

**H U O N**

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**

**Modified 30<sup>th</sup> July 2018**

## **INTRODUCTION**

The purpose of this brief report is to outline the landscape design and environmental principles adopted for the native revegetation of the tree corridor at the above site. This report refers to the attached plan:

- Riparian Zone and Native Revegetation Design Plan, Drawing No RT 618/B dated 25th July 2018.

This report and plan has been prepared by Rodney Cox of Huon Designs. The extent of the completed works includes the native revegetation and tree corridor to the west of West Dam and the on-going monitoring and maintenance of this revegetation

## **EXISTING SITE CONDITIONS**

As seen on the attached Design Plan, much of the works are already in existence or recently completed. 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 what a positive environmental and engineering impact could be made by planting the steep batter to the east of the West Dam. Not only has this created an effective screen and buffer to the site but it has also helped to stabilize the embankment. At the suggestion of myself some more recent plantings were installed to the west of the dam (subject to retrospective approval) as part of the proposed development and the ongoing revegetation of the site. These plantings (primarily of riparian zone tree species and shrubs) are showing good health and strong growth. 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 outlined below.

The ponds, dam and paddock disposal are performing well in handling storm water. The regular harvesting of reeds and grasses from the dam verges is successfully controlling the nutrient levels. The use of the pasture paddock to the north west also provides an effective use of stormwater and high nutrient process water through the controlled release into furrows as per existing EPA Licence.

## **LANDSCAPE DESIGN PRINCIPLES**

The proposed development has included the expansion of the buildings and facilities to produce mushroom composts. The existing buildings are not well screened to the west so the new buildings will have little new impact on the current situation. The recent plantings from 2016 onwards of native vegetation will however have a lasting and positive impact. They will provide effective screening of the site from almost every direction once established.

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 tree and shrub plantings to the west of West Dam have included approximately 2000 tubestock plantings of riparian zone vegetation. These plantings are well established but as yet have not been approved. It includes trees, shrubs, grasses and reeds. The plantings have occurred at varying densities, ranging from 1/4m<sup>2</sup> (minimum) for trees to 5/m<sup>2</sup> for grasses. Average planting density is approximately 1/m<sup>2</sup>. All plants are to be of local provenance.

Maintenance practices have been and will continue to be undertaken to ensure healthy growth of all plantings. This includes rabbit and pest control using fencing and rabbit bags as required. It also includes weeding, watering and replacement planting. Weed control is 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 manufacturers 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.

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

- riparian species planting and revegetation does not impede flood flows
- 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 SCHEDULE**

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

## SUMMARY AND CONCLUSION

The completed 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 completed revegetation works have had a positive aesthetic and environmental impact on the local amenity. I therefore recommend it be approved as implemented.

Rodney Cox AAILA  
MaEnvSt / BLArch  
ElfFarmsReport30.07.18

## PLANTING SCHEDULE (all sourced from local provenance supplier)

Tree Species	Quantity
<i>Casuarina cunninghamiana</i> (River Oak)	200
<i>Eucalyptus amplifolia</i> (Cabbage Gum)	200
<i>Eucalyptus deanei</i> (Deane's Gum)	200
<i>Eucalyptus fibrosa</i> (Broadleaf Ironbark)	200
<i>Eucalyptus tereticornis</i> (River Red Gum)	200
<b>Shrub Species</b>	
<i>Acmena smithii</i> (Lilly Pilly)	100
<i>Backhousia myrtifolia</i> (Grey Myrtle)	100
<i>Bursaria spinulosa</i> (Blackthorn)	100
<b>Groundcover/Climber Species</b>	
<i>Cissus hypoglauca</i> (Water Vine)	100
<i>Imperata cylindrical</i> (Blady Grass)	100
<i>Smilax australis</i> (Smilax)	100
<i>Hardenbergia violaceae</i> (Sarsaparilla Vine)	100
<b>Wetland Species</b>	
<i>Eleocharis sphacelata</i> (Tall Spike Rush)	100
<i>Juncus usitatis</i> (Juncus)	100
<i>Phragmites australis</i> (Common Reed)	100

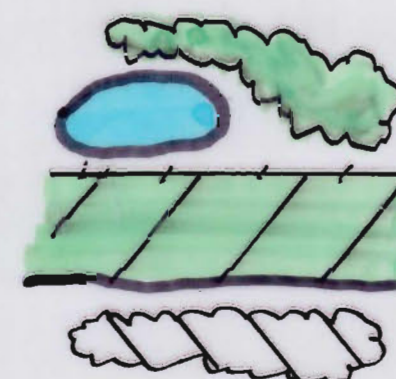


RIPARIAN CORRIDOR REVEGETATION ZONE TO BE 35 METRES WIDE AND APPROXIMATELY 330M LONG AS SHOWN. STOCKPROOF FENCING ERECTED WITH THREE GATES TO ALLOW MAINTENANCE ACCESS. REFER TO PLANTING SCHEDULE, PLANTING NOTES AND TYPICAL PLANTING MATRIX

REFER TO ATTACHED PLANTING MATRIX FOR TYPICAL LAYOUT OF PLANTS.  
TOTAL AREA OF RIPARIAN ZONE 11550m<sup>2</sup>  
TOTAL NUMBER OF PLANTS 16250

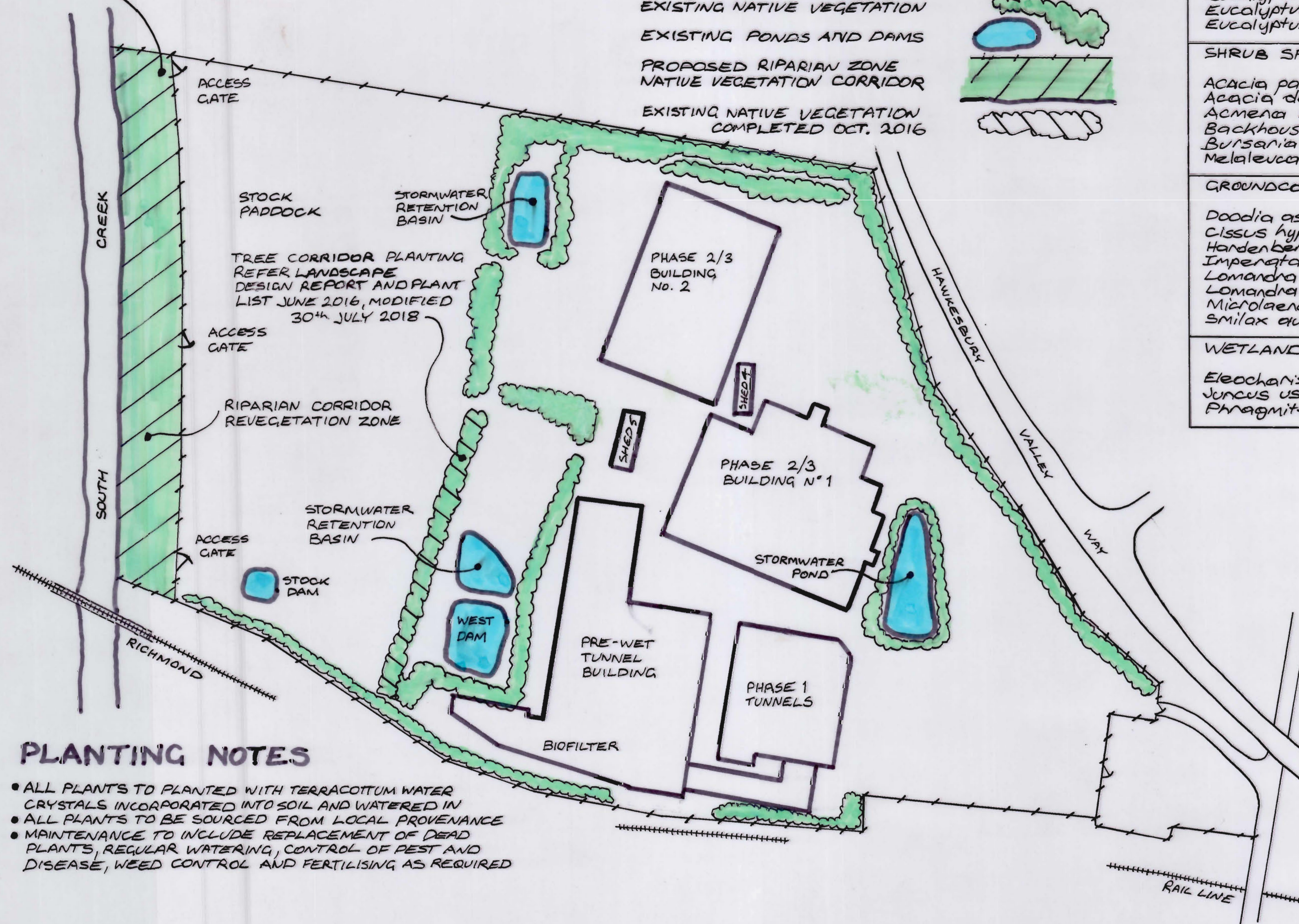
## LEGEND

EXISTING NATIVE VEGETATION  
EXISTING PONDS AND DAMS  
PROPOSED RIPARIAN ZONE  
NATIVE VEGETATION CORRIDOR  
EXISTING NATIVE VEGETATION COMPLETED OCT. 2016



## PLANTING SCHEDULE

BOTANICAL NAME	SYMBOL	QUANTITY AND POT SIZE
<b>TREE SPECIES (T) 1/4m<sup>2</sup></b>		
Angophora floribunda	Af	350 tube
Casuarina cunninghamiana	Cc	350 tube
Casuarina glauca	Cg	400 tube
Eucalyptus amplifolia	Ea	325 tube
Eucalyptus deanei	Ed	325 tube
Eucalyptus fibrosa	Ef	325 tube
Eucalyptus tereticornis	Et	325 tube
<b>SHRUB SPECIES (S) 1/2m<sup>2</sup></b>		
Acacia paramattensis	Ap	900 tube
Acacia decurrens	Ad	900 tube
Acmea smithii	As	900 tube
Backhousia myrtifolia	Bm	900 tube
Bursaria spinulosa	Bs	900 tube
Melaleuca thymifolium	Mt	1000 tube
<b>GROUND COVER / CLIMBERS (G) 4/m<sup>2</sup></b>		
Doodia aspera	Da	250 tube
Cissus hypoglauca	Ch	250 tube
Hardenbergia violacea	Hv	250 tube
Imperata cylindrical	IC	250 tube
Lomandra longifolia	Li	1000 Virocell
Lomandra multiflora	Lm	1000 Virocell
Microlaena stipoides	Ms	2000 Virocell
Smilax australis	Sa	250 tube
<b>WETLAND SPECIES (W) 4/m<sup>2</sup></b>		
Eleocharis sphacelata	Es	1000 Virocell
Juncus usitatis	Ju	1000 Virocell
Phragmites australis	Pa	1000 Virocell



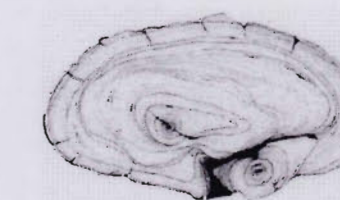
## PLANTING NOTES

- ALL PLANTS TO BE PLANTED WITH TERRACOTTUM WATER CRYSTALS INCORPORATED INTO SOIL AND WATERED IN
- ALL PLANTS TO BE SOURCED FROM LOCAL PROVENANCE
- MAINTENANCE TO INCLUDE REPLACEMENT OF DEAD PLANTS, REGULAR WATERING, CONTROL OF PEST AND DISEASE, WEED CONTROL AND FERTILISING AS REQUIRED

RIPARIAN ZONE AND SITE REVEGETATION WORKS

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

Drawing No: RT 618/B  
Date: 25<sup>th</sup> JULY 2018  
Drawn by: RODNEY COX



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## RIPARIAN ZONE AND NATIVE REVEGETATION DESIGN PLAN

0 50 100  
METRES  
SCALE APPROX 1:150