

LANDSCAPE STRATEGY:

The landscape plan identifies trees to be retained and removed, and proposes three landscape treatments for the site. These are:

- 1. Native screen planting
- 2. Native revegetation
- 3. Existing trees with supplementary planting.

These landscape treatments are shown on the landscape plan, refer Figure 2-3.

To ensure the suitability of planting for the local conditions, the plant species proposed for these landscape treatments have been selected from the:

- Landscape Guidelines, Recommended Plant Species for the Wagga Wagga Area, Locally Native Trees and Shrubs, Wagga Wagga City Council
- The Flora of Wagga Wagga, A Guide For Revegetation and Restoration, (Waggaflora.com), Charles Sturt University, City of Wagga Wagga Council and NSW Environmental Trust
- Wagga Wagga Native Vegetation Map, ADS-40 Edition 2, Plant Community Types, NSW Office of Environment and Heritage.
- locally native species identified on the site and which appear to be in good health.

LANDSCAPE NOTES:

The following notes provide further detail to support the landscape plan.

Existing vegetation and site preparation

- A star picket or durable temporary fence is to be erected around the perimeter of the drip line of retained trees in accordance with AS4970 Protection of trees on development sites.
- Soil testing and amelioration to be undertaken in accordance with relevant Australian Standards.

Set-out

- All plants to be set out in accordance with the corresponding plant set-out matrix with planting densities as shown.
- Shrubs to be set back a minimum of 1 metre from the property boundary or solar farm fence.

- Trees to be set back 2 metres from the property boundary and a minimum of 12 metres from any solar panel.
- Setbacks are to be maintained from services as shown on the engineering plans.

Planting

- Planting is to be installed at the first feasible planting season i.e. any time outside extreme weather conditions which may include drought, extreme heat and frost.
- All plant stock to be minimum 50 x 50 x 120mm tubes. Plants are to be healthy and well formed with no rootbound stock.
- Individual plants should be planted so the base of the plant is level with the surrounding ground and with a shallow basin around each plant to retain water.
- Install proprietary tree guard sleeves and stakes for each tree and shrub. Install as per manufacturer’s specification.
- Install 1 x slow release fertiliser tablet (12 month feeding) per plant as per manufacturers specification.
- All planting areas to have 75mm depth of well composted forest blend / straw mulch.
- Mulch shall be free from deleterious material, including rocks, plastic and any material toxic to plant growth. Mulch shall comply with the requirements of AS 4454 2012: Composts, soil conditioners and mulches.

Establishment and maintenance

- The plant Establishment Period is to be 13 weeks commencing from the completion of the landscape area. This will be followed by a Monitoring Period. The combined length of the Establishment and Monitoring Period will be 24 months.
- Establishment period activities are to include watering, weeding, and replacement of failed or damaged treatments.
- Tree guard sleeves and stakes are to be removed when guarding is deemed to be no longer required by revegetation contractor.



Planted trees on the northwestern field boundary



View from driveway northwest across the south eastern field of the site



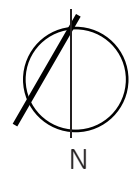
Track through planted trees on the western site boundary



View east to the site from the adjacent field showing corridors of existing planted trees

Key:

-  1. Existing trees with supplementary planting
-  2. Native revegetation (10 metres wide)
-  2. Native revegetation
-  3. Native screen planting (10 metres wide)
-  Trees to be retained
-  Trees to be removed (dead)
-  Trees to be retained (dead)
-  Trees to be removed
-  Site boundary
-  Solar farm fence



0m 50m 100m 150m



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FIGURE 8-3: LANDSCAPE PLAN

Date: January 2020
 Job Number: 2018-108

Drawn: SR
 Issue: Rev2

1. EXISTING TREES WITH SUPPLEMENTARY PLANTING

Where gaps exist in the existing planted areas, supplementary native tree and shrub planting is proposed. This supplementary planting would be a mix of native trees and shrubs.

Plant list:

Trees

<i>Acacia dealbata</i> , Silver wattle* ¹	Mature height 6-12m	Mature spread 8-10m	Flowering Winter - spring
<i>Acacia implexa</i> , Hickory Wattle* ¹	5-8m	5m	Summer - autumn
<i>Acacia pycnantha</i> , Golden wattle* ¹	5-8m	5-8m	Summer - autumn
<i>Banksia marginata</i> , Silver banksia* ¹	5-10m	2-5m	Autumn - winter

Shrubs

<i>Acacia acinacea</i> , Gold Dust Wattle* ¹	2m	1.5m	Winter - spring
<i>Acacia decora</i> , Western Silver Wattle* ¹	2-5m	2-5m	Winter - spring
<i>Acacia hakeoides</i> , Hakea Wattle* ¹	1.4m	3m	Winter - spring
<i>Acacia verniciflua</i> , Varnish Wattle* ¹	1-4m	2-4m	Winter - spring
<i>Bursaria spinosa</i> , Blackthorn* ¹	2-4m	2-4m	Summer
<i>Dodonaea viscosa subsp.cuneata</i> , Hop bush* ¹	2-3m	2-3m	Winter - spring
<i>Eremophila deserti</i> , Turkey Bush* ¹	2-4m	2-4m	Winter - summer

* from the Wagga Wagga City Council Landscape Guidelines, Locally native trees and shrubs suitable for planting under DCP 2010 Section 5.3, plant list p12-15

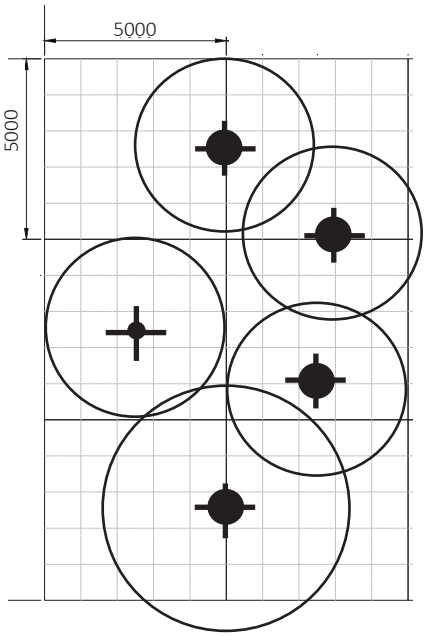
¹ from www.Waggaflora.com (based on the flora of the Graham Centre Biodiversity Nursery, Charles Sturt University, 2019)

Plant set-out matrix

Additional plants to be installed where there is a 5x5 metre gap in the canopy of existing planted area and a visual break is apparent.

Specification notes

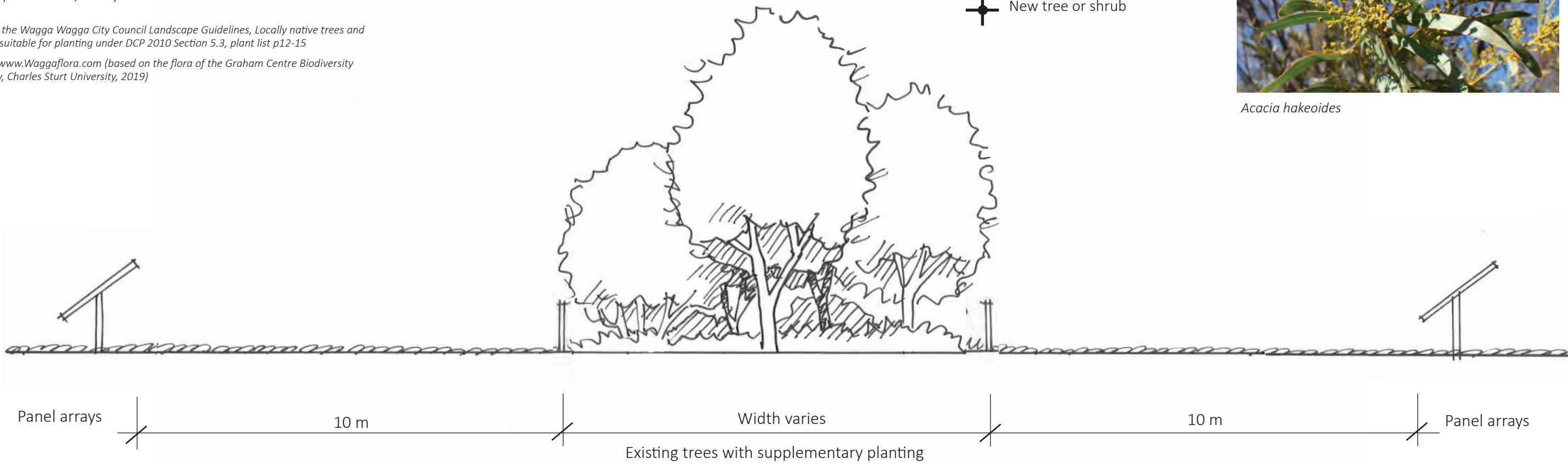
- Individual planting holes to be excavated, backfilled with ameliorated site soil and mulch to be applied across disturbed area.
- New plants to achieve an overall ratio of 80% shrubs and 20% trees.



Acacia doratoxylon, Currawang



Acacia hakeoides



A - A Indicative cross section - Existing trees with supplementary planting

Scale: 0m 1 2 5m

FIGURE 8-4: EXISTING TREES WITH SUPPLEMENTARY PLANTING

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2. NATIVE REVEGETATION AREAS

Revegetation areas will include a mix of locally native trees and shrubs including species to provide habitat for native wildlife. This mix of trees will create a framework for natural regeneration.

Plant list:

Trees

	Mature height	Mature spread	Flowering
Acacia dealbata, Silver wattle* ¹	6-12m	8-10m	Winter - spring
Acacia doratoxylon, Currawang* ¹	8-10m	5-8m	Winter - spring
Acacia pycnantha, Golden wattle* ¹	5-8m	5-8m	Summer - autumn
Banksia marginata, Silver banksia* ¹	5-10m	2-5m	Autumn - winter
Eucalyptus albens, White box*	20-15m	10-20m	Spring - summer
Eucalyptus blakelyi, Blakey's red gum*	20-15m	10-20m	Spring - summer
Eucalyptus polyanthemos, Red box*	15-25m	5-15m	Summer - spring

Shrubs

Acacia acinacea, Gold Dust Wattle* ¹	2m	1.5m	Winter - spring
Acacia decora, Western Silver Wattle* ¹	2-5m	2-5m	Winter - spring
Acacia hakeoides, Hakea Wattle* ¹	1.4m	3m	Winter - spring
Acacia verniciflua, Varnish Wattle* ¹	1-4m	2-4m	Winter - spring
Bursaria spinosa, Blackthorn* ¹	2-4m	2-4m	Summer
Dodonaea viscosa subsp.cuneata, Hop bush* ¹	2-3m	2-3m	Winter - spring
Eremophila deserti, Turkey Bush*	2-4m	2-4m	Winter - summer

Groundcovers

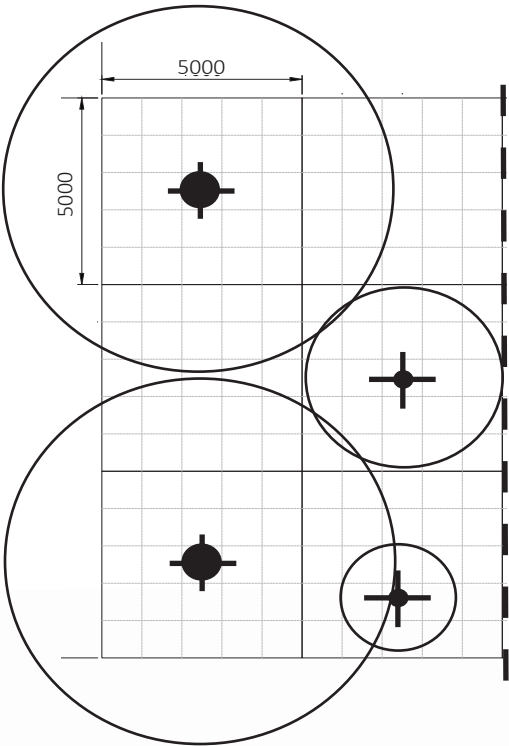
Lomandra multiflora, Many-flowered mat-rush	0.3m	0.3m	Winter-spring
Dianella revoluta, Spreading flax-lily	0.3m	0.3-0.5m	Winter-spring



Eucalyptus albens, White box

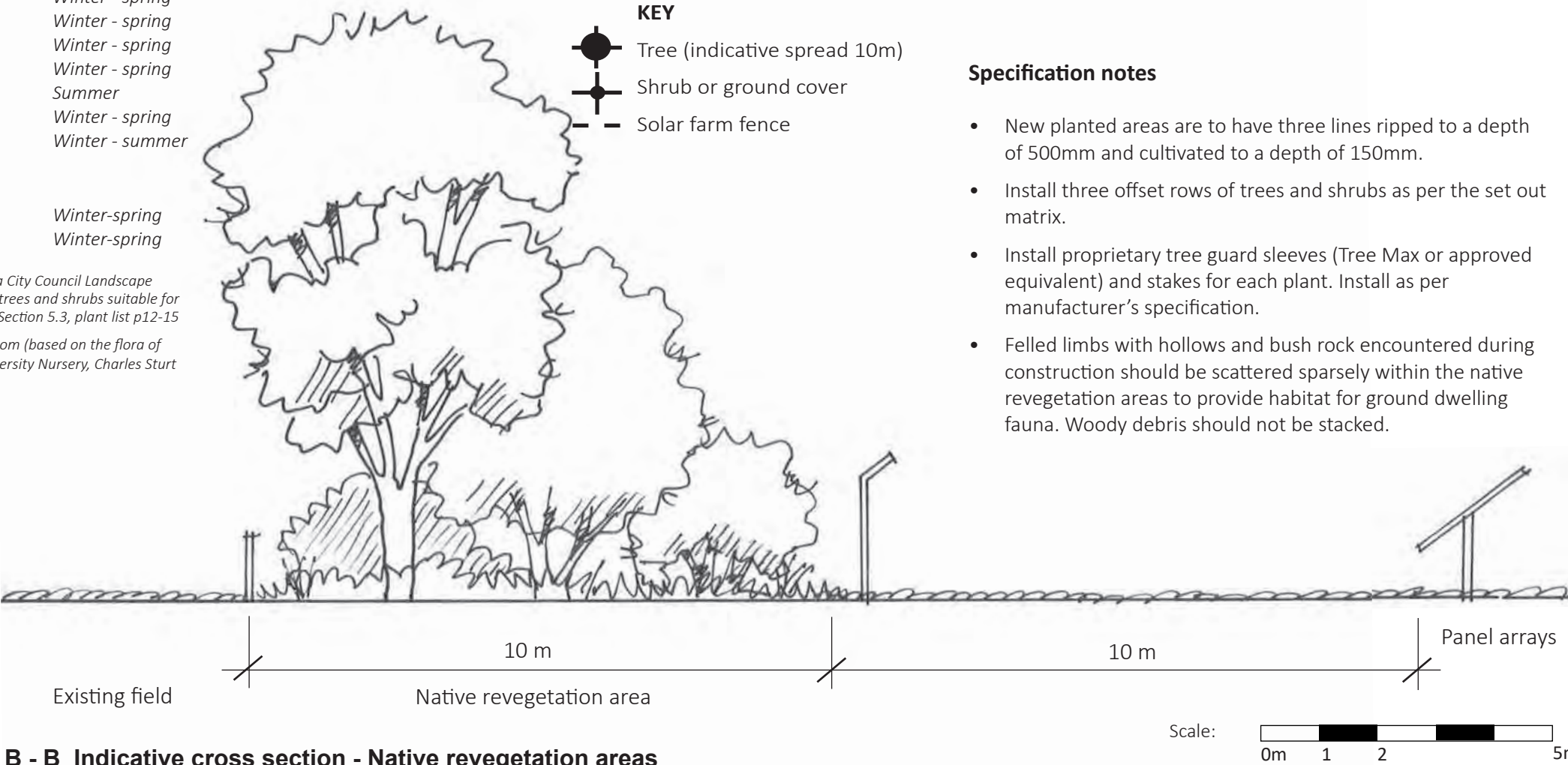
Plant set-out matrix

The setout will intermix trees and shrubs in an informal layout. Larger trees to be setback from the solar farm fence.



KEY

- Tree (indicative spread 10m)
- Shrub or ground cover
- Solar farm fence



B - B Indicative cross section - Native revegetation areas



Banksia marginata, Silver banksia



Eremophila deserti, Turkey bush

Specification notes

- New planted areas are to have three lines ripped to a depth of 500mm and cultivated to a depth of 150mm.
- Install three offset rows of trees and shrubs as per the set out matrix.
- Install proprietary tree guard sleeves (Tree Max or approved equivalent) and stakes for each plant. Install as per manufacturer’s specification.
- Felled limbs with hollows and bush rock encountered during construction should be scattered sparsely within the native revegetation areas to provide habitat for ground dwelling fauna. Woody debris should not be stacked.

FIGURE 8-5: NATIVE REVEGETATION AREAS

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3. NATIVE SCREEN PLANTING

A mix of native trees and shrubs with a dense and compact habit have been selected to provide a maximum screening effect.

The following plant list includes a number of 'pioneer species' which should establish quickly and form an effective visual screen in the short term.

While some of these species are relatively short lived (7-12 years), they will disperse seed and new plants will regenerate so that a self-sustaining vegetation screen is maintained in the long term.

Plant list:	Mature height	Mature spread	Flowering
Trees			
<i>Acacia dealbata</i> , Silver wattle ^{*†}	6-12m	8-10m	Winter - spring
<i>Acacia doratoxylon</i> , Currawang ^{*†}	8-10m	5-8m	Winter - spring
<i>Acacia implexa</i> , Hickory Wattle ^{*†}	5-8m	5m	Summer - autumn
<i>Acacia leucoclada</i> , Northern silver wattle [*]	5-8m	5m	Winter - spring
<i>Acacia pycnantha</i> , Golden wattle ^{*†}	5-8m	5-8m	Summer - autumn
<i>Allocasuarina verticilla</i> , Drooping she-oak	3-7m	3-7m	Winter - spring
<i>Banksia marginata</i> , Silver banksia ^{*†}	5-10m	2-5m	Autumn - winter
Shrubs			
<i>Acacia acinacea</i> , Gold Dust Wattle ^{*†}	2m	1.5m	Winter - spring
<i>Acacia hakeoides</i> , Hakea Wattle ^{*†}	1.4m	3m	Winter - spring
<i>Acacia verniciflua</i> , Varnish Wattle ^{*†}	1-4m	2-4m	Winter - spring
<i>Bursaria spinosa</i> , Blackthorn ^{*†}	2-4m	2-4m	Summer
<i>Dodonaea viscosa subsp.cuneata</i> , Hop bush ^{*†}	2-3m	2-3m	Winter - spring
<i>Eremophila deserti</i> , Turkey Bush [*]	2-4m	2-4m	Winter - summer



Bursaria spinosa, Blackthorn

^{*} from the Wagga Wagga City Council Landscape Guidelines, Locally native trees and shrubs suitable for planting under DCP 2010 Section 5.3, plant list p12-15

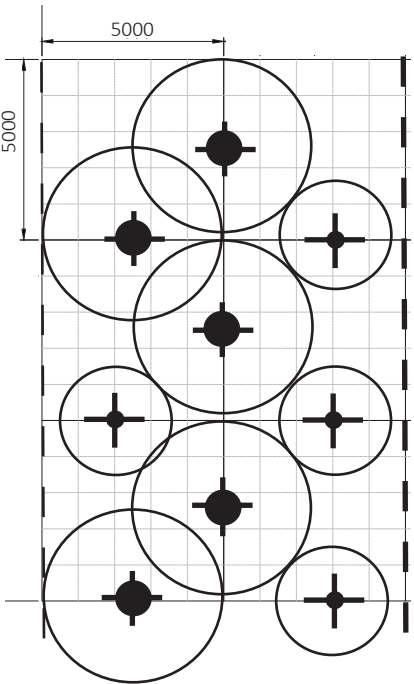
[†] from www.Waggaflora.com (based on the flora of the Graham Centre Biodiversity Nursery, Charles Sturt University, 2019)

Plant set-out matrix

Trees and shrubs will be staggered to maximise the screening effect of the proposed planting.

Specification notes

- New planted areas are to have three lines ripped to a depth of 500mm and cultivated to a depth of 150mm.
- Install three offset rows of trees and shrubs as per the set out matrix.
- Install proprietary tree guard sleeves (Tree Max or approved equivalent) and stakes for each plant. Install as per manufacturer’s specification.



KEY

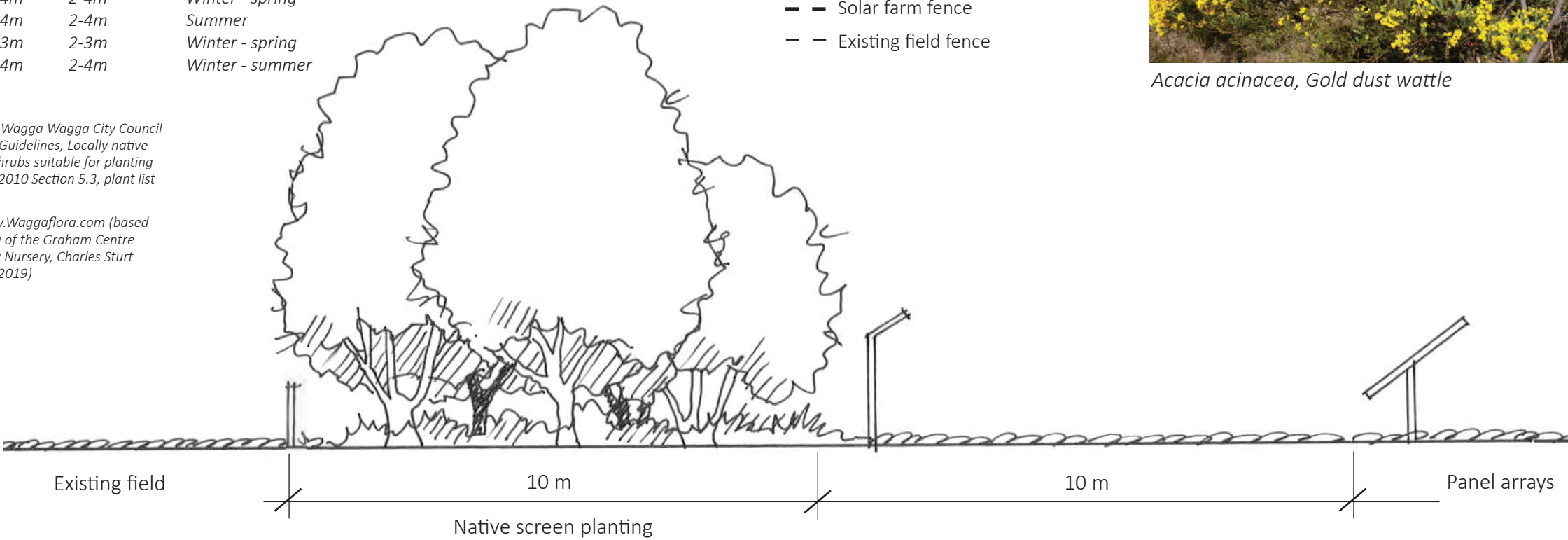
- Tree (indicative spread 5m)
- Shrub (indicative spread 2.5m)
- - Solar farm fence
- - Existing field fence



Allocasuarina sp.



Acacia acinacea, Gold dust wattle



C - C Indicative cross section, Native screen planting

FIGURE 8-6: NATIVE SCREEN PLANTING

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