

HUON

Environmental Landscapes
Design • Construction • Maintenance • Restoration

**LANDSCAPE DESIGN REPORT
and
PLANT LIST**

FOR

**ELF FARM SUPPLIES PTY LTD
108 MULGRAVE ROAD
MULGRAVE 2756**

**PREPARED BY HUON DESIGNS
RODNEY COX**

JUNE 2016

INTRODUCTION

The purpose of this report is to outline the landscape design and environmental principles adopted for the proposed development and revegetation of the above site. The Substrate Plant Site Layout and Stages are shown in Appendix 1. This report refers to this figure and the attached plan:

- Sketch Revegetation Plan, Drawing No RT 316/C dated 23 June 2016.

This report and plan has been prepared by Rodney Cox of Huon Designs. The extent of the proposed works includes the native revegetation around proposed (and existing development) and the on-going monitoring and maintenance of this revegetation

EXISTING SITE CONDITIONS

As seen on the attached Sketch Revegetation Plan, much of the plantings are already in existence. Existing revegetation has shown to be very well established and current maintenance practices are sufficient to maintain the health of this recreated plant community. At the same time it is fulfilling its intended purpose of screening the site from the surrounding areas. (as per previous Council and Department approvals).

During my initial inspection of the site in February 2016, it was noted that a positive environmental and engineering impact had been made by planting the steep batters on the eastern and southern side of the West Dam. This will add an effective screen and buffer to the site and will also help further stabilize the embankment.

These plantings (primarily of riparian zone tree species) are showing good health and strong growth. Additional works as described below and on the Sketch Revegetation Plan will include understory planting and expansion in these areas of revegetation. A good supply of water on site has helped to establish the new plantings.

Due to the advantageous growing conditions, weeds are a problem and continue to require a high level of maintenance, particularly of annuals. A maintenance schedule is also outlined below.

ADDITIONAL WORKS

The proposed development includes the expansion of the buildings and facilities to produce mushroom compost. The existing buildings are not well screened to the west so the new buildings will have little impact on the current situation.

The proposed additional plantings of native vegetation on the eastern and southern side of the West Dam will further enhance the recent plantings in these areas. They will complete an effective screening of the site from almost every direction once established. These recent tree plantings have included approximately 500 tube stock plantings of riparian zone trees. The plantings are becoming well established. The proposed infill plantings (as shown on the attached plan) will include a further 4000 native tubes in these areas to the east, and south of the West Dam. It will include trees, shrubs, grasses

and reeds. The plantings will occur at varying densities, ranging from 1/4m² (minimum) for trees to 5/m² for grasses. Average planting density is approximately 1/m².

The proposed native revegetation includes many trees and shrubs that are representative of the local riparian zone. There is a high emphasis on using trees in order to gain the necessary height. There is also an emphasis on plant quantity to ensure the planting screens are dense and as wide as possible. Good plant quality and the use of local provenance plant stock are to be used at all times.

The aim of carrying out revegetation works as designed has many objectives including:

- native vegetation screening is more effective being set close to the source of visual and odour disturbance
- healthy and linked revegetation creates a larger and well connected native habitat zone

MAINTENANCE

Maintenance practices will be undertaken to ensure healthy growth of all plantings. This will include rabbit and pest control using fencing and rabbit bags as required. It will also include weeding, watering and replacement planting. Weed control should be by hand removal as much as possible. Diligence should be shown to regularly remove flowering weeds to prevent the spread of weed seeds. Weed control should limit the use of herbicides and if necessary only use Roundup BioActive as per manufacturer's instructions. .

On-going maintenance of the pond verges will control weeds, enhance the growth of nutrient absorbing reeds and aid in the final polishing of water quality. The controlled release of water for irrigation purpose in the pasture paddock will continue to be undertaken and will assist in maintaining storage capacity and absorbing nutrients through plant growth.

MAINTENANCE SCHEDULE

- | | |
|-------------|---|
| Weekly | <ul style="list-style-type: none">- Check for weed seeds and treat/remove as required- Remove weeds by hand- Watering as required- Check fencing and rabbit bags. Repair and replace as required |
| Monthly | <ul style="list-style-type: none">- Replace failed plants- Spray weeds as required (Roundup Bioactive)- Check, monitor and treat pests and disease |
| Bi-annually | <ul style="list-style-type: none">- Harvest reeds in dams/ponds- Remove weeds in and around dams/ponds- Remove rabbit bags once plants well established |

SUMMARY AND CONCLUSION

The proposed revegetation for this development achieves a successful balance of maintaining native habitat and providing effective screening of the site. Previously approved revegetation works have been very successful and it is the intent of the owners to continue this valuable works to create even more effective screening of the site and to create expanded native habitat.

The South Creek is a valuable resource to the community, environment and the operators of this site. For this reason the Tolson Family and Elf Farm Supplies are committed to the ongoing quality of water entering the system and the vegetation communities that help to protect the riparian zone.

It is concluded that the proposed additional revegetation works will have a positive aesthetic and environmental impact on the local amenity. I therefore recommend it be approved for implementation.

Rodney Cox AAILA
MaEnvSt / BLArch

PLANTING SCHEDULE (all sourced from local provenance supplier)

Tree Species	Quantity
<i>Casuarina cunninghamiana</i> (River Oak)	400
<i>Eucalyptus amplifolia</i> (Cabbage Gum)	400
<i>Eucalyptus deanei</i> (Deane's Gum)	400
<i>Eucalyptus fibrosa</i> (Broadleaf Ironbark)	400
<i>Eucalyptus tereticornis</i> (River Red Gum)	400
Shrub Species	
<i>Acmena smithii</i> (Lilly Pilly)	200
<i>Backhousia myrtifolia</i> (Grey Myrtle)	200
<i>Bursaria spinulosa</i> (Blackthorn)	200
Groundcover/Climber Species	
<i>Cissus hypoglauca</i> (Water Vine)	200
<i>Imperata cylindrical</i> (Blady Grass)	200
<i>Smilax australis</i> (Smilax)	200
<i>Hardenbergia violaceae</i> (Sarsaparilla Vine)	200
Wetland Species	
<i>Eleocharis sphacelata</i> (Tall Spike Rush)	200
<i>Juncus usitatis</i> (Juncus)	200
<i>Phragmites australis</i> (Common Reed)	200

LEGEND

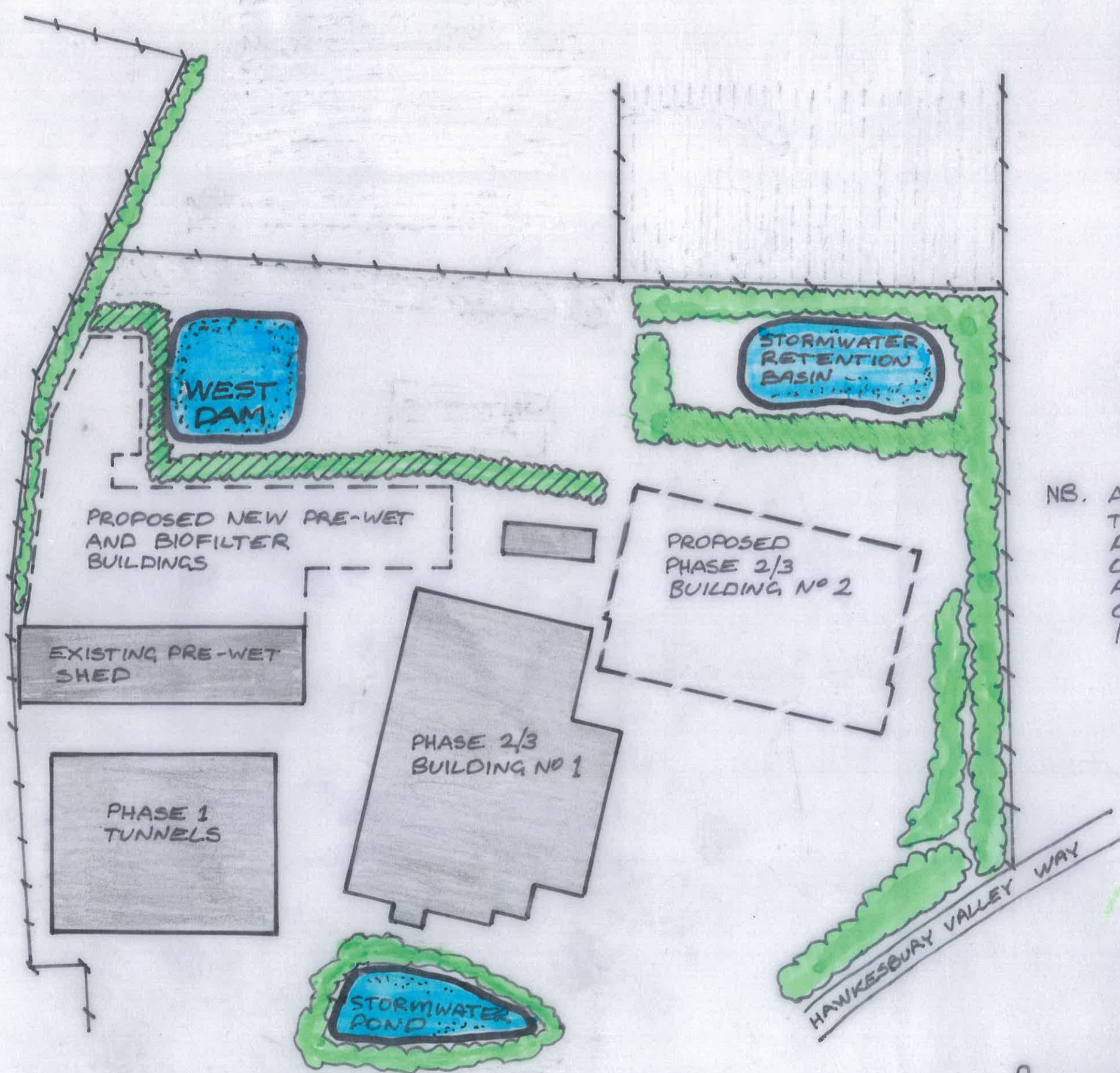
EXISTING NATIVE VEGETATION
TO BE MAINTAINED AND ENHANCED



PONDS/DAMS WITH WETLAND
PLANTINGS TO BE MAINTAINED
AND REGULARLY HARVESTED



PROPOSED NATIVE VEGETATION TO
BE PLANTED DURING NEXT SIX
MONTHS, WITH ONGOING MONITORING,
MAINTENANCE AND FOLLOW UP
REPLACEMENT PLANTING

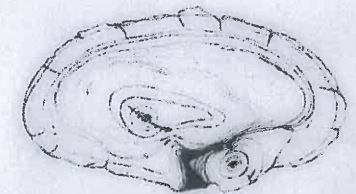


NB. ALL PLANTS
TO BE PLANTED
AS TUBESTOCK
OR VIRO-CELLS
AT DENSITIES
OF APPROXIMATELY
1/M².

PROPOSED PLANT
EXPANSION AND NATIVE
REVEGETATION WORKS

ELF FARM SUPPLIES P/L
108 MULGRAVE ROAD
MULGRAVE NSW 2756

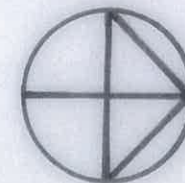
DRAWN: RODNEY COX
DATE: 23 JUNE 2016
DWG. NO: RT 316/C



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METRES

SCALE APPROX. 1:150

SKETCH REVEGETATION PLAN

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