

## Session 1

### The Regulatory Environment and E&SC Planning

#### *Corporate and Individual Responsibility*

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## POEO Act

- Protection of the Environment Operations (POEO) Act 1997
- EPA regulates works associated with:
  - Scheduled Activities
  - State and public authorities (including Councils)
  - Other licensed activities relating to water pollution
- Local Councils are the Appropriate Regulatory Authority (ARA) under the POEO Act for all other activities

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## Environmental Protection

- One of the main potential adverse impacts identified during construction is associated with soil and water due to erosion and sedimentation
- Such impacts are to be minimised by mitigating measures
- May be required to prepare a Construction Environmental Management Plan (CEMP) before construction commences

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## Environmental Protection

- ESC plan documents may be part of a CEMP
- ESCP / SWMP set out specific conditions to be met to achieve environmental outcomes
- Key objectives are to:
  - Minimise risk of erosion and sediment deposition
  - Prevent surface water degradation
  - Establish stabilisation and rehabilitation measures
  - Ensure compliance with all legislative water quality requirements

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## How are E&SC rules applied?

- Two approaches to implementation:
  - “performance based”, e.g. 50 mg/L discharge limit for suspended solids
  - “good practice”, e.g. “Blue Book” approach
- Responsibility:
  - Organisations and individuals responsible for any actions reasonably or legally within their control
  - “Due Diligence”

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## Due Diligence

- In simple terms – due diligence means “take care” and also to “be proactive”
- No strict legal definition in NSW environmental legislation – must be proven
- Generally, ‘taking every reasonable precaution in the circumstances to prevent harm’
- Can be used as a valid “defence” against prosecution

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## What is Harm?

- In the context of 'harm' to the environment, the POEO Act defines as:  
"... any direct or indirect alteration of the environment but has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution."

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## Negligence

- Accidental or intentional – doesn't matter
- Actions (e.g. unlicensed discharge of dirty water)
- Omissions (e.g. didn't maintain sediment controls)
- Ignorance and mistakes are no excuse

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## Liability

- Project Principals cannot transfer their obligations or responsibility to a sub-contractor
- Project Principal needs to ensure compliance of all subordinates, including employees, subcontractors and even visitors

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## Duty to Notify

### Part 5.7 (§148) POEO Act

- A person who, while carrying out an activity becomes aware that material harm to the environment is caused or threatened by the person's or someone else's activity must, as soon as practicable:
  - Notify the EPA (proponent or employer) 131 555
  - Advise their employer (employee) of the event, and the employer must then advise the EPA in writing
  - Notify EPA or ARA (occupant)

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## Relevant Matters

- **Section 120: Water Pollution**
  - In terms of dangerous liquids storage and handling, care must be taken to ensure that spills or leaks do not result in contaminated water entering the stormwater system
  - Determining whether liquids storage or handling poses a risk of pollution and taking measures to reduce that risk such as storing liquids within a covered secondary containment area, having spill kits readily available and ensuring staff know how to use them
- **Section 142A: Land Pollution**
  - On the spot fine \$15,000 for individual, \$30,000 for corporation (first offences)

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## POEO Act Offences

### Three tiers of offences:

- Tier 1: Most serious, wilful or negligent, actual or likely harm to the environment
- Tier 2: Non-intentional, water or land pollution, failure to comply with duty to notify a pollution incident
- Tier 3: More minor Tier 2 offences dealt with by penalty infringement notices

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## Tier 1 - Defence

General Defence for Tier 1 offences include the person establishing that:

- the commission of the offence was due to causes over which the person had no control, and
- That the person took reasonable precautions and exercised due diligence to prevent the commission of the offence

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## Penalties

### Tier 1:

- Corporations: Up to \$10 million (wilful), \$4 million (negligent),
- Individuals: \$2 million and/or up to 7 years gaol (wilful), \$1 million and/or up to 4 years gaol (negligent)

### Tier 2:

- Up to \$2 million for a corporation and \$500,000 for an individual - These can be doubled for "failure to notify" offences

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## Penalties

### Tier 3:

- Tier 2 offences dealt with by Penalty Infringement Notices (PINs), \$30,000 (corporation), \$15,000 (individual) (\$45,000 and \$22,500 for second offence)
- Clean-up and Prevention Notices which carry an administration fee
- No "no knowledge" defence available to directors and managers i.e. assumed that they "had knowledge"

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## Tier 2 Penalty - example

- Construction company issued with a **\$26,000 fine** after deliberately pumping 18,000L of sediment laden water to the stormwater system at Mount Panorama, ultimately draining to local waterways
- Also to pay **costs of \$25,000** and advertise responsibility in local and national newspapers

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## Mount Panorama, Bathurst



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## Tier 2 Penalty - example

*"The defendant caused water pollution ..... at Mount Panorama Racing Circuit, Mount Panorama, Bathurst, New South Wales...The Defendant was responsible for the implementation of the sediment and erosion controls on the construction site. ... The excess water was observed to be murky and laden with fine, clay type sediment".*

*"Later in the day, a second collection of excess water was observed ... The Sediment and Erosion Control Plan prepared for the Defendant by its consultant required a silt fence to be installed ..."*

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### Tier 2 Penalty - example

- "The silt fence between these points was destroyed by overnight heavy rainfall. ...There were no sediment controls between the destroyed silt fence and the point of discharge into Hawthornden Creek. ... An inspection of sediment control measures should have been carried out that morning following the heavy rain the night before, as required by the Defendant's Inspection & Test Plan – ENV-ITP-001 – Temporary Erosion and Sedimentation Control
- By way of an appropriate penalty, ..... was ordered to pay \$26,000 towards sediment and erosion control works at the Silver Peaks derelict mine site at Yerranderie

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### Tier 2 Penalty - example

- Snowy Hydro and Webuild fined \$30k over Kosciuszko National Park pollution incidents in 2022 (Snowy 2.0)
- The EPA says the alleged incidents "simply should not have occurred"
- NSW Environment Minister Penny Sharpe says the "fragile alpine environment" should have the strongest protections available

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### Tier 2 Penalty - example

- Despite warnings from officers, the companies had inadequate sediment and erosion controls in place at two locations in the Kosciuszko National Park
- In June 2022, a sediment plume was created that stretched more than two kilometres down Yarrangobilly River
- In September 2022 sediment-laden water from roadworks at Tantangara impacted the Nungar Creek

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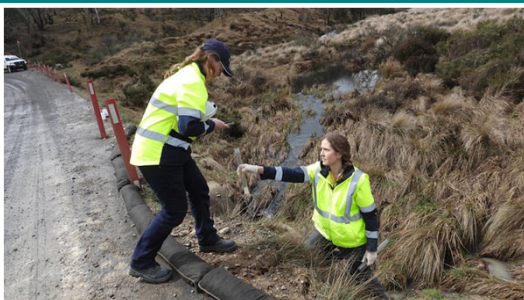
### Nungar Creek, turbid water



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### Compliance Monitoring



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### Warkworth Mining 2018

- Sediment laden water discharged from mining operations through a culvert and into an onsite farm dam
- Grader operator moved a stormwater diversion bund adjacent to a mining road, allowing the contaminated water to be discharged
- Fine \$15,000 and Publication Order

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### Enforceable Undertaking

- August and September 2019
- Major roadworks project near Nowra
- Three uncontrolled stormwater discharges from the roadwork construction site which polluted a nearby waterway and which had the potential to cause harm to the environment
- Incidents were identified and self-reported to the EPA by the company

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### Enforceable Undertaking

- Downer Seymour Whyte Joint Venture (DSWJV) have entered into an Enforceable Undertaking with the EPA to improve environmental performance following uncontrolled stormwater discharges from a construction site causing water pollution
- DSWJV have agreed to pay the EPA \$9,500 for associated investigation and legal costs

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### Enforceable Undertaking

- Commits the DSWJV to improved staff training and increasing the frequency of environmental audits of their worksites
- The Enforceable Undertaking also sees the DSWJV investing in environmental restoration of the local environment by supporting land care and Shoalhaven City Council

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### Tier 3 Penalties - typical

- Typical erosion and sediment control scenario where sediment enters a gutter, drain or waterway
- Fines for individuals typically up to \$15,000 plus an administration fee where a Clean-up Notice or Prevention Notice has been issued
- Employer cannot pay fine for an individual

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### Other Relevant Legislation

- Fisheries Management Act (1994)
  - seagrass, saltmarsh, wetlands
- Threatened Species Conservation Act (1995)
  - endangered species or habitats
- Water Management Act (2000)
  - "controlled activities" i.e. works within 40m of waterway
- National Parks and Wildlife Act (1974)
  - protected areas, aboriginal heritage

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### E&SC Guidelines in NSW

- Landcom (2004). Managing Urban Stormwater: Soils and Construction – Vol. 1 ("The Blue Book")
- Landcom (2008). Managing Urban Stormwater: Soils and Construction – Vol. 2:
  - 2A Installation of Services
  - 2B Waste Landfills
  - 2C Unsealed Roads
  - 2D Main Road Construction
  - 2E Mines and Quarries

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## Reference Materials

This course brings together material from:

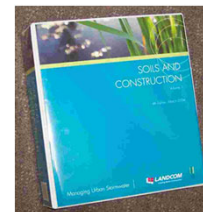
- Managing Urban Stormwater: Soils and Construction – Vol. 1. ("The Blue Book"), Landcom (2004)
- Best Practice Erosion and Sediment Control, IECA (2008)

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## The Blue Book Volume 1

- Managing Urban Stormwater: Soils and Construction – Vol. 1. ("The Blue Book"), Landcom (2004)
- <https://www.environment.nsw.gov.au/research-and-publications/publications-search/managing-urban-stormwater-soils-and-construction-volume-1-4th-edition>



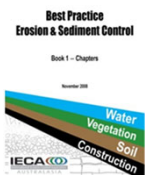
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## IECA Best Practice Erosion & Sediment Control

Available from:

- <https://www.austieca.com.au/publications/best-practice-erosion-and-sediment-control-bpesc-document>



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## ESC Plan Preparation

- What sort of plan do I require?
- Plan may comprise:
  - Drawing(s) to show layout of works
  - Commentary as annotated sketches or report
- If disturbed area is  $>250\text{m}^2$  and  $<2,500\text{m}^2$  require an Erosion and Sediment Control Plan (ESCP)
- If disturbed area is  $>2,500\text{m}^2$  require a Soil and Water Management Plan (SWMP)

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## ESCP or SWMP?

- Chapter 2 of the Blue Book describes the difference between ESCP and SWMP
- ESCP:
  - Site plan to show Best Management Practices (BMPs)
  - Standard Drawings from Blue Book
- SWMP, in addition, requires:
  - Supporting calculations for sediment basins and structures
  - Details of erosion and sediment controls
  - Inspection and maintenance notes
  - Stabilisation requirements

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## ESCP

- Measures include:
- Clean water diversion
  - Site access controls (barrier fence)
  - Stabilised access
  - Sediment fence
  - Designated stockpile locations
  - Waste disposal facilities/storage

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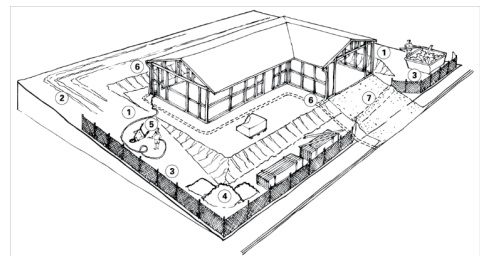
### Common BMPs



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### Basic ESC measures for single lot development



Erosion and sediment control measures: 1 minimise disturbance, 2 diversion devices, 3 sediment barriers, 4 secure stockpiles, 5 other containments, 6 early stormwater connection, 7 controlled access point.

Source: [www.yourhome.gov.au](http://www.yourhome.gov.au)

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### What are we trying to avoid?



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### SWMP

- Applies same principles as ESCP
- For larger projects with:
  - Greater areas of disturbance
  - Higher pollution risk



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### SWMP

- Trigger: Is the area of disturbance  $>2,500\text{m}^2$ ?
- Undertake constraints analysis (BB Chapter 3)
  - Waterfront / riparian land or flood prone?
- Erosion hazard assessment
  - Run RUSLE and determine Soil Loss Class
- Consider timing restrictions?
- Batter (grade) limitations required?
- Sediment basin test (BB Chapter 6.3.2)
- Determine type of basin required (C, F or D)
- Prepare SWMP to include erosion and sediment controls, maintenance notes, stabilisation requirements and standard drawings

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### MCO 'Surface Water' MP

- Sub-Plan (Appendix 2) to Water Management Plan (WAMP) for Moolarben Coal Operations (MCO)
- Prepared in accordance with NSW Project Approvals 05\_1117 (Stage 1) and 08\_0135 (Stage 2), EPL 12932 and Commonwealth EPBC Act approvals
- Section 4.3 outlines minimum ESC requirements and standards to meet Project Approval requirements:
  - ESC to comply with Blue Book and IECA, 2008,
  - ESCP included in Ground Disturbance Permit (GDP) process, along with other approvals (e.g. CAP or Fisheries) as relevant

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