

Sustainability and Environment

Environmental Principals
Handbook

Downer 

Scope

This booklet provides further guidance on the 10 Environmental Principles to assist you as an employee or contractor of Downer in helping to achieve Zero Harm to the environment and excellence in sustainable performance.

This booklet has been designed to be carried with you and be used as a reference tool when completing a risk assessment and planning works, following the Plan Do Check Act steps outlined below.

What does this mean to me?

Every employee including sub-contractors, has a responsibility to carry out work activities in a manner that ensures harm to the environment and community is minimised.

Who can I contact for more information?

Your first point of contact will be your supervisor, Environment and Sustainability or Zero Harm Advisor.

For further queries please contact your local Environmental Sustainability Manager. Alternatively for all general enquiries please email the Sustainability and Environment team email: Sustainability@downergroup.com



Our Purpose, Promise and Pillars

What Sustainability means to Downer?

Downer's approach to sustainability is fundamentally linked to our business success, underpinned by the Pillars that support Our Purpose and Promise, so that we can maintain the balance between the longer-term impacts of our operations and the need for short term results. You have an important role to play in helping Downer deliver on Our Promise.

Our promise

Our customer's success is our success



Delivery

What can I do to support Downer's Delivery approach?

I can take pride in my work, by using the 10 Environmental Principles to minimise the environmental and community impacts of my work.



Thought Leadership

What can I do to support Downer's Thought Leadership approach?

I can actively participate in team meetings, toolbox talks and pre-starts by having the courage to share and adopt new ideas to improve work practices, to create a more positive environmental outcome.

Our pillars



Safety & Sustainability

What can I do to support Downer's Sustainability approach?

I can create a safe and healthy workplace for myself and workmates that reduces my work's impact on the natural environment and community.



Relationships

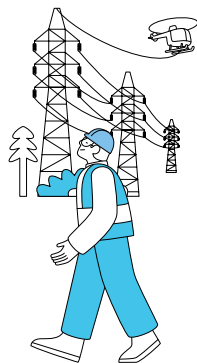
What can I do to support Downer's Relationships approach?

By applying the 10 Environmental Principles at my workplace, I can build trust and integrity with my customers, workmates and the community in which we work.

Our purpose

Enabling communities to thrive

On the Job



- 1.** Before you start work, look around for any environmental hazards and ensure approvals, consents and permits are in place.



- 2.** Conduct a risk assessment (SWMS, Prestart, STAR). Include site specific environmental hazards, with a focus on critical environmental risks.

(Unauthorised clearance of protected areas, Loss of control of contaminated fill, Release of contaminants to water, Spread of biosecurity threats by Downer operations)

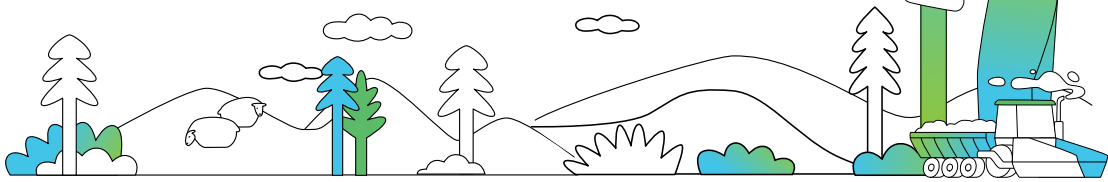
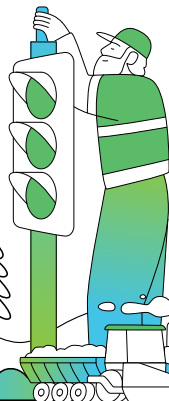
- 3.** Implement controls with focus on critical controls detailed throughout this handbook.



- 4.** Follow The Downer Standard, procedures, standards, and Environmental / Zero Harm Management Plans.



- 5.** Complete work and restore site.



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Environmental Principles

Following these principles will enable us to protect the surrounding environment and maintain positive relationships with our community and customers, whilst fulfilling our obligations and commitments.

	1	Check approvals and permits are in place before starting work.		6	Manage noise, vibration, dust and odour to minimise impact on the community.
	2	Protect waterways and be prepared for spill events.		7	Protect flora and fauna and prevent the spread of weeds and pests.
	3	Use effective erosion and sediment controls.		8	Protect and report cultural, heritage and other finds.
	4	Store and secure chemical substances in a bunded area.		9	Report all environmental hazards and incidents.
	5	Reduce, reuse, recycle to minimise waste.		10	Keep every site secure, tidy and housekeeping maintained.



DG-ZH-PN002

1. Check Approvals, Consents and Permits are in place before starting



What do you need to know?

Approvals and permits are our license to operate. Non-conformance may impact our reputation and ability to service our customers.

Typical examples include:

- Resource Consents (NZ), Environmental Protection Licences (AUS), Trade Waste Agreements, project/lease/ contract requirements, Land Disturbance and Protected Areas Permit.



Obtain required environmental approval , consents and permits.

What do you need to do?

- 1.1 Ensure you are familiar with the requirements of approvals / licences.
- 1.2 Ensure these are captured in risk management documentation.
- 1.3 Fulfill sampling and monitoring requirements.
- 1.4 Monitor compliance and action non-conformances to ensure issues are mitigated.



Obtain required environmental approval and permits.



Monitor compliance with approvals and permits.

2. Protect waterways and be prepared for spill events



What do you need to know?

Any liquid or solid that enters a waterway, stormwater drain or kerbside gutter that is not clean rainwater is considered pollution and can have adverse effects on aquatic animals and plant life.



Protection of a stormwater drain using silt socks.

What do you need to do?

2.1 Use a barrier to protect drains i.e., silt socks, drain warden.

2.2 Do not discharge or dispose of dirty or contaminated water or waste in stormwater drains.

2.3 At fixed sites, ensure water is treated prior to entering drains i.e., interceptor, sediment pond. Alternatively, dispose offsite by a licensed waste transporter.

2.4 Have spill kits available and ensure you are trained in their use.



Triple interceptor wastewater treatment system.

Relevant Downer Standard:

- DG-ZH-ST024 Hazardous Chemical and Dangerous Goods Management Standard
- DG-ZH-ST064 Soil and Water Management Standard



Spill response kit located at a designated spill control station.

3. Use effective erosion and sediment controls



What do you need to know?

Ground disturbance activities that require soil or vegetation to be disturbed, can increase soil erosion, surface runoff and the possibility of sediment entering waterways. Erosion can cause degradation to land through the loss of topsoil, and sediment in waterways can harm aquatic plants and animal life.

What do you need to do?

- 3.1 Minimise cleared areas
- 3.2 Divert all upstream/clean water away from site.
- 3.3 Install controls at site access points
- 3.4 Install erosion controls such as ground cover, mulch, polymers and other sealants on exposed and unstabilised soil / ground.
- 3.5 Install sediment control fences, sediment curtains and sediment basins
- 3.6 Remain on access tracks and fixed site access ways
- 3.7 Stabilise drains and banks
- 3.8 Conduct progressive restoration and rehabilitate disturbed areas quickly (as required by local guidelines, approvals and permits)

Relevant Downer Standard:

- DG-ZH-ST064 Soil and Water Management Standard



Site access stabilised with cattle grid to prevent tracking of sediments offsite.



Flocculation of a sediment basin.



Sediment fence downslope of spoil stockpile.

4. Store and secure chemical substances in a bunded area



What do you need to know?

All liquid hazardous chemicals and dangerous goods shall be stored in a bunded area in accordance with regulatory requirements/Guidelines/Standard (AS1940:2004) applicable to bunding.



Temporary bund for storage of hazardous liquids.

What do you need to do?

4.1 Bunds shall be constructed of impervious material (bricks and mortar are not impervious and must be sealed)

4.2 Bunds must hold at least 25% of the total volume stored or 110% of the largest container or whichever is larger up to 10,000L

4.3 Additional capacity is required for volumes > 10,000L

4.4 The storage vessel must be installed an appropriate distance from the bund wall to prevent jetting of the liquid outside the bund



Dedicated hazardous storage container.



Temporary drip tray (bund) for a leaking hose.

Relevant Downer Standard:

- DG-ZH-ST024 Hazardous Chemical and Dangerous Goods Management Standard

5. Reduce, reuse, recycle to minimise waste



What do you need to know?

Segregation, reuse and recycling of waste is not only good for the environment but reduces project and operational costs.



Recycling excavated material for use as a road base.

What do you need to do?

- 5.1 Consider waste management during procurement
- 5.2 Develop a waste management plan
- 5.3 Establish on-site waste storage areas
- 5.4 Separate waste streams at the source
- 5.5 Re-use and recycle (where possible)
- 5.6 Ensure that regulated waste is disposed of using a licensed provider, and waste disposal is conducted lawfully



Labelled bins for source segregation and recycling.



Segregated waste bins for onsite recycling.

Relevant Downer Standard:

- DG-ZH-STO63 Waste Management Standard

6. Manage noise, vibration, dust, and odour to minimise impact on the community



What do you need to know?

Air emission and pollution (noise, vibration, dust, and odour) can negatively impact both the community and the environment, through health implications for workers and neighbours, and potential harm to surrounding plants, animals and waterways.



Noise wall/barrier.

What do you need to do?

6.1 Ensure controls are installed and baseline air and noise monitoring is conducted prior to commencement of operation

6.2 Conduct works within approved operating hours

6.3 Ensure plant and equipment are appropriately maintained to minimise unwanted noise and air emissions

6.4 Identify areas where plant or machinery can impact on dust or noise quality

6.5 Use techniques and equipment that do not involve high noise and vibration

6.6 Ensure dust and noise control are used when working near surrounding communities and sensitive land uses

Drive at a reduced speed to reduce dust and noise



Dust suppression using water carts.

Relevant Downer Standard:

- DG-ZH-STO69
Environmental Noise and Vibration Standard

7. Protect flora and fauna and prevent the spread of weeds and pests



What do you need to know?

Vegetation plays an essential role within an ecosystem, providing habitat for native animals, improving water quality and protecting soil from erosion.

Biosecurity is the protection of the environment and human health from unwanted invasive seeds, plants and diseases. Vegetation and soil management is essential to prevent the spread of invasive species and diseases to and from construction and fixed sites and surrounding productive land. Unauthorised clearing can cause significant irreversible damage from soil erosion, spread of weeds and destroy animal habitat

What do you need to do?

- 7.1 Ensure a biodiversity assessment has been conducted
- 7.2 Fence off protected vegetation and restrict access to infested areas
- 7.3 Check and clean boots, equipment and vehicles prior to arriving and leaving weeds and disease infested sites to prevent spread
- 7.4 Protect and tie back branches
- 7.5 Minimise damage to tree roots and avoid storing materials and equipment within the tree's drip line
- 7.6 Separate, protect and keep topsoil so it can be used for revegetation
- 7.7 Do not permit weed infested soil/waste to be imported to the worksite
- 7.8 Cover up and delineate open excavations
- 7.9 Fence off work areas overnight to prevent animals becoming trapped
- 7.10 Animal removal is only to be completed by trained and approved handlers
- 7.11 Control new weed outbreaks where necessary using prescribed methods.



Weed hygiene inspection of a piece of plant at a designated weed hygiene inspection point.



Temporary vehicle wash bay facility for preventing the spread of invasive weeds and diseases.



Demarcated vegetation protected area



Endangered Grassland Earless Dragon being handled by a qualified ecologist.

Relevant Downer Standard:

- DG-ZH-ST071.1 Biosecurity Management Standard
- DG-ZH-ST071.2 Flora and Fauna Management Standard

8. Protect and report cultural, heritage and other finds



What do you need to know?

Heritage sites can be damaged by ground disturbances such as compaction, excavation or vibration. Unauthorised activities and failure to report can lead to fines, prosecution and/or criminal conviction.



European Heritage – Wallerawang Rail Bridge over the Cox's River was constructed in 1870 and is one of the oldest stone viaducts in NSW.

What do you need to do?

- 8.1 Report all unexpected cultural, heritage and other finds
- 8.2 Check relevant stakeholders are engaged to identify significant known heritage sites and artefacts
- 8.3 Review approval/contract/lease conditions and heritage registers for identification of potential heritage sites
- 8.4 If a heritage artifact is found, avoid the area, minimise impact, and report it to your Supervisor or ZH Officer
- 8.5 Removal or destruction of a known heritage site can only occur with a permit from local, State or Federal Government Heritage Agency



Cultural heritage signed area.



Indigenous scar tree and stone tools.

Relevant Downer Standard:

- DG-ZH-ST076 Heritage Management Standard

9. Report all environmental hazards and incidents



What do you need to know?

All personnel must report all environmental hazards and incidents. Not reporting incidents will lead to knowledge not being shared, the same incident occurring again and potentially more serious incidents.

Events that result in material harm (>\$10,000 remediation costs) must be notified to government regulators by Downer Environment and Sustainability personnel.



Hazard identification and reporting.

What do you need to do?

- 9.1 Establish the nature of the environmental incident
- 9.2 Take immediate steps to stabilise or quarantine the area
- 9.3 Notify your supervisor and/or environmental/Zero Harm advisor
- 9.4 Implement site emergency response procedures for serious incidents
- 9.5 Report any harm to a threatened species, population or ecological community or heritage item
- 9.6 Report any leak or spill involving chemicals or hazardous materials
- 9.7 Classify and report the incident/ hazard in INX InControl



Routine environmental inspection and incident reporting.

Relevant Downer Standard:

- DG-ZH-PRO06 Incident Management Procedure

10. Keep every site tidy and housekeeping maintained



What do you need to know?

A clean and tidy work site promotes a clean and safe hazard free working environment and increases productivity.



Site storage containers stacked neatly.

What do you need to do?

10.1 Sort - remove/discard items that are not needed

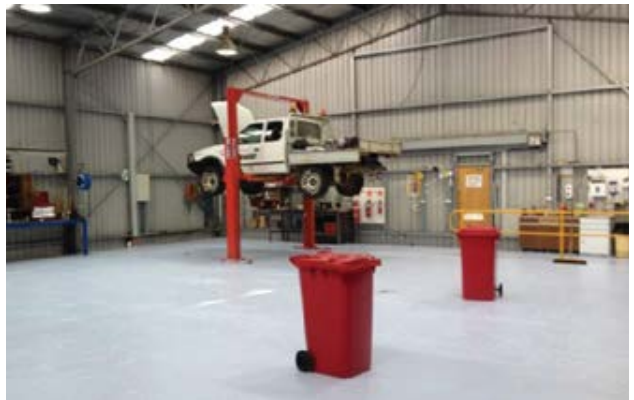
10.2 Order - ensure items are accessible and within reach

10.3 Clean - ensure that the workplace is maintained in a clean and tidy condition at all times e.g. remove all unwanted rubbish

10.4 Standardise - maintain a high standard of cleanliness within your workplace

10.5 Sustain - keep the site safe and efficient each day

10.6 Secure - ensure waste and storage receptacles are emptied, emergency and shut off valves are in working order and site is secured to prevent discharges during shutdown periods



Clean and tidy workshop facility.



Well organised and managed onsite workshop.

Relevant Downer Standard:

- DG-ZH-STO63 Waste Management Standard



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