



ENVIRONMENTAL MANAGEMENT PROCEDURES

SQUIBBS ROAD DRAINAGE IMPROVEMENTS

Overview

This document provides an overview of the DCC environmental management objectives, guidelines for works and services, issues to be addressed by contractors and contractor's responsibilities.

Environmental Objectives

The Devonport City Council (DCC) is committed to achieving environmentally and economically - sustainable development.

The DCC is committed to achieving high quality environmental outcomes through the requirement for implementation of effective environmental management systems, incorporating management of the environmental effects of the work and services, that are beneficial to the community and the natural environment.

Guidelines for Works and Services

All Contractors and service providers must abide by DCC's Environmental Protection Guidelines.

Purpose

Contractors must be able to demonstrate to the DCC that the execution of works and the provision of services will be undertaken in a manner that has minimal impact on the natural environment and as a minimum, complies with the relevant legislative requirements, regulations and policies.

Legislation

Contractors shall, as a minimum, comply with the requirements of relevant Commonwealth and Tasmanian Legislation, Regulations and Environment Policies. In addition, the Contractor shall abide by all DCC issued Ordinances and By Laws designated to protect the environment.

Contractor's Responsibilities

The Contractor is responsible for sound environmental management practices whilst implementing the project including:

- Understanding environmental legislation as it relates to their activities and the activities of subcontractors and / or consultants working on their behalf;
- Providing support, training and resources to their staff to ensure reasonable precautions, due care and diligence are applied to prevent non-compliance;
- Developing and monitoring policies, procedures and work instructions;

- For ensuring that their managers, supervisors, sub-contractors and employees within their control or influence comply with these requirements and the DCC environmental objectives;
- Monitoring performance of tasks and activities;
- Reporting to DCC on environmental performance;
- Minimising environmental damage in the event of an incident;
- Providing safeguards to minimise environmental risks; and
- Implementing the construction-relevant aspects of the Squibbs Road Management and Monitoring Plan.

DCC's Responsibilities

DCC has a responsibility to ensure that the necessary permits are in place to enable the Contractor to lawfully perform the tasks and duties of the works. DCC is to provide these permits to the Contractor prior to the commencement of works in the Work Area.

Environmental Protection Guidelines (EPGs)

This section contains Environmental Protection Guidelines (EPGs) which specify detailed management prescriptions in addition to the general requirements applicable to the project indicated in the previous section. The EPG's incorporate specific environmental protection requirements for this project.

The Contractor's Environmental Management Plan (EMP) must address these issues.

The following Environmental Protection Guidelines are included:

Document No. and Name -

- **EPG 1:** Disturbance to Terrestrial and Aquatic Flora and Fauna
- **EPG 2:** Working near waterways and drains
- **EPG 3:** Erosion, Sedimentation and Surface Run-off
- **EPG 4:** Aboriginal Artefacts – Unanticipated Discovery Plan
- **EPG 5:** Weed and Pathogen Control

Objective

To minimise the effect of the construction activities on local biodiversity, particularly endangered and/or protected species.

Target

No impact on biodiversity near the project beyond that anticipated at the design phase.

Control Methods

GENERAL

- No refuelling of equipment, machines or vehicles is to occur within 20 m of a watercourse.
- Prevent the spillage of fuels, oils or other hazardous substances into drains and waterways.
- Areas of environmental significance are to be identified on the ground, together with the locations of fencing to prevent machinery access, in conjunction with a suitably qualified ecologist.
- The conditions of any approval permits must be adhered to.
- All site workers are to be familiar with the conditions of the permits and environmental aspects of the project at the site induction.

PROTECTION OF FAUNA

- Existing crayfish burrows in the translocation area will be identified in the field by a suitably qualified person and flagged using steel droppers marked with bright coloured paint (and a safety cap). Their location will be shown to contractors and others working in the site and directions given that they are to be retained;
- Any drains or trenches required to be dug at the site will be backfilled at the end of each working day or suitable plastic safety fencing established so that no open section of trench or earthworks remains accessible;
- Maintenance activities will be limited to day time to avoid impacts on nocturnal fauna; and
- Remove all 'food' rubbish to avoid attracting feral and introduced animals and birds.

Monitoring

- Weekly observation of the disturbance boundaries by the Contractor to confirm that works do not extend beyond the approved Works Area.
- Daily inspection of erosion and sediment management controls to verify their effectiveness.
- Daily inspection of burrowing crayfish habitat immediately downstream of the sites identified as susceptible to disturbance by the construction operations.

ENVIRONMENTAL PROTECTION GUIDELINE Disturbance to Terrestrial and Aquatic Flora and Fauna	Document No. EPG 1
--	-------------------------------------

Records

Keep written records that include:

- The date and reason for each inspection.
- Details of any disturbances that need to be addressed.
- The date and time of notification to the Contractor of any failure to implement site specific management requirements.
- Directions given to the Contractor by the DCC Superintendent to fix any identified issues and the timeframe within which the Contractor should complete the remedial works.

All records kept by the Contractor must be provided to DCC for future reference.

ENVIRONMENTAL PROTECTION GUIDELINE Working near waterways and drains	Document No. EPG 2
---	-------------------------------------

Objective

To minimise the potential for environmental impact to waterways, drains and adjacent areas during construction.

Target

Negligible environmental impact to waterways, drains and water bodies outside the Work Area.

Control Methods

Management measures include:

- Sediment netting will be established as necessary to ensure sediment is stopped from entering waterways and drains.
- To further reduce the risk of sediment entering the drain, construction work should, when possible, be undertaken in dry weather and soil conditions.

Monitoring

- Construction near waterways and drainage lines should be inspected daily and following any heavy rainfall event.
- All observations should be recorded.

Records

Keep written records that include:

- The date and reason for each inspection.
- Details of any disturbances that need to be addressed.
- The date and time of notification to the Contractor of any failure to implement site specific management requirements.
- Directions given to the Contractor by the DCC Superintendent to fix any identified issues and the timeframe within which the Contractor should complete the remedial works.

All records must be provided to DCC for future reference.

Objective

To minimise the potential for erosion and avoidance of sedimentation in downstream waterways, dams and drains.

Targets

Minimal erosion within the construction areas and no sedimentation in the downstream waterways, dams and drains.

Responsibilities

The Contractor is responsible for the construction and maintenance of the erosion and sediment control works.

The Contractor is required to regularly assess the need for temporary run-off control.

The Contractor is responsible for cleaning and repairing erosion and sediment control works, and notifying the DCC Superintendent of any failures.

The Contractor will inspect all erosion controls and sediment control works, including in adjoining waterways, keep a written record of all inspections and observations and advise on improvements.

Control Methods

The following control measures are to be established and monitored during the construction period. They are to be fully operational and provide effective erosion control prior to disturbing adjacent ground and commencement of adjacent excavation. The Work Area is to be inspected daily with all observations and erosion control directions documented.

The erosion and sedimentation controls must:

- Prevent sediment laden run-off entering adjoining areas, waterways, drains and dams;
 - No soil that is to be stockpiled during construction is to be transferred across a waterway or drainage or placed on the opposite side of the drain or waterway.
- Prevent soil loss from disturbed areas through wind and water erosion;
- Undertake clean-up and remediation on completion of construction;
- Sediment control equipment (applicable to the soil texture) will be installed to minimise any suspension of sediment and prevent contamination to any waterways or drainages;
- Bunding will be installed around storage areas for fuels and oils to prevent the spillage of fuels, oils or other hazardous substances into the water;
- Wastes (especially hydrocarbon-based products) will not to be deposited into, hosed down or swept into any waterway or soak;
- Work likely to result in sediment run-off into drains and waterways should not be carried out during wet weather;

ENVIRONMENTAL PROTECTION GUIDELINE Erosion, Sedimentation and Surface Run-off	Document No. EPG 3
--	-------------------------------------

- Refueling equipment, machines or vehicles is to occur at least 50 m away from a watercourse/drain; and
- A spill kit will be maintained in the Work Area near the source of fuel/oil and other chemicals.
- Multiple spill kits may be needed when there are multiple sources of fuel, oil or other chemicals needed for the construction process.

Monitoring

- Inspect erosion and sediment control devices daily and before and after significant heavy rainfall event and record all observations.
- Observe erosion and sediment control devices daily to ensure correct functioning and placement and that available capacity is adequate.
- Devices should be cleaned and/or replaced as required to ensure that they are functional.

Emergency Response

In the event of any significant failure of the erosion and sediment control devices the following will be implemented:

- The Contractor will reinstate the erosion and sediment controls as soon as practicable.
- The Contractor will determine whether the failure constitutes a threat to any adjoining waterway or drain; advice may need to be sought from an ecologist or suitably qualified person as to the potential impact a sedimentation event may have on aquatic and semi-aquatic biota.
 - If not considered a threat to waterways, procedures are to be reviewed and the DCC Superintendent to be advised of, and approve, any alterations or installation of additional and/or more effective erosion control devices.
 - If the failure constitutes a threat to any adjoining waterway, drain or dam, the DCC Superintendent is to be notified as soon as practicable and within 24 hours. The following may need to be applied -
 - additional and more effective erosion control devices should be installed as soon as practicable; and
 - any instructions provided by the DCC Superintendent must be implemented as soon as practicable.

Records

Keep written records that include:

- The date and reason for each inspection.
- Details of any disturbances that need to be addressed.
- The date and time of notification to the Contractor of any failure to implement site specific management requirements.

ENVIRONMENTAL PROTECTION GUIDELINE Erosion, Sedimentation and Surface Run-off	Document No. EPG 3
--	-------------------------------------

- Directions given to the Contractor by the DCC Superintendent to fix any identified issues and the timeframe within which the Contractor should complete the remedial works.

All records must be provided to DCC for future reference.

<p style="text-align: center;">ENVIRONMENTAL PROTECTION GUIDELINE Aboriginal Artefacts – Unanticipated Discovery Plan</p>	<p style="text-align: center;">Document No. EPG 4</p>
--	---

Objective

To protect Aboriginal cultural heritage values, both artefacts and landscape values, that may be encountered during the project.

Target

Minimal impact on any Aboriginal cultural heritage values during construction.

Unanticipated Discovery Response

If any unanticipated discoveries of Aboriginal cultural heritage materials are made during the construction period, the following processes will be followed so that the requirements of the *Aboriginal Relics Act 1975* and the *Coroners Act 1995* are met:

Discovery of Cultural Heritage Items:

- If any project personnel, contractors or subcontractors believe that they have discovered or uncovered Aboriginal cultural heritage materials, the individual will notify machinery operators that are working in the general vicinity of the area that earth disturbance works must stop immediately.
- Immediately notify the DCC Superintendent and Contractor's site manager.
- A buffer protection zone of 10m X 10m should be established around the suspected cultural heritage site or items.
- No unauthorised entry or earth disturbance must be allowed within this 'archaeological zone' until the suspected cultural heritage items have been assessed, and appropriate mitigation measures carried out.
- Where required cooperate with management instructions applied relating to site preservation in accordance with the *Aboriginal Relics Act 1975*.

Discovery of Skeletal Material:

- Under no circumstances should the suspected skeletal remains be touched or disturbed. If these are human remains, then this area potentially is a crime scene. Tampering with a crime scene is a criminal offence.
- Any person discovering suspected skeletal remains must notify machinery operators that are working in the general vicinity of the area that earth disturbing works must stop immediately.
- A buffer protection zone of 50m X 50m should be established around the suspected skeletal remains.

<p style="text-align: center;">ENVIRONMENTAL PROTECTION GUIDELINE Aboriginal Artefacts – Unanticipated Discovery Plan</p>	<p style="text-align: center;">Document No. EPG 4</p>
--	---

- No unauthorised entry or earth disturbance must be allowed in this buffer zone until the suspected skeletal remains have been assessed.
- The relevant authorities (police) must be contacted and informed of the discovery.
- Where required cooperate with management instructions applied relating to site preservation in accordance with the *Aboriginal Relics Act 1975*.

Records

Written records should be kept that include:

- The date of any unanticipated discovery.
- Details of the actions taken.
- The date and details of responses from the relevant authorities regarding any unanticipated discovery.

All records must be provided to DCC for future reference.

<p style="text-align: center;">ENVIRONMENTAL PROTECTION GUIDELINE Weed and Pathogen Control</p>	<p style="text-align: center;">Document No. EPG 5</p>
---	--

Objectives

To minimise the risk of transfer of weeds, plant diseases and fungal pathogens to the Work Area.

Targets

No spread of noxious weeds, infectious plant disease and fungal infestation within the Work Area or from the Work Area to another or to adjoining land.

Control Methods

Vehicles, machinery and equipment involved in direct excavation and construction activities at the Work Area will be washed prior to their entry into site. The washing down of vehicles, machinery and equipment will occur in an appropriate location, such as a hardstand associated with a works area or commercial/industrial wash bay.

The following process should be applied in washing down vehicles, machinery and equipment (Note: Do NOT apply water to equipment that may be damaged by water)

- Locate washdown site and prepare the surface or construct bunding as required.
- Safely park the vehicle free of any hazards (e.g. electrical), ensure the engine is off and the vehicle is immobilised.
- Look over the vehicle/machine/equipment, inside and out, for where dirt, plant material including seeds are lodged. Pay attention to the underside of the vehicle, radiators, spare tyres, foot wells and bumper bars.
- Remove any guards, covers or plates if required being careful of any parts that may cause injury.
- Knock off large clods of mud, use a crow bar if required and sweep out the cabin.
- Use a vacuum or compressed air where available for removing dried plant material like weed seeds and chaff in radiators and other small spaces where this material lodges. Brush off dry material if no other facilities are available.
- Clean down with a high-pressure hose (using potable drinking water) and stiff brush/crowbar.
- Start with the underside of the vehicle, wheel arches, wheels (including spare). Next do the sides, radiator, tray, bumper bars etc and finally upper body. Some vehicles may need to be moved during washdown to facilitate washing (eg tracked machinery).
- Clean associated implements, eg buckets.
- Check there is no loose soil or plant material that could be readily dislodged or removed.
- Wash effluent away from the machinery and do not drive through wash effluent.

Monitoring

Weekly monitoring of plant and materials and location of stockpiles, especially for any germination of noxious or environmental weed species (advice on weed identification may need to be sought from a suitably qualified person).

Follow-up monitoring to be undertaken post construction and post rehabilitation for identification and appropriate additional control as disturbance from construction works is likely to stimulate germination of a range of weed species.

Emergency Response

In the event of any significant failure of infectious disease or introduced species containment control measures will be implemented:

- The Contractor is to determine whether the failure constitutes an ongoing threat to noxious weed and disease control near the Work Area.
 - If not considered an ongoing threat to minimising spread of introduced flora or diseases, procedures are to be reviewed and the DCC Superintendent is to be advised of, and approve, any alterations or installation of additional more effective control devices.
 - If the failure is considered to constitute an ongoing threat the DCC Superintendent is to be notified as soon as practicable and within 24 hours. The following may need to be applied -
 - additional and more effective erosion control devices should be installed as soon as practicable; and
 - any instructions provided by the DCC Superintendent must be implemented as soon as practicable.

Records

Written records should be kept that include:

- The date and reason for each inspection.
- Details of any non-conformance with control measures.
- The date and time of any notification to the Superintendent of any failure of control measures.

Rehabilitated area inspections are to occur during the construction phase for the presence of introduced flora species the results are to be documented.

All records must be provided to DCC for future reference.