

PART L45
BUSHCARE

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1. GENERAL

- .1 This Part specifies the requirements for Bushcare (i.e. the provision of minimal disturbance, selective control of herbaceous and woody weeds in areas of significant native vegetation).

2. WEED CONTROL CATEGORY

- .1 The Contractor shall confirm to the following weed control categories:
 - (a) **High Quality and Sensitive Site:** Bushcare sites in native vegetation which is of high quality, sensitive to disturbance and contains significant or threatened species or dormant perennial species such as orchids. These sites will require very low disturbance bushcare techniques using trained, skilled on-ground operators. Weed control methods may include the use of light hand tools, brushes, sponge tongs and hand held spray bottles for hand removal, swabbing, frilling, wiping and precise spot spraying. Disturbance by weed control works, accessing the site and removal of waste shall be minimised at all times.
 - (b) **Moderate Quality Sites:** Bushcare sites in native vegetation which is of moderate quality and may contain varying levels of weed infestation amongst a reasonably intact understorey, but not characterised by high quality, high sensitivity or the presence of significant species. These sites will require low disturbance bushcare techniques, at least basically trained operators and a high level of supervision by trained, skilled supervisors. Weed control methods may include the use of hand or light power tools (generally not brush-cutters or similar), brushes, sponge tongs and hand held spray bottles and small knapsack sprays for hand removal, swabbing, frilling, wiping and precise spot spraying.
 - (c) **Sites with Weedy Areas:** Bushcare sites in native vegetation which contains significant weedy areas with generally sparse to absent understorey and not containing high quality or substantial areas of moderate quality vegetation. These sites may require the use of power tools such as brush-cutters, chainsaws and power spray units in addition to lighter tools and lower impact methods.
 These sites will still require disturbance to be minimised and basically trained operators are used with supervision by trained, skilled supervisors.

3. WEED CONTROL REQUIREMENTS

- .1 The Contractor shall conform to the following weed control requirements:
 - (a) **Methods of Weed Control Specified by the Principal:** The method of weed control for the project shall be as specified by the Principal.
 - (b) **Methods of Weed Control Recommended by the Contractor:** The Contractor shall examine the site conditions and recommend methods of weed control or Bushcare for the project. The methods shall include nominated chemicals and application rates to be used and take into account all aspects of the work, including all weed species' capacity to regenerate, and disposal of cut material.
 All chemicals shall be used in accordance with the manufacturer's instructions and recommended rates. The initial weed control treatment shall effectively clear all weed species. If the initial spray has not effectively cleared all listed weed, the areas shall be re-sprayed by the Contractor.
 Native vegetation shall be preserved and protected during works on site. Any off-target damage shall be rectified by the Contractor.

4. METHODS OF WEED CONTROL

- .1 All work specified shall be carried out by persons trained or experienced in selective, minimal disturbance weed control techniques in native vegetation. Weed control works shall include one or more of the following procedures and shall be performed in accordance with these procedures, as appropriate to the target weed species.
- .2 The Contractor shall use the following weed control methods:
 - (a) **Cut and Swab, Cut and Frill:** Cut and swab is the preferred control method for woody weeds that are likely to re-shoot from an untreated cut stump, cannot be effectively hand-pulled or where soil disturbance is to be minimised.
A systemic herbicide (Garlon and diesel) shall immediately be applied to the main stem(s) at the manufacturer's recommended rate. Large stems (exceeding 20 mm diameter) shall be frilled to the depth of the sap-wood below the main stem cut and immediately applied with herbicide to ensure adequate translocation of herbicide. All live stems shall be removed from the cut stump. Herbicide shall be applied immediately to all cut surfaces by brush (or similar), avoiding any spillage of herbicide on the soil or adjacent non-target plants. A red marking dye shall be added to the herbicide mix.
 - (b) **Cut Only:** Weeds that will not shoot from a cut stump shall be cut as close as possible to ground level and all live side stems shall be removed to prevent regrowth.
 - (c) **Hand-pull:** This method of herbaceous weed control shall only be used for species that will not regrow from residual rootstock left in the soil and in areas where other methods are impracticable or a high risk to adjacent vegetation. Disturbance to the soil shall be minimised.
 - (d) **Spot Spray:** Spot spraying, involving the controlled application of suitable systemic or knock-down herbicide (Roundup) to a target plant, shall only be carried out where there is very low risk of non-target damage. Roundup Biactive shall be used around wetlands and waterways. Spraying shall not be carried out in windy conditions in order to avoid spray drift. Spray shall not be applied to adjacent non-target plants. A red marking dye shall be added to the spray mix.
 - (e) **Wiping:** Wiping of leaves of herbaceous species, particularly strap-leaved species such as Watsonia and Freesia with concentrated or slightly diluted systemic herbicide using sponges mounted on a holder such as tongs or with a paint brush or specialized equipment such as a wick wiper. This method may often be employed for eradicating perennial strap-leaved plants amongst remnant understorey. Operators shall be trained specifically in the use of these methods. Only suitable non-spill herbicide containers shall be used in the works area.
 - (f) **Frilling Only:** Application of concentrated or slightly diluted systemic herbicide to the stems of woody plants by paring back the bark around stems, exposing the cambium layer around most or all of the stem circumference and immediately applying herbicide to this layer by means of a brush, squeeze bottle or similar. For larger woody weeds a tomahawk, machete, chisel or similar may be used to frill all accessible main stems and the pared-back bark should be left attached to the stem to form a small reservoir for herbicide at the bottom of the wound. Drilling to create reservoirs herbicide may also be used but should expose and treat a similar area of cambium layer. For smaller and soft wooded weeds, a knife or other sharp bladed hand tool shall be used. Operators shall be trained specifically in the use of these methods. Only suitable non-spill herbicide containers shall be used in the works area.
 - (g) **Ringbarking:** Complete removal of the cambium layer around the circumference of all trunks or stems of suitable trees or shrubs. This method is only suitable for weed species that will not re-shoot from roots or stems below the ringbark wound, such as pine trees. If the plant is to be killed and left standing, the Contractor shall ensure that there is no potential for rotting branches or the whole plant to create a hazard by falling on roads, paths structures or trafficked areas.

5. DISPOSAL OF CUT MATERIAL

General

- .1 The removal operation shall be carried out in a manner involving minimal movements across the site resulting in minimal disturbance to the vegetation, soil and watercourses.
- .2 Potentially invasive species with fruits or flowers intact shall be bagged as required to prevent the spread of propagules.
- .3 The Contractor may use an approved motorised chipping unit to process the upper canopy and minor branches of woody weeds. The unit shall be in good working order, shall comply with all applicable OHS&W, noise and spark arrestor requirements, and shall be operated only by trained operators equipped with appropriate personal safety equipment.

Disposal Methods

- .4 Cut or chipped material shall be disposed of in accordance with the Environmental Management Plan. This may require stockpiling on site, spreading over the worksite, removal from site or burning.
- .5 The Contractor shall use the following disposal methods:
 - (a) **Stockpile On-Site:** Cut or chipped prunings shall be stockpiled on site in the location shown on the Drawing or as agreed with the Principal.
 - (b) **Spread On-Site:** Where approved by the Principal, cut material may be left on site where they provide protection to exposed soil, will not inhibit regeneration of indigenous species, will not significantly increase the current fuel load at the site and do not contain seed.
Chipped prunings may be spread evenly over the ground taking care to avoid indigenous grasses and ground covers. The spread chippings are not to exceed 100 mm in depth across the site.
 - (c) **Remove from Site:** The Contractor shall remove all material from site.
 - (d) **Burning:** All material shall be burnt on site or at a suitable location proposed by the Contractor and approved by the Principal. The Contractor shall comply with all fire bans and restrictions, and shall obtain an appropriate permit to carry out burning.
 - (e) **Phytophthora (Dieback) Areas:** In High Risk Phytophthora (Dieback) areas, all cut material that has been in contact with soil shall be disposed of at a licensed waste depot or burnt.

6. RECORDS

- .1 The Contractor shall keep daily records of herbicide applications. The records shall indicate weather conditions, locations and details of application methods and personnel used. A copy of the records shall be made available on request and upon completion of the works.

7. NATIVE REVEGETATION AREA SIGN

- .1 The Contractor shall install Principal supplied "Native Revegetation Area" signs in accordance with Appendix 1.

8. HOLD POINTS

- .1 There are no Hold Points in this Part.

1. **ATTACHMENT L45A – NATIVE REVEGETATION SIGNAGE - INSTALLATION DETAIL**

