equipment
Maintain appropriate fire extinguishing equipment.

Good housekeeping
Maintain good housekeeping.

Parking plant and equipment
Do not park with exhausts facing vegetation, tall grass or other combustible material.

Contaminated Land

What is our aim?

To identify contamination at the earliest possible stage and manage it in a way that minimises impacts on human health and the environment, in accordance with relevant legislation.

Background?

Contamination is the presence of harmful substances in soil or groundwater at levels that exceeds what is safe for people and the environment.

Potential contaminants include asbestos, chemicals, creosote, heavy metals and hydrocarbon oil.

GPE0009

Contaminated Land Management

Scan to open GPE0009.

Signs of Potential Contamination



Buried foreign material
E.g. UPSS, asbestos buried in soil etc.



Chemical or hydrocarbon odours



Oil sheens



Staining or decolouration



Discoloured groundwater



Dead vegetation



Historical industrial land use

Management of Contaminated Land

- Check the work package documents for any identified contaminants. For fault/emergency and maintenance works, use acid sulfate soil mapping to populate the eWHRA.
- Check the NSW EPA website or EnviroGIS (EE Staff only) for the list of NSW contaminated sites notified to or regulated by the EPA.
- Check the Hazardous Materials Register when working in FSCs and Substations.
- When working in industrial areas or adjacent to service stations, be vigilant for signs of contamination.
- Comply with project specific documents on a site with known or suspected contamination.
- Implement unexpected finds protocol if unexpected contamination is identified.

Contaminated Soil



Segregated contaminated soil



Cover stockpiles with plastic sheeting.



Divert clean runoff from contaminated stockpile and capture contaminated runoff.



Organize waste classification and dispose contaminated soil at a licensed waste facility.

Contaminated Water



Stop dewatering.



Do not discharge to stormwater.



Contact Environmental Specialist.



Use licensed liquid waste contractors where required.

Example of contaminated site mapping

Asbestos Contamination

What is our aim?

To safely manage asbestos contamination and comply with legislative requirements.

Background?

Asbestos may be encountered in soil from buried asbestos conduits, contaminated fill, poor demolition or refurbishment practices and illegal dumping.

Any asbestos removal must comply with Company Procedure GSY 1065 – Asbestos Management, the Work Health and Safety Regulation 2025 and relevant Codes of Practice.

GSY 1065

Asbestos Management

Scan to open GSY 1065.

What am I responsible for?



Check the HAZMAT Register

Check the work package HAZMAT Register and other project documents for information on asbestos containing materials. In substations, refer to the site manifest at entry.



Implement controls

Implement controls identified in the project documents.



Get advice before excavating

If excavation is required in known or suspected asbestos contaminated fill, contact your Environmental Specialist or consultant for advice.



Removing buried conduit

A buried asbestos conduit in good condition can be carefully removed to avoid damage; update the HAZMAT register. If damaged or broken, contact your Environmental Representative.



Unexpected finds

If asbestos is encountered unexpectedly, follow the Unexpected Finds Protocol in page 37.



Licensed disposal

Asbestos requires disposal at appropriately licensed waste facilities. Contact your Environmental Specialist or consultant for disposal and transport advice.



Waste storage and transport

Refer also to the Waste Management section for asbestos waste storage, transport, labelling and disposal requirements.

Dewatering

What is our aim?

To remove water collected in excavations, trenches and pole holes in a manner that prevents environmental harm.

Background?

This guidance applies only to dewatering of excavations, trenches and pole holes. It does not apply to stormwater in bunded areas (e.g. substations — see SDI 540) or trade waste (which requires a trade waste permit).

DO NOT DEWATER DIRECTLY TO STORMWATER.

EMS0014

De-watering worksites

Scan to open the EMS standards folder.

What am I responsible for?

Contaminated water



If suspected contaminated, water must be removed by an EPA licensed liquid waste contractor and disposed of at a licensed facility. Report to your Environmental Representative.

Not contaminated and less than 1000 litres



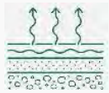
May be discharged to a grassed area provided the process is followed (see next slide).

Not contaminated and more than 1000 litres



Contact your Environmental Representative for advice, or have the water removed by an EPA licensed liquid waste contractor.

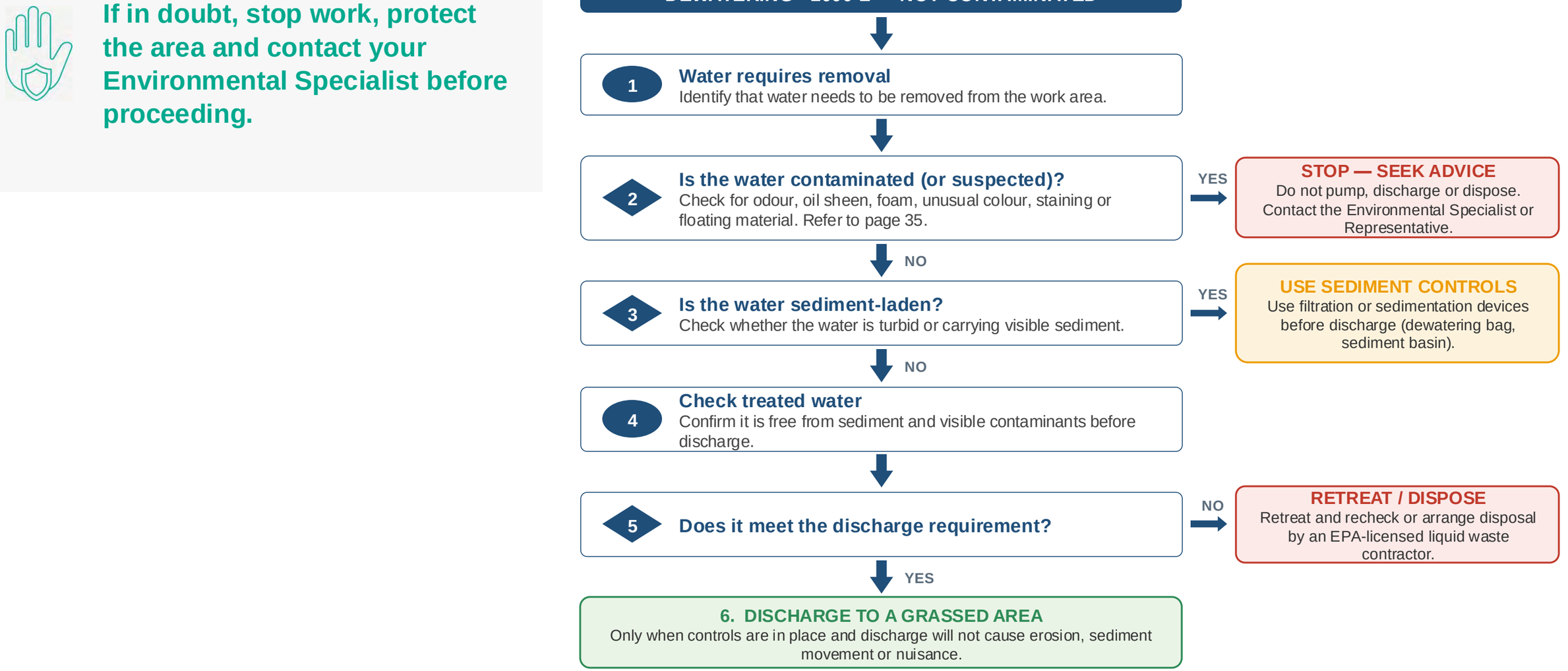
Suspected Groundwater Seepage



Contact your Environmental Representative for advice.

Dewatering — Process for less than 1000 litres (not contaminated)

If in doubt, stop work, protect the area and contact your Environmental Specialist before proceeding.



Dewatering — Process for less than 1000 litres (not contaminated)



May be discharged to a grassed area using the following process:

- Requires a grassed area greater than 5 m² in size.
- Place sandbags/gravel socks in the nearby gutter (upstream of the receiving stormwater drain) to capture sediment.
- Install the pump carefully to minimise disturbance to sediment (e.g. place it at the top of the excavation) and slow the flow rate.
- Monitor discharge for cloudiness/turbidity.
- Monitor discharge area for signs of scouring or erosion
- Move any captured sediment back into the excavation or regard it as general solid waste for disposal at a licensed waste facility.
- Maintain awareness of safety hazards (e.g. slip hazards) and mitigate where required.



Do NOT discharge:

- Directly to creeks.
- Directly to rivers.
- Directly to wetlands.
- Directly to stormwater drains.
- To areas causing erosion.
- To neighbouring properties.
- To environmentally sensitive areas.

Erosion and Sediment Control

What is our aim?

To minimise erosion and contain sediment on work sites to prevent pollution of the environment.

Background?

Erosion occurs when soil is detached and transported by rain, stormwater runoff, vehicle movements or wind. Sediment is the soil and other particles that become suspended or deposited after erosion occurs.

Network construction, maintenance and fault works such as trenching, excavation, pole replacement, vegetation clearing, spoil stockpiling, access track maintenance and vehicle movements can generate erosion and sediment. Sediment entering stormwater systems, creeks, wetlands or waterways can:

- Pollute waterways
- Harm aquatic plants and animals
- Cause flooding through blocked drainage systems.
- Spread weeds and pathogens.
- Result in regulatory penalties and community complaints.

Preventing erosion is always more effective than trying to capture sediment after it has been mobilised.

When to contact your Environmental Specialist ?

Contact your Environmental representatives if works are:

- Within 40 metres of a creek, river, drainage line, wetland, farm dam or waterbody.
- Within WaterNSW Special Areas or Controlled Lands.
- Likely to discharge sediment-laden water from the site.
- Incident involving erosion, sedimentation or frack outs.



Stockpile material based on soil types

EMS 0013

Spoil and Imported Material Management

Scan to open the EMS standards folder.

Erosion and Sediment Control

What am I responsible for?

Before Works:

- Review the work package and implement site-specific erosion and sediment control identified.
- Identify nearby environmental receptors such as drains, waterways, wetlands, WaterNSW lands etc.
- Check the Weather Forecast
- Document or update controls in the eWHRA or EMP.
- Establish erosion and sediment controls before disturbance commences.

During Works:

- Minimise removal of grass, vegetation and mulch and avoid disturbance during wet weather.
- Install and maintain sediment control downslope of disturbed areas or stockpiles.
- Use water truck for dust suppression and install dust barriers on fences and gates.
- Clean up deposited sediments using street sweeper.
- Cover loads when transporting to prevent loss of sediment and dust.
- Restrict traffic to sealed areas where possible to prevent dust and erosion.
- Inspect controls daily during active works and after rainfall events and repair damaged controls immediately.

After Works

- Reinstate and stabilise disturbed areas through seeding, turfing, mulching or spray grass.
- Maintain erosion and sediment controls until the site is stabilised (i.e. at least 70% effective ground cover is established across disturbed areas) or repaired as required.



Stockpile material based on soil types

Fines can be imposed for poor management of spoil and sediment

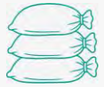
Erosion and Sediment Control

Stormwater protection

Stormwater pits, grated inlets and kerb inlets must be protected whenever sediment could enter the drainage system.

Suitable controls include:


Gravel socks


Sandbags


Geofabric inlet protection


Sediment filter socks


Proprietary pit protection devices

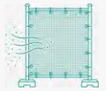
Common Sediment Control Measures

Suitable sediment controls include:


Sediment fences


Stockpile covers e.g. tarpaulins, geofabric, plastic sheeting


Stabilized site access e.g.. gravel access pads, aggregate hardstands, cattle grids


Dust barrier fencing


Restriction of vehicle speed


Dust suppression using water carts


Sediment must never be swept, washed or hosed into stormwater drains.

Erosion and Sediment Control

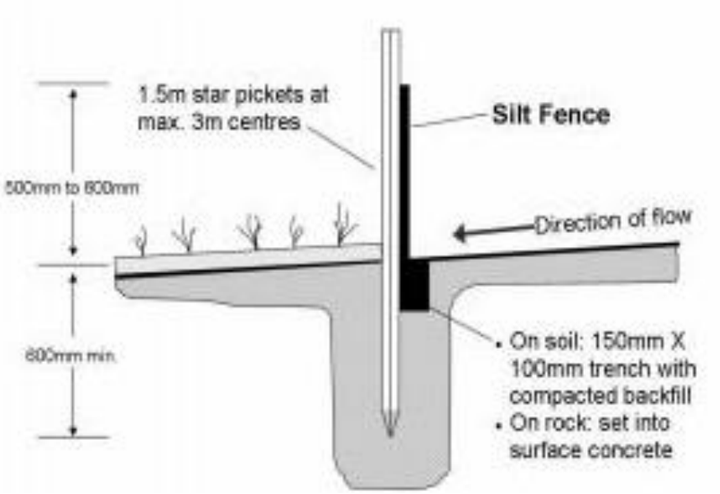
Illustrated Sediment control methods



Erosion and Sediment Control

Sediment fence installation

- Support sediment fence fabric (e.g. with capped star pickets) every 3 metres minimum.
- Install supports (star pickets) downstream of the fabric.
- Install the fabric to a depth of 150 mm.
- Maintain and monitor sediment fence and other controls.





Place sediment fences downslope of disturbed areas or stockpiles



Install cattle grids and gravel beds at the site exit point



Spray grass and seeding can be used to stabilise a work site

Silt fence and sediment control methods

Horizontal Directional Drilling (HDD) and Frac-Out Management

What is a Frac-Out?

A frac-out (also known as an inadvertent return) occurs when drilling fluids used during Horizontal Directional Drilling (HDD) escape from the bore path and are released to the ground surface, waterways, drainage lines, wetlands or other sensitive environments.

What am I responsible for?

Before works:

- Review the work package and implement site-specific HDD-specific requirements.
- Identify nearby environmental receptors such as drains, waterways, wetlands, WaterNSW lands etc.
- Ensure a Frac-Out Contingency Plan is available
- Document or update controls in the eWHRA or EMP.
- Brief all personnel on HDD environmental risks and emergency response procedures.
- Ensure spill response materials and containment equipment are readily available on site..

During works:

- Follow approved drilling methods and design specifications.
- Use appropriate drilling pressures and drilling fluid volumes.
- Monitor drilling fluid returns continuously.
- Reduce drilling pressure if excessive fluid losses occur.
- Avoid unnecessarily increasing drilling fluid pressure.
- Regularly inspect the drill alignment and surrounding ground surface for signs of fluid migration.
- Increase monitoring when drilling beneath waterways, drainage lines, steep slopes; or environmentally sensitive areas.

Silt fence and sediment control methods

Horizontal Directional Drilling (HDD) and Frac-Out Management

Signs of a Frac-Out?

- Loss of drilling fluid returns.
- Unexplained increases in drilling fluid consumption.
- Surface heaving or ground movement.
- Drilling fluid appearing on the ground surface.
- Drilling fluid entering drains or waterways.
- Turbidity or discolouration in nearby watercourses.

Frac-Outs response

Stop – Immediately stop drilling operations where safe to do so.

Contain – Install sediment barriers to prevent migration of drilling fluids and protect drains and waterways.

Notify – Notify the site supervisor and environmental representative immediately.

Clean Up – Recover released drilling fluids where practicable, remove contaminated soil and fluid and disposal at a licensed waste facility.

Review drilling methodology and obtain approval as required prior to recommencement of works.



Loss of drilling fluid returns is often the first indication of a frac-out. If drilling fluid consumption increases unexpectedly or returns decrease, stop and investigate immediately. Protect waterways and stormwater systems as the first priority.

Silt fence and sediment control methods

Heritage

What is our aim?

To protect all known or suspected heritage items.

Background?

Endeavour Energy assets (including moveable items) with heritage significance are listed on the s170 Register (refer intranet) — e.g. Blacktown TS and Prospect ZS.

- **Aboriginal heritage** — occupation sites, shell middens, sharpening grooves and tools, rock paintings or carvings, quarries, stone arrangements, scarred trees, burial sites, water holes, caves, bones.
- **Non-Aboriginal heritage** (local, state, national) — weirs, trees, bridge and building footings, cobblestone roads, wells, fences, walls, cemeteries, heritage listed buildings, world heritage areas.

Heritage Is More Likely Near


Watercourses.


Ridgelines.


Rock outcrops


Sandstone shelves


Historic settlements.


National Parks and reserves


Previously unidentified bushland areas

Mapping of European heritage

Endeavour Energy

← Back to Contents

Heritage



Mapping of Aboriginal Heritage



Mapping of European Heritage

Heritage Items

Aboriginal heritage items include:


Stone artefacts


Scarred trees


Grinding grooves


Shell middens


Hearths


Cultural landscapes


Human remains

Historical Heritage items include:


Old structures e.g. buildings, foundations


Historic fences e.g. stone walls


Historical infrastructure e.g. substations, rail tracks


Cemetries


Equipment


Histpric roads


Cemeteries

Aboriginal scarred trees

Endeavour Energy

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Heritage — Aboriginal Culturally Modified Trees

Aboriginal culturally modified trees have been scarred by Aboriginal people through deliberate removal of bark or wood, exposing the sapwood on the trunk or branch. Some scars are difficult to identify due to later impacts and healing patterns.

If workers or ASPs find a tree suspected to have an Aboriginal scar, works must cease and an Environmental Specialist contacted.

Types of scar



Curved bark removal scars — circular, oval or elongated, from removing a curved section for a canoe or container.



Bark slab removal scars — rectangle/square sheets used for shelters.



Toe holds — small incisions for tree climbing, in staggered lines on near-vertical trees.



Resource extraction holes — cut into hollow trunks/limbs to catch game.



Bark strip removal scars — fibre stripped for thread, fishing line, rope or blankets.



Grub procurement scars — patches of bark cut to expose grub holes.



Marked and carved trees — carving and marking for ceremonial purposes.



Wood removal scars — split timber/bark removed for shields, boomerangs and waddies.

Aboriginal scarred trees

Heritage — Aboriginal Culturally Modified Trees

Examples of Aboriginal Scarred Trees











Heritage

What am I responsible for?

Before Works

- Check the project documents for identified heritage and implement identified controls.
- Aboriginal heritage permits may include reburial/salvage locations to be marked on the design diagram.
- Before working on an Endeavour Energy asset, check the s170 Register for heritage significance.
- EnviroGIS (EE staff only) or NSW Seed Map (ASP & contractors) for state listed non-Aboriginal and Aboriginal heritage items mapped on or near the worksite.
- For fault/emergency and maintenance works, use heritage mapping to populate the eWHRA.
- If heritage is present, obtain all relevant approvals, permits and management plans before works, and ensure they are within your work package and implemented throughout.

During Works

Do Not….

- Disturb heritage items without approval.
- Collect artefacts as souvenirs.
- Relocate heritage material.
- Continue excavation after a discovery.
- Drive machinery through exclusion zones.
- Place spoil, vehicles or equipment within heritage protection areas.
- Assume an item is insignificant because it appears small or damaged.
- Remove or damage scarred trees, grinding grooves, middens or historic structures.



If you sight or unearth an item suspected to have heritage significance, follow Unexpected Find Process on page 20 and contact the relevant Environmental Specialist.

Mapping of European heritage

National Parks, Water NSW and Greater Sydney Parkland Areas

What is our aim?

To notify National Parks and Wildlife Service (NPWS), WaterNSW and Greater Sydney Parklands correctly when carrying out emergency, inspection or maintenance works within or adjacent their lands.

Background?

Access consents and notification protocols exist between Endeavour Energy, NPWS and WaterNSW for:

- inspection works — viewing of assets, OLI/GLI, drone inspection;
- maintenance works — repairing or replacing existing elements, managing vegetation per MMI 0013, grading and maintaining drainage of existing tracks;
- emergency works — maintaining or restoring electricity to ensure public safety or protect buildings or the environment due to a sudden outage.

What am I responsible for?

- Notify NPWS and/or WaterNSW per EMS 0012 (summarised on the next slide). Follow all mitigation measures in the notification paperwork and NPWS/WaterNSW direction.
- Before accessing a WaterNSW Special or Controlled Area, complete the online WaterNSW External Contractor and Visitor Site Induction. This induction must be renewed annually.
- Report any incidents immediately to the Call Centre (13 10 03) and notify the Environmental Services team environment@endeavourenergy.com.au



There is no current consent or protocol with Greater Sydney Parklands – contact the Environmental Services team for notification process.

Where proposed activities do not comply with these definitions, contact your Environmental Representative. Do not access NPWS or WaterNSW areas following 10 mm rainfall in a 24 hour period, unless for emergency works.

Mapping of a WaterNSW Special or Controlled area

National Parks and Water NSW Areas — Access Notification

Refer to EMS 0012 for NPWS contact details. WaterNSW: (02) 4640 1282 / 0429 820 008, special_area_access@waternsw.com.au.
CRA = Conservation Risk Assessment (consult your Environmental Representative).
No access following 10 mm rainfall in a 24-hour period.

Work type	National Parks (NPWS)	Special Areas / Controlled Lands (WaterNSW)
Inspection works	Two (2) days prior OR submit form FAT0048	Two (2) days prior OR submit form FAT0048
Maintenance works	Two (2) weeks prior AND submit form FAT0049 with CRA	Two (2) weeks prior AND email form FAT0049 with CRA
Emergency works	Less than 24 hours after	Less than 24 hours after — 1800 061 069

If the duration of planned inspection or maintenance activities exceed two [2] weeks, then a Notice of Intent to Enter form is required to be submitted to special_area_access@waternsw.com.au in addition to the FAT0048 or FAT0049 form. The Notice of Intent to Enter form must be submitted at least three [3] business days prior to entry and is only valid for 2 weeks. A new form must be submitted at the end of each two [2]-week period (if access is still required). Drone use requires a minimum of two [2] weeks' notice and Water NSW has the ability to refuse drone use in very limited circumstances.

Noise and Working Hours

What is our aim?

To minimise noise and vibration impacts on the community while undertaking construction, maintenance and operational works.

Background?

Construction and maintenance activities can generate noise and vibration that may disturb nearby residents, schools, hospitals, businesses and other sensitive land uses.

Excessive noise may result in:

- Community complaints.
- Regulatory actions by regulators.
- Reputational damage.

All workers and ASPs are responsible for identifying and implementing feasible and reasonable measures to minimise noise impacts.

Working Hours

Unless otherwise approved through an environmental impact assessment or other approval process, the NSW EPA recommended standard normal construction hours applies to activities across EE network.

Day	Standard Working Hours
Monday to Friday	7:00 am to 6:00 pm
Saturday	8:00 am to 1:00 pm
Sundays and Public Holidays	No work

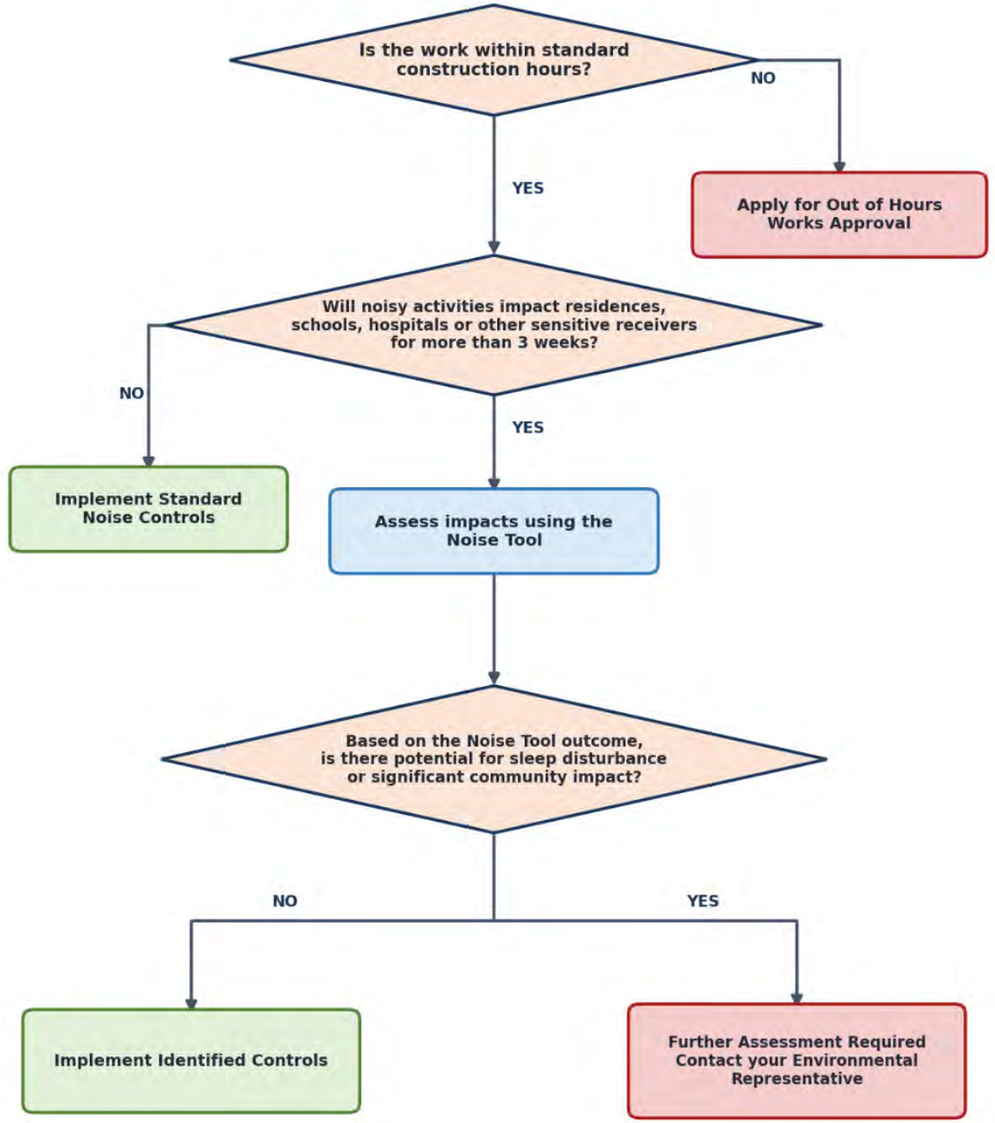
EMS0016

Industrial and Construction Noise

Scan to open the EMS standards folder

Noise Assessment Flowchart

Use this decision pathway before commencing noisy works



Noise and Vibration Controls

What am I responsible for?

Before Works

- Review all project-specific documents and implement identified noise and vibration mitigation measures.
- For maintenance and exempt activities refer to the standard mitigation and management measures outlined in *section 5.11 of EMS 0016 – Industrial and Construction Noise Standard*.
- Additional vibration assessment may be required where sensitive buildings, heritage structures or buried services are nearby.
- Before high vibration works begin close to sensitive buildings, carry out an inspection of those structures and, where damage risks may exist, prepare a dilapidation report.
- Apply for approval from the Environmental Services team using the Out of Hours Works Application Form where works is to be conducted outside standard work hours or REF approved hours.
- For REF approved or approved out of hours work, notify likely affected residents 5–14 days prior.

During Works

- Minimise noise and vibration impacts on adjacent homes and businesses
- Use silenced equipment, noise dampening and temporary shielding barriers around stationary plant (subject to manufacturer requirements).
- Maintain mufflers, acoustic covers and noise suppression equipment.
- Maintain equipment as per OEM recommendations and repair damage parts promptly.
- Turn off equipment when not in use; avoid dropping materials from height or dragging equipment.
- Avoid radios/stereos outdoors and limit loud talking and shouting.
- Schedule noisy and heavy vibration activities during standard working hours wherever possible.
- Where out of hours works are approved, plan the loudest tasks and those causing high vibration for the least disruptive periods (e.g. before 10pm), progressively working away from sensitive receptors.

Customer Fact Sheet: working outside standard hours

Noise and Vibration Controls

During Works

- Maintain appropriate separation distances from sensitive structures.
- Consider alternative construction methods where vibration has the potential to damage buildings or underground assets.
- Stop work and report immediately if unexpected cracking, settlement or damage is observed.
- Schedule respite periods and avoid simultaneous operation of noisy and high vibration plant.
- Position generators and fixed plant as far as practical from residences and other sensitive receivers.
- Locate storage compounds in industrial areas, not near homes; install noise dampening on road plates where needed.
- Install temporary acoustic barriers around stationary plant where practical and safe.
- Use existing structures, stockpiles or topography as noise shielding.
- Use broadband reversing alarms where feasible.

If complaints are received

- Stop and assess the activity generating the complaint where safe and practical.
- Record details of the complaint.
- Notify the Project Manager or Supervisor and report on SAP EHS.
- Investigate the cause and implement feasible and reasonable mitigation measures.
- Advise the complainant of actions taken where appropriate.
- Direct regulatory (e.g. EPA, council) enquiries to EE Environmental Services Team.



Noise complaints must be handled promptly and professionally.

What Good Looks Like

Practical noise controls on site



Endeavour Energy

Oil and Chemical Management — Storage

What is our aim?

To prevent accidental releases and long-term legacy issues from the storage, transport and handling of oil (including fuels), chemicals and oil filled equipment.

Background?

Permanent and temporary storage of oil/chemical containers and oil filled equipment poses a serious risk of leaks and spills. Equipment manufactured before 1991 and not designated ‘PCB free’ on the nameplate must be assumed to contain PCBs.

EMS0017 – Oil Management

Scan to open the EMS standards folder

General storage requirements

Storage areas must conform to AS 1940:2017, EMS 0017 – Oil Management and:

- Located within a secure site away from boundaries, ignition sources, stormwater drains and sensitive areas.
- Consist of a sealed surface where possible.
- Located to minimise damage by vehicle collision or vandalism.
- Located adjacent to a fully stocked, appropriate and identifiable spill kit.
- Inspected regularly for damage and accumulation of foreign materials.



Out-of-service oil-filled equipment must be stored in a permanent or portable bund. Signage per Work Health and Safety Regulation 2025; containers must be fit for purpose, labelled and compatible if stored together.

Oil and Chemical Management — Storage Areas

Portable storage areas

For temporary storage of decommissioned assets where a permanent bund is not available:

- Locate the storage area on a level surface.
- Seal and/or wrap leaking oil-filled equipment or containers.
- Contact the Supply Chain Officer to arrange a contractor to drain leaking units.
- Arrange a licensed liquid waste contractor to pump out the storage area after rainfall.
- Keep all equipment upright, unstacked and away from the edge.
- Capacity must capture at least 110% of the largest oil-filled unit or 25% of total capacity, whichever is greater (AS 1940:2017).

Permanent storage areas

- Seal and/or wrap significantly leaking oil-filled equipment or containers.
- Keep all equipment upright, unstacked and away from the edge.
- Keep sumps and bunds clear of foreign materials.
- Report any spills greater than 50 litres to your Environmental Representative.

All spills must be controlled, contained and cleaned up per the Environmental Incident Response section and EMS 0008 – Environmental Incident Response and Management.



Old distribution transformers within bunded area

Oil and Chemical Management — Transport, Wash Bays, Plant

Transporting oil and oil filled equipment

- Carry a spill kit able to contain the volume of the largest container or item, plus Safety Data Sheets. Use Form FPE 0009 – Oil Transport Tracking Register.
- Before transport: inspect connections, insulators, taps, vents and pipes; test taps and plugs for tightness; seal vents, holes and openings; secure containers.
- Wrap damaged or leaking equipment in plastic, store in a bunded pallet within the vehicle and strap down securely.
- Where leak risk remains high, the equipment must be pumped out by a licensed contractor prior to transport.

Vehicle wash bays

- Wash company vehicles only in FSC designated wash bays, using only quick-break detergents and degreasers approved by Supply Chain (EMS 0017).
- Check the oil water separator is within service dates. If not serviced, not working, or visible oils are in the discharge, notify your Environmental Representative immediately.

Plant and equipment

- Regularly inspect and maintain all plant with hydraulic oil and designated vehicles transporting oil filled equipment.

Oil and Chemical Management — Refuelling

Refuelling Requirements

- Refuel equipment and vehicles away from drains, waterways, creeks, wetlands and other environmentally sensitive areas.
- Inspect hoses and fittings before use
- Use drip trays during refuelling to capture leaks.
- Never leave pumps unattended.
- Spill kits must be available before refuelling starts.
- Cease refuelling during heavy rainfall where runoff may occur.



Spill kits are located at all Endeavour Energy FSC's and substations and should always be easily accessible

Oil and Chemical Management — PCBs

PCB containing oil has a PCB concentration greater than 2 mg/kg. Scheduled PCB containing oil is greater than 50 mg/kg. Oil less than 2 mg/kg is PCB free.

Safety precautions

- No smoking, eating or drinking in the working area.
- Use appropriate PPE — chemical resistant gloves, safety glasses, long sleeves and trousers (or disposable overalls) and appropriate footwear.
- Use exhaust fans in confined areas; wash hands and face with soap and water before eating, drinking or smoking.

Storage requirements

- Store PCB containing oil (suspected or proven) in a temporary or permanent bund above flood levels, pending processing, separate from PCB free oil.
- If confirmed, label, remove and lawfully dispose or recycle via the licensed liquid waste contractor within three weeks of the test results; the Disposals Coordinator manages this.
- Double wrap PCB capacitors, light fittings or used spill materials in plastic, seal with tape and dispose in the designated PCB waste bin at the FSC.
- Store PCB oil in sound containers (e.g. 205 L drums with clip-on lids or 1000 L IBC tanks).

Oil and Chemical Management — Storage and Transport Limits

Oil stored in oil-filled equipment awaiting refurbishment or PCB testing is not a waste and is exempt from these licensing thresholds. Non-scheduled or PCB free oil is not a dangerous good for transport.

The following cumulative totals apply when storing oil removed from equipment:

Oil category	PCB concentration	Storage limit without a licence	Transport limit without a licence
PCB free oil	Less than 2 mg/kg	60,000 L	Less than 200 L
Non scheduled PCB oil	Greater than 2 mg/kg, less than 50 mg/kg	5,000 L	Less than 200 L
Scheduled PCB oil	50 mg/kg or greater	One tonne or 1,000 L	Less than 200 L

OIL & CHEMICAL MANAGEMENT
GOOD AND POOR PRACTICES

Protecting today for a cleaner tomorrow

OUR ENVIRONMENT OUR RESPONSIBILITY

SAFE PEOPLE STRONGER COMMUNITIES

Storing chemicals on bare ground



NO-GO PRACTICE

Chemicals and fuels stored directly on bare ground can contaminate soil and waterways.

Leaking oil-filled equipment outside containment



NO-GO PRACTICE

Oil-filled equipment showing evidence of leakage must be immediately contained.

Refuelling without spill protection



NO-GO PRACTICE

Refuelling must not occur without spill prevention controls (e.g. drip tray) and a spill kit nearby.

Decanting chemicals without containment



NO-GO PRACTICE

Chemical transfer activities must be undertaken within suitable secondary containment.

Disposing of oily rags in general waste



NO-GO PRACTICE

Oily rags, absorbents and other contaminated materials must not be disposed of in general waste.

Empty or incomplete spill kit



NO-GO PRACTICE

Spill kits must be fully stocked, in good condition and readily accessible at all times.

Chemicals stored in bunded area



GOOD PRACTICE

Chemicals and fuels stored within secondary containment, labelled and on a sealed surface.

Oil-filled equipment in containment



GOOD PRACTICE

Oil-filled equipment stored within a bund with no leaks evident.

Refuelling with controls in place



GOOD PRACTICE

Refuelling with a drip tray and spill kit available. Hoses and fittings inspected and operator attending at all times.

Decanting with containment



GOOD PRACTICE

Chemical transfer undertaken within a suitable secondary containment area.

Disposing of oily rags correctly



GOOD PRACTICE

Oily rags and contaminated materials disposed of in designated, labelled bins and managed as hazardous waste.

Fully stocked and accessible spill kit



GOOD PRACTICE

Spill kit is fully stocked, in good condition and readily accessible at all times.

Endeavour Energy

Environmental compliance starts with you.

Safe for our people. Healthy for our environment. Stronger for our communities.

PREVENT SPILLS
PROTECT OUR ENVIRONMENT

FOLLOW PROCEDURES
WORK TOGETHER

CLEANER COMMUNITIES
BRIGHTER TOMORROWS

Environment Protection Licences (EPLs)

Endeavour Energy holds Environment Protection Licences (EPLs) issued by the NSW EPA. A Pollution Incident Response Management Plan (PIRMP) exists for each licence, setting out the actions to take if a pollution event occurs.

At any site covered by an EPL, the licence conditions, its PIRMP and the project REF (where applicable) apply to everyone carrying out work or activities there, ASPs and contractors included.

PIRMPs are available on the Sustainability page of our website. Environmental Specialists complete annual PIRMP training and testing — if you are involved in any activities related to an EPL and have not been trained, contact your Environmental Specialist.

Licence No.	Site	Activity the licence applies to
13025	Narellan FSC	Storage of waste oil
21666	N/A	Transport of liquid waste
21988	Riverstone ZS	Storage of environmentally hazardous chemicals (PCBs)



Materials Management Lifecycle

What is our aim?

To prevent contamination of our sites, maximise beneficial re-use of materials and ensure regulatory compliance when managing materials.

Background?

Construction and maintenance activities can generate spoil, require imported materials and create waste. Poor management can result in environmental contamination, unlawful waste disposal, regulatory breaches, increased project costs and delays.



What am I responsible for?

Before works

- Check the project-specific documents for controls to be implemented.
- Confirm if the materials are associated with an environmental incident and if there is potential for contamination e.g. treated pole butts, oil or ASS.
- Confirm if temporary storage for material is required, identify potential storage location.
- Ensure storage location is included in project approved REF work area.
- Obtain landowner consent prior to storing materials on their land.

Materials Management Lifecycle

Imported Fill

- Fill to be imported must be verified in writing to be VENM or ENM, free of contaminants such as asbestos and PFAS.
- Request supplier documentation and evidence supporting the material's classification and its lawful use (e.g. VENM certificate, ENM statement of compliance, details of origin). For recovered products, request proof of compliance with the relevant NSW EPA Resource Recovery Order/ Exemption and NATA accredited test results.
- Inspect delivery of all loads to confirm the product matches the order and is free of contamination such as asbestos, glass and plastic. Document date, supplier details and photographs.
- Request documentation from transporters to verify origin (e.g. Section 143 Approved Notice, transport tracking).
- Recovered aggregate can be imported only for road making, building, landscaping and construction works.
- If the above steps are not satisfied, do not accept the fill.

Recovered mulch — additional requirements

- Obtain a written statement that the mulch complies with The Mulch Order 2016 (NSW EPA) and AS 4454-2012.
- Obtain the supplier’s written risk management protocol (less than 2 years old).
- Obtain written confirmation and evidence of control measures preventing asbestos in mulch (e.g. NATA accredited asbestos test results).
- Do not apply recovered mulch to environmentally sensitive areas; contact your Environmental Specialist if proposed. Refer to EMS 0013 for more details.



Materials Management Lifecycle

Spoil storage

- Stored volume should not exceed 1000 m³ or 1000 tonnes (whichever is less), and 6000 tonnes per annum per site.
- Store as close as possible to the worksite with appropriate erosion and sediment controls.
- Fence, lock and signpost the storage site; only one work party should use a site at any one time.
- Restore the site to its original condition on completion. Log spoil storage sites in the Spoil Register.
- Appropriately segregate stockpiles especially clean and contaminated spoil.
- Prevent dust generation from stockpiles through wetting down, covering the stockpiles etc.
- Keep stockpiles clear of stormwater drains and waterways.

Contaminated spoil

- If spoil is excavated from a substation or FSC, is suspected contaminated, or comes from around pole butts treated with creosote, contact your Environmental Representative to arrange chemical testing and advice.
- Contaminated spoil cannot be re-used and must be classified and disposed appropriately at an EPA licensed waste facility.
- Store contaminated spoil on plastic or in a designated plastic-lined receptacle and cover with plastic.
- Track waste using NSW EPA integrated waste tracking solution (IWTS) or engage a licensed waste transporter when transporting:
  - more than 200 kg or litres (or a mixture of kilograms and litres) of NSW EPA trackable waste in any load.
  - more than 100 kg of asbestos waste or more than 10 m³ of asbestos sheeting in a single load.

Materials Management Lifecycle

Spoil disposal

- If spoil is contaminated or cannot be re-used, dispose at an appropriately EPA licensed waste facility.
- For large volumes (greater than 100 tonnes), consider a licensed resource recovery facility (prior testing required).
- Spoil for landfill must go to an EPA licensed facility less than 150 km from the place of generation (proximity principle).
- Obtain waste disposal dockets for each load and retain for a minimum of three years.

Note – EE Environmental Specialists need a work order raised to cover inspection, sampling and analysis.

Spoil Re-use

ENM = Excavated Natural Material;

VENM = Virgin Excavated Natural Material

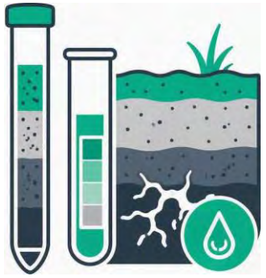
(refer to the Definitions section).

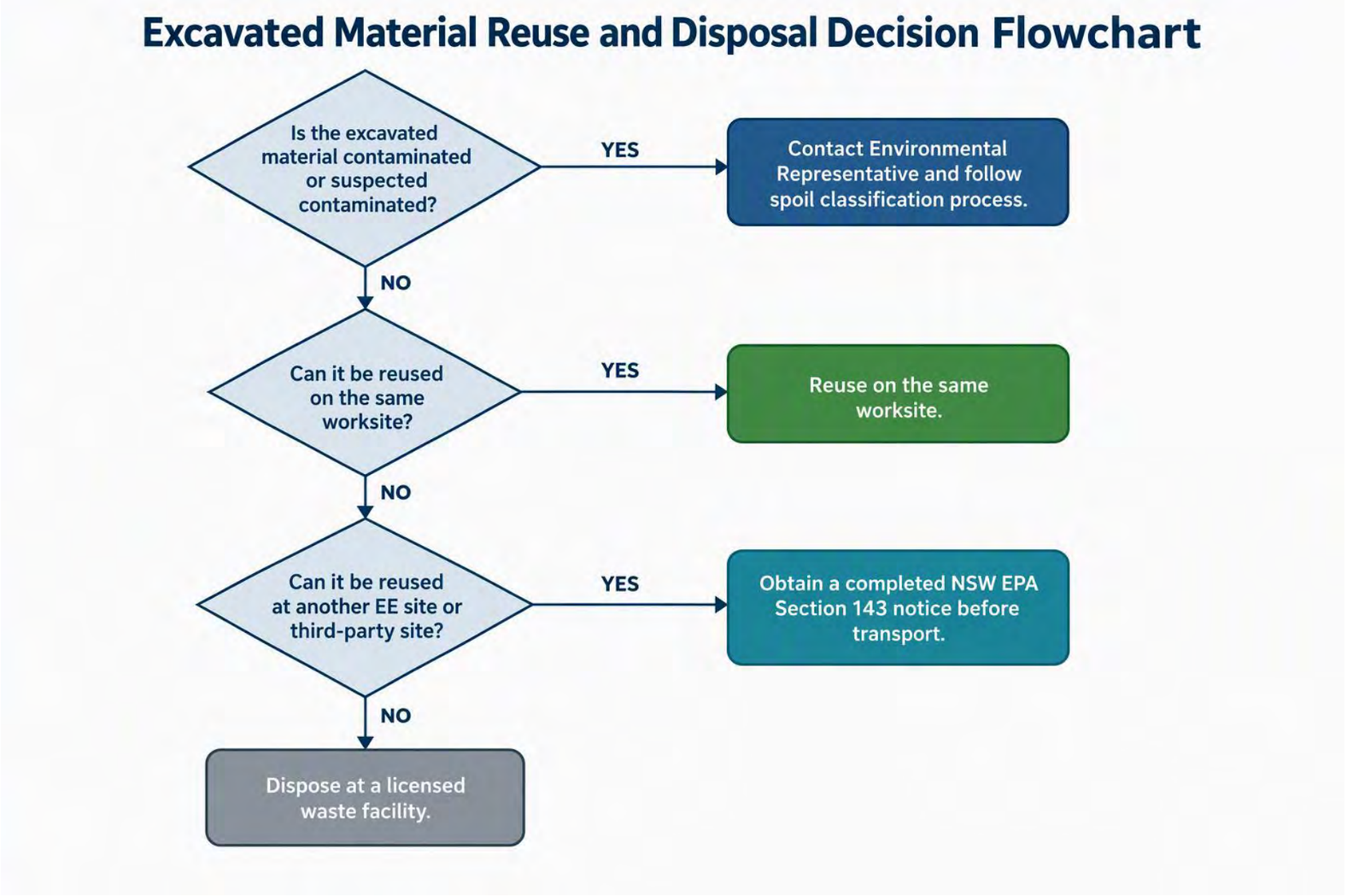
Re-use option	Contaminated Spoil	ENM	VENM
Re-use on worksite	No	Yes	Yes
Re-use on another worksite	No	Yes (with testing)	Yes (with Certificate)
Re-use on a third-party site	No	Yes (with testing)	Yes (with Certificate)

Materials Management Lifecycle – Spoil Decision Flowchart

Notes:

- *For re-use on a third-party site, contact your Environmental Representative.*
- *Development Approvals and Conditions of Consent must be reviewed, and evidence of lawful disposal considered.*
- If disposal is preferred, the waste must be tested and classified unless it is pre-classified. Waste tracking requirements may also apply.





Waste Management

What is our aim?

To be Waste Neutral by 2030 — to reduce waste generated and disposed to landfill, while encouraging recovery of resources by re-use or recycling and managing waste appropriately.

Background?

Waste ranges from timber poles to asbestos, oil, chemicals and general solid wastes. Each type must be stored, transported, disposed and reported per EMS 0007 – Waste Management. Prior to establishing or expanding waste storage on sites, assess licencing and other regulatory requirements against Schedule 1 of the POEO Act and POEO (Waste) Regulation.

EMS 0007 – Waste Management

Scan to open the EMS standards folder

Follow the waste hierarchy — avoid generating waste

- Order only the required amount; buy in bulk to save packaging.
- Purchase recycled content products and avoid single use products where possible.
- Separate wastes that can be re-used or recycled, and re-use surplus materials from one job to the next.
- Recyclable items include scrap metal, cable drums, timber and concrete poles, paper and cardboard, plastic bottles, cans, batteries, hardhats, streetlamps, oil, and building and construction materials.
- Disposal is the least favoured option — consider recovery facilities before sending to landfill.

Waste Management — Disposal and Transport

What am I responsible for?

- Sort and recycle as much as possible to minimise waste to landfill, and re-use surplus materials.
- Dispose of all worksite waste at an appropriately licensed facility; employees can return solid waste to FSCs and dispose in the correct bins.
- Store empty chemical containers on a bunded pallet for removal by a licensed liquid waste contractor.
- Dispose per the Proximity Principle — to an EPA licensed facility within 150 km of the worksite — and obtain waste dockets for all waste disposed off-site.



Transport and hazardous waste

- Secure and cover loads to prevent spilling during transport.
- When transporting over 200kg of restricted solid waste, hazardous waste and liquid waste comply with the EE EPL 21666 and PIRMP for waste transport and track waste on the NSW EPA IWTS.
- When using licensed waste transport contractors ensure the waste is tracked in the NSW EPA IWTS.
- Report third-party illegal dumping into SAP or to your Environmental Representative. Do not inspect dumped waste until a WHRA is completed — secure it by covering with plastic and barricading where appropriate.
- Keep and document all waste disposal records.

Waste Management — Timber Pole Recycling

Poles removed from the network should be taken to the nearest pole racking storage site for collection. Strip poles as much as possible with nothing overhanging; remove/cut cross arms either side of king bolts. Store poles safely and do not overload pole racking. If uncertain whether a pole is recyclable, consult your Environmental Representative.

Accepted	NOT accepted
• Timber poles greater than 4 m and less than 12.5 m length • Poles with small amounts of burnt sections and pole butts • Treated poles • Small amounts of secure hardware, such as “U” brackets and insulators	• Cross arms and steel supports • Termite infested or extremely degraded poles (e.g. big splits or cracks) • Pole nails • UGOH connections • Excessive bolts, insulators etc.



Turning reclaimed timber power poles into architectural products

Endeavour Energy

Definitions, Acronyms & Quick Reference Guides

POWER together

← Back to Contents

Definitions (1 of 3)

Accredited Service Provider (ASP) — a person accredited under Part 3 of the Electricity Supply (Safety and Network Management) Regulation 2026.

Biodiversity — the variety of biological life (plants and animals).

Bonded Asbestos — contains a bonding compound reinforced with asbestos fibres.

Bund wall — a retaining wall surrounding equipment for the containment of liquid spills (solid concrete and/or brick).

Bushfire prone areas — land defined as bushfire prone by local Councils under the Rural Fires Act 1997.

Catchment — an area where falling rain contributes to runoff through a waterway or drain at a particular point.

Construction noise — noise generated through construction or maintenance activities.

Domestic use (pesticide) — met only if the pesticide is retail-available, ordinarily used for domestic purposes, applied by hand/hand-held equipment, and (outdoor) no more than 5 L/5 kg concentrate or 20 L/20 kg ready-to-use per person per day, or (indoor) 1 L/1 kg concentrate or 5 L/5 kg ready-to-use per person per day.

Environment — the surroundings in which a company operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation.

Definitions (2 of 3)

Environment Impact Assessment (REF and Minor Works REF) — a process required by State and Commonwealth law prior to approval and development, integrating environmental factors into planning consistent with ecologically sustainable development. Completed by the design office for non-maintenance works.

Environment Management Plan (EMP) — identifies environmental risks specific to a project and how they can be managed.

Environmental Representative — for workers, the Environmental Specialists; for ASPs, their Contract Inspectors (who can consult the Environmental Specialists).

Erosion — the wearing away of land by running water, rainfall or wind.

Excavated Natural Material (ENM) — naturally occurring rock and soil (at least 98% natural material) meeting The ENM Order and Exemption 2014; previously disturbed soil proven uncontaminated by testing. Excludes processed material, contamination hotspots, asbestos or acid sulfate soils.

Fault and Emergency Works — works to maintain or restore infrastructure to ensure public safety or protect buildings or the environment due to a sudden natural event, accident, equipment failure, structural collapse, vandalism or arson.

Friable Asbestos — asbestos material that, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.

Geo-fabric — a synthetic woven or non-woven fabric used for reinforcement/stabilisation, seepage control and pollution containment.

Impervious surface — a constructed surface covered by material impenetrable to liquid.

Inspection — detailed viewing, examination or measurement of network assets, which may include minor maintenance undertaken in conjunction with the inspection.

Maintenance — activities providing ongoing assurance of the safety, reliability and protection of network assets (repair/replacement, vegetation and track maintenance); excludes major track works, earthworks, vegetation clearing and corridor widening.

Definitions (3 of 3)

Network assets — all elements of Endeavour Energy's electrical infrastructure for transmission, distribution and supply, including power lines, pilot cables, streetlights, poles, stay wires, substations and transformers.

Notifiable incident — an incident that must be reported immediately by the Environmental Services Manager to the EPA because it causes material harm: non-trivial actual or potential harm to human health or ecosystems, and/or loss or property damage exceeding $50,000 (including prevention, mitigation and remediation costs).

OEM – Original Equipment Manufacturer

Oil container — a containment device for storing oil, e.g. 205 L drums and pallecons.

PCB containing oil — oil containing PCB above 2 mg/kg. **PCB free oil** — oil with PCB at or below 2 mg/kg. **Scheduled PCB containing oil** — oil with PCB above 50 mg/kg.

Pesticide — a substance used to destroy a plant; or destroy, stupefy, repel, inhibit or prevent infestation by a pest; or attract a pest to destroy it.

Pollution — includes water, air, noise and land pollution.

Prescribed public place — public places such as gardens, picnic areas, playgrounds, parks/ovals, public land, reserved or Crown land, State forests and government school grounds (excluding the inside of buildings).

Risk assessment — likelihood of a hazard causing harm to a person or the surrounding environment.

Sediment — material generated from an excavation (soil, sand or clay) from an area free from contamination. **Sediment Control** — measures to reduce sediment leaving the worksite (silt fences, drain covers, covered stockpiles, hay bales, sandbags).

Virgin Excavated Natural Material (VENM) — natural material excavated from uncontaminated areas with no sulfidic ores/soils or other waste; previously unturned soil with no potential to be contaminated.

Worker — a person who carries out work in any capacity for a business, including employees, contractors, labour hire, apprentices, students, volunteers and prescribed classes.

Acronyms

Acronym	Meaning	Acronym	Meaning
ANO	Authorised Network Operator	GIS	Geographic Information System
APVMA	Australian Pesticides and Veterinary Medicines Authority	HAMS	Heritage Asset Management Strategy
ASP	Accredited Service Provider	NPWS	National Parks and Wildlife Service
EEC	Endangered Ecological Community	PASS	Potential Acid Sulphate Soil
REF	Environmental Impact Assessment	PCB	Polychlorinated Biphenyls
EMF	Electromagnetic Frequency	PPE	Personal Protective Equipment
EMP	Environmental Management Plan	SDS	Safety Data Sheet
EMS	Environmental Management Standard	SF6	Sulphur Hexafluoride
ENM	Excavated Natural Material	TS	Transmission Substation
EPA	Environment Protection Authority	VENM	Virgin Excavated Natural Material
ESCP	Erosion and Sediment Control Plan	WHS	Work Health and Safety
EWP	Elevated Work Platform	WIRES	Wildlife Information Rescue and Education Service
FSC	Field Service Centre	ZS	Zone Substation

Quick Reference Guides — Policies and Standards

Policies

- 4.0 Environmental Sustainability
- 4.7 Prevention and Management of Contamination

Standards

- EMS0001 Environmental Impact Assessment & Environmental Management Plans
- EMS0004 Managing Vegetation Near Electrical Infrastructure and Pest, Weed and Disease Mitigation
- EMS0005 Substation Landscaping
- EMS0006 Maintenance and Construction of Access Tracks
- EMS0007 Waste Management
- EMS0012 Notification of Access to National Parks and Water NSW Special and Controlled Areas
- EMS0013 Spoil and Imported Materials Management
- EMS0014 De-watering worksites
- EMS0016 Industrial and Construction Noise
- EMS0017 Oil Management
- MMI0013 Vegetation Clearance Management
- SDI540 Transformer oil containment
- SMI121 Storage and handling of insulating oil
- SMI122 Use and Handling of Sulphur Hexafluoride (SF6)

Quick Reference Guides — Procedures and Forms

Procedures and Workplace Instructions

- GAM0011 Work Performed During Bushfire Danger Period
- GPE0004 Pesticide Use
- GPE0009 Contaminated Land Project Management
- GPE0063 Greenhouse Gas Measurement and Reporting
- GPE0065 Environmental Communication
- GPE0078 Environmental Competence, Awareness and Communication
- GSY0013 Hot Work Permit
- GSY0050 Hazardous Chemicals Management
- GSY0051 Health Safety and Environment Incident Learning and Reporting
- GSY0068 Work Health, Safety and Environment Contractor Management
- GSY0089 Working with Lead
- GSY1065 Asbestos Management
- GSY1066 Worksite Hazard and Risk Assessment
- TBX048 Emissions Management, SF6
- WRG0526 Handling of SF6 (Sulphur Hexafluoride)

Forms

- FAT0048 Notification of Inspection Work in National Parks or WaterNSW Special and Controlled Areas
- FAT0049 Notification of Maintenance Work in National Parks or WaterNSW Special and Controlled Areas
- FPE0004 Record of Pesticide Application
- FPE0009 Oil Transport Tracking Register
- FSE0002 Pollution incident report
- FSE0003 Report on breach of NSW Code of Practice for Authorised Network Operators
- FSY0118 Worksite Hazard and Risk Assessment