

Report of Ecological Values of Site:

Project Background

commissioned by to assess the environmental value of native vegetation in relation to a proposal to renew the lease at Site Falls Creek Alpine Resort, Victoria.

Objectives

The objectives of this assessment are:

- Describe the flora, fauna and habitat values
- Assess the Conservation Significance of the habitat
- Map the extent, type and condition of the native vegetation

Study Area

is located on Site at Falls Creek Alpine Resort, Victoria in the Victorian Alps Bioregion. This village is covered by the Alpine Resorts Planning Schemes Overlays for Comprehensive Development Zone 1; Design and Development Schedule 2; Erosion Management Schedule 1 and Environmental Significance Schedule 2.

The site covers an area of sq m. with sq m or % of the site having vegetative cover and the remainder taken up by buildings or concrete surface.

Site has a northerly aspect. It is level on the north side and on the east side has a fall of less than 5m. Land is highly modified with less than 25% native vegetation cover.

Field Survey

Site was surveyed in November 2006 with all plant species being recorded and mapped. SEE *Existing Vegetation Plan*

Flora species

A total of 19 vascular species was found on this site; 10 native and 9 exotic. Species are listed in the Appendix. Site landform and vegetation have been modified to provide open recreation areas, reduce fire hazard potential and conform to village presentation ideals of neat and tidy appearance.

Native plant species on the site are either planted in a semi-formal garden setting or scattered individual remnants of the original cover of Environmental Vegetation Class 43 Sub-alpine Woodland. This EVC has a Conservation status of Least Concern. Falls Creek is listed in the Register of the National Estate making the Conservation Significance of the area Very High.

The only tree species on site is *Eucalyptus pauciflora subsp hedraia*, Bogong Sally/Snow Gum which is classified as rare. No other rare or threatened species were found on this site. Of the 8 mature Snow Gums retained, 6 are Large Old Trees with DBH greater than the benchmark of 40 cm.

The north lawn area is composed of Fescue grass and is used for recreation. The east lawn area is gently sloping with a mixture of Fescue grass and scattered native species. As the fescue fails over time, the resulting bare ground will be oversown and planted with appropriate native species.

The more formal garden areas in the terrace and above the rock walls have been planted with exotic and native species. Of the exotic species planted, the Falls Creek draft Schedule 1 Environmental weed species Lupin, English Yarrow, Periwinkle plus mature Spruce and Pine trees, Rose and Lilac are to be replaced with native species. The site is free of Declared Noxious weeds.

Fauna species

No vertebrate fauna were recorded to be resident on the site.

The highly modified nature of the site makes it unsuitable as habitat for vertebrate fauna.

Appendix - Site Flora:

Exotic species

Falls Creek environmental weed species:

Schedule 1-Cat's Ear, Shasta Daisy, Lupin, English Ivy, Mint

Schedule 2 - Daffodil,

Schedule 3—Dianthus, Lambs Ears, Fescue

Native species

Acaena novae-zelandiae

Blechnum nudum

Celmisia puganiformis

Dianella tasmanica

Eucalyptus pauciflora subsp hedraia

Poa helmsii

Schizilema frageosum

Polystichum proliferum

Stylidium graminifolium

Tasmanica xerophila

Bidgie Widgie

Black stem Fern

Snow Daisy

Tasman Flax Lily

Bogong Sally/Snow Gum

Tall Mountain Tussock-grass

Alpine Pennywort

Mother Shield Fern

Grass Trigger Plant

Alpine Pepper Bush

Vegetation Management Plan SEE *Revegetation Plan*

This Plan been developed in response to requirements for Renewal of Lease by [] on Site [] Falls Creek Alpine Resort.

[] have engaged [] Pty Ltd to be responsible for the various stages of the Plan, including resourcing, implementation, meeting monitoring and review requirements, coordination and management.

Schedule objectives:

Enhance native species growth

Apply organic fertiliser and eradicate weeds.

Replace exotic species

Substitute native species for Falls Creek draft Schedule 1 Environmental weed species

Increase number and diversity of native species

Install native plants as per schedule below to provide complete vegetative site cover and attract native fauna, particularly invertebrates.

Year 1:

- Establish photo points for monitoring.
- Fertilise all native vegetation with slow release organic fertilizer such as Dynamic Lifter to enhance plant growth, seed production, worm activity and general soil health.
- Remove or spray herbicide on Schedule 1 weeds as appropriate.
- Remove fire fuel from ground, shrubs and trees on the north of the site. Fire fuel includes branches of diameter larger than 15mm, bark on the ground and suspended in trees and shrubs and accumulated leaves deeper than 15mm. To prevent soil erosion and improve soil health, it is important to ensure that fire fuel reduction does not result in the creation of bare ground. Ensure that sufficient leaves are retained on the surface to provide adequate ground cover.
- Mulch bare ground with weed-free material : Weed-free straw or Falls Creek shredded wood mulch or similar plus soil saver mesh on high pedestrian traffic areas and steep slopes and only straw or wood mulch on areas of less slope.
- Keep garden moist especially in the hotter months to achieve most rapid growth possible.
- Planting schedule:
A minimum of 110 Plants to be installed over a maximum of 2 years according to method described in "Extreme Gardening Manual" by Snowline Landscapes 2006.

GROUND COVERS – mixed species to total 20 plants

Alpine Pennywort
Cotula

Schizeilema frageosum
Leptinella fillicula

Geranium like foliage, fast grower, moist
hardy, fast growing, frond-like leaves

Creeping Fan Flower	<i>Scaevola hookeri</i>	mauve fan-shaped flower, hardy
Creeping Raspwort	<i>Gonocarpus micranthus</i>	moisture loving, creeping, small red flowers
Ivy Goodenia	<i>Goodenia hederacea</i>	hangs like lace, profuse yellow flowers, and shade
Mountain Woodruff	<i>Asperula gunnii</i>	prefers moist, shade, delicate white flowers, fragrant
Prickly Raspwort	<i>Stellaria pungens</i>	hardy, profuse white daisy-like flowers
Thyme Speedwell	<i>Veronica serpyllifolia</i>	moist, rapid grower, small veined mauve flowers
White Purslane	<i>Neopaxia australasica</i>	profuse fragrant white flowers, rapid grower, moist

FLOWERS— mixed species to total 30 plants

Alpine Groundsel	<i>Senecio pectinatus</i>	large bright yellow daisies, stalks 'striped'
Alpine Podolepis	<i>Podolepis robusta</i>	clusters of large yellow everlastings
Australian Caraway	<i>Oreomyrrhis eriopoda</i>	edible seed, frondlike foliage
Billy Button	<i>Craspedia sp</i>	large yellow or orange flowers, green or blue foliage
Clustered Everlasting	<i>Chrysocephalum semipapposum</i>	clusters of small yellow everlastings
Derwent Speedwell	<i>Derwentia derwentiana</i>	long spikes of white fragrant flowers, to 75cm tall
Fireweed Groundsel	<i>Senecio linearifolius</i>	bushy, fast grower, small golden daisies
Grass Trigger Plant	<i>Stylidium graminifolium</i>	deep magenta pink flower spikes, insect 'triggers'
Hairy Cut-leaf Daisy	<i>Brachyscome rigidula</i>	creeping mauve daisy
Mountain Fireweed	<i>Senecio gunnii</i>	blue foliage, purple below, coloniser of bare ground
Native Dandelion	<i>Microseris lanceolata</i>	Yam Daisy, showy solitary yellow flower
Native Geranium or Crane's Bill	<i>Geranium potentilloides</i>	rapid growing, small white flowers
Orange Everlasting	<i>Bracteantha subundulata</i>	brilliant gold/orange everlasting
Pale or Curling Everlasting	<i>Helichrysum rutidolepsis</i>	rapid growing mat, yellow everlasting
Plantain	<i>Plantago euryphylla</i>	flat rosette with ribbed veins
Royal Bluebell	<i>Wahlenbergia gloriosa</i>	deep blue/purple bluebell
Showy Violet	<i>Viola betonicifolia</i>	flower almost white to deep violet
Snow Daisy	<i>Brachyscome nivalis s/s nivalis</i>	white daisies, finely dissected foliage
Snow Daisy	<i>Celmisia sp</i>	pink in bud, large white daisy, rosette
Tasman Flax Lily	<i>Dianella tasmanica</i>	deep blue yellow centred flowers, blue berries
Two-flowered Knawel	<i>Scleranthus biflorus</i>	cushion plant, lime green
Variable Groundsel	<i>Senecio pinnatifolius</i>	hardy, clusters of soft yellow daisies
Victorian Buttercup	<i>Ranunculus victoriensis</i>	waxy bright yellow flowers

DWARF SHRUBS— mixed species to total 10 plants

Alpine Everlasting	<i>Ozothamnus alpinus</i>	profuse fragrant everlasting, red buds, white flowers
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Alpine Grevillea	<i>Grevillea australis</i>	fragrant small cream flowers, will bonsai
Bogong Daisy Bush	<i>Olearia frostii</i>	soft pink daisies fade to white, fleshy foliage
Dusty Daisy Bush	<i>Olearia phlogopappa var subrepanda</i>	profuse white daisies
Mountain Plum Pine	<i>Podocarpus lawrencei</i>	slow growing, pine scented foliage, male & female
Yellow Kunzea	<i>Kunzea muelleri</i>	profuse yellow long stamen flowers, fine foliage

TALL SHRUBS AND TREES— mixed species to total 15 plants

Alpine Mint Bush	<i>Prostanthera cuneata</i>	orchid-like white yellow/purple flowers, fragrant foliage
Alpine Pepper	<i>Tasmannia xerophila</i>	black berries, leaves hot to taste
Cascading Everlasting	<i>Ozothamnus secundiflorus</i>	cascading sprays of white fragrant everlastings
Dusty Daisy Bush	<i>Olearia phlogopappa var flavescens</i>	profuse white daisies, fast grower
Mountain hickory Wattle	<i>Acacia obliquinervia</i>	hardy small tree, rapid growth
Mountain Pepper	<i>Tasmannia xerophila</i>	black berries, leaves hot to taste
Mountain Shaggy Pea	<i>Podolobium ellipticum</i>	Yellow and orange pea flower. Hardy
Royal Grevillea	<i>Grevillea victoriae</i>	red flowers, attracts birds
Snow Gum/White Sallee	<i>Eucalyptus pauciflora</i>	colourful bark, white flowers
Tall Rice-flower	<i>Pimelea ligustrina</i>	red bracts around clusters of creamy flowers

SHADE AND MOISTURE LOVING PLANTS— mixed species to total 10 plants

Alpine Water-fern	<i>Blechnum penna-marina</i>	small fern
Black-stem Water Fern	<i>Blechnum nudum</i>	fish bone fern
Club Sedge	<i>Isolepis aucklandica</i>	fine-leaved small tussock, fast growing
Common Haircap Moss	<i>Polytrichum commune/ juniperinum</i>	communal moss
Mother Shield Fern	<i>Polystichum proliferum</i>	hardy fern

GRASSES AND RELATIVES— mixed species to total 25 plants

Sedge	<i>Uncinia compacta</i>	small tussock
Soft snow Grass	<i>Poa hiemata</i>	fine soft leaves, low tussock
Tall Mountain Tussock Grass	<i>Poa helmsii</i>	large tussock
Woodrush	<i>Luzula spp</i>	grass-like leaves fringed by white hairs

Year 2 to 5

- Remove fire fuel.
- Continue weed control by hand weeding or with herbicide application as appropriate for weed species at 6 week to 2 month intervals during the growing season.
- Apply fertiliser to all native vegetation.

- Apply or top up mulch where necessary.
- Continue planting and seed sowing to achieve full vegetative cover.
- Keep garden moist especially in the hotter months to achieve most rapid growth possible.
- In mid December to mid January, take photos, record site species and total site vegetative cover.

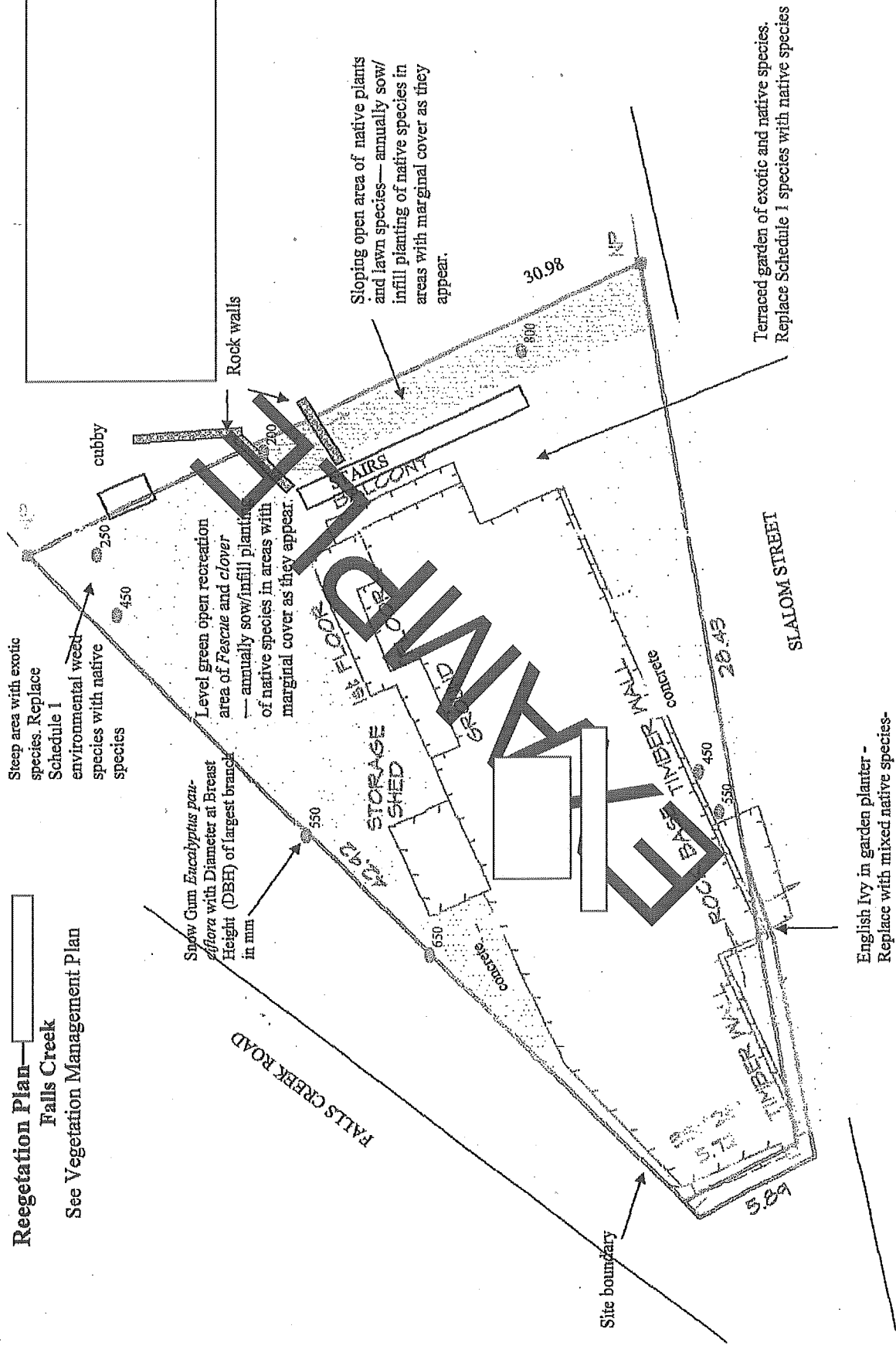
Further years

Weed control at 2 month intervals to check weed seed invasion. Apply fertiliser in spring, mulch as necessary and irrigate throughout the hotter months.



EXAMPLE

Revegetation Plan—
Falls Creek
 See Vegetation Management Plan



Steep area with exotic species. Replace Schedule 1 environmental weed species with native species

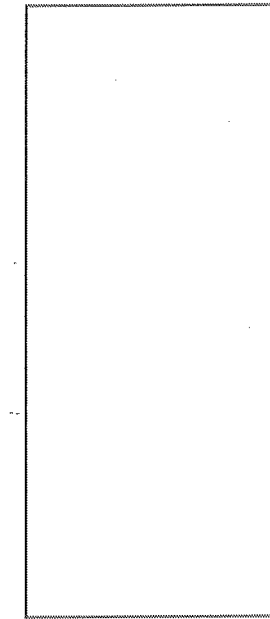
Snow Gum *Encalyptus pauciflora* with Diameter at Breast Height (DBH) of largest branch in mm

Level green open recreation area of *Fescue* and *clover* — annually sow/infill plantings of native species in areas with marginal cover as they appear.

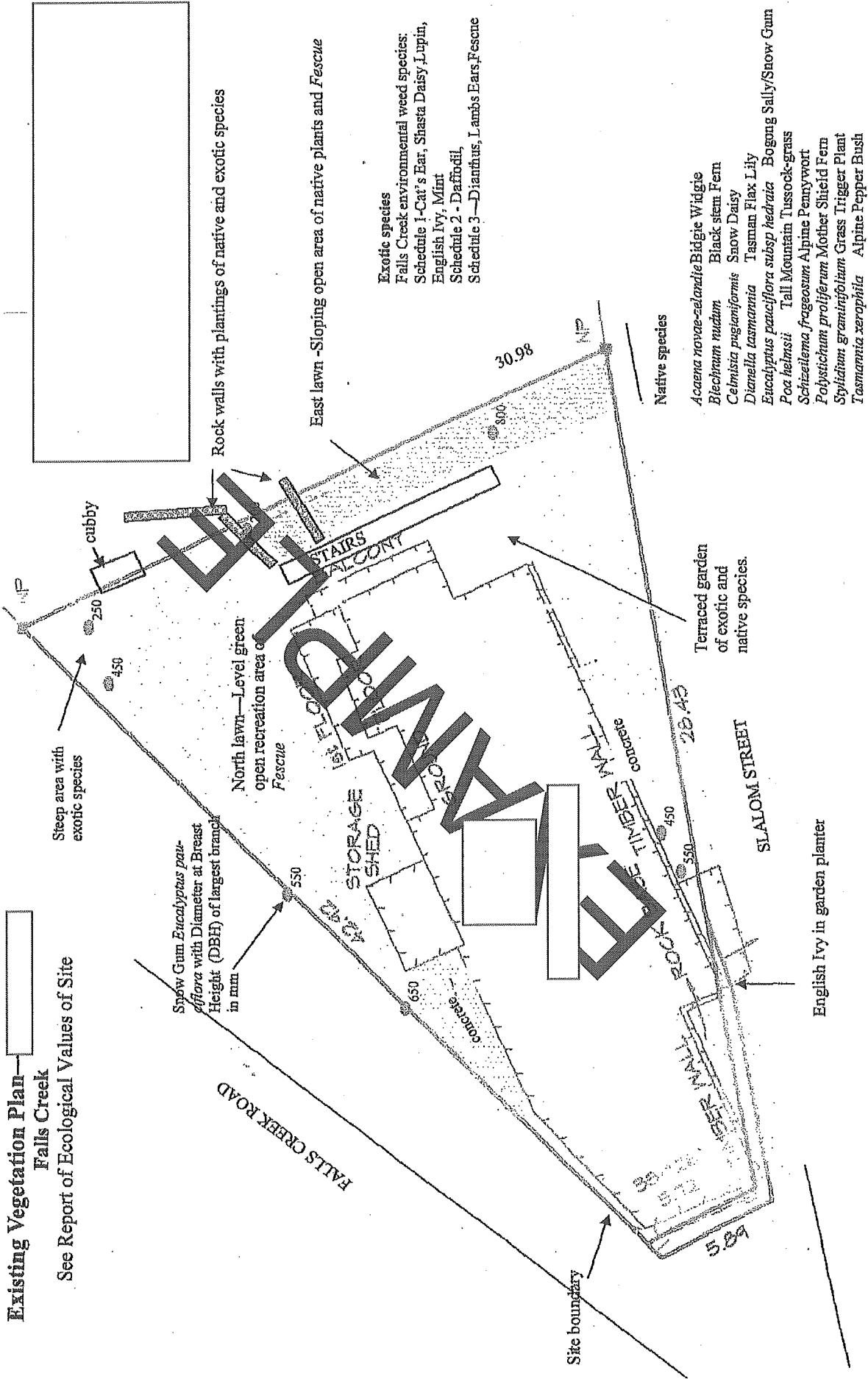
Sloping open area of native plants and lawn species — annually sow/infill planting of native species in areas with marginal cover as they appear.

Terraced garden of exotic and native species. Replace Schedule 1 species with native species

English Ivy in garden planter - Replace with mixed native species-



**Existing Vegetation Plan—
Falls Creek**
See Report of Ecological Values of Site



Rock walls with plantings of native and exotic species

East lawn -Sloping open area of native plants and *Fescue*

Exotic species

- Falls Creek environmental weed species:
- Schedrate 1-Cat's Ear, Shasta Daisy, Lupin,
- English Ivy, Mint
- Schedrate 2 - Daffodil,
- Schedrate 3 -Dianthus, Lambs Ears, Fescue

Native species

- Accena novae-zealandie* Bidgie Widge
- Blechnum nudum* Black stem Fern
- Celmisia pugniiformis* Snow Daisy
- Dianella tasmanica* Tasman Flax Lily
- Eucalyptus pauciflora subsp. heudraia* Bogong Sally/Snow Gum
- Poa helmsii* Tall Mountain Tussock-grass
- Schizolema fragesorum* Alpine Pennywort
- Polystichum proliferum* Mother Shield Fern
- Stylidium granifolium* Grass Trigger Plant
- Tasmanica xerophila* Alpine Pepper Bush

Terraced garden of exotic and native species.

English Ivy in garden planter