

PART M55**MAINTENANCE ENVIRONMENTAL PROTECTION ISSUES****CONTENTS**

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1. GENERAL

- .1 This Part specifies supplementary protection measures in line with DPTI's "Environmental Management Workbook for Road Maintenance Activities".
- .2 The following documents are referenced in this Part:
 - (a) Part G20 Quality System Requirements
 - (b) Part M50 Environmental Management Requirements
 - (c) AS 1940 The Storage and Handling of Flammable and Combustible Liquids
 - (d) DPTI Operational Instruction 21.5 Roadside Significant Sites
 - (e) DPTI Regional Weed Identification Guidelines
 - (f) DPTI Operational Instruction 21.3 "Phytophthora (Dieback) Control
 - (g) DPTI Protecting Waterways Manual
 - (h) DPTI Environmental Management Workbook for Roadside Maintenance Activities
 - (i) Environment Protection Authority Safe and Effective Pesticide Use: Handbook for Commercial Spray Operators
 - (j) Cultural Heritage Guidelines – A Handbook for Staff and Contractors
 - (k) Fire and Emergency Services Act 2005
 - (l) Fire and Emergency Services Regulations 2005
 - (m) Stormwater Pollution Prevention Code of Practice for Local, State and Federal Government
 - (n) Environment Protection Authority EPA Information sheet – Construction Noise
 - (o) Recycled Fill Materials for Transport Infrastructure Operational Instruction 21.6

2. SITES OF HIGH ENVIRONMENTAL OR CULTURAL SIGNIFICANCE**Roadside Significant Sites**

- .1 A number of sites have the "Protect Actions" that may impact works within the maintenance activity zone.
- .2 The Contractor shall adhere to the requirements of the "Roadside Significant Sites DPTI Operational Instruction 21.5" and specific protect actions requirements.
- .3 Damage to a Roadside Significant Site shall be treated as a non-conformance, and managed in accordance with Part G20 Quality System Requirements, the Contractor's Quality System and Part M50 Environmental Management Requirements.

Cultural Heritage Sites

- .4 The Contractor shall exercise due care and make the necessary allowance for the preservation of all identified sites or sites that may be encountered whilst constructing the Works.

- .5 The protection of cultural heritage sites shall be undertaken in accordance with DPTI's "Cultural Heritage Guidelines – A Handbook for Staff and Contractors". The Contractor shall obtain appropriate approvals and utilise appropriate materials when undertaking works within a cultural heritage site.

Aboriginal Heritage Sites

- .6 The Contractor shall stop work if, at any time, an Aboriginal site or a site containing items associated with Aboriginal occupation is uncovered. The Contractor shall inform the Superintendent immediately and work shall not recommence at the site until the Aboriginal Affairs and Reconciliation Division for the Department of the Premier and Cabinet has provided direction on site treatment.

Fire Safety

- .7 The Contractor shall ensure all works and associated activities are in accordance with the *Fire and Emergency Services Act 2005* and *Fire and Emergency Services Regulations 2005*, including the requirement to obtain a permit, if necessary under Section 81 of the Act, prior to lighting or maintaining a fire during the Fire Danger Season or during a Total Fire Ban Day.
- .8 Lighting a fire includes heating bitumen, welding, gas-cutting, soldering, grinding and charring.

3. FLORA PROTECTION

- .1 The Contractor shall work within the Maintenance Activity Zone (MAZ) and restrict parking, storage and manoeuvring of machinery to areas away from native vegetation.
- .2 The Contractor shall limit the storage of material to nominated stacking sites.

Flora and Fauna Protection

Vegetation Clearing

- .3 The Contractor shall not remove, disturb or damage vegetation or strip topsoil beyond the Maintenance Activity Zone. Material shall not be stockpiled against trees, under the drip line of trees, or on native grasses, shrubs and groundcover plants.

Care of Vegetation

- .4 Care shall be taken to avoid damage when working in the immediate vicinity of any vegetation. Any roots exposed in excavations shall be trimmed with a clean saw cut.
- .5 Where branches intrude onto the working area and are likely to be damaged during the construction of the works, the branches shall be trimmed to the branch collar with a clean saw cut. If necessary, work close to trees shall be carried out by hand to avoid damage by equipment.

4. WEED, PEST AND DISEASE CONTROL

General

- .1 The Contractor shall:
 - (a) comply with the Weed Management Guidelines in the relevant DPTI Regional Weed Identification Guides;
 - (b) ensure the activity zone is checked for proclaimed pest plants prior to undertaking maintenance activities likely to disturb soil and vegetation;
 - (c) use good machinery hygiene practices at all times and particularly when leaving an area with a declared pest plant or environmental weed. Machinery shall be clean of soil, vegetation and seeds when starting work, moving between sites and leaving a site;
 - (d) not import weed infested material into the maintenance activity zone;
 - (e) not dump topsoil within the road reserve;
 - (f) not spread pest plants through mulching; and
 - (g) dispose of pest plants at a licensed waste disposal site.
- .2 The Contractor shall control proclaimed pest plants and environmental weed outbreaks within the Maintenance Activity Zone in accordance with the Environment Protection Authority Safe and Effective Pesticide Use: Handbook for Commercial Spray Operators.

- .3 The Contractor shall notify the Superintendent, using the Weed Infestation Report form in Attachment M55A, to report new infestations of proclaimed pest plants and priority weeds in the maintenance activity zone.
- .4 The Contractor shall not use residual herbicides in maintenance activities for controlling seasonal weed growth without the prior approval from the Superintendent.

PHYTOPHTHORA CONTROL

- .5 Phytophthora is a root rot fungus that kills many native and exotic plant species. The fungus can be spread through the movement of infected soil and water. The objective is to minimise the movement of Phytophthora infested soil and water.
- .6 This Clause shall apply when working in a Phytophthora moderate to high potential threat area as identified in DPTI Operational Instruction 21.3 "Phytophthora (Dieback) Control", and in areas where Phytophthora has been identified by the Principal.
- .7 All work shall be carried out in accordance with the appropriate procedures required for the risk level of the maintenance area as detailed in DPTI Operational Instruction 21.3 "Phytophthora (Dieback) Control". These activities include:
 - (a) vehicle movement;
 - (b) earthworks;
 - (c) works on and near drains;
 - (d) material movement; and
 - (e) vegetation removal.
- .8 The Contractor shall ensure that all staff and subcontractors are trained in the requirements of DPTI Operational Instruction 21.3. A register of those inducted shall be maintained with a clear indication that Phytophthora management has been covered.

5. WATER QUALITY PROTECTION, EROSION AND SEDIMENT CONTROL

General

- .1 The Contractor shall undertake maintenance works in a manner that prevents the contamination of storm water and nearby surface water.
- .2 The Contractor shall establish control measures to arrest soil erosion and entry of sediment into waterways as a result of maintenance works in accordance with DPTI "Protecting Waterways Manual", "DPTI Environmental Management Workbook for Roadside Maintenance Activities" and Stormwater Pollution Prevention Code of Practice for Local, State and Federal Government, available from <http://www.environment.sa.gov.au/epa/pdfs/bccop1.pdf>
- .3 The Contractor shall prevent solid waste, oils, chemicals, bitumen spray waste, pavement marking scrubbing waste and waste water from brick, concrete and asphalt cutting from leaving the site or entering existing waterways. These shall be collected and disposed of or recycled at a licensed waste depot.
- .4 Where there is a high risk of sediment pollution to adjoining lands or receiving waters, or the total area to be disturbed or left disturbed at any one time exceeds 0.05 ha the Contractor shall:
 - (a) consult the Superintendent regarding the development of a Soil Erosion and Drainage Management Plan (SEDMP); and
 - (b) undertake a joint inspection and agreement on the extent of controls required in the Environmental Work Plan for the site.
- .5 If a SEDMP is required it shall be prepared and implemented in accordance with DPTI "Protecting Waterways Manual" and Master Specification Part CH 50.
- .6 Where work is undertaken in a water course, approval must be obtained from the Superintendent as a Water Affecting Activities Permit may be required. This shall constitute a **Hold Point** (refer Clause 10 "Hold Points").

6. CONSTRUCTION NOISE AND VIBRATION CONTROL

- .1 Maintenance vehicles and equipment shall have appropriate measures fitted and be effectively maintained to minimise engine noise. The Contractor shall comply with the Environment Protection Authority EPA Information sheet – Construction Noise.
- .2 In addition, work shall be programmed to avoid noisy operations outside normal construction hours of 7.00 a.m. to 7.00 p.m. Monday to Saturday inclusive and not before 9.00 a.m. or after 7.00 p.m. on Sundays and public holidays.
- .3 When works will involve the use of heavy equipment or there are significant noise generating activities, the Contractor shall as much as practicable, prevent noise from being a nuisance to neighbouring residents.
- .4 Any works outside customary working hours shall be undertaken in accordance with DPTI Operational Instruction 21.7 Management of Noise and Vibration: Construction and Maintenance Activities and requires approval from the Superintendent. Any proposed night works shall be outlined in the Night Works Management Plan.

7. AIR QUALITY AND DUST SUPPRESSION

- .1 The Contractor shall suppress nuisance dust from any maintenance activities including stockpile sites.
- .2 To minimise air pollution from the maintenance works, the Contractor shall implement the following measures:
 - (a) Minimise stockpiling of materials;
 - (b) Watering of the work areas where dust is causing a safety hazard or nuisance;
 - (c) Avoid or minimise dust-generating activities during dry and windy conditions;
 - (d) Cessation of works where climatic conditions are such that maintenance operations generate unacceptable levels of dust pollution; and
 - (e) Minimise the extent of exposed, stripped surface until covered with appropriate fill material.

8. MATERIALS

Construction Water

- .1 If the Contractor uses water from any source other than a SA Water mains supply for the purpose of maintenance, the Contractor shall obtain all approvals, licences or permits that are required to extract the water or to construct a bore, prior to water extraction. Refer to M11 Maintenance – General Provisions for other requirements regarding water not sourced from a SA Water mains supply.
- .2 The Contractor shall be responsible for adhering to permanent water conservation measures and any current SA Water restrictions when undertaking maintenance activities.

Recycled Materials

- .3 The Principal encourages the use of recycled material in maintenance works. The Contractor shall consider the use of recycled materials when purchasing items such as pavement materials and roadside furniture. Recycled Pavement Materials shall comply with Clause R15.6 "Recycled Materials and Blast Furnace Slag".
- .4 Where the Contractor proposes to use recycled material for purposes other than pavement construction, the Contractor shall ensure that an assessment of potential contaminants in accordance with the Recycled Fill Materials for Transport Infrastructure Operational Instruction 21.6 (including testing where appropriate) and an environmental risk assessment is undertaken and documented in the CEMP. This applies to material won from the site and imported material.

Chemical Storage and Handling

- .5 The Contractor shall ensure that fuel, oil and other chemicals are stored within a bund, with an impervious floor, in an area not subject to flooding (in accordance with the EPA Bunding Guidelines and relevant Australian Standards including AS 1940). Temporary bunding, for chemical storage required at maintenance sites remote from depot facilities, may be used providing that it is designed to adequately contain spillage, prevent soil and storm water contamination and divert storm water from the storage area.

- .6 The Contractor shall provide, and have access to at all times, a hydrocarbon spill kit for the purpose of cleaning up oil and fuel spillage. The Contractor shall also ensure that personnel trained in the efficient deployment of the spill kit are readily available in the event of a spill.
- .7 In the event of fuel or oil spillage, the Contractor shall clean up spills and excavate or remove contaminated soil to a licensed waste disposal site and replace the contaminated soil with clean fill.

9. WASTE MANAGEMENT

- .1 The Contractor shall carry out all work under the Contract in such a manner as to minimise the generation of waste materials. Waste materials from maintenance activities (other than material to be mulched) shall become the property of the Contractor and shall be removed from the site within 7 days.
- .2 The Contractor shall use methods or plant to minimise the generation of wastes from spray sealing activities. Wastewater from cleaning spray equipment shall be contained and either re-used or disposed of at a licensed waste facility.
- .3 Waste materials including plant maintenance (sump oil, bitumen, kerosene, etc.) shall be disposed of at the nearest licensed waste disposal depot. Hazardous wastes and contaminated material shall be disposed of in accordance with Environment Protection Authority requirements.
- .4 The Contractor shall collect and recycle scrap metal and other materials where appropriate. Re-use of recovered or recycled materials within the Works shall be subject to the approval of the Superintendent. All waste materials shall be disposed of at a facility that is licensed to accept the material.

10. HOLD POINTS

- .1 The following is a summary of Hold Points, referenced in this Part:

CLAUSE REF	HOLD POINT	RESPONSE TIME
5.6	For Superintendent approval to undertake work within a water course.	20 working days

11. ATTACHMENT M55A - WEED INFESTATION REPORT

Location of proclaimed pest plant or environmental weed outbreak / infestation including Road number, Road name and MMs:

Description of area of outbreak / infestation:

Species of proclaimed pest plant or environmental weed outbreak / infestation:

Actions taken to control outbreak / infestation, if any:

Suggested actions to be taken to control outbreak / infestation, if known:

Please attach photos of outbreak / infestation.
 Sketch Plan of outbreak / infestation area:

Submitted to DPTI by: _____
 Date received by DPTI: _____ Name: _____
 Forward to the Regional Environmental Officer for assessment and necessary action.

Proposed actions to be taken by DPTI:

