

### Regional ecosystem 6.3.1

**Description:** *Eucalyptus camaldulensis* woodland fringing main channels and on adjacent terraces of medium to small drainage lines with narrow alluvial plains. *E. populnea* is often present and may be locally dominant. Occasional clumps of *Melaleuca trichostachya* occur along channels. Scattered *E. coolabah* with *Acacia aneura* and *Eremophila mitchellii* tall shrubs may occur on minor flats near the channels. The ground layer is usually sparse and dominated by species such as *Arundinella nepalensis*, *Bothriochloa ewartiana*, *Chrysopogon fallax* and *Leptochloa digitata*. Occurs along major drainage lines and narrow alluvial plains in *Acacia aneura* dominated associations, on deep red and brown alluvial clays, and on the smaller streams, on red and brown texture contrast soils. Riverine. (BVG1M: 16a).

Vegetation communities in this regional ecosystem include:

6.3.1a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.3x1. Vegetation ranges from open water +/- aquatics and emergents such as *Nymphaea violacea* and *Nymphoides indica*. Often with fringing woodland, commonly *Eucalyptus camaldulensis* or *E. coolabah*. Occurs on billabongs on floodplains. Palustrine. (BVG1M: 34d).

**Short description:** *Eucalyptus camaldulensis* woodland on alluvium within *Acacia aneura* associations

**Supplementary descriptions:** Neldner (1984), 12b (24); Mills and Lee (1990), W1 (LU 1)

**Subregions:** 4, 2, 6, (8), (5), (1), (4.4), (11.26), (3)

**Protected areas:** Mariala NP

**Extent in reserves:** Low

**Wetland:** Riverine

**Special values:** 6.3.1: High fauna diversity, particularly mammal and bird species.

**Comments:** 6.3.1: Generally occurs on medium to small drainage lines with sandy soils in the eastern parts of the region compared to 6.3.2 which occurs on clay soils in the more western parts and 6.3.3 which occurs on larger river systems. Highly modified structural and floristic composition as a result of high total grazing pressure. Sheet and gully erosion is widespread in the central parts of the region associated with high grazing pressure (Mills and Lee, 1990, 205).

**Estimated extent:**<sup>1</sup> Pre-clearing 30000 ha; Remnant 2021 19000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss and weed infestation.

## Regional ecosystem 6.3.2

**Description:** *Eucalyptus camaldulensis* with *E. coolabah* or occasionally *Acacia cambagei* woodland to low woodland canopy layer. Other scattered trees such as *Atalaya hemiglauc*, *Lysiphyllum gilvum*, *Melaleuca trichostachya*, *Corymbia terminalis* and *Eucalyptus populnea* may occur. A tall shrubby layer is frequently developed and dominated by species such as *Acacia stenophylla*, *A. victoriae* and *Eremophila bignoniiflora* with frequent species including *Owenia acidula*, *Santalum lanceolatum* and *Acacia aneura*. Low shrubs are present, but rarely form a distinct layer. Frequent species include *Senna phyllodinea*, *Myoporum acuminatum*, *Eremophila deserti*, *Chenopodium auricomum* and *Duma florulenta*. Ground cover is variable composed of grasses, sedges and with any one predominating depending on seasonal conditions. The ground layer is usually sparse and dominated by species such as *Aristida* spp., *Dichanthium sericeum*, *Themeda triandra*, *Chrysopogon fallax* and *Leptochloa digitata*. Occurs on the levees and banks of major drainage channels of recent alluvial origin. Associated soils include very deep grey and brown clays or sandy loams with silt and sand bands and minor areas of intermixed texture contrast soils. Riverine. (BVG1M: 16a).

Vegetation communities in this regional ecosystem include:

6.3.2a: *Eucalyptus coolabah* open forest to woodland, commonly with *Acacia cambagei*. A secondary tree or shrub layer may occur, including *Eremophila bignoniiflora* and *Lysiphyllum gilvum*. The ground layer is seasonally variable, with perennial grasses and ephemeral forbs. Occurs fringing braided channels along narrow drainage lines in the north of the bioregion. Riverine. (BVG1M: 16a).

6.3.2b: *Eucalyptus coolabah* and/or *Acacia harpophylla* woodland, occasionally with *Lysiphyllum gilvum*. The ground layer is seasonally variable, with tussock grasses and forbs. Occurs on fringes of braided drainage lines below residual dissected lateritic tablelands in the north of the bioregion. Riverine. (BVG1M: 16a).

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| <b>Short description:</b>            | <i>Eucalyptus camaldulensis</i> +/- <i>E. coolabah</i> +/- <i>Acacia cambagei</i> woodland on major drainage lines or rivers   |
| <b>Supplementary descriptions:</b>   | Dawson (1974), W4 (LU 42); Boyland (1984), 1b; Neldner (1984), 12c (26), 47a; Mills (1980), W2 (LU 70)   |
| <b>Subregions:</b>                   | 10, 9, 8, (4.4), (6), (5.5), (5.6)   |
| <b>Protected areas:</b>              | Welford NP   |
| <b>Extent in reserves:</b>           | Low  |
| <b>Wetland:</b>                      | Riverine   |
| <b>Special values:</b>               | 6.3.2: High fauna diversity, particularly mammal and bird species.   |
| <b>Comments:</b>                     | 6.3.2: Occurs on medium to small drainage lines with clay soils in the more western parts of the region compared to 6.3.1 which occurs on sandier soils and in more eastern parts. Highly modified structural and floristic composition as a result of high total grazing pressure. Condition fair to poor due to scalding caused by wind and water erosion (Dawson, 1974, LU 42). Naturalised species associated with this regional ecosystem include <i>*Vachellia farnesiana</i> .<br>6.3.2a: Occurs in the north of the region in the upper Bulloo River and Blackwater Creek areas. |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 94000 ha; Remnant 2021 90000 ha   |
| <b>VM class:</b>                     | Least concern  |
| <b>Biodiversity status:</b>          | Of concern   |
| <b>Biodiversity status notes:</b>    | Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss and weed infestation.  |

### Regional ecosystem 6.3.3

**Description:** Eucalyptus camaldulensis and/or E. coolabah woodland to open forest. A secondary tree layer may occur, including canopy species, Acacia stenophylla, Melaleuca trichostachya, A. salicina and Lysiphyllum carronii. A shrub layer may occur, including Duma florulenta and A. stenophylla. The ground layer is typically perennial tussock grasses, including Paspalidium jubiflorum, Arundinella nepalensis, Leptochloa digitata, Dichanthium sericeum, Bothriochloa ewartiana, B. bladhii and Sporobolus mitchellii. Occurs on the fringes of channels of major watercourses. Grey to grey-brown silty clays and cracking clays. Areas of coarse sand occur throughout the profile and form sand bars in channels. Riverine. (BVG1M: 16a).

Vegetation communities in this regional ecosystem include:

6.3.3a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.3x1. Waterholes in drainage lines. Occurs in drainage lines. Semi-permanent to permanent. Riverine. (BVG1M: 16d).

6.3.3x1: Waterholes and billabongs (channel and preferential flow path waterbodies). Associated woody species include Eucalyptus coolabah, E. camaldulensis, Acacia stenophylla, Eremophila bignoniiflora and Duma florulenta. Aquatic vegetation, grasses, forbs and sedges may occur. Occurs in the channels of major watercourses and wet season preferential channels on floodplains. Riverine. (BVG1M: 34d).

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| <b>Short description:</b>             | Eucalyptus camaldulensis and/or E. coolabah +/- Acacia stenophylla, Melaleuca trichostachya woodland fringing channels of major watercourses  |
| <b>Supplementary descriptions:</b>    | Dawson (1974), W7 (LU 26); Neldner (1984), 12a; Mills and Lee (1990), W6 (LU 2); Kingsford et al. (2001), River channels and waterholes   |
| <b>Subregions:</b>                    | 8, 5, 10, 6, (1), (2), (7), (4), (3), (4.4), (5.9), (11), (9), (11.26)  |
| <b>Protected areas:</b>               | Currawinya NP, Thrushton NP, Binya NP   |
| <b>Extent in reserves:</b>            | Low   |
| <b>Wetland:</b>                       | Riverine  |
| <b>Special values:</b>                | 6.3.3: High fauna diversity, particularly bird and mammal (including Koala - Gordon et al. 1988) species. Often includes large permanent waterholes which provide important wetland and fauna refuge habitat. This regional ecosystem is floristically rich with more than 100 species/500m <sup>2</sup> .  |
| <b>Comments:</b>                      | 6.3.3: The naturalised species *Xanthium occidentale (Noogoora burr) is often locally abundant in the ground layer. Many of the large waterholes are subject to siltation (Mills and Lee, 1990). Highly modified structural and floristic composition as a result of high total grazing pressure.<br>6.3.3x1: Previously mapped as 6.3.1a and 6.3.3a. |
| <b>Estimated extent:</b> <sup>1</sup> | Pre-clearing 242000 ha; Remnant 2021 223000 ha  |
| <b>VM class:</b>                      | Least concern   |
| <b>Biodiversity status:</b>           | Of concern  |
| <b>Biodiversity status notes:</b>     | Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss and weed infestation.   |

## Regional ecosystem 6.3.4

**Description:** *Acacia cambagei* woodland. Emergent *Eucalyptus ochrophloia* trees may occur. A shrub layer may occur, including *Eremophila mitchellii*, *E. glabra*, *Duma florulenta*, *Eremophila deserti* and *Chenopodium auricomum*. The ground cover varies with seasonal conditions. Frequent species include *Enteropogon acicularis*, *Eragrostis setifolia* and *Paspalidium jubiflorum*. In more open areas the annuals *Sporobolus caroli*, *S. actinocladus* and *Chloris pectinata* become dominant. The forbs *Atriplex* spp. *Sclerolaena* spp. and *Sida fibulifera* may be seasonally abundant. Occurs on alluvial plains. Soils are predominantly very deep, alkaline, grey and brown clays of light to medium textures with silt and sand bands. Sometimes occurs on texture contrast soils. Not a Wetland. (BVG1M: 26a).

**Short description:** *Acacia cambagei* +/- emergent *Eucalyptus ochrophloia* woodland on alluvial plains

**Supplementary descriptions:** Dawson (1974), W1, (LU 39, 40), W3 (LU 40), W6 (LU 34); Neldner (1984), 10; Mills and Lee (1990), W2 (LU 17)

**Subregions:** 10, 5, 8, 6, (7), (9), (11), (3), (1), (4), (2), (5.9), (5.5)

**Protected areas:** Currawinya NP, Culgoa Floodplain NP, Narkoola NP, Binya NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.3.4: High fauna diversity, particularly bird species. Highly valued for honey production.

**Comments:** 6.3.4: Naturalised species associated with this regional ecosystem include *\*Portulaca oleracea*. Occurs mainly west of the Warrego River. Clearing and associated introduction of exotic pasture species is occurring in some areas.

**Estimated extent:**<sup>1</sup> Pre-clearing 749000 ha; Remnant 2021 668000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.3.5

**Description:** Eucalyptus ochrophloia woodland. A secondary tree layer commonly occurs, including Acacia cambagei and E. coolabah. The ground layer is seasonally variable, composed of perennial grasses and ephemeral herbs. Common species include Eragrostis setifolia, Astrebla elymoides, and A. lappacea while Dichanthium sericeum, Iseilema membranaceum, Brachyachne convergens, Dactyloctenium radulans, Eriochloa pseudoacrotricha, Paspalidium jubiflorum and Panicum laevinode may be seasonally abundant. A variety of forbs may be seasonally abundant. Occurs on alluvial plains or in shallow linear depressions on alluvium. Soils are usually deep to very deep, medium to heavy textured, grey or brown alluvial cracking clays, and occasionally on associated texture contrast soils. Surfaces are usually self-mulching. Not a Wetland. (BVG1M: 16c).

Vegetation communities in this regional ecosystem include:

6.3.5a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.5. Eucalyptus ochrophloia open forest to woodland (10-12 m high). Scattered Acacia cambagei trees are also a common canopy component. There is usually a sparse to open low tree layer dominated by Eremophila bignoniiflora, E. polyclada, E. maculata and Duma florulenta. The ground layer is sparse where the tree density is high becoming open where the tree density is lower and dominated by perennial grasses Eragrostis setifolia, Astrebla squarrosa and Paspalidium jubiflorum. Annual grasses and forbs may become seasonally abundant in very open areas. Occurs on seasonally flooded depressions on alluvial plains. Associated soils are very deep, alkaline, grey cracking clays of medium texture. Gilgai micro-relief up to 1 m deep and 8 m in diameter is typical. Surfaces have firm, silty crusts and a thin self-mulching layer. Palustrine. (BVG1M: 16c).

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| <b>Short description:</b>            | Eucalyptus ochrophloia +/- Acacia cambagei +/- E. coolabah woodland on alluvial plains   |
| <b>Supplementary descriptions:</b>   | Dawson (1974), W2 (LU 41); Boyland (1984), 7a; Neldner (1984), 21a (29), 21b (28); Mills and Lee (1990), W2 (LU 19), W3 (LU 5)   |
| <b>Subregions:</b>                   | 8, 10, 5, 7, 5.9, (9), (6), (11), (4.4), (5.6), (5.5)  |
| <b>Protected areas:</b>              | Currawinya NP, Idalia NP, Hell Hole Gorge NP, Lake Bindegolly NP, Binya NP   |
| <b>Extent in reserves:</b>           | Medium   |
| <b>Wetland:</b>                      | Not a Wetland  |
| <b>Special values:</b>               | 6.3.5: High fauna diversity, particularly bird species.  |
| <b>Comments:</b>                     | 6.3.5: Highly valued for honey production. Previously partly mapped as 6.3.5a. Mainly associated with the floodplains of the Warrego, Paroo, and Bulloo Rivers. Clearing is occurring in some areas. Naturalised species associated with this regional ecosystem include *Malvastrum americanum and *Portulaca oleracea. |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 299000 ha; Remnant 2021 285000 ha   |
| <b>VM class:</b>                     | Least concern  |
| <b>Biodiversity status:</b>          | No concern at present  |
| <b>Biodiversity status notes:</b>    |  |

## Regional ecosystem 6.3.6

**Description:** *Acacia cambagei* low woodland to woodland, occasionally with *Atalaya hemiglauc*a and *Flindersia maculosa*. A shrub layer may be absent but often tall shrubs such as *Eremophila mitchellii* and *Geijera parviflora* or low shrubs such as *E. glabra*, *Enchylaena tomentosa* and *Eremophila deserti* are present as scattered individuals. The ground layer is seasonally dominated by a large number of short grass, forb and annual herb species. The dominant short grasses are *Chloris pectinata*, *Sporobolus actinocladus* and *S. caroli*. The dominant forbs include *Sclerolaena* spp., *Abutilon oxycarpum*, *Sida fibulifera*, *S. everistiana*, *Salsola australis*, *Solanum esuriale* and *Trianthema triquetra*. Occurs on the fringes of braided channels. Soils are very deep, reddish-brown to brown, cracking clays or texture contrast soils with sandy surfaces. Riverine. (BVG1M: 26a).

**Short description:** *Acacia cambagei* low woodland on braided channels

**Supplementary descriptions:** Dawson (1974), G2 (LU 34); Neldner (1984), 40b (115), 44a (118), 44b (117, in south); Mills and Lee (1990), G2 (LU 34)

**Subregions:** 10, 8, 5.5, 9, (6), (11), (7), (4.4), (5.6)

**Protected areas:** Welford NP, Currawinya NP

**Extent in reserves:** Low

**Wetland:** Riverine

**Special values:**

**Comments:** 6.3.6: Some clearing is occurring. Scalding is common around margins (Mills and Lee, 1990, 219). Naturalised species associated with this regional ecosystem include \**Malvastrum americanum* and \**Portulaca oleracea*.

**Estimated extent:**<sup>1</sup> Pre-clearing 106000 ha; Remnant 2021 104000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.3.7

**Description:** Eucalyptus coolabah open woodland to woodland. A secondary tree or shrub layer may occur, including Eremophila bignoniiflora, Maireana aphylla, Eremophila polyclada and Duma florulenta. The ground layer is seasonally variable, including Eragrostis setifolia, Astrebla spp., Dichanthium sericeum, Panicum decompositum and Aristida spp. Forbs include Brachyscome whitei, Calotis hispidula, Daucus glochidiatus, Goodenia fascicularis, Ipomoea lonchophylla and Plantago drummondii. Occurs on clay alluvial plains of major watercourses. Soils are very deep grey or brown cracking clays with some alluvial texture contrast soils. Not a Wetland. (BVG1M: 16c).

Vegetation communities in this regional ecosystem include:

6.3.7x1: Seasonal swamps (wooded). Acacia stenophylla low woodland to low open woodland. A shrub layer, dominated by Duma florulenta, usually occurs. The ground layer is variable, from bare to seasonal forbs. Small areas of Duma florulenta shrubland may occur. Occurs in closed depressions on clay alluvial plains of major watercourses. Cracking clay soils. Palustrine. (BVG1M: 16c).

6.3.7x2: Seasonal swamps (wooded). Eucalyptus coolabah woodland, occasionally with Casuarina cristata, E. ochrophloia and Acacia cambagei. A shrub layer may occur, including Duma florulenta, Eremophila bignoniiflora and Senna spp. The ground layer is variable, with tussock grasses and forbs, including Eragrostis parviflora, Marsilea spp., and Alternanthera spp. Occurs in closed depressions on broad sandy plains overlying clays or alluvium. Brown silty clay to cracking clay soils. Palustrine. (BVG1M: 16c).

**Short description:** Eucalyptus coolabah open woodland on clay alluvial plains

**Supplementary descriptions:** Neldner (1984), 47b (34); Mills and Lee (1990), W8 (LU 20); Kingsford et al. (2001), floodplains

**Subregions:** 5, 7, (6), (10), (8), (3), (4), (2), (1), (11), (4.4), (9)

**Protected areas:** Binya NP, Culgoa Floodplain NP, Currawinya NP, Narkoola NP, Lake Bindegolly NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.3.7: High fauna diversity.  
6.3.7x2: Provides valuable habitat for a high number of fauna species, particularly birds (Kingsford et al. 2001).

**Comments:** 6.3.7: Confined largely to the lower Warrego River floodplain (subregion 5).  
6.3.7x2: Previously mapped as 6.3.8x1.

**Estimated extent:**<sup>1</sup> Pre-clearing 474000 ha; Remnant 2021 445000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:** 6.3.7x2 - Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss.

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## Regional ecosystem 6.3.8

**Description:** Eucalyptus largiflorens woodland. Scattered E. coolabah or E. populnea low trees may be present and (in the east) groves of Acacia cambagei, A. harpophylla or A. omalophylla occasionally occur. Duma florulenta low shrubs are often prominent, and the sparse ground layer is dominated by perennial grasses and locally abundant forbs. Occurs in depressions on floodplains but also fringing billabongs and small lakes (particularly in the west). Soils are mainly poorly drained, deep, alkaline, grey alluvial clays, but also associated texture contrast soils. Palustrine. (BVG1M: 16c).

Vegetation communities in this regional ecosystem include:

6.3.8x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 6.3.8x3 and 6.3.7x2. Seasonal swamps (wooded). Eucalyptus coolabah woodland, occasionally with Casuarina cristata, E. ochrophloia and Acacia cambagei. A shrub layer may occur, including Duma florulenta, Eremophila bignoniiflora and Senna spp. The ground layer is variable, with tussock grasses and forbs, including Eragrostis parviflora, Marsilea spp., and Alternanthera spp. Occurs in closed depressions on broad sandy plains overlying clays. Brown silty clay to cracking clay soils. Palustrine. (BVG1M: 16c).

6.3.8x2: Seasonal swamps (wooded). Duma florulenta shrubland. Eremophila spp. may occur. Emergent Hakea leucoptera and Acacia stenophylla commonly occur. The ground layer is variable, including Eleocharis pallens, Marsilea spp. and Duma florulenta. Occurs in closed depressions in reticulate dunefields in the south-west of the bioregion. Brown silty clay soils. Palustrine. (BVG1M: 34b).

6.3.8x3: Seasonal swamps (wooded). Eucalyptus largiflorens and/or E. ochrophloia woodland. A shrub layer may occur, including Duma florulenta, Eremophila spp. and Senna spp. The ground layer is variable, with tussock grasses and forbs, including Eragrostis spp., Alternanthera denticulata and Paspalidium jubiflorum. Occurs in closed depressions on broad sandy plains in the south-west of the bioregion. Red-brown to yellow-brown silty and sandy soils. Palustrine. (BVG1M: 16c).

6.3.8x4: Eucalyptus largiflorens woodland to open forest, commonly with E. ochrophloia and Acacia aneura. The ground layer is tussock grasses and forbs, including Sporobolus caroli, Panicum spp. and Pterocaulon sphacelatum. Occurs on the fringes of alluvial plains and sand deposits, subject to irregular inundation by large flood events. Red silty sands. Not a Wetland. (BVG1M: 16c).

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| <b>Short description:</b>            | Eucalyptus largiflorens +/- Acacia cambagei woodland on alluvium   |
| <b>Supplementary descriptions:</b>   | Neldner (1984), 16 (27); Kingsford et al. (2001), Black box, river channels and waterholes; Timms and Boulton (2001), blackbox depressions.  |
| <b>Subregions:</b>                   | 7, 5, 1, (11.37), (11), (3), (8)   |
| <b>Protected areas:</b>              | Currawinya NP, Culgoa Floodplain NP, Lake Bindegolly NP  |
| <b>Extent in reserves:</b>           | High   |
| <b>Wetland:</b>                      | Palustrine   |
| <b>Special values:</b>               | 6.3.8: Northern extremity of regional ecosystem's distribution which extends into New South Wales. Provides valuable habitat for a high number of fauna species, particularly birds (Kingsford et al. 2001).<br>6.3.8x1: Provides valuable habitat for a high number of fauna species, particularly birds (Kingsford et al. 2001).<br>6.3.8x2: Provides valuable habitat for a high number of fauna species, particularly birds (Kingsford et al. 2001).<br>6.3.8x3: Provides valuable habitat for a high number of fauna species, particularly birds (Kingsford et al. 2001). |
| <b>Comments:</b>                     | 6.3.8: Many small areas on the lower Paroo River are too small to map. Confined largely to the lower Paroo River (subregion 7) with smaller areas occurring to east of the Warrego River (subregion 1 and 5). Merges with a similar regional ecosystem (11.3.16) in the Brigalow Belt bioregion.<br>6.3.8x3: Previously mapped as 6.3.8x1.   |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 18000 ha; Remnant 2021 15000 ha   |
| <b>VM class:</b>                     | Least concern  |
| <b>Biodiversity status:</b>          | Of concern   |
| <b>Biodiversity status notes:</b>    | Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss.   |



## Regional ecosystem 6.3.9

**Description:** Eucalyptus coolabah open woodland, occasionally with *E. populnea*. A secondary tree or shrub layer commonly occurs, including *Eremophila bignoniiflora*, *Maireana aphylla* and *Eremophila polyclada* or, in the wetter channels, *Duma florulenta* and *Chenopodium auricomum*. The ground layer is variable and composed mainly of forbs and varies seasonally. The dominant species include the perennial grasses *Eragrostis setifolia* +/- *Astrebla elymoides* and *A. lappacea*. Frequent or seasonally prominent grasses include *Dichanthium sericeum*, *Panicum decompositum*, *Dactyloctenium radulans* and *Iseilema membranaceum*. Seasonally abundant and frequently occurring forbs include *Brachyscome whitei*, *Calotis hispidula*, *Daucus glochidiatus*, *Goodenia fascicularis*, *Ipomoea lonchophylla* and *Plantago drummondii*. Occurs on low lying broad drainage depressions on flat alluvial plains, which are subject to seasonal flooding. Associated soils are often deep, strongly alkaline, grey cracking clays with weakly self-mulching surfaces. Not a Wetland. (BVG1M: 16c).

**Short description:** Eucalyptus coolabah, *E. populnea* open woodland on alluvium

**Supplementary descriptions:** Neldner (1984), 32b (32); Mills and Lee (1990), W5 (LU11)

**Subregions:** 5, 10, 4, (8), (6), (7), (4.4), (3)

**Protected areas:** Currawinya NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.3.9: High fauna diversity, particularly mammal and bird species.

**Comments:** 6.3.9: Has been subjected to extensive clearing and/or disturbance.

**Estimated extent:**<sup>1</sup> Pre-clearing 36000 ha; Remnant 2021 33000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss.

## Regional ecosystem 6.3.10

**Description:** *Tecticornia* spp. succulent shrubland. *Tecticornia indica* subsp. *leiostachya* and *T. pergranulata* typically predominate. Isolated emergent *Myoporum acuminatum* and other shrubs may occur. The ground layer is variable but forbs are more prevalent than grasses. In some areas, bands of *Tecticornia* spp. open succulent shrubland alternate with bands of *Atriplex* spp. forbland, forming a complex. Occurs on the fringing margins of playa lakes. The soils are composed predominantly of fine-grained material such as fine sand, clay, silt and salts, which has been transported by wind and alluvial action. Palustrine. (BVG1M: 34b).

Vegetation communities in this regional ecosystem include:

6.3.10a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.10x1. Water/bare areas of saline lakes. Closed depressions forming lakes with saline water. Lacustrine. (BVG1M: 34a).

6.3.10b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.10x1. Water/bare areas of hyposaline lakes. Closed depressions forming lakes with hyposaline water. Lacustrine. (BVG1M: 34a).

6.3.10x1: Lake beds. Bare or water, depending on seasonal conditions. Large closed depressions, forming playa lakes with fresh to hypersaline water. Lacustrine. (BVG1M: 34a).

6.3.10x1a: Lake beds. Bare or water, depending on seasonal conditions. Large closed depressions, forming playa lakes. Brackish to hypersaline, depending on rainfall conditions. Lacustrine. (BVG1M: 34a).

6.3.10x1b: Lake beds. Water or bare, depending on seasonal conditions. Large depressions, typically open to drainage systems and subject to spring discharge. Freshwater to brackish, depending on rainfall conditions. Lacustrine. (BVG1M: 34a).

6.3.10x2: Lunettes (lake fringing dunes). Variable, from low woodland to tall shrubland to predominantly bare. Associated species include *Eucalyptus largiflorens*, *Acacia* spp. And *Eremophila* spp. The ground layer includes tussock grasses, forbs and chenopods. Occurs on the margins of playa lakes. Formed by wind transportation from lake beds. The soils of the lunettes are deep, composed predominantly of fine-grained material such as fine sand, clay, silt and salts. Not a Wetland. (BVG1M: 34b).

**Short description:** *Tecticornia* spp. succulent shrubland fringing playa lakes

**Supplementary descriptions:** Dawson (1974), D8 (LU 1, 30); Neldner (1984), 63 (159); Kingsford et al. (2001), Salt lakes; Timms (2006)

**Subregions:** 7, 3, (5), (4), (8), (11)

**Protected areas:** Currawinya NP, Lake Bindegolly NP

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 6.3.10: This wetland regional ecosystem is often associated with larger salt lakes which can support large densities of water birds and include sites for colonial breeding water birds such as the Australian pelican (*Pelecanus conspicillatus*), black swans (*Cygnus atratus*), red-necked Avocet (*Recurvirostra novaehollandiae*).

**Comments:** 6.3.10: On margins of larger lakes, a zone of *Cyperus gymnocaulos* open sedgeland (up to 3m wide) may be associated with this complex. Heavily impacted by stock trampling.

6.3.10x1: A regional ecosystem with a restricted distribution. May include small areas of *Tecticornia* spp. Succulent shrubland (6.3.10).

6.3.10x1a: A regional ecosystem with a restricted distribution. May include small areas of *Tecticornia* spp. Succulent shrubland (6.3.10).

6.3.10x1b: A regional ecosystem with a restricted distribution. May include small areas of *Tecticornia* spp. Succulent shrubland (6.3.10).

6.3.10x2: A regional ecosystem with a restricted distribution.

**Estimated extent:**<sup>1</sup> Pre-clearing 28000 ha; Remnant 2021 28000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** A regional ecosystem with a restricted distribution and remaining areas subject to compaction and lack of regeneration.

## Regional ecosystem 6.3.11

**Description:** Seasonal swamps. Mixed herbland to forbland, including combinations of the species *Eleocharis pallens*, *Eryngium supinum*, *Diplachne fusca* var. *muelleri*, *Eragrostis parviflora* and *Marsilea* spp. A wooded fringe commonly occurs, including *Eucalyptus coolabah* and *E. populnea*. Isolated individuals of *Duma florulenta* may occur. Occurs in closed depressions on broad sand sheets. Brown clays to texture contrast soils. Palustrine. (BVG1M: 34b).

Vegetation communities in this regional ecosystem include:

6.3.11a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.10x1. Areas of permanent to semi-permanent open water. Associated with larger lake systems that occur in depressions connected to larger drainage systems. Lacustrine. (BVG1M: 34a).

6.3.11b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.11 or 6.3.11x1. *Eragrostis australasica* open tussock grassland mixed with bare/open water areas. Less commonly *Chenopodium auricomum* sparse to open low shrub land. In some areas trees such as *Eucalyptus largiflorens*, *E. coolabah*, *E. ochrophloia* and the shrubs *Acacia stenophylla*, *Eremophila bignoniiflora* and *Myoporum acuminatum* form a fringing low open woodland - shrubland. Some areas are covered by *Marsilea* spp. or other forbs and aquatic species. Associated with claypans commonly between old dunes or on sandplains. Palustrine. (BVG1M: 34b).

6.3.11c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.11. *Eleocharis pallens* frequently dominates forming an open ground layer (0.3m high). The perennial grasses *Eragrostis setifolia* and *Eriachne benthamii*, and annual grasses *Eragrostis parviflora*, *Diplachne fusca* and *Iseilema membranaceum* may be co-dominant or dominant. The grass *Elytrophorus spicatus* and the sedges *Eleocharis pusilla* and *Cyperus* spp. occur frequently. A variety of forbs may be present and seasonally abundant. These include *Aeschynomene indica*, *Centipeda* spp. *Pycnosorus chrysanthus*, *Eryngium supinum*, *Marsilea* spp., *Cullen tenax*, *Swainsona* spp., and *Trigonella suavissima*. Scattered low shrubs may be present including *Duma florulenta*, *Tecticornia* spp. and *Tecticornia tenuis*. Associated with closed depressions. Palustrine. (BVG1M: 34b).

6.3.11d: *Melaleuca densispicata* predominates with scattered *Eucalyptus coolabah* emerging above the well-defined but discontinuous canopy. A low shrub layer is rarely developed although scattered low shrubs may be present. The ground cover is composed mainly of forbs, but grasses and sedges do occur. Occurs on cemented aprons on the lower slopes and edges of dunes occurring on flat alluvial plains (slopes 1 to 4%) or fringing claypans. Formed from aeolian Quaternary sand overlying Quaternary alluvia. Associated soils are shallow to moderately deep, neutral, red sandy-loam to sandy-clay-loams usually with a ferruginous hardpan. Surface soil is hard and cemented often with concretionary lime present. Also associated are texture contrast soils. These soils comprise loose, neutral, red, loamy-coarse-sands overlying alkaline, sandy-clay-loams to clay-loams. Palustrine. (BVG1M: 21b).

6.3.11e: [RE not in use]<sup>2</sup>: History unknown. *Duma florulenta* predominates forming a distinct but discontinuous low open shrubland to open scrub canopy (2-3m tall). *Duma florulenta* may occur in pure stands or with scattered low trees and tall shrubs such as *Acacia stenophylla*, *A. victoriae*, *Eremophila bignoniiflora*, *Eucalyptus coolabah* emerge (3-4m tall; density <25-100/ha). The ground stratum may be dominated by perennial grasses, sedges and/or ephemeral forbs. Occurs in closed depressions on floodplains. Palustrine. (BVG1M: 34b).

6.3.11f: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.11x1. Lakes/claypans on floodplains. Occurs on depressions at edge of floodplains. Lacustrine. (BVG1M: 34a).

6.3.11x1: Seasonal swamps. *Chenopodium auricomum* dwarf open shrubland. The ground layer is variable, including *Marsilea* spp., *Diplachne fusca* var. *muelleri*, *Eragrostis* spp. and sedges. Isolated emergent *Acacia stenophylla*, *Eremophila bignoniiflora* and *Eucalyptus coolabah* may occur. Occurs in closed depressions on floodplains. Cracking clay soils. Palustrine. (BVG1M: 34a).

6.3.11x2: Seasonal swamps. Mixed succulent shrubland, tussock grassland or herbland, including combinations of the species *Tecticornia* spp., *Eragrostis australasica*, *Atriplex spongiosa* and *Sclerolaena* spp. Occurs in closed depressions in reticulate dune fields. Pale, silty clay soils. Palustrine. (BVG1M: 34b).

**Short description:** Seasonal swamps, with mixed herblands and a fringe of eucalypts in closed depressions on broad sand sheets

**Supplementary descriptions:** Dawson (1974), L2 (LU 15, 16, 17, 18, 19, 20); Neldner (1984), 73b (162), 73c (163), 73d (158, 160); Mills and Lee (1990), L2 (LU 67, 69); Kingsford et al. (2001), Pans and spike rush swamps and freshwater lakes; Timms (2006)

**Subregions:** 7, 3, 5, 8, 10, 11, (2), (6), (4), (5.5), (1), (5.6), (4.4)

**Protected areas:** Currawinya NP, Lake Bindegolly NP, Culgoa Floodplain NP

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 6.3.11: These wetlands are associated with a diverse and abundant invertebrate and water bird fauna (Kingsford et al. 2001, Timms 2006).

|                                       |   |
|---------------------------------------|---|
| <b>Comments:</b>                      | <p>6.3.11: Hydrology, salinity and associated microfauna varies both spatially and temporally (Timms 2006). Heavily impacted or modified by total grazing pressure. Habitat for feral pigs which impact on the ground layer of this and adjacent regional ecosystems. Fringing areas are often in poor condition due to extensive erosion (Dawson, 1974; Mills and Lee, 1990).</p> <p>6.3.11b: Generally filled by local run-off or from ground water with turbid, fresh water. Often only stay inundated for a few weeks or months but they often support a rich and characteristic vertebrate fauna (Timms 1999).</p> <p>6.3.11d: Often occurs fringing clay pans associated with <i>Atalaya hemiglauca</i> +/- <i>Acacia aneura</i> +/- <i>Acacia</i> spp. +/- <i>Corymbia terminalis</i> tall open shrubland (6.6.1).</p> <p>6.3.11f: Smaller clay pans (&lt;8 ha) are classified as palustrine wetlands while large areas of open water are classified as lacustrine wetlands.</p> <p>6.3.11x2: Primarily in sub-region 7.</p> |
| <b>Estimated extent:</b> <sup>1</sup> | Pre-clearing 122000 ha; Remnant 2021 115000 ha  |
| <b>VM class:</b>                      | Least concern   |
| <b>Biodiversity status:</b>           | Of concern  |
| <b>Biodiversity status notes:</b>     | Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss.  |

## Regional ecosystem 6.3.12

|                                       |  |
|---------------------------------------|--|
| <b>Description:</b>                   | Seasonal swamps (wooded). Mixed woodland, including combinations of the species <i>Acacia microsperma</i> , <i>A. cambagei</i> , <i>A. omalophylla</i> , <i>A. harpophylla</i> and <i>Eucalyptus coolabah</i> . A low shrub layer is absent, but scattered <i>Eremophila glabra</i> and <i>Duma florulenta</i> may occur. The ground layer is usually a sparse tussock grassland or sparse herbland in good seasons. More frequent grasses include <i>Eragrostis setifolia</i> , <i>Paspalidium jubiflorum</i> , <i>Eragrostis parviflora</i> , <i>Diplachne fusca</i> , <i>Eriochloa pseudoacrotricha</i> and <i>Sporobolus</i> spp. Common forbs include <i>Marsilea drummondii</i> , <i>Lobelia darlingensis</i> , <i>Eryngium supinum</i> and <i>Sclerolaena</i> spp. Occurs in closed depressions on with sand sheets, mainly east of the Warrego River. Associated with deep to very deep, light to medium, grey alluvial clays. Palustrine. (BVG1M: 34b). |
| <b>Short description:</b>             | <i>Acacia omalophylla</i> +/- <i>A. microsperma</i> +/- <i>Eucalyptus coolabah</i> tall open shrubland on alluvium   |
| <b>Supplementary descriptions:</b>    | Neldner (1984), 73a (149); Mills and Lee (1990), L2 (LU 66, 68, 71)  |
| <b>Subregions:</b>                    | 3, 5, 2, 6, (4), (8), (11.37), (1)   |
| <b>Protected areas:</b>               | Culgoa Floodplain NP   |
| <b>Extent in reserves:</b>            | Low  |
| <b>Wetland:</b>                       | Palustrine   |
| <b>Special values:</b>                | 6.3.12: Potential drought refuge areas for fauna species.  |
| <b>Comments:</b>                      | 6.3.12: Very restricted regional ecosystem, often heavily grazed. Mediocre to poor condition due to extensive scalding and erosion (Mills and Lee, 1990).  |
| <b>Estimated extent:</b> <sup>1</sup> | Pre-clearing 51000 ha; Remnant 2021 44000 ha   |
| <b>VM class:</b>                      | Least concern  |
| <b>Biodiversity status:</b>           | Of concern   |
| <b>Biodiversity status notes:</b>     | Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss.   |

## Regional ecosystem 6.3.13

**Description:** Forbs, frequently *Atriplex* spp. and *Sclerolaena* spp., predominate with short grasses present, becoming co-dominant or dominant in some situations. Frequent and seasonally prominent species include the grasses *Sporobolus actinocladius*, *Chloris pectinata*, *Oxychloris scariosa*, *Aristida platychaeta*, *A. contorta*, *A. anthoxanthoides*, *Enneapogon avenaceus* and the forbs *Atriplex muelleri*, *Sclerolaena lanicuspis*, *Crassula sieberiana*, *Goodenia fascicularis* and *Sida* spp. In places, an *Astrebla* spp. dominated open tussock grassland may form, and other areas may be devoid of vegetation. Scattered trees and shrubs may occur including *Atalaya hemiglaucula*, *Senna phyllodinea*, *Flindersia maculosa*, *Eucalyptus populnea*, *Alectryon oleifolius*, *Acacia excelsa*, *A. cambagei*, *Chenopodium auricomum* and *Eremophila polyclada*. In some more western areas, *Maireana aphylla* is a conspicuous low shrub. Occurs on infrequently flooded, flat alluvial plains, which are formed from recent clay alluvia. Associated soils are very deep, slightly acid to slightly alkaline, brown clays (some grey and red clays occur). Soils are medium to heavy clays commonly becoming light in texture with depth. Intermixed are soils with silty-clay-loam to silty-clay surface soil (10 to 20cm). Thin surface crusts are common. Gypsum commonly occurs in the lower part of the profile <60cm. Not a Wetland. (BVG1M: 31a).

Vegetation communities in this regional ecosystem include:

6.3.13a: Forbs, frequently *Atriplex* spp. and *Sclerolaena* spp., predominate with short grasses present, becoming co-dominant or dominant in some situations. Scattered shrubs such as *Chenopodium auricomum* and *Eremophila polyclada*. Associated with depressions on frequently flooded alluvial plains. Not a Wetland. (BVG1M: 34b).

6.3.13b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.7x1. *Duma florulenta* predominates forming a distinct but discontinuous low open shrubland to open scrub canopy (2-3m tall). *Duma florulenta* may occur in pure stands. In other situations scattered low trees and tall shrubs such as *Acacia stenophylla*, *A. victoriae*, *Eremophila bignoniiflora*, *Eucalyptus coolabah* emerge (3-4m tall; density <25-100/ha). The low (1m tall) shrubs *Chenopodium auricomum* and *Maireana aphylla* are locally prominent in some areas. The ground stratum may be dominated by perennial grasses, sedges and/or ephemeral forbs. The perennial grasses *Eragrostis setifolia* may be locally prominent, while *Sporobolus mitchellii* and the sedge *Eleocharis pallens* occur infrequently, with the latter abundant in some areas. Ephemeral graminoids include *Cyperus* spp. *Echinochloa turneriana*, *Eriochloa pseudoacrotricha* and *Panicum laevinode*. Seasonal dominant forms include *Cullen cinereum*, *Marsilea drummondii*, *Alternanthera nodiflora*, *Senecio lautus* and *Ethuliopsis cunninghamii*. Occurs in depressions on floodplains. Palustrine. (BVG1M: 34b).

|                                       |  |
|---------------------------------------|--|
| <b>Short description:</b>             | <i>Atriplex</i> spp., <i>Sclerolaena</i> spp., species of Asteraceae and/or short grasses open herbland on alluvial plains   |
| <b>Supplementary descriptions:</b>    | Dawson (1974), A1 (LU 24), A3, W1 (LU 24, 35); Neldner (1984), 68a, 68b, 68c, 68d, 69, 70c; Mills and Lee (1990), A3 (LU 18)   |
| <b>Subregions:</b>                    | 10, 8, 5, 9, (11), (5.5), (7), (6), (4.4), (4), (5.9), (1), (3), (2), (5.6)  |
| <b>Protected areas:</b>               | Currawinya NP, Welford NP, Idalia NP, Culgoa Floodplain NP, Binya NP   |
| <b>Extent in reserves:</b>            | Low  |
| <b>Wetland:</b>                       | Not a Wetland  |
| <b>Special values:</b>                | 6.3.13: Potential habitat for threatened plant species including <i>Myriophyllum artesium</i> .  |
| <b>Comments:</b>                      | 6.3.13: Widespread scalding and loss of topsoil is evident (Mills and Lee, 1990). Extensive (>80% medium value) areas of bare ground due to intensive total grazing pressure (Mills and Lee 1990). Floristic composition varies with seasonal rainfall.<br>6.3.13a: The ground layer has a similar composition to 6.3.13.<br>6.3.13b: Fill mainly from rivers with opaque fresh water and support many invertebrates (Timms 1999). |
| <b>Estimated extent:</b> <sup>1</sup> | Pre-clearing 880000 ha; Remnant 2021 854000 ha   |
| <b>VM class:</b>                      | Least concern  |
| <b>Biodiversity status:</b>           | Of concern   |
| <b>Biodiversity status notes:</b>     | Threatening processes are the dry season impacts of high total grazing pressure leading to habitat loss.   |

## Regional ecosystem 6.3.14

|                                      |  |
|--------------------------------------|--|
| <b>Description:</b>                  | Astrebla spp. (predominantly <i>Astrebla elymoides</i> and <i>A. lappacea</i> ) tussock grassland, commonly with <i>Dichanthium sericeum</i> and <i>A. squarrosa</i> . Associated species include <i>Aristida leptopoda</i> , <i>Cyperus bifax</i> , <i>Dactyloctenium radulans</i> , <i>Eriochloa pseudoacrotricha</i> , <i>Iseilema vaginiflorum</i> and <i>Panicum decompositum</i> . A variety of forbs may occur, including <i>Brachyscome</i> spp., <i>Plantago drummondii</i> and <i>Rhynchosia minima</i> . Emergent trees and shrubs may occur, including <i>Eucalyptus coolabah</i> and <i>Acacia cambagei</i> . Occurs on alluvial plains of major watercourses. Associated soils are very deep, grey-brown heavy cracking clays, with widely cracking self-mulching surfaces. Not a Wetland. (BVG1M: 30a). |
| <b>Short description:</b>            | Astrebla spp. +/- <i>Dichanthium sericeum</i> grassland on alluvial plains of major watercourses   |
| <b>Supplementary descriptions:</b>   | Galloway et al. (1974), LU 69; Neldner (1984), 70a, 70d; Mills and Lee (1990), A2 (LU 16)  |
| <b>Subregions:</b>                   | 5, 1, 8, 9, (6), (10), (4.4), (3), (4), (2)  |
| <b>Protected areas:</b>              | Binya NP, Idalia NP, Hell Hole Gorge NP, Narkoola NP   |
| <b>Extent in reserves:</b>           | Low  |
| <b>Wetland:</b>                      | Not a Wetland  |
| <b>Special values:</b>               | 6.3.14: Habitat for threatened plant species including <i>Picris barbarorum</i> .  |
| <b>Comments:</b>                     | 6.3.14: Mainly occurs on floodplains of the Warrego River (subregion 5) with lesser areas on the alluvial plains in other parts of the bioregion. Generally in good condition (Mills and Lee, 1990). The presence of <i>Dichanthium sericeum</i> may vary with seasonal rainfall. Naturalised species associated with this regional ecosystem include <i>*Vachellia farnesiana</i> and <i>*Hibiscus tridactylites</i> .  |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 120000 ha; Remnant 2021 116000 ha   |
| <b>VM class:</b>                     | Least concern  |
| <b>Biodiversity status:</b>          | No concern at present  |
| <b>Biodiversity status notes:</b>    |  |

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## Regional ecosystem 6.3.15

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|--------------------------------------|--|
| <b>Description:</b>                  | <i>Astrebla lappacea</i> and <i>A. elymoides</i> tussock grassland, occasionally with <i>A. pectinata</i> . Associated species include <i>Dichanthium sericeum</i> , <i>Panicum decompositum</i> and <i>Digitaria divaricatissima</i> . Annual grasses and forbs include <i>Iseilema membranaceum</i> , <i>I. vaginiflorum</i> , <i>Brachyscome</i> spp., <i>Goodenia fascicularis</i> , <i>Ipomoea lonchophylla</i> and <i>Rhynchosia minima</i> . Isolated emergent shrubs occur in some areas. Occurs on alluvial plains of major watercourses. Very deep reddish-brown to yellow-brown silty clay soils. .. Not a Wetland. (BVG1M: 30a). |
| <b>Short description:</b>            | <i>Astrebla lappacea</i> , <i>A. pectinata</i> +/- <i>A. elymoides</i> tussock grassland on alluvial plains of major watercourses  |
| <b>Supplementary descriptions:</b>   | Neldner (1984), 66; Mills and Lee (1990), A1 (LU 4)  |
| <b>Subregions:</b>                   | 5, (6), (3), (2), (8)  |
| <b>Protected areas:</b>              | Binya NP, Culgoa Floodplain NP   |
| <b>Extent in reserves:</b>           | Low  |
| <b>Wetland:</b>                      | Not a Wetland  |
| <b>Special values:</b>               | 6.3.15: Potential habitat for NCA listed species: <i>Picris barbarorum</i> .   |
| <b>Comments:</b>                     | 6.3.15: Mainly occurs on floodplains of the Warrego and Ward Rivers. Generally in good condition (Mills and Lee, 1990, 206). Naturalised species associated with this regional ecosystem include <i>*Malvastrum americanum</i> and <i>*Hibiscus tridactylites</i> .  |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 322000 ha; Remnant 2021 318000 ha   |
| <b>VM class:</b>                     | Least concern  |
| <b>Biodiversity status:</b>          | No concern at present  |
| <b>Biodiversity status notes:</b>    |  |

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## Regional ecosystem 6.3.16

**Description:** Callitris glaucophylla predominates and forms a distinct but discontinuous canopy (9-11m high) and in places forming pure stands. Scattered low trees and tall shrubs including Acacia excelsa, Geijera parviflora, Psydrax oleifolia and Acacia aneura and less frequently Angophora melanoxylon, are often present. In areas with a more open tree canopy, a sparse low shrub layer (1-4 m) may be present. Common species include Dodonaea viscosa subsp. angustissima, Alstonia constricta and Acacia murrayana. The ground layer is sparse to open, depending on tree density, and is dominated by grasses. Aristida holathera var. holathera and Perotis rara are dominant at higher tree densities, while A. calycina var. praealta and A. biglandulosa are dominant in more open areas. Other prominent grass species include Eragrostis eriopoda, Eriachne aristidea, Triraphis mollis and in some areas, Triodia mitchellii. There is generally a high diversity of forb species, subject to seasonal conditions and particularly in disturbed areas. Occurs on the upper slopes and crests of dunes and sand hills or sandy rises on alluvial plains or old alluvial terraces predominantly. Soils are deep, acid - alkaline, red or yellow earthy sands. Not a Wetland. (BVG1M: 20a).

Vegetation communities in this regional ecosystem include:

6.3.16x50: Callitris glaucophylla woodland, occasionally with Acacia excelsa, Geijera parviflora, Grevillea striata and Acacia aneura. A secondary tree or shrub layer may occur, including canopy species, Dodonaea viscosa subsp. angustissima, Alstonia constricta and Acacia murrayana. The ground layer is tussock grasses, including Aristida holathera var. holathera, Perotis rara, Eragrostis eriopoda and Eriachne aristidea. There may be a high diversity of forb species, subject to seasonal conditions. Occurs on the upper slopes and crests of sand hills on alluvial plains. Soils are deep, red or yellow earthy sands. Not a Wetland. (BVG1M: 20a).

**Short description:** Callitris glaucophylla, Acacia excelsa, Geijera parviflora +/- Acacia aneura woodland on alluvial dunes

**Supplementary descriptions:** Neldner (1984), 11a; Mills and Lee (1990), D1 (LU61), W3 (LU 61)

**Subregions:** 5, (3)

**Protected areas:** Binya NP, Culgoa Floodplain NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.3.16: Shrubs may be particularly prominent after disturbance. This regional ecosystem has been moved to 6.3.16x50.  
6.3.16x50: Shrubs may be particularly prominent after disturbance.

**Estimated extent:<sup>1</sup>** Pre-clearing 89000 ha; Remnant 2021 80000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Heavy buffel grass \*Pennisetum ciliare infestation has displaced native species from the ground layer in many of the remaining areas. Larger Callitris trees have been killed due to thinning and/or fire in many areas.

## Regional ecosystem 6.3.17

**Description:** Mixed woodland, including combinations of the species *Corymbia tessellaris*, *C. clarksoniana*, *Eucalyptus melanophloia*, *Angophora melanoxylon* and *E. populnea*. A secondary tree layer usually occurs, typically dominated by *Callitris glaucophylla*. A shrub layer may occur, including *Geijera parviflora*, *Acacia excelsa* and *Alstonia constricta*. The ground layer is tussock grasses, including *Heteropogon contortus*, *Aristida* spp. and *Perotis rara*. Occurs on levees of major watercourses. The soils are deep, earthy or siliceous sands and associated sandy-surfaced texture contrast soils. Not a Wetland. (BVG1M: 18a).

**Short description:** *Corymbia tessellaris*, *C. clarksoniana*, *Eucalyptus melanophloia*, *Angophora melanoxylon* in mixed woodlands with *Callitris glaucophylla* lower trees on levees of major watercourses

**Supplementary descriptions:** Galloway et al. (1974), LU 60; Neldner (1984), 11b, 11c, 11d; Mills and Lee (1990), D3 (LU63)

**Subregions:** 5, 1, 4, 2, (6), (11.29), (11.35), (4.4), (3), (11.26)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 6.3.17: Habitat for high diversity of fauna.

**Comments:**

**Estimated extent:**<sup>1</sup> Pre-clearing 163000 ha; Remnant 2021 91000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Heavy buffel grass *Cenchrus ciliaris* infestation has displaced native species from the ground layer in many of the remaining areas. Larger *Callitris* trees have been killed due to thinning and/or fire in many areas.

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## Regional ecosystem 6.3.18

**Description:** Eucalyptus populnea woodland. Other canopy species may include E. melanophloia and E. coolabah. A secondary tree layer commonly occurs, typically dominated by Acacia aneura. A shrub layer commonly occurs, including Eremophila spp. and Geijera parviflora. The ground layer is perennial tussock grasses, including Bothriochloa spp., Heteropogon contortus, Themeda triandra and Eragrostis spp. Forbs may be seasonally abundant. Occurs on alluvial plains of minor watercourses, predominantly in the east and north of the bioregion. Red sandy loam to clay loam soils. Not a Wetland. (BVG1M: 17a).

Vegetation communities in this regional ecosystem include:

6.3.18a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.3.18. Eucalyptus populnea with occasional Acacia cambagei form a woodland to open woodland canopy (9-11m). There is generally an Eremophila mitchellii dominated tall shrub layer (2-4m) with scattered Pimelea microcephala low shrubs. The ground layer is usually sparse and dominated by the perennial grass Enteropogon acicularis while Aristida calycina, A. ramosa, Chloris ventricosa, Bothriochloa decipiens, Chloris pectinata, Oxychloris scariosa, Digitaria divaricatissima var. divaricatissima and Sporobolus caroli are frequent and/or locally abundant. Forbs are generally infrequent but may be seasonally abundant. Occurs on alluvial plains of minor watercourses, predominantly in the east and north of the bioregion. Red sandy loam to clay loam soils. Not a Wetland. (BVG1M: 17a).

6.3.18x2: Acacia aneura and Corymbia terminalis woodland, occasionally with Eucalyptus populnea. A shrub layer may occur, including A. aneura and A. tetragonophylla. The ground layer is tussock grasses and forbs and seasonally variable. Occurs on alluvial plains of minor watercourses in the west of the bioregion. Red sands and sandy loams. Not a Wetland. (BVG1M: 23a).

**Short description:** Eucalyptus populnea +/- Acacia aneura woodland on alluvial plains of minor watercourses

**Supplementary descriptions:** Neldner (1984), 23c; Mills and Lee (1990), E2, E3, E4 (LU 26, 27, 28)

**Subregions:** 6, 3, 2, 11, 8, 4, 5, (10), (7), (1), (4.4), (9), (5.6), (11.29), (5.5), (5.9), (11.24), (11.26), (5.8)

**Protected areas:** Currawinya NP, Welford NP, Thrushton NP, Mariaia NP, Narkoola NP, Culgoa Floodplain NP, Tregole NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.3.18: This regional ecosystem encompasses areas that are known locally as 'box flats'. Vegetation community 6.3.18a has been amalgamated into this regional ecosystem. This regional ecosystem has been extensively cleared and or thinned throughout its range.

**Estimated extent:**<sup>1</sup> Pre-clearing 333000 ha; Remnant 2021 214000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Many remaining areas have been fragmented or disturbed by ring barking which has removed many larger habitat trees.

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## Regional ecosystem 6.3.21

**Description:** *Acacia aneura* usually predominates and together with *A. excelsa* or *Geijera parviflora* and other tree species forms a distinct but discontinuous canopy (8-9m high). In some areas, with slightly yellower soils, *Geijera parviflora* dominates the canopy. Other tree species frequently present include *Acacia excelsa*, *Atalaya hemiglauc*, *Grevillea striata*, *Eucalyptus populnea* and *Ventilago viminalis*. Scattered shrubs are frequently present, but often only form a distinct layer (2-6m) after disturbance. Frequent shrub species include *Alectryon oleifolius*, *Eremophila deserti*, *Hakea leucoptera*, *Capparis loranthifolia*, *Eremophila sturtii* and *Dodonaea viscosa* subsp. *angustissima*. The ground layer is grass dominated and is sparse to open depending on tree density. *Thyridolepis mitchelliana* predominates at higher densities, with *Aristida calycina* var. *praealta* predominating in the more open areas. Other grass species include the perennials *Eragrostis eriopoda*, *E. lacunaria* and *Panicum effusum* and the annuals *Perotis rara*, *Aristida holathera* var. *holathera* and *Enneapogon avenaceus*. Forbs are seasonally abundant including *Abutilon otocarpum*, *Calotis cuneata*, *Chrysocephalum apiculatum*, *Hibiscus sturtii*, *Portulaca* spp., *Sclerolaena* spp. and *Ptilotus polystachyus*. Occurs on flat to gently undulating plains and lower slopes of sand hills on alluvial plains. Soils are very deep, acid, red to sometimes yellowish red earthy to loamy sands and texture contrast soils. Not a Wetland. (BVG1M: 23a).

Vegetation communities in this regional ecosystem include:

6.3.21x50: Mixed low woodland, including combinations of the species *Acacia excelsa*, *Ventilago viminalis*, *Geijera parviflora*, *Heliodendron basalticum*, *Atalaya hemiglauc* and *Grevillea striata*. Other canopy species include *Eucalyptus populnea*, *Acacia aneura* and *Callitris glaucophylla*. A shrub layer commonly occurs, including *Alectryon oleifolius*, *Eremophila deserti*, *Hakea leucoptera*, *Capparis loranthifolia*, *Eremophila sturtii* and *Dodonaea viscosa* subsp. *angustissima*. The ground layer is tussock grasses, including *Thyridolepis mitchelliana*, *Aristida calycina* var. *praealta*, *Eragrostis eriopoda*, *E. lacunaria*, *Perotis rara* and *Aristida holathera* var. *holathera*. Forbs may be seasonally abundant. Occurs on the lower slopes of sand hills on alluvial plains. Soils are very deep, red earthy to loamy sands. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura*, *A. excelsa* and/or *Geijera parviflora* low woodland on low alluvial sand dunes

**Supplementary descriptions:** Neldner (1984), 38a; Mills and Lee (1990), D1 (LU 60 and 62)

**Subregions:** 5, (8), (3)

**Protected areas:** Binya NP, Culgoa Floodplain NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.3.21: This regional ecosystem has been moved to 6.3.21x50. Warrego River.  
6.3.21x50: Warrego River.

**Estimated extent:**<sup>1</sup> Pre-clearing 227000 ha; Remnant 2021 208000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.3.22

**Description:** *Acacia victoriae* tall open shrubland. Emergent trees include *Eucalyptus populnea*, *Corymbia terminalis*, *Atalaya hemiglauc*, *Ventilago viminalis* and *Acacia excelsa*. The ground layer varies seasonally, but is usually dominated by short grasses, including *Enneapogon avenaceus*, *E. polyphyllus*, *Chloris pectinata* and *Sporobolus actinocladius*. The perennial grasses *Aristida* spp., *Bothriochloa ewartiana*, *Heteropogon contortus* and *Themeda triandra* may occur. A variety of forbs may be seasonally prominent. Occurs on flat to gently undulating levees. Associated soils are very deep, brown alluvial sandy clay loams to sandy clay with hard setting surfaces. Not a Wetland. (BVG1M: 26a).

Vegetation communities in this regional ecosystem include:

6.3.22x1: *Eremophila sturtii* and *Senna artemisioides* subsp. *zygophylla* tall shrubland, occasionally with *Acacia tetragonophylla* and *Dodonaea viscosa*. Emergent trees may occur, including *Acacia cambagei*, *A. aneura*, *Corymbia terminalis* and *Grevillea striata*. The ground layer is seasonally variable, including short tussock grasses and forbs. Occurs on sandy deposits on alluvial plains in the west of the bioregion. Red sandy loam soils. Not a Wetland. (BVG1M: 26a).

**Short description:** *Acacia victoriae* +/- *Eucalyptus* spp. tall open shrubland on old levees

**Supplementary descriptions:** Neldner (1984), 60; Mills and Lee (1990), D2 (LU22)

**Subregions:** 5, 8, 7, 10, (11)

**Protected areas:** Binya NP, Currawinya NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.3.22: Warrego River.

**Estimated extent:**<sup>1</sup> Pre-clearing 20000 ha; Remnant 2021 19000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Heavy buffel grass \**Pennisetum ciliare* infestation has displaced native species from the ground layer in many areas.

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## Regional ecosystem 6.3.23

**Description:** Springs associated with natural discharge areas from the Great Artesian Basin. Occurs on recent alluvia, ancient alluvia and fine-grained sedimentary rock (shales). Palustrine. (BVG1M: 34e).

**Short description:** Springs on recent alluvia, ancient alluvia and fine-grained sedimentary rock

**Supplementary descriptions:** Habermehl (1982) Ponder (in press); Fairfax and Fensham (submitted); Fensham and Fairfax (2002); Fensham et al. (2004)

**Subregions:** 8, 5, 7, 3, (11)

**Protected areas:** Currawinya NP, Culgoa Floodplain NP

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 6.3.23: Habitat for near threatened plant including *Eriocaulon carsonii*, *Myriophyllum artesium* and *Sporobolus pamela*, endemic snails and other endemic invertebrates.

**Comments:** 6.3.23: All the springs are within Great Artesian Basin discharge areas. In the Eulo area this regional ecosystem is often associated with granite intrusions (6.12.1).

**Estimated extent:**<sup>1</sup> Pre-clearing 4000 ha; Remnant 2021 3000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Most of the remaining areas have been impacted by artificial water extraction, excavation, pig rooting and stock trampling.

## Regional ecosystem 6.3.24

**Description:** Eucalyptus coolabah and/or E. populnea woodland commonly with Acacia cambagei, A. aneura, A. excelsa, Atalaya hemiglaucula and Flindersia maculosa. A shrub layer may occur, including canopy species and Acacia victoriae. The ground layer is variable, including tussock grasses and forbs. Grass species include Eragrostis setifolia, Dichanthium sericeum, Panicum decompositum, Dactyloctenium radulans and Iseilema spp. Occurs on shallow sand deposits (remnants of levees) on alluvial plains of major watercourses. Shallow siliceous sands, overlying cracking clays. Not a Wetland. (BVG1M: 16c).

Vegetation communities in this regional ecosystem include:

6.3.24a: Seasonal swamps (wooded). Eucalyptus populnea woodland, occasionally with Acacia aneura, Hakea ivoryi, E. melanophloia and Callitris glaucophylla. A shrub layer may occur, including Acacia oswaldii, A. tetragonophylla, Eremophila spp. The ground layer is dominated by species such as Eragrostis microcarpa, Aristida calycina var. praealta, A. jerichoensis and Digitaria spp. In wetter areas Dichanthium sericeum, Eulalia aurea and Iseilema vaginiflorum may be locally prominent. A variety of forbs may be present or seasonally abundant. Frequent species include Calotis cuneata, Euphorbia drummondii, Haloragis aspera and Goodenia glabrata. Occurs in closed depressions, which are infrequently flooded. Associated soils are predominantly moderately deep, red to grey, light textured sandy loam to sandy medium clays. Palustrine. (BVG1M: 17a).

**Short description:** Eucalyptus coolabah and/or E. populnea +/- Acacia cambagei, A. aneura, Atalaya hemiglaucula woodland on sand deposits on alluvial plains of major watercourses

**Supplementary descriptions:** Galloway et al. (1974), LU 68, 71; Neldner (1984), 32b; Mills and Lee (1990), W5 (LU 11)

**Subregions:** 5, 1, (3), (6), (2), (7), (10), (4), (11), (8)

**Protected areas:** Currawinya NP, Binya NP, Narkoola NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.3.24: This regional ecosystem has been extensively cleared and/or thinned throughout its range.  
6.3.24a: The vegetation community 6.3.24a is locally referred to as 'box hollows'.

**Estimated extent:**<sup>1</sup> Pre-clearing 129000 ha; Remnant 2021 74000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Heavy buffel grass \*Cenchrus ciliaris infestation has displaced native species from the ground layer in many areas.

## Regional ecosystem 6.3.25

**Description:** *Acacia harpophylla* and/or *A. cambagei* low woodland. *Eucalyptus* spp., including *E. largiflorens* and *E. coolabah* may occur as emergents. Scattered *Eremophila mitchellii* tall shrubs are frequent while the low shrubs *Enchylaena tomentosa* and *Maireana triptera* maybe locally abundant. The ground layer is dominated by tussock grasses, including *Paspalidium constrictum*, *Eragrostis setifolia*, *Enteropogon acicularis*, *Chloris pectinata*, *Sporobolus actinocladius* and *S. caroli*. Forbs include *Sclerolaena lanicuspis*, *S. birchii*, *S. diacantha*, *Chenopodium desertorum* and *Sida everistiana*, *Einadia* spp., *Abutilon* spp. Occurs on flat to gently undulating plains formed on alluvium. Soils are generally very deep reddish brown to alluvial texture contrast. Includes extensive areas occurring on superficial Quaternary deposits overlying younger alluvium (land zone 3) sometimes merging into areas on Cainozoic sediments (land zone 4). Not a Wetland. (BVG1M: 25a).

Vegetation communities in this regional ecosystem include:

6.3.25a: *Acacia harpophylla* low woodland (4-10m high) +/- emergent *Eucalyptus populnea* woodland to open woodland (4-10m high). Scattered *Eremophila mitchellii* tall shrubs are frequent while the low shrubs *Enchylaena tomentosa* and *Maireana triptera* maybe locally abundant. The ground layer is sparse to seasonally open and dominated by perennial grasses but contains a large number of short grass and forb species. Occurs on alluvium. Not a Wetland. (BVG1M: 25a).

|                                      |   |
|--------------------------------------|---|
| <b>Short description:</b>            | <i>Acacia harpophylla</i> and/or <i>A. cambagei</i> low woodland to woodland on alluvial plains   |
| <b>Supplementary descriptions:</b>   | Neldner (1984), 42a, 42b; Mills and Lee (1990), G2 (LU36)   |
| <b>Subregions:</b>                   | 5, (3), (1)   |
| <b>Protected areas:</b>              | Culgoa Floodplain NP  |
| <b>Extent in reserves:</b>           | Low   |
| <b>Wetland:</b>                      | Not a Wetland   |
| <b>Special values:</b>               |   |
| <b>Comments:</b>                     | 6.3.25: Some areas are subject to scalding (Mills and Lee, 1990, LU36). Areas in southeast of the bioregion subject to clearing. The density and composition of the shrub and ground layers varies with the location and the seasonal conditions.<br>6.3.25a: Occurs in the northern half of the bioregion, in association with poplar box open woodland. |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 106000 ha; Remnant 2021 82000 ha   |
| <b>VM class:</b>                     | Least concern   |
| <b>Biodiversity status:</b>          | No concern at present   |
| <b>Biodiversity status notes:</b>    |   |

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## Regional ecosystem 6.4.1

**Description:** *Acacia cambagei* woodland, occasionally with *Casuarina cristata* or *A. harpophylla*. A tall shrub layer commonly occurs, typically dominated by *Eremophila mitchellii*. Scattered low shrubs may occur. The ground layer is open and usually dominated by grasses such as *Astrebla* spp., *Eragrostis setifolia*, and *Paspalidium gracile* and forbs such as *Sclerolaena diacantha*, *S. tricuspidis* and *Atriplex lindleyi*. Occurs on Cainozoic clay plains. Soils are often mosaics of deep, cracking and non-cracking clays with or without gilgai, texture-contrast soils. Not a Wetland. (BVG1M: 26a).

**Short description:** *Acacia cambagei* +/- *Casuarina cristata* woodland on clay plains

**Supplementary descriptions:** Neldner (1984), 4; Galloway et al. (1974), LU54, 56, 59

**Subregions:** 1, 3, (11.37), (2)

**Protected areas:** Narkoola NP, Culgoa Floodplain NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.4.1: Potential habitat for near threatened and endangered species including painted honeyeater (*Grantiella picta*).

**Comments:** 6.4.1: Extensively cleared.

**Estimated extent:**<sup>1</sup> Pre-clearing 197000 ha; Remnant 2021 11000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 6.4.2

**Description:** *Casuarina cristata* open forest, commonly with *Acacia harpophylla*. *Eucalyptus* spp. may occur in the canopy. A tall shrub layer of *Geijera parviflora* and/or *Eremophila mitchellii* commonly occurs. A low shrub layer may be present in some areas. The ground layer is tussock grasses and forbs. Occurs on flat to gently undulating Cainozoic clay plains. The soils are predominantly deep, texture contrast with thin, loamy surfaces over strongly alkaline, red or brown clay subsoils, or deep, cracking clays, which may have a conspicuous gilgai microrelief. Not a Wetland. (BVG1M: 25a).

**Short description:** *Casuarina cristata* +/- *Acacia harpophylla* open forest on clay plains

**Supplementary descriptions:** Galloway et al. (1974), LU 55; Neldner (1984), 9 (131)

**Subregions:** 1, (2), (11.35), (11.29), (11.37)

**Protected areas:** Thrushton NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.4.2: Potential habitat for threatened fauna including glossy black cockatoo (*Calyptorhynchus lathami*).

**Comments:** 6.4.2: Extensively cleared.

**Estimated extent:**<sup>1</sup> Pre-clearing 266000 ha; Remnant 2021 17000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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### Regional ecosystem 6.4.3

**Description:** Eucalyptus populnea predominates forming a distinct but discontinuous canopy (15-18 m. tall). Casuarina cristata or sometime Acacia harpophylla form a lower tree layer (8-14m tall). In some areas the E. populnea woodland forms a mosaic with C. cristata open forest. An open to moderately dense layer of tall shrubs is usually present and dominated by Eremophila mitchellii and Geijera parviflora. Scattered low shrubs are frequently present. The ground cover is usually sparse, and dominated by the grasses Aristida ramosa, Paspalidium distans, P. gracile, Enteropogon acicularis and Bothriochloa decipiens. Occurs on flat to gently undulating clay plains. Associated soils are either deep, texture contrast soils with thin sandy or loamy, surface horizons over neutral to alkaline clay subsoils, or mosaics of cracking clays on gilgai microrelief with loamy red earths, texture contrast soils or uniform clays. Not a Wetland. (BVG1M: 25a).

Vegetation communities in this regional ecosystem include:

6.4.3x50: Eucalyptus populnea woodland, commonly with Casuarina cristata. A secondary tree layer may occur, including Acacia harpophylla, A. aneura, Alectryon oleifolius and Callitris glaucophylla. A shrub layer commonly occurs, including Eremophila mitchellii, Geijera parviflora and Atalaya hemiglauc. The ground layer is tussock grasses, including Aristida ramosa, Paspalidium distans, P. gracile, Enteropogon acicularis and Bothriochloa decipiens. Occurs on level deposits of sandy material overlying clay plains in the West Balonne Plains subregion. Red-brown sandy loam soils. Not a Wetland. (BVG1M: 17a).

|                                      |  |
|--------------------------------------|--|
| <b>Short description:</b>            | Eucalyptus populnea, Casuarina cristata or Acacia harpophylla +/- Geijera parviflora woodland on clay plains   |
| <b>Supplementary descriptions:</b>   | Neldner (1984), 22a, b; Galloway et al. (1974), LU 53  |
| <b>Subregions:</b>                   | 1, 2, (3), (11.37), (11.35), (11.29), (11.26)  |
| <b>Protected areas:</b>              | Thrushton NP, Narkoola NP  |
| <b>Extent in reserves:</b>           | Low  |
| <b>Wetland:</b>                      | Not a Wetland  |
| <b>Special values:</b>               | 6.4.3: Habitat for threatened fauna including glossy black cockatoo (Calyptorhynchus lathami).<br>6.4.3x50: Habitat for threatened fauna including glossy black cockatoo (Calyptorhynchus lathami).  |
| <b>Comments:</b>                     | 6.4.3: This regional ecosystem has been moved to 6.4.3x50. Areas of Casuarina cristata open forest on clay plains or Eucalyptus populnea woodland on red earths, which are large enough to map (> 5ha), are included under regional ecosystem 6.4.2 or 6.5.3. Extensively cleared, particularly over 1997-1999 period.<br>6.4.3x50: Areas of Casuarina cristata open forest on clay plains or Eucalyptus populnea woodland on deep red earths, which are large enough to map (> 5ha), are included under regional ecosystem 6.4.2 or 6.5.3. Extensively cleared, particularly over 1997-1999 period. |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 306000 ha; Remnant 2021 39000 ha  |
| <b>VM class:</b>                     | Of concern   |
| <b>Biodiversity status:</b>          | Endangered   |
| <b>Biodiversity status notes:</b>    | Many remaining areas have been fragmented or disturbed by previous ring barking which has removed many larger Eucalyptus populnea habitat trees.   |

## Regional ecosystem 6.4.4

**Description:** *Acacia harpophylla* and/or *A. cambagei* low woodland. *Eucalyptus* spp. may occur as emergents. A number of scattered low tree and tall shrubs species are usually present. Low shrubs are frequent, but may be locally abundant. The ground layer is frequently sparse, although annual grasses and forbs may be seasonally abundant. Occurs on flat to gently undulating plains formed on Quaternary clay deposits. Associated soils range from very deep, strong gilgai microrelief, grey to reddish brown clays to texture contrast soils. Not a Wetland. (BVG1M: 25a).

**Short description:** *Acacia harpophylla* and/or *A. cambagei* low woodland on Quaternary clay deposits

**Supplementary descriptions:** Dawson (1974), G5 (LU 70); Neldner (1984), 42a, 42b

**Subregions:** 8, (4), (4.4), (11.26)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.4.4: Some areas subject to tree clearing. The density and composition of the shrub and ground layers varies with the location and the seasonal conditions.

**Estimated extent:**<sup>1</sup> Pre-clearing 25000 ha; Remnant 2021 17000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.1

**Description:** *Acacia aneura* woodland to open forest. Scattered *Eucalyptus* spp. often occur in the canopy or as emergents. Shrubs are scarce but may include species such as *Eremophila mitchellii*, *E. glabra* and *E. gilesii*. The ground layer is dominated by perennial grasses including *Thyridolepis mitchelliana*, *Amphipogon caricinus*, *Eragrostis eriopoda* and *Monachather paradoxus*. Other grasses include *Aristida calycina* var. *praealta*, *A. jerichoensis*, *Eragrostis lacunaria*, *Digitaria hystrichoides*, *D. brownii* and *Panicum effusum*. A large number of forbs may occur, including *Calotis cuneata*, *Cheilanthes sieberi*, *Euphorbia drummondii*, *Goodenia glabra*, *Sida fibulifera*, *Solanum ellipticum*, *Trachymene ochracea* and *Vellea glabrata*. Occurs on the flat to gently undulating plains formed from superficial Quaternary deposits over the Tertiary land surface in the east of the bioregion. Associated soils are predominantly shallow to moderately deep loamy red earths with varying contents of fine gravel occurring in the subsoil and ironstone gravel and shot usually present on the surface. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura* +/- *Eucalyptus populnea*, *E. melanophloia* open forest on undulating plains in the east

**Supplementary descriptions:** Galloway et al. (1974), LU24; Mills and Lee (1990), H3 (LU 39); Neldner (1984), 3 (89)

**Subregions:** 2, 11.29, 3, (1), (11.26), (5), (11.34), (11.35)

**Protected areas:** Thrushton NP, Narkoola NP, Tregole NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.5.1: Potential habitat for NCA listed species: *Solanum unispinum*.

**Comments:** 6.5.1: The vegetation structure of this regional ecosystem may overlap 6.5.2, although the latter is generally dominated by *Eucalyptus* spp. and has no gravel in the soil. This regional ecosystem is dominated by *A. aneura* woodland (10-14 m) while 6.5.13 is dominated by an *A. aneura* low woodland (8-10m), occurs on shallower soils and is generally restricted to subregion 4. Occurs east of the Warrego River (subregion 2 and 3). Extensively cleared. Remaining extent has highly modified structural and floristic composition.

**Estimated extent:**<sup>1</sup> Pre-clearing 712000 ha; Remnant 2021 244000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** 10-30% of its pre-clearing extent remains unaffected by moderate degradation and/or biodiversity loss. Commonly used for fodder harvesting.

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## Regional ecosystem 6.5.2

**Description:** Eucalyptus populnea and/or E. melanophloia woodland. Other canopy species include E. exserta and C. terminalis. A secondary tree layer commonly occurs, typically dominated by Acacia aneura. A. excelsa and Brachychiton populneus may occur in this layer. A shrub layer may occur, including Eremophila mitchellii and Geijera parviflora. The ground layer is typically perennial grasses, including Thyridolepis mitchelliana, Aristida spp., Amphipogon caricinus, Monachather paradoxus and Themeda triandra. Other species include Digitaria spp., Panicum effusum, Cheilanthes sieberi, Euphorbia drummondii, Goodenia glabra, Hibiscus sturtii and Sida spp. Occurs on flat to gently undulating plains formed from Quaternary deposits over the Tertiary land surface. The soils are predominantly shallow to moderately deep red earths with hard-setting surfaces. Not a Wetland. (BVG1M: 23a).

**Short description:** Eucalyptus populnea, Acacia aneura and/or E. melanophloia woodland on Quaternary sediments

**Supplementary descriptions:** Galloway et al. (1974), LU 26; Mills and Lee (1990), M1 (LU 49); Neldner (1984), 20 (43)

**Subregions:** 2, 3, 11.26, (1), (11.29), (4), (11.38), (11.35), (11.34), (11.37), (4.4)

**Protected areas:** Tregole NP, Chesterton Range NP, Morven CP, Thrushton NP, Narkoola NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.5.2: There is a wide variation in structure of the Acacia aneura mid-layer associated with past management history and which merges into the eucalypt overstorey in some areas. This regional ecosystem grades into 6.5.1. The latter is generally dominated by A. aneura and occurs on soils with surface gravel, while this (6.5.2) regional ecosystem is dominated by eucalypt open woodland to woodland (50-75 trees /ha) stratum with an A. aneura sub canopy tree layer. Regional ecosystem 6.5.13 is also similar but dominated by an A. aneura low woodland to open woodland with scattered emergent eucalypts (25 sometimes up to 50 trees /ha). Clearing is occurring.

**Estimated extent:**<sup>1</sup> Pre-clearing 583000 ha; Remnant 2021 181000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 6.5.3

**Description:** *Eucalyptus populnea* woodland, occasionally with *Acacia* spp. A secondary tree and or tall shrub layer including *Acacia aneura*, *Eremophila mitchellii* and *Geijera parviflora* usually occurs. A low shrub layer of varying density may occur. The ground layer is dominated by perennial grasses, including *Bothriochloa decipiens*, *Enteropogon acicularis*, *Aristida* spp., *Eragrostis* spp. and *Chloris pectinata*. Forbs are seasonally abundant. Occurs on sandy plains overlying clay deposits, predominantly in the east of the bioregion. The soils are red earths and surfaces are hard setting. Not a Wetland. (BVG1M: 17a).

Vegetation communities in this regional ecosystem include:

6.5.3a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.5.3. *Eucalyptus populnea* woodland to open woodland to *Acacia aneura* tall shrubland with emergent *E. populnea*. Other scattered tree species such as *Corymbia terminalis*, *Ventilago viminalis*, *Eremophila mitchellii* and *Eremophila bignoniiflora* are sometimes present. Scattered low shrub species such as *Senna* spp. and *Eremophila gilesii* subsp. *gilesii* are often present. The ground layer is variable and composed of grasses and forbs. Frequent species include the grasses *Aristida inaequiglumis*, *A. jerichoensis*, *Dichanthium sericeum*, *Digitaria brownii*, *Enteropogon acicularis*, *Panicum decompositum* and *Themeda avenacea* and the forb *Solanum ellipticum*. Occurs in run-on areas in gently undulating flat plains formed from Quaternary deposits over the Tertiary surface. Associated soils are deep to very deep, red, texture contrast soils. Neutral, red clay loams with a bleached A2 horizon overlie alkaline, red sandy, clay loam to sand clay subsoils. Surfaces are hard setting. Structure massive throughout. Not a Wetland. (BVG1M: 17a).

**Short description:** *Eucalyptus populnea* +/- *Acacia* spp. woodland on sandy plains in the east

**Supplementary descriptions:** Galloway et al. (1974), LU49 (in part); Mills (1980), M4 (LU 14); Neldner (1984), 23a (43)

**Subregions:** 1, 2, 6, (11.26), (11.29), (11.37), (3), (5), (4.4)

**Protected areas:** Narkoola NP, Thrushton NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.5.3: High diversity of arboreal mammals and bird species.

**Comments:** 6.5.3: There is a wide variation in structure of the *Acacia aneura* mid-layer associated with past management history. Vegetation community 6.5.3a has been amalgamated into this regional ecosystem. Occurs predominantly east of the Warrego River (subregion 1 and as outliers in the western Brigalow Belt bioregion) and as scattered areas in the north of the bioregion (subregion 6). Extensively cleared and/or thinned particularly in subregion 1.  
6.5.3a: Naturalised species associated with this regional ecosystem include *\*Malvastrum americanum*.

**Estimated extent:**<sup>1</sup> Pre-clearing 614000 ha; Remnant 2021 166000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Many remaining areas have been fragmented or disturbed by ring barking which has removed many larger habitat trees.

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## Regional ecosystem 6.5.5

**Description:** Eucalyptus intertexta woodland, commonly with E. populnea. Other canopy species include Acacia excelsa, Brachychiton populneus and Eucalyptus melanophloia. A secondary tree layer usually occurs, including Acacia aneura, Callitris glaucophylla and Geijera parviflora. A shrub layer commonly occurs, including Capparis lasiantha, Eremophila mitchellii, Alectryon oleifolius and Senna artemisioides. The ground layer is typically dominated by perennial grasses, including Aristida spp. and Thyridolepis spp. Occurs on flat to gently undulating sand sheets in the east of the bioregion. The soils are either deep, loamy red earths, or deep texture contrast soils with a sandy surface horizon overlying a medium clay subsoil. Not a Wetland. (BVG1M: 17a).

**Short description:** Eucalyptus intertexta +/- E. populnea, Acacia aneura woodland on sand sheets in the east

**Supplementary descriptions:** Galloway et al. (1974), LU51, 49 (in part); Neldner (1984), 25b (50)

**Subregions:** 1, 2

**Protected areas:** Thrushton NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.5.5: High fauna diversity.

**Comments:** 6.5.5: There is a wide variation in structure of the Acacia aneura mid-layer associated with past management history. Extensively cleared. Many areas have been invaded by the exotic pasture species buffel grass \*Cenchrus ciliaris, particularly in areas that have been cleared or where the understorey has been removed.

**Estimated extent:**<sup>1</sup> Pre-clearing 258000 ha; Remnant 2021 57000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Many areas have been invaded by the exotic pasture species buffel grass \*Cenchrus ciliaris, particularly in areas where the understorey has been cleared or removed.

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## Regional ecosystem 6.5.6

**Description:** Acacia aneura low woodland, with scattered Eucalyptus populnea emergents. Shrub layers are usually absent, although scattered Eremophila gilesii subsp. gilesii may be present. In the groves the ground stratum is sparse to open and dominated by Cheilanthes sieberi and perennial grasses Digitaria breviglumis or Aristida calycina var. praealta. In the intergrove areas the ground layer is open to dense and dominated by grasses. The perennial grasses Aristida calycina var. praealta, A. jerichoensis and Themeda triandra may be abundant while Monachather paradoxus, Thyridolepis mitchelliana, Urochloa piligera, Digitaria hystrichoides, D. brownii and Eragrostis lacunaria occur frequently. A variety of forbs may be seasonally abundant including Euphorbia drummondii, Plantago drummondii, Sida fibulifera, Vellea glabrata and Vittadinia spp. Occurs on very gently sloping plains (run-on areas). Associated soils are moderately deep loamy red earths with hard setting surfaces. Not a Wetland. (BVG1M: 23a).

**Short description:** Acacia aneura, Eucalyptus populnea low woodland on run-on plains

**Supplementary descriptions:** Mills and Lee (1990), M5 (LU 53); Neldner (1984), 36a (95)

**Subregions:** 6, 8, 4, 5, (2), (3)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.5.6: This regional ecosystem shows a highly modified structural and floristic composition which varies with past disturbance history.

**Estimated extent:**<sup>1</sup> Pre-clearing 45000 ha; Remnant 2021 27000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.7

**Description:** Eucalyptus populnea woodland, occasionally with E. melanophloia and E. intertexta. A secondary tree layer usually occurs, dominated by Acacia aneura. A shrub layer commonly occurs, including Eremophila gilesii subsp. gilesii, E. glabra, E. longifolia and Senna spp. The ground layer is variable, with tussock grasses and forbs, including Cheilanthes sieberi, Digitaria breviglumis, Aristida spp., Thyridolepis mitchelliana, Eragrostis eriopoda and Themeda triandra. A large number of forb species are frequent and seasonally abundant. Occurs on flat sand sheets formed from Quaternary deposits over the Tertiary land surface. Soils are moderately deep sands and loamy red earths. Not a Wetland. (BVG1M: 23a).

**Short description:** Eucalyptus populnea +/- Acacia aneura, E. melanophloia, E. intertexta woodland on sand sheets

**Supplementary descriptions:** Galloway et al. (1974), LU51 (in part); Mills and Lee (1990), M2 (LU 43, 46), M3 (52); Neldner (1984), 36b (96)

**Subregions:** 3, 8, 6, 2, (5), (4), (4.4), (11), (11.37), (7), (11.26), (1)

**Protected areas:** Narkoola NP, Culgoa Floodplain NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.5.7: Highly modified structural and floristic composition. Regional ecosystem 6.5.7 has larger number of Eucalyptus populnea trees (<100 ha) than 6.5.6 (scattered emergent). Occurs in two main areas; most extensively in areas east of the Warrego River around the Nebine Creek and also in areas around Adavale.

**Estimated extent:**<sup>1</sup> Pre-clearing 819000 ha; Remnant 2021 474000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.8

**Description:** Acacia aneura low woodland with emergent Eucalyptus populnea. A prominent shrub layer commonly occurs. The ground layer is dominated by tussock grasses and varies in composition with the tree density. At high tree densities, Thyridolepis mitchelliana, Eragrostis lacunaria and Digitaria hubbardii usually dominate. As density decreases, Aristida calycina var. praealta and A. jerichoensis become dominant. Occurs on flat to gently undulating plains formed from superficial Quaternary deposits over the Tertiary land surface in the west of the bioregion. Associated soils are deep to very deep, acid to neutral, loamy red earths with ironstone gravel in the profile. Soils are massive and hard setting when dry but some accumulation on the surface. Not a Wetland. (BVG1M: 23a).

**Short description:** Acacia aneura, Eucalyptus populnea +/- Eremophila gilesii subsp. gilesii low woodland on undulating plains in the west

**Supplementary descriptions:** Dawson (1974), M1, M4 (LU 49 deeper soils), M2 (LU 64); Neldner (1984), 36c (96)

**Subregions:** 8, 10, 11, (7), (9), (5.6), (5), (6)

**Protected areas:** Currawinya NP, Lake Bindegolly NP, Welford NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 6.5.8: Potential habitat for NCA listed species: Hydrocotyle dippleura.

**Comments:** 6.5.8: Highly modified structural and floristic composition. Occurs widely across western parts of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 477000 ha; Remnant 2021 419000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.9

**Description:** *Acacia aneura* low woodland, with *Eucalyptus melanophloia* and/or *E. populnea* emergents. Other trees such as *Corymbia clarksoniana*, *Brachychiton populneus*, *Heliodendron basalticum*, *Ventilago viminalis*, *Alectryon oleifolius* and *Acacia excelsa* frequently occur as emergents or in the tree canopy. Tall shrubs may occur, including *Heliodendron basalticum*, *Psydrax oleifolia*, *Eremophila longifolia*, *E. mitchellii* and *Geijera parviflora*. The ground layer is dominated by *Thyridolepis mitchelliana* at higher tree and shrub densities while *Aristida* spp. become increasingly abundant and dominant in more open areas. Other species include *Aristida calycina* var. *praealta*, *Digitaria brownii*, *Eragrostis lacunaria*, *Enteropogon acicularis* and *Ancistrachne uncinulata*. Occurs on gently undulating sand sheets formed from Quaternary deposits over the Tertiary land surface in the north of the bioregion. Associated soils are deep sandy red earths. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura* +/- *Eucalyptus populnea*, *E. melanophloia* low woodland on sand sheets in the north

**Supplementary descriptions:** Turner (1978), M1 (LU 52 in part); Mills and Lee (1990), S3 (LU 51); Neldner (1984), 37 (94)

**Subregions:** 6, 4, (11.26), (4.4)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.5.9: Confined to the north east part of the region where it often occurs in close proximity with Brigalow Belt regional ecosystems such as *Acacia harpophylla* woodland (11.9.11). Extensive areas of this regional ecosystem have been cleared and converted to exotic pasture. Emergent eucalypts may form open woodland (100 trees / ha).

**Estimated extent:**<sup>1</sup> Pre-clearing 282000 ha; Remnant 2021 95000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** 10-30% of its pre-clearing extent remains unaffected by moderate degradation and/or biodiversity loss. Subject to fodder harvesting.

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## Regional ecosystem 6.5.10

**Description:** *Acacia aneura* low woodland, commonly with *A. excelsa* and *Grevillea striata*. Emergent *Eucalyptus populnea* or *C. clarksoniana* may occur. Scattered shrubs may be present, but rarely form a conspicuous layer. Frequent species include *Eremophila longifolia*, *E. gilesii*, *Dodonaea viscosa* subsp. *angustissima*, and *Senna* spp. The ground layer is open to dense. In higher tree density areas, the perennial grass *Thyridolepis mitchelliana* and *Digitaria breviglumis* are dominant, and the fern *Cheilanthes sieberi* abundant. In more open communities, *Aristida calycina* var. *praealta*, *A. jerichoensis* and *Eragrostis lacunaria* are dominant. Occurs on the flat to gently undulating sand sheets and outwash plains in the east of the bioregion. Soils are generally deep, acid, sandy red earths, and minor areas of earthy sands. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura* +/- *Eucalyptus populnea*, *Grevillea striata*, *A. excelsa* low woodland on sand sheets in the east

**Supplementary descriptions:** Mills and Lee (1990), S1 (LU 45), and S2 (LU 47); Neldner (1984), 38b, 38d (93)

**Subregions:** 5, 8, 3, 2, (4), (1), (6), (4.4), (7)

**Protected areas:** Thrushton NP, Culgoa Floodplain NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.5.10: East of the Warrego River floodplain, from Charleville to south of Cunnamulla. Some areas severely degraded, showing highly modified ground layer species composition associated with topsoil loss (Mills and Lee, 1990; LU 45). A dense *Acacia aneura* low tree layer develops in areas that have been previously cleared, thinned or severely disturbed by grazing.

**Estimated extent:**<sup>1</sup> Pre-clearing 510000 ha; Remnant 2021 330000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.11

**Description:** *Acacia aneura*, *Eucalyptus populnea* low woodland. *Eucalyptus populnea* may occur as emergents. A sparse shrub layer of *A. aneura* or *Eremophila gilesii* subsp. *gilesii* may occur. The ground layer is open to dense depending on tree density, and is dominated by tussock grasses, including *Thyridolepis mitchelliana*, *Aristida* spp. and *Eragrostis* spp. Forbs are seasonally abundant. Occurs on flat to gently undulating plains of superficial Quaternary deposits overlying the Tertiary land surface. Soils are acid, moderately deep to deep, sandy red earths and loamy red earths. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura* +/- *Eucalyptus populnea* low woodland on sand sheets.

**Supplementary descriptions:** Mills and Lee (1990), M4 (LU 48); Neldner (1984), 38c (90)

**Subregions:** 2, 6, 3, (5), (8)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.5.11: East of the Warrego River.

**Estimated extent:**<sup>1</sup> Pre-clearing 79000 ha; Remnant 2021 35000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.13

|                                      |  |
|--------------------------------------|--|
| <b>Description:</b>                  | Acacia aneura low woodland. Emergent Eucalyptus populnea and E. melanophloia may occur. Infrequent scattered Brachychiton populneus trees occur. A low shrub layer is occasionally present. The ground layer is dominated by the perennial grasses Aristida jerichoensis and Thyridolepis mitchelliana. The short grasses Digitaria spp. and Eragrostis lacunaria are frequent and may be locally abundant, while Panicum effusum and the perennials Eragrostis eriopoda, Monachather paradoxus and Themeda triandra are frequent. The forb species include Calotis cuneata, Cheilanthes sieberi, Sida sp. (Musselbrook M.B.Thomas+ MRS437) and Solanum ferocissimum. Occurs on undulating plains of gravelly Quaternary cover overlying the Tertiary land surface. Associated soils are shallow to moderately deep, loamy red earths with gravel through the profile. Surfaces are hard setting. Not a Wetland. (BVG1M: 23a). |
| <b>Short description:</b>            | Acacia aneura +/- Eucalyptus populnea, E. melanophloia, Brachychiton populneus low woodland on undulating gravelly sandy deposits  |
| <b>Supplementary descriptions:</b>   | Mills and Lee (1990) H1 (LU 40); Neldner (1984), 39 (92)   |
| <b>Subregions:</b>                   | 4, 6, 3, (5), (8), (4.4), (2), (11.26)   |
| <b>Protected areas:</b>              |  |
| <b>Extent in reserves:</b>           | No representation  |
| <b>Wetland:</b>                      | Not a Wetland  |
| <b>Special values:</b>               |  |
| <b>Comments:</b>                     | 6.5.13: This regional ecosystem is dominated by the A. aneura low woodland to open woodland stratum with scattered emergent eucalypts (25 sometimes up to 50 trees /ha) which differentiates it from 6.5.2 which is dominated by a eucalypt open woodland to woodland (50-75 trees /ha) with an A. aneura subcanopy tree layer, generally occurs on soils with no gravel cover and is generally restricted to subregions 2 and 3. Occurs predominantly east of the Warrego River (subregions 3 and 4). Highly modified structural and floristic composition. There is a wide variation in Acacia aneura density with disturbance/clearing history. Low shrubs are sparse except in disturbed situations. With disturbance an A. aneura, E. populnea, E. melanophloia open woodland to wooded tussock grassland develops, sometimes with a sparse low A. aneura shrub stratum.  |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 408000 ha; Remnant 2021 190000 ha   |
| <b>VM class:</b>                     | Least concern  |
| <b>Biodiversity status:</b>          | No concern at present  |
| <b>Biodiversity status notes:</b>    |  |

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## Regional ecosystem 6.5.14

**Description:** *Acacia aneura* tall open shrubland with emergent *Eucalyptus populnea* in the groves. The intergrove supports an open tussock grassland with isolated shrubs. Groved areas support scattered *Eucalyptus populnea* trees. Scattered low shrubs are present, but rarely form a well-defined layer. The ground layer is open and composed mainly of tussock grasses. Occurs on flat to gently undulating plains of low relief (slopes <2%). The soils are moderately deep to deep, loamy red earths, with slightly acid clay loams grading into neutral light clays containing ironstone shot at depth. Surfaces are hard setting, characteristically with veneers of ironstone shot. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura* +/- *Eucalyptus populnea* +/- *Eremophila gilesii* subsp. *gilesii* tall open shrubland on Quaternary sediments

**Supplementary descriptions:** Mills (1980), M4 (LU 15); Neldner (1984), 54 (109)

**Subregions:** 8, 11, 10, (7), (9), (5.8)

**Protected areas:** Hell Hole Gorge NP, Currawinya NP, Lake Bindegolly NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.5.14: The groving in this regional ecosystem is often diffuse, as the soils are fairly consistent throughout. Run on areas within this regional ecosystem may support *E. populnea* woodland (6.5.3).

**Estimated extent:**<sup>1</sup> Pre-clearing 646000 ha; Remnant 2021 551000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.15

**Description:** *Acacia aneura* low woodland, commonly with *Eucalyptus populnea*. Emergent *Corymbia terminalis* and *Grevillea striata* may occur. A shrub layer may occur, including *Eremophila* spp. or *Senna* spp. The ground layer is variable and composed of grasses and forbs. Occurs on the flat to undulating sand sheets, often overlying Quaternary clay plains in the west of the bioregion. Soils are shallow to moderately deep, sandy red earths. Not a Wetland. (BVG1M: 23a).

Vegetation communities in this regional ecosystem include:

6.5.15a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.5.15. *Acacia aneura* predominates usually with scattered *Eucalyptus populnea*, *Grevillea striata* and other tree species occurring as emergents. Low shrubs are usually abundant with *Senna* spp. and *Eremophila bowmanii* forming a well-defined low shrubby layer in places. The ground layer is variable and composed of grasses and forbs. Occurs on gently undulating to flat plains (slopes <2%) formed from Quaternary sandsheets overlying upland land surfaces. Associated soils are deep acid to neutral, sandy red earths. Textures range from sandy loams and clay loams to sandy clays. Most surfaces are hard setting. Ironstone shot occurs on the surfaces and throughout the profile in limited areas. Not a Wetland. (BVG1M: 23a).

6.5.15b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.5.15. *Acacia aneura* low woodland with scattered trees, particularly *Eucalyptus populnea* emerging in places. Other emergent trees include *Grevillea striata*, *Acacia excelsa* and *Hakea leucoptera*. A low shrubby layer is often well developed with *Eremophila gilesii* subsp. *Gilesii* and *Senna* spp. Prevalent in places. Grasses and forbs form a variable ground layer with *Eragrostis eriopoda* dominating in many places. Occurs on gently undulating to flat plains formed from Quaternary sandplains overlying Quaternary clayplains. Associated soils are shallow to moderately deep, sandy red earths, slightly acid to neutral at the surface and generally alkaline at depth. An impermeable hardpan is common. Iron stone gravel is present in the lower parts of the profile. Surface soil is hard setting when dry by loose when moist. Textures range from sandy-loam to sandy-clay-loam at the surface to sandy-clay-loam to sandy-clay at depth. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura*, *Eucalyptus populnea* +/- *Eremophila* spp. low woodland on sand sheets in the west

**Supplementary descriptions:** Boyland (1984), 11-5, 12a; Neldner (1984), 53 and 52 (in part)

**Subregions:** 7, 11, 9, (8), (5), (5.8), (10), (5.5), (4.4)

**Protected areas:** Currawinya NP, Welford NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 6.5.15: Potential habitat for threatened plant species including *Acacia ammophila*.

**Comments:** 6.5.15: Highly modified structural and floristic composition. Vegetation communities 6.5.15a and 6.5.15b have been amalgamated into this regional ecosystem.

**Estimated extent:**<sup>1</sup> Pre-clearing 475000 ha; Remnant 2021 447000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.16

**Description:** *Acacia aneura* tall open shrubland in groves. The intergrove supports a variable ground cover of grasses and with scattered low shrubs. Groved areas support isolated trees of *Eucalyptus populnea*, *C. terminalis* and *Grevillea striata*. A low shrub layer is not formed, but scattered low shrubs occur. The ground layer is open, variable and composed of grasses and forbs. The depressions and slump holes support *Marsilea* spp. and sedges. *Eucalyptus populnea* tends to replace *C. terminalis* in the more easterly occurrences of this association. Occurs on flat plains of superficial Quaternary deposits with very gentle slopes of < 1%. It occurs on a complex of soils. Associated soils: Grove: Shallow to moderately deep, red earths with slightly neutral surfaces. Textures are gradational with sandy loam to sandy clay loams over lying light to medium clays. Slump holes are common. Surfaces are hard setting and are occasionally covered with accumulations of organic matter. Intergrove area: Shallow red earths with slightly acid surfaces. Textures are gradational with loam to sandy clay loam surfaces grading into sandy clay loams to medium clays. Surfaces are hard setting, occasionally with scattered gravel. Not a Wetland. (BVG1M: 23a).

Vegetation communities in this regional ecosystem include:

6.5.16a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.7.12. *Acacia aneura* predominates forming distinct groves with scattered *Corymbia blakei* emergents. The intergrove supports isolated tall and low shrubs with grasses forming a variable ground cover. Groved areas support isolated *Clerodendrum floribundum* and *Corymbia terminalis* low trees and often a well-defined low shrub layer. The ground cover is variable and dominated by grasses or, depending on seasonal conditions, forbs. Occurs on flat to slightly undulating plains on tablelands with low relief (slopes <1%) (Neldner, 1984: 57a; Mills, 1980, H2). The soils are shallow to very shallow, red earths with lithosols with slightly acid soil reaction and clay loam to sandy clay loam textures, overlying weathered rock. Surfaces are hard setting with scattered silcrete stone in intergrove areas. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura* groved with *Corymbia terminalis* or *C. blakei* tall open shrubland on Quaternary sediments

**Supplementary descriptions:** Boyland (1984), 14, 14-t; Neldner (1984), 57a, 57b (108, 110); Mills (1980), M3 (LU 18), H2 (LU 19)

**Subregions:** 10, 8, (9), (5.6), (5.5)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 6.5.16: Habitat for threatened fauna species including Major Mitchell's cockatoo (*Cacatua leadbeateri*).

**Comments:**

**Estimated extent:**<sup>1</sup> Pre-clearing 381000 ha; Remnant 2021 355000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.17

**Description:** Mixed woodland, with a combination of the species *Eucalyptus populnea*, *E. melanophloia*, *Callitris glaucophylla*, *Corymbia tessellaris*, *C. clarksoniana* and *E. chloroclada*. *Allocasuarina luehmannii* may also occur in the canopy. A lower tree layer may occur, including *Acacia aneura* and canopy species. A shrub layer may occur, including *Eremophila* spp., *Geijera parviflora* and *Acacia* spp. The ground layer is dominated by perennial grasses, including *Aristida* spp., and *Chrysopogon fallax*. Occurs on sandy plains derived from old levee deposits in the West Balonne Plains subregion. Red to brown sandy loams. Not a Wetland. (BVG1M: 17a).

Vegetation communities in this regional ecosystem include:

6.5.17a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.5.17. *Eucalyptus melanophloia* and *Callitris glaucophylla* woodland. Occurs on uniform sandy soils. Not a Wetland. (BVG1M: 17a).

**Short description:** *Eucalyptus populnea*, *E. melanophloia*, *Callitris glaucophylla*, *Corymbia tessellaris* in mixed woodlands on sandy plains derived from old levee deposits in the West Balonne Plains subregion

**Supplementary descriptions:** Galloway et al. (1974), LU 48; Neldner (1984), 25a (49)

**Subregions:** 1, 2, (5), (6), (11.35), (11.29)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 6.5.17: High fauna diversity particularly bird species.

**Comments:** 6.5.17: Vegetation community 6.5.17a has been amalgamated into this regional ecosystem. Changed status to of concern due to clearing over the 2001-3 period. Extensively cleared.

**Estimated extent:**<sup>1</sup> Pre-clearing 326000 ha; Remnant 2021 92000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 6.5.18

**Description:** *Acacia aneura* low woodland to low open forest. Emergent *Eucalyptus populnea* may occur. *Eremophila mitchellii* tall shrubs are usually present, and occasionally form a distinct layer. *Eremophila gilesii* subsp. *gilesii* is present and in places forms a conspicuous low shrub layer. The ground layer is open, and composed of grasses and forbs. Occurs on flat to very gently undulating sandy deposits overlying old lake beds. Soils are generally deep, red and brown texture contrast soils with acid, loamy surface soils overlying clay subsoils or moderately deep to deep, massive red earths with sandy loam surface textures and surface crusts. Not a Wetland. (BVG1M: 23a).

**Short description:** *Acacia aneura* +/- *Eucalyptus populnea* low woodland on sandy deposits over old lake beds

**Supplementary descriptions:** Turner (1978), M1 (LU 52 in part); Neldner (1984), 43 (97)

**Subregions:** 6, 8, (4.4)

**Protected areas:** Mariala NP, Hell Hole Gorge NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.5.18: This regional ecosystem was described in Sattler and Williams (1999) under 6.4.5 but has now been allocated to land zone 5 following re-assessment. Northern areas subject to clearing and associated introduction of exotic pastures.

**Estimated extent:**<sup>1</sup> Pre-clearing 385000 ha; Remnant 2021 223000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.5.19

**Description:** Mixed low woodland to woodland, including a combination of the species *Eucalyptus melanophloia*, *Acacia aneura*, *Angophora melanoxylon*, *E. chloroclada* and *Callitris glaucophylla*. Other canopy species include *Corymbia clarksoniana* and *Brachychiton populneus*. A shrub layer commonly occurs, including *Acacia* spp., *Grevillea juncifolia* and *Geijera parviflora*. The ground layer is typically dominated by *Triodia mitchellii*, with smaller areas of tussock grasses. Occurs on degraded deposits of aeolian sands east of the Warrego River. Deep, red to red-brown loamy sands. Not a Wetland. (BVG1M: 18a).

Vegetation communities in this regional ecosystem include:

6.5.19a: *Eucalyptus socialis* subsp. *socialis* low open woodland (to mallee woodland). Occurs on sandy deposits. Not a Wetland. (BVG1M: 18a).

6.5.19x1: *Allocasuarina inophloia* and/or *Eucalyptus ammophila* tall open shrubland. Emergent *Acacia aneura* and *Eucalyptus melanophloia* may occur. A diverse, healthy shrub layer commonly occurs, including *Acacia* spp., *Calytrix longiflora*, *Dodonaea* spp., *Grevillea juncifolia* and *Xanthorrhoea johnsonii*. The ground layer is a combination of *Triodia mitchellii* and tussock grasses. Occurs on degraded deposits of aeolian sands east of the Warrego River. Deep, red sands. Not a Wetland. (BVG1M: 18a).

|                                      |  |
|--------------------------------------|--|
| <b>Short description:</b>            | <i>Eucalyptus melanophloia</i> , <i>Acacia aneura</i> , <i>Angophora melanoxylon</i> and <i>E. chloroclada</i> in mixed low woodlands on degraded deposits of aeolian sands east of the Warrego River  |
| <b>Supplementary descriptions:</b>   | Galloway et al. (1974), LU 45; Neldner (1984), 30 (145)  |
| <b>Subregions:</b>                   | 3, 5, 1, 2, (4)  |
| <b>Protected areas:</b>              | Thrushton NP   |
| <b>Extent in reserves:</b>           | Low  |
| <b>Wetland:</b>                      | Not a Wetland  |
| <b>Special values:</b>               | 6.5.19x1: Supports high floristic and faunal diversity, and several plant species at the western limits of their geographical range such as <i>Xanthorrhoea johnsonii</i> , <i>Eucalyptus ammophila</i> and <i>Allocasuarina inophloia</i> . |
| <b>Comments:</b>                     | 6.5.19x1: The structure of this community is greatly affected by fire frequency, becoming more open and shrubby with higher fire frequencies.  |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 92000 ha; Remnant 2021 76000 ha   |
| <b>VM class:</b>                     | Least concern  |
| <b>Biodiversity status:</b>          | No concern at present  |
| <b>Biodiversity status notes:</b>    |  |

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## Regional ecosystem 6.6.1

**Description:** Mixed tall open shrubland to shrubland, including combinations of the species *Eremophila sturtii*, *Hakea leucopetra*, *Dodonaea viscosa* subsp. *angustissima*, *Acacia ammophila*, *Acacia aneura*, *Atalaya hemiglaucula* and *Ventilago viminalis*. Other shrubs may include *Grevillea juncifolia*, *Santalum lanceolatum* and *Acacia tetragonophylla*. The ground layer is variable and commonly grasses and forbs, including *Sclerolaena* spp., *Eragrostis* spp. and *Aristida holathera* var. *holathera*. Small groves of *Acacia cambagei* woodland may be scattered through this regional ecosystem. Occurs on convex, reticulate dunes less than 5m high, formed from aeolian Quaternary sands. The dunes usually overlie recent clay alluvia. Associated soils are very deep, red earthy sands to siliceous sands. Ferruginous hardpans may underlie these layers. Not a Wetland. (BVG1M: 23a).

Vegetation communities in this regional ecosystem include:

6.6.1a: *Acacia ammophila* tall open shrubland. Other trees and tall shrubs such as *Acacia aneura*, *Atalaya hemiglaucula*, *Hakea leucopetra* and *Ventilago viminalis* occur and may co-dominate. Low shrubs such as *Eremophila sturtii* and *Dodonaea viscosa* subsp. *angustissima* are present in places and form a distinct low shrubby layer. The ground layer is composed of grasses and forbs. Occurs on convex, low reticulate dunes. Soils are very deep, earthy sands to siliceous sands with clayey layers at depth. Ferruginous hardpans may underlie these sands. Not a Wetland. (BVG1M: 23a).

6.6.1b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 6.6.1x1. Mixed low open woodland to woodland, including combinations of the species *Atalaya hemiglaucula*, *Ventilago viminalis*, *Acacia aneura*, *Corymbia terminalis*, *Hakea chordophylla* and *Owenia acidula*. A variable, lower shrub layer may occur. The ground layer is variable. Common forb species include *Crotalaria eremaea*, *Salsola australis*, *Tribulus terrestris* and *Euphorbia wheeleri*. Grasses such as *Eriachne aristidea* and *Eragrostis* spp. may occur. Occurs on isolated low dunes and sand mounds, and sometimes rounded mobile crests formed from Quaternary aeolian sands overlying alluvia in the north-west of the bioregion. Soils are red to yellow siliceous sands on dunes with sandy surface texture contrast soils on flanks. Not a Wetland. (BVG1M: 23a).

6.6.1c: Mixed tall open shrubland, including combinations of the species *Eremophila sturtii*, *Hakea leucopetra*, *Acacia ammophila*, *Acacia aneura*, *Atalaya hemiglaucula* and *Ventilago viminalis*. Other shrubs may include *Dodonaea viscosa* subsp. *angustissima*, *Grevillea juncifolia*, *Santalum lanceolatum* and *Acacia tetragonophylla*. The ground layer is variable and commonly grasses and forbs, including *Sclerolaena* spp., *Eragrostis* spp. and *Aristida holathera* var. *holathera*. Small groves of *Acacia cambagei* woodland are scattered throughout this regional ecosystem. Occurs on convex, reticulate dunes less than 5m high, formed from aeolian Quaternary sands. The dunes usually overlie recent clay alluvia. Associated soils are very deep, red earthy sands to siliceous sands. Not a Wetland. (BVG1M: 23a).

6.6.1d: *Dodonaea viscosa* subsp. *angustissima*, *Eremophila sturtii* shrubland. Emergent *Atalaya hemiglaucula*, *Acacia oswaldii* and *Hakea leucopetra* may occur. The ground layer is variable and commonly grasses and forbs, including *Sclerolaena* spp. and *Aristida holathera* var. *holathera*. Occurs on convex, reticulate dunes less than 5m high, formed from aeolian Quaternary sands. The dunes usually overlie recent clay alluvia. Associated soils are very deep, red earthy sands to siliceous sands. Not a Wetland. (BVG1M: 23a).

6.6.1x1: Mixed woodland to low open woodland, with a combination of the species *Corymbia terminalis*, *Atalaya hemiglaucula*, *Ventilago viminalis*, *Corymbia clarksoniana* and *Eucalyptus melanophloia* woodland. Other canopy species include *Acacia aneura* and *Angophora melanoxylon*. A secondary tree layer may occur, commonly dominated by *Acacia aneura*. A shrub layer commonly occurs, including *Grevillea* spp., *Acacia* spp. and *Eremophila* spp. The ground layer includes tussock and hummock grasses. Occurs on low sand dunes. Red siliceous sands. Not a Wetland. (BVG1M: 18a).

|                                    |  |
|------------------------------------|--|
| <b>Short description:</b>          | <i>Eremophila sturtii</i> , <i>Hakea leucopetra</i> , <i>Acacia ammophila</i> , <i>Acacia aneura</i> in mixed tall open shrublands on reticulate dunes over alluvium |
| <b>Supplementary descriptions:</b> | Dawson (1974), D7 (LU 7), D5 (LU 11); Mills and Lee (1976), D3 (LU 3); Boyland (1984), 6a; Neldner (1984), 55 (151, 154)   |
| <b>Subregions:</b>                 | 11, 7, 10, 3, (5), (8), (5.5), (2)   |
| <b>Protected areas:</b>            | Currawinya NP, Lake Bindegolly NP  |
| <b>Extent in reserves:</b>         | High   |
| <b>Wetland:</b>                    | Not a Wetland  |
| <b>Special values:</b>             | 6.6.1: Habitat for threatened plant species including <i>Acacia ammophila</i> .<br>6.6.1c: Habitat for threatened plant species including <i>Acacia ammophila</i> .  |

**Comments:** 6.6.1: Clay pans supporting a range of vegetation communities frequently occur in low-lying areas associated with this regional ecosystem. The composition and structural formation of this association varies considerably. *Acacia ammophila* dominates in a localised area around Lake Dynevor. Wind and water erosion has occurred in some areas (Dawson, 1974).  
 6.6.1a: This vegetation community is very limited in extent and restricted to the area around Lake Bindegolly in the south-west of the bioregion.  
 6.6.1b: Clay pans supporting a range of vegetation communities frequently occur in low-lying areas associated with this regional ecosystem.  
 6.6.1x1: Vegetation community 6.6.1b has been amalgamated into this regional ecosystem.

**Estimated extent:**<sup>1</sup> Pre-clearing 237000 ha; Remnant 2021 228000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Heavy degradation associated with total grazing pressure. This is associated with changes to structure and floristic composition including the loss of many species from the ground layer.

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## Regional ecosystem 6.6.2

**Description:** *Triodia mitchellii* and/or *T. marginata* hummock grassland. Other associated species include *Eragrostis eriopoda* and *Aristida* spp., *Panicum effusum*, *Themeda triandra*, *Eriachne mucronata* is often locally dominant. A variety of forbs are seasonally abundant. Emergent trees may occur, including *Corymbia clarksoniana*, *Eucalyptus melanophloia*, *Angophora melanoxylon* and *Acacia aneura*. Occurs on low sand dunes east of the Warrego River. Deep, red to yellow-red, earthy sands. Not a Wetland. (BVG1M: 33b).

**Short description:** *Triodia mitchellii* and/or *T. marginata* hummock grassland on low sand dunes east of the Warrego River

**Supplementary descriptions:** Mills and Lee (1990), N1 (LU 64); Neldner (1984), 65

**Subregions:** 5, 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.6.2: East of the Warrego River. Increased fire intensity and frequency may be associated with structural and floristic changes in this ecosystem. The structure, shrub density and floristic composition of the association is affected by fire. There is frequently a gradation from hummock grasslands to low open woodlands, depending on fire frequency.

**Estimated extent:**<sup>1</sup> Pre-clearing 4000 ha; Remnant 2021 3000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 6.7.1

**Description:** *Acacia catenulata* and/or *A. shirleyi* open scrub. Occasional canopy species include *A. petraea*, *Acacia aneura* and *A. ensifolia*. Emergent *Eucalyptus melanophloia*, *E. thozetiana* and *E. exserta* may occur. A low shrub layer may occur, including *Dodonaea sinuolata* subsp. *acrodentata*, *Prostanthera suborbicularis* and *Eremophila latrobei* and *Acacia sparsiflora*. Other shrubs include *Acalypha eremorum*, *Croton phebaloides* and *Carissa ovata*. The ground layer is dominated by tussock grasses such as *Aristida caput-medusae*, *Paspalidium rarum* and *Urochloa foliosa*. Occurs on scarps and adjacent tops and slopes of dissected lateritic tablelands, mesas and buttes in the north of the bioregion. The soils are shallow to very shallow, acidic, yellow-brown to red, lithosols with surface stone and boulders. Not a Wetland. (BVG1M: 24a).

**Short description:** *Acacia catenulata* and/or *A. shirleyi* +/- *Eucalyptus* spp. open scrub on crests and slopes in the north

**Supplementary descriptions:** Galloway et al. (1974), LU 22; Neldner (1984), 5, 41; Mills (1980), R1 (LU 31); Mills and Lee (1990), R2 (LU 58)

**Subregions:** 6, 2, 4.4, 11.26, 11.29, 4, (5)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 6.7.1: Potential habitat for threatened plant species *Cadellia pentastylis* and other dry rainforest species which are at the western limits of their geographical distribution.

**Comments:** 6.7.1: This regional ecosystem is contiguous with a similar ecosystem in the Brigalow Belt bioregion (11.7.2). In places, *Eremophila latrobei* may form a very dense low shrub layer with foliage cover up to 60%, and density up to 6 000 shrubs/ha. Some clearing is occurring where this regional ecosystem extends onto adjacent areas with deeper soils.

**Estimated extent:**<sup>1</sup> Pre-clearing 70000 ha; Remnant 2021 37000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.2

**Description:** *Acacia microsperma* open forest to woodland. *Eucalyptus thozetiana* may occur in the canopy or as an emergent. A tall shrub layer of *Geijera parviflora* may be present, and scattered low shrubs usually occur. The ground layer is sparse and dominated by tussock grasses. Occurs on undulating low hills with shallow soils. Not a Wetland. (BVG1M: 24a).

**Short description:** *Acacia microsperma* open forest on upper and footslopes

**Supplementary descriptions:** Galloway et al. (1974), LU 22 (in part); Neldner (1984), 5a

**Subregions:** 2, 11.26

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.7.2: Poor regeneration of *Acacia microsperma* due to total grazing pressure. Areas of this regional ecosystem on deeper soils have been preferentially cleared.

**Estimated extent:**<sup>1</sup> Pre-clearing 29000 ha; Remnant 2021 12000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Remaining areas subject to threatening processes other than clearing.

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## Regional ecosystem 6.7.5

**Description:** Eucalyptus thozetiana and/or E. cambageana woodland. A secondary tree layer may occur, dominated by Acacia harpophylla. Scattered E. populnea, Atalaya hemiglauca and Flindersia maculosa may occur. A shrub layer may occur, including Geijera parviflora, Alectryon oleifolius, Capparis loranthifolia and Eremophila spp. and Carissa ovata. The ground layer is tussock grasses, including Enteropogon acicularis, Paspalidium spp., Eragrostis lacunaria, Sporobolus actinocladus and S. caroli.. A variety of forbs may occur. Occurs on undulating to sloping plains on upper slopes and crests of ridges, tops of low hills and in scarp retreat zones of dissected lateritic plateaus. Associated soils are shallow, gravelly, yellowish-red lithosols, commonly with surface gravel. Not a Wetland. (BVG1M: 25a).

**Short description:** Eucalyptus thozetiana and/or E. cambageana +/-Acacia harpophylla woodland on lateritic scarps and hills

**Supplementary descriptions:** Turner (1978), B4 (LU 29); Mills and Lee (1990), R1 (LU 57); Neldner (1984), 27a, b

**Subregions:** 4, 4.4, (11.26), (6), (2), (5)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 6.7.5: Habitat for threatened plant species Cadellia pentastylis.

**Comments:** 6.7.5: This regional ecosystem was combined with 6.7.4 described in Sattler and Williams (1999) following re-assessment. Western extent of ecosystem that extends into the Brigalow Belt bioregion (11.7.1). The lower slopes of this regional ecosystem, which act as natural saline discharge areas, have been extensively cleared while many of the remaining areas are on steeper slopes and scarps. Gully and sheet erosion common (Turner, 1978).

**Estimated extent:**<sup>1</sup> Pre-clearing 84000 ha; Remnant 2021 35000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Remaining areas often subject to erosion with associated displacement of native species from the ground layer.

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## Regional ecosystem 6.7.6

**Description:** Eucalyptus thozetiana open woodland, occasionally with E. cambageana. Acacia microsperma may form a lower tree layer, particularly on the lower slopes of dissected valleys or scarp retreat zones. A. aneura commonly occurs as scattered individuals. The dominant shrub species are Eremophila mitchellii and Dodonaea spp. The ground layer is dominated by tussock grasses. Frequent species include Enteropogon acicularis, Eragrostis lacunaria, Dinebra decipiens, Paspalidium caespitosum and Sporobolus caroli. Occurs on lower slopes and scarps of dissected tablelands, mesas and buttes. Soils are shallow, stony lithosols, often with silcrete and ferricrete stone on the surface. Not a Wetland. (BVG1M: 24a).

Vegetation communities in this regional ecosystem include:

6.7.6x50: Eucalyptus thozetiana and/or E. cambageana woodland. A secondary tree layer commonly occurs, including Acacia microsperma and A. aneura. A shrub layer may occur, including Eremophila mitchellii and Dodonaea spp. The ground layer is seasonally variable, with tussock grasses and forbs. Occurs on outwash deposits of eroded lateritic and transported material. Red earths and loams. Not a Wetland. (BVG1M: 24a).

**Short description:** Eucalyptus thozetiana +/- Acacia aneura open woodland on scarps and slopes

**Supplementary descriptions:** Mills and Lee (1990), R2 (LU 59); Neldner (1984), 35a, 35b

**Subregions:** 9, 8, 6, (4.4), (4), (10), (5.5), (5), (11.26)

**Protected areas:** Mariala NP, Idalia NP, Welford NP, Hell Hole Gorge NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 6.7.6: Potential habitat for NCA listed species: Indigofera oxyrachis, Rhaphidospora bonneyana.

**Comments:** 6.7.6: This regional ecosystem extends onto undulating plains which include small areas of Cretaceous sediments (land zone 9). Areas where this regional ecosystem occur are unstable being prone to erosion where ground cover is not maintained or run-off is not minimised (Mills and Lee 1990).

**Estimated extent:**<sup>1</sup> Pre-clearing 175000 ha; Remnant 2021 136000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.7

**Description:** *Acacia catenulata* or *Acacia petraea* low woodland. Other *Acacia* spp. may occur in the canopy. Emergent *Eucalyptus thozetiana*, *E. exserta* or *E. melanophloia* may occur. *A. ensifolia* may co-dominate in some western areas. A shrub layer may occur, including *Senna* spp. *Eremophila latrobei*, *Dodonaea sinuolata* subsp. *acrodentata* and *D. petiolaris*. The ground layer is tussock grasses and forbs, including *Eriachne mucronata*, *Aristida nitidula*, *A. caput-medusae*, *Thyridolepis mitchelliana*, *Paspalidium* spp., *Urochloa foliosa*, *Amphipogon carcinus* and *Eragrostis lacunaria*. Occurs on the scarp retreats and flat tops of dissected lateritic tablelands, mesas and buttes. Soils are red, loamy lithosols with surface cover of stone and rubble and with large areas of exposed weathered rock. Not a Wetland. (BVG1M: 24a).

Vegetation communities in this regional ecosystem include:

6.7.7a: *Acacia petraea* tall shrubland to tall open shrubland. There are frequently scattered emergent *Eucalyptus melanophloia* trees or *Acacia aneura*, *E. exserta* tall shrubs. A lower shrub layer may occur, including *Dodonaea sinuolata* subsp. *acrodentata*, *D. petiolaris*, *Senna* spp. *Eremophila latrobei* and *Prostanthera suborbicularis*. *Acacia sparsiflora* may replace *A. petraea* in eastern areas. Other shrubs may occur, including *Acacia aprepta*, *Acalypha eremorum*, *Croton phebaloides* and *Carissa ovata*. The ground layer is dominated by perennial tussock grasses, including *Eriachne mucronata*, *Aristida nitidula* and *A. caput-medusae*, *Thyridolepis mitchelliana*, *Amphipogon carcinus*, *Eragrostis lacunaria* and *Paspalidium caespitosum*. Occurs on scarps of lateritic plateaus. Associated soils are gravelly lithosols. Stone and boulder pavements with extensive areas of exposed rock are characteristic. Not a Wetland. (BVG1M: 24a).

**Short description:** *Acacia catenulata* +/- *Eucalyptus thozetiana* and/or *A. ensifolia* low woodland and/or *A. petraea* +/- *A. aneura* on lateritic scarps and plateaus

**Supplementary descriptions:** Neldner (1984), 45; Mills (1980), R1 (LU 31, 26); Mills and Lee (1990), R2 (LU 56)

**Subregions:** 9, 10, 6, (8), (4.4), (5.5), (5.6)

**Protected areas:** Idalia NP, Welford NP, Hell Hole Gorge NP, Mariala NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 6.7.7: Habitat for fauna of conservation significance, yellow-footed rock wallaby (*Petrogale xanthopus celeris*) and threatened flora *Melaleuca kunzeoides*.

**Comments:** 6.7.7: On the edges of some scarps, *Archidendropsis basaltica* may occur. Associated with opal mining. Areas are usually unstable with natural erosion occurring (Mills 1980).

**Estimated extent:**<sup>1</sup> Pre-clearing 449000 ha; Remnant 2021 422000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.9

**Description:** *Acacia aneura* tall open shrubland with *Corymbia terminalis* emerging above the canopy. *Grevillea striata* is conspicuous in places. There is no well-defined shrub layer, although scattered tall and low shrubs are frequently present. The ground cover is sparse and may be dominated by either grasses or forbs. Occurs on gently undulating to flat plains (slope 0.5 to 2%), formed from undifferentiated superficial Quaternary deposits and Tertiary Glendower formation. Associated soils are shallow, loamy, red earths with silcrete cover. Soils are massive throughout and are neutral to slightly acid, ranging from sandy-loams to clay-loams. Gravel commonly occurs in the lower part of the profile. Where the soils are deeper, hardpans occur. Not a Wetland. (BVG1M: 23b).

Vegetation communities in this regional ecosystem include:

6.7.9x50: *Acacia sibirica* and/or *Acacia aneura* tall open shrubland. Emergent *Corymbia terminalis* and *Grevillea striata* may occur. The ground layer is seasonally variable, with tussock grasses and forbs. Occurs on level sand sheets in the north-west of the bioregion. Red earths. Not a Wetland. (BVG1M: 23b).

**Short description:** *Acacia aneura* +/- *A. clivicola* +/- *Eremophila latrobei* tall open shrubland on residuals

**Supplementary descriptions:** Dawson (1974), H2, (LU 51, 52), H3 (LU 56), R2 (LU 90); Boyland (1984), 13a; Neldner (1984), 56 (107); Mills (1980), H4 (LU 24)

**Subregions:** 10, 8, 11, 9, (7), (5.5), (6), (5.6), (5.9), (4.4), (5.2), (5.8)

**Protected areas:** Welford NP, Currawinya NP, Lake Bindegolly NP, Hell Hole Gorge NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 6.7.9: Possible habitat for threatened flora species in fire shadows. Potential habitat for threatened fauna species including redthroat (*Sericornis brunneus*).

**Comments:** 6.7.9: Widespread in the western parts of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 1369000 ha; Remnant 2021 1321000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.10

**Description:** *Acacia aneura* tall shrubland. Emergent *Eucalyptus populnea* and *Corymbia terminalis* may occur. Various other tall shrubs are locally prominent, especially on lower slopes. An open, low shrub layer often occurs. The ground layer is sparse and dominated by grasses. Occurs on gently undulating convex plain formed from remnants of Tertiary Glendower formation and superficial Quaternary deposits. Associated soils are shallow to very shallow, loamy, red earths with silcrete gravel cover. Soils are acid to slightly acid, sandy-loams to sandy-clay-loams. Not a Wetland. (BVG1M: 23b).

**Short description:** *Acacia aneura* +/- *Eucalyptus populnea*, *Corymbia terminalis* tall shrubland on lateritic residuals

**Supplementary descriptions:** Dawson (1974), H3 (LU58); R6; Mills and Lee (1990), R3 (LU55); Boyland (1984), 13b; Neldner (1984), 48a (103)

**Subregions:** 8, 10, (6), (5)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 6.7.10: Habitat for threatened fauna species including pink cockatoo (*Cacatua leadbeateri*).

**Comments:** 6.7.10: The low shrub layer is best developed on the steeper slopes.

**Estimated extent:**<sup>1</sup> Pre-clearing 77000 ha; Remnant 2021 69000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.11

**Description:** *Acacia aneura* tall shrubland. Emergent *Eucalyptus cambageana* or *E. thozetiana* commonly occur. A low shrub layer, dominated by *Eremophila latrobei*, usually occurs. The ground layer is sparse and composed mainly of tussock grasses. Occurs on flat to undulating crests of dissected Tertiary sandstone ranges sometimes with a superficial covering of Quaternary sands. The soils are shallow to very shallow, red earths and lithosols. Silcrete and gravel are abundant on the surfaces of ridges and hills. Not a Wetland. (BVG1M: 23b).

**Short description:** *Acacia aneura* +/- *Eucalyptus cambageana*, *E. thozetiana*, *Eremophila latrobei* tall shrubland on lateritic residuals

**Supplementary descriptions:** Neldner (1984), 48b (101); Turner et al. (1978), H1 (LU 58)

**Subregions:** 6, 8, 4.4, (4), (11.26), (5)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 6.7.11: Largely restricted to the central north of the bioregion. Extensive sheet and gully erosion, and scalding in some areas with associated loss of topsoil and reduction in diversity of ground layer has occurred in remaining areas of this regional ecosystem (Mills, 1980, LU 58).

**Estimated extent:**<sup>1</sup> Pre-clearing 58000 ha; Remnant 2021 31000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.12

**Description:** *Acacia aneura* low woodland. Scattered *Eucalyptus populnea* emergents usually occur. Tall shrubs occur infrequently, including *Dodonaea sinuolata* subsp. *acrodentata*, *Eremophila mitchellii*, *E. bowmanii* and *Prostanthera suborbicularis*. A shrub layer, of *A. aneura* and/or *Eremophila gilesii* subsp. *gilesii* commonly occurs. The ground layer is seasonally variable. Dominant species include *Amphipogon carcinus*, *Eriachne mucronata*, *Eragrostis lacunaria*, *E. eriopoda*, *Aristida calycina* var. *praealta* and *A. jerichoensis*. The occurrence of forbs is variable, including *Cheilanthes sieberi*, *Dysphania glomulifera*, *Euphorbia drummondii*, *Evolvulus alsinoides*, *Maireana villosa* and *Solanum ellipticum*. Occurs on level to gently undulating lateritic residuals. Associated soils are shallow to very shallow red to yellowish earths or gravelly lithosols. Surfaces are hard setting and frequently covered with gravel and stone. Not a Wetland. (BVG1M: 23b).

**Short description:** *Acacia aneura* +/- *Eucalyptus populnea* low woodland on lateritic residuals

**Supplementary descriptions:** Dawson (1974), H2 (LU 51, 52), H4, M4 (LU 49 shallower soils); Boyland (1984), 11-7; Neldner (1984), 48c (98, 99), 52 (105); Mills and Lee (1990), H2 (LU 38), H4 (LU42), R2 (LU 54)

**Subregions:** 8, 3, 9, (6), (11), (10), (5), (7), (2), (4.4), (4), (11.37), (5.2), (1)

**Protected areas:** Idalia NP, Currawinya NP, Culgoa Floodplain NP, Mariala NP, Hell Hole Gorge NP, Welford NP, Narkoola NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 6.7.12: Potential habitat for threatened flora species.

**Comments:** 6.7.12: The structure and floristic composition varies from an *Acacia aneura* tall open shrubland to a wooded tussock grassland depending on disturbance history. Previously partly mapped as 6.5.16a. Occurs on plains east and west of the Warrego River. Extensive loss of topsoil and associated reduction in diversity of ground layer has occurred in some areas (Mills and Lee 1990). These areas are unstable often with extremely low ground cover and associated invasion by *Eremophila gilesii* subsp. *gilesii*. *A. aneura* densities (particularly of mature trees) are generally low in areas of poor condition.

**Estimated extent:**<sup>1</sup> Pre-clearing 1518000 ha; Remnant 2021 1295000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.13

**Description:** *Acacia catenulata* tall shrubland to low open forest, occasionally with *A. petraea*, *Acacia aneura* and *A. ensifolia*. Emergent *Eucalyptus melanophloia*, *E. thozetiana*, *Corymbia terminalis* and *E. exserta* trees may occur. A low shrub layer may occur, including *Dodonaea sinuolata* subsp. *acrodentata* and *Eremophila latrobei*. *Acacia clivicola*. The ground layer is dominated by grasses such as *Aristida caput-medusae*, *Paspalidium rarum* and *Urochloa foliosa*. Occurs on the tops and scarps of dissected lateritic tablelands, mesas and buttes formed from chemically altered cretaceous sediments. Associated soils are yellowish-brown to red, acid, loamy, lithosols with surface stone cover of silcrete and ferricrete. Weathered base rock is often exposed. Not a Wetland. (BVG1M: 24a).

**Short description:** *Acacia catenulata* +/- *A. petraea* tall shrubland on scarps and tops of ranges  
**Supplementary descriptions:** Dawson (1974), R5 (LU 91); R6 (91); Neldner (1984), 49 (75, 77, 100); Mills and Lee (1990), R2 (LU 58)  
**Subregions:** 8, 10, (6), (4), (11), (3), (4.4), (5)  
**Protected areas:** Currawinya NP, Mariala NP  
**Extent in reserves:** Medium  
**Wetland:** Not a Wetland  
**Special values:** 6.7.13: Habitat for fauna of conservation significance, yellow-footed rock wallaby (*Petrogale xanthopus celeris*).  
**Comments:** 6.7.13: Larger areas (> 5ha) dominated by *Acacia petraea* are included under regional ecosystem 6.7.7a.  
**Estimated extent:**<sup>1</sup> Pre-clearing 409000 ha; Remnant 2021 377000 ha  
**VM class:** Least concern  
**Biodiversity status:** No concern at present  
**Biodiversity status notes:**

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## Regional ecosystem 6.7.14

**Description:** *Acacia clivicola* open shrubland, commonly with *Hakea collina*. *A. aneura*, *Corymbia terminalis*, *C. blakei* and *Eucalyptus exserta* are common emergents, particularly in the north-west. Other low shrubs may occur. The ground cover is typically grasses and forbs. Occurs on undulating plains and crests of dissected tablelands, formed on dissected Tertiary land surface (commonly Glendower Formation). Associated soils are very shallow, acidic, loam and clay-loam lithosols. Exposed rock covers large areas in this unit, and ironstone gravel or silcrete often occurs at the surface. Not a Wetland. (BVG1M: 24a).

**Short description:** *Acacia clivicola* +/- *eucalypt* spp. open shrubland on crests and tops of lateritic residuals  
**Supplementary descriptions:** Dawson (1974), R2, R5 (LU 89, 90); Boyland (1984), 18b; Neldner (1984), 61a (79)  
**Subregions:** 10, 8, 9, 11, (6), (4.4), (5.5), (5.6), (5.9), (5.2), (5), (5.8)  
**Protected areas:** Idalia NP, Currawinya NP, Hell Hole Gorge NP, Mariala NP, Welford NP  
**Extent in reserves:** Medium  
**Wetland:** Not a Wetland  
**Special values:** 6.7.14: Habitat for threatened plant species including *Hakea maconochieana* and *Rhaphidospora bonneyana*.  
**Comments:**  
**Estimated extent:**<sup>1</sup> Pre-clearing 975000 ha; Remnant 2021 948000 ha  
**VM class:** Least concern  
**Biodiversity status:** No concern at present  
**Biodiversity status notes:**

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## Regional ecosystem 6.7.15

**Description:** *Acacia brachystachya* open shrubland, occasionally with *Acacia clivicola*. *A. aneura* is usually present as an emergent. Isolated low trees and other low shrubs may occur. The ground layer is very sparse, and composed of grasses and forbs. Occurs on gently undulating plains and lower slopes of scarp retreats associated with dissected lateritic tablelands. The soils are shallow to very shallow, red, loam to clay-loam lithosols with much silcrete stone in the profile. Silcrete stones and boulders are spread throughout. Exposed rock is often present. Not a Wetland. (BVG1M: 24a).

**Short description:** *Acacia brachystachya*, *A. aneura* open shrubland on the lower slopes of lateritic residuals

**Supplementary descriptions:** Dawson (1974), R3 (LU 92); Neldner (1984), 61b (80, 81)

**Subregions:** 11, 10, 8, (7)

**Protected areas:** Currawinya NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 6.7.15: Potential habitat for NCA listed species: *Rhaphidospora bonneyana*.

**Comments:** 6.7.15: *Acacia brachystachya* was formerly known as *Acacia ciboria* in this region. This regional ecosystem can grade into an *Acacia aneura*, *A. stowardii* tall open shrubland in places.

**Estimated extent:**<sup>1</sup> Pre-clearing 67000 ha; Remnant 2021 66000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.16

**Description:** *Acacia clivicola* open shrubland. *Eucalyptus exserta* emergents commonly occur. Other shrubs are generally absent. The ground layer is sparse to absent, and dominated by tussock grasses. Occurs on the flat to gently undulating plains and crests of dissected lateritic tablelands. The soils are very shallow, acidic, red, loamy, lithosols, often with weathered Tertiary sandstone exposed. Stone is present throughout the profile. Not a Wetland. (BVG1M: 24a).

**Short description:** *Acacia clivicola*, *Eucalyptus exserta* open shrubland on colluvials associated with lateritic residuals

**Supplementary descriptions:** Turner (1978), H1 (LU 59); Neldner (1984), 61c (78)

**Subregions:** 6, 4.4

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:**

**Estimated extent:**<sup>1</sup> Pre-clearing 16000 ha; Remnant 2021 11000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.17

**Description:** *Eriachne mucronata* open tussock grassland, commonly with *Amphipogon sericeus*. Emergent *Corymbia terminalis* trees and *Acacia* spp. may occur. Occurs on flat to gently undulating crests of dissected lateritic plateaus. Associated soils are shallow, stony throughout, acid, red, earthy, loams and clay-loams. Silcrete stones and boulders are spread throughout. Not a Wetland. (BVG1M: 31b).

**Short description:** *Eriachne mucronata* +/- *Amphipogon sericeus* open tussock grassland, wooded with *Acacia aneura* and/or *Corymbia terminalis* on plains or flat tops of lateritic residuals

**Supplementary descriptions:** Dawson (1974), R4 (LU 88); R6; H4; Neldner (1984), 71 (112)

**Subregions:** 8, 10, 11, (6), (5.6), (7), (5), (5.8)

**Protected areas:** Currawinya NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:**

**Estimated extent:**<sup>1</sup> Pre-clearing 286000 ha; Remnant 2021 273000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.7.18

**Description:** Springs. Occurs on lateritised sandstone. Palustrine. (BVG1M: 34e).

**Short description:** Springs associated with lateritised sandstone

**Supplementary descriptions:** Habermehl (1982); Fensham et al. (2004)

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Palustrine

**Special values:** 6.7.18: Habitat for isolated populations of the fern *Lindsaea ensifolia* and fish (e.g. *Morgurnda* sp.). Provides wetland habitat for a diversity of flora and fauna.

**Comments:** 6.7.18: Impacted by excavation, pig rooting, and stock and feral goat trampling. More survey is required.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Remaining areas heavily impacted by excavation, pig rooting, and stock and feral goat trampling.

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## Regional ecosystem 6.9.2

**Description:** *Acacia tephрина* predominates and with *A. cambagei* forms a distinct but discontinuous upper layer. *A. tephрина* occasionally occurs in pure stands. Scattered low shrubs are present, but a low shrubby layer does not form. *Astrebla* spp. usually dominate the ground layer, but other short grasses and forbs occur. Occurs on gently undulating to undulating plains with convex slopes (slopes 1-3 %). Soils mantle developed from fresh sediments of the Cretaceous Winton formation. Silcrete stone covered is derived from erosion of the Tertiary land surface. Associated soils are deep to very deep, self-mulching, stone covered, red and brown clays. Soils are predominantly alkaline throughout, but on those soils where gidgee predominates they may become acid with depth. CaCo<sub>3</sub> concretions are found in the surface soil and gypsum is usually present below 45cm and gradually increases with depth. A weak gilgai microrelief. Thin easily broken surface crusts may form on this soil. Textures are medium to heavy clays. Not a Wetland. (BVG1M: 26a).

Vegetation communities in this regional ecosystem include:

6.9.2x40: *Acacia tephрина* woodland, commonly with *A. cambagei*. *Astrebla* spp. usually dominate the ground layer. Other ground layer species include *Sclerolaena* spp., *Sporobolus* spp. and *Enneapogon polyphyllus*. Occurs on undulating, gravelly, old alluvial clay deposits in the west of the bioregion. Red-brown clays with surface gravel and cobble. Not a Wetland. (BVG1M: 27a).

**Short description:** *Acacia tephрина* +/- *A. cambagei* low open woodland on undulating plains over Cretaceous sediments

**Supplementary descriptions:** Dawson (1974), G4 (LU 74); Neldner (1984), 46 (122)

**Subregions:** 10

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 6.9.2: Potential habitat for NCA listed species: *Eremophila stenophylla*.  
6.9.2x40: Potential habitat for NCA listed species: *Eremophila stenophylla*.

**Comments:** 6.9.2: This regional ecosystem has been moved to 6.9.2x40. Poor regeneration of *Acacia tephрина* possibly due to high total grazing pressure.  
6.9.2x40: Poor regeneration of *Acacia tephрина* possibly due to high total grazing pressure. Very poor regeneration of *Astrebla*, probably due to over-grazing over long periods.

**Estimated extent:**<sup>1</sup> Pre-clearing 58000 ha; Remnant 2021 58000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 6.9.3

**Description:** *Acacia harpophylla* low woodland to tall shrubland. Emergent *Eucalyptus cambageana* or *E. thozetiana* may occur. Other canopy species include *E. populnea*, *Atalaya hemiglauc*a and *Flindersia maculosa*. A shrub layer may occur, including *Geijera parviflora*, *Alectryon oleifolius*, *Capparis loranthifolia*, *Eremophila mitchellii* and *E. deserti*. The ground layer is typically tussock grasses, including *Enteropogon acicularis*, *Paspalidium caespitosum*, *P. constrictum*, *Eragrostis lacunaria*, *Sporobolus actinocladus* and *S. caroli*. A variety of forbs occur infrequently. Occurs on the valley floors or sloping plains at the base of scarp retreat zones formed from Cretaceous sediments often with a covering of redistributed Quaternary deposits derived from erosion of the Tertiary land surface. Soils are generally shallow gravelly yellowish lithosols or sometimes moderately deep to deep reddish brown, texture contrast to red cracking clay, with hard setting clay loam surfaces. There is often a dense surface stone cover. Not a Wetland. (BVG1M: 25a).

Vegetation communities in this regional ecosystem include:

6.9.3x50: *Acacia harpophylla* low woodland, commonly with *A. cambagei* and *A. aneura*. Occasional canopy species include *Flindersia maculosa*, *Atalaya hemiglauc*a, *Ventilago viminalis* and *Lysiphyllum carronii*. Emergent *Eucalyptus cambageana*, *E. thozetiana* or *E. populnea* may occur. A shrub layer may occur, including *Eremophila mitchellii*, *Geijera parviflora* and *Alectryon oleifolius*. The ground layer is typically tussock grasses, including *Enteropogon acicularis*, *Paspalidium* spp., *Eragrostis lacunaria* and *Sporobolus* spp. Occurs on outwash deposits of eroded lateritic and transported material in the north of the bioregion. Red loams to clay loams with lateritic gravel throughout the profile. Not a Wetland. (BVG1M: 25a).

|                                      |   |
|--------------------------------------|---|
| <b>Short description:</b>            | <i>Acacia harpophylla</i> low woodland with emergent <i>Eucalyptus cambageana</i> with stony soils derived from Cretaceous sediments  |
| <b>Supplementary descriptions:</b>   | Neldner (1984), 28 (Association 126); Mills (1980), G4 (LU 48, 49), R1 (LU 48); Mills and Lee (1990), R1 (LU57)   |
| <b>Subregions:</b>                   | 9, 4.4, 6, 8, (4), (11.26)  |
| <b>Protected areas:</b>              | Idalia NP   |
| <b>Extent in reserves:</b>           | Medium  |
| <b>Wetland:</b>                      | Not a Wetland   |
| <b>Special values:</b>               | 6.9.3: Potential habitat for NCA listed species: <i>Eremophila stenophylla</i> , <i>Rhaphidospora bonneyana</i> .   |
| <b>Comments:</b>                     | 6.9.3: Has been cleared in some areas. Condition assessed as fair with a downward trend (Mills 1980) due to scalding and large amount of bare ground.<br>6.9.3x50: Previously mapped as part of 6.9.3. x50 denotes change of land zone (land zone 5). Has been cleared in some areas. |
| <b>Estimated extent:<sup>1</sup></b> | Pre-clearing 110000 ha; Remnant 2021 49000 ha   |
| <b>VM class:</b>                     | Least concern   |
| <b>Biodiversity status:</b>          | Of concern  |
| <b>Biodiversity status notes:</b>    | Remaining areas often subject to erosion with associated displacement of native species from the ground layer.  |

## Regional ecosystem 6.9.4

**Description:** *Acacia cambagei* tall open shrubland. Scattered low trees may be present, occasionally emerging above the canopy. Scattered low shrubs such as *Senna* spp. and *Sida platycalyx* frequently occur. The ground layer is variable and composed mainly of forbs, but grasses are also present. Occurs on the pediments and lower slopes of dissected residuals and scarp retreats, and on undulating plains and low hills formed from Cretaceous sediments with slopes of 1 to 3%. Associated soils are very shallow to shallow, stony, red to brown clay-loams to light clays, and occasionally texture contrast to deep to very deep, stony, alkaline, reddish-brown cracking clays with well-developed gilgai. Stone cover is derived from erosion of the Tertiary surface resulting in a superficial cover of Quaternary deposits. Not a Wetland. (BVG1M: 26a).

Vegetation communities in this regional ecosystem include:

6.9.4x40: *Acacia cambagei* low woodland. A shrub layer may occur, including *A. cambagei* and *Senna* spp. The ground layer is variable, including forbs and annual grasses. Occurs on old alluvial clay deposits in the west of the bioregion. Red clays with a shallow cover of lateritic loams and gravel. Gilgai are common. Not a Wetland. (BVG1M: 26a).

6.9.4x50: *Acacia cambagei* low woodland to low open woodland. A shrub layer commonly occurs, including *A. cambagei*, *Senna* spp. and *Acacia* spp. The ground layer is variable, including *Sclerolaena* spp., *Trianthema triquetra* and annual grasses. Occurs on outwash deposits of eroded lateritic and transported material in the west of the bioregion. Red loams with lateritic gravel throughout the profile. Not a Wetland. (BVG1M: 26a).

**Short description:** *Acacia cambagei*, *Senna* spp., *Sida platycalyx* tall open shrubland on undulating mantled pediments and scarp retreat zones

**Supplementary descriptions:** Dawson (1974), G1 (LU 71, 72), G2 (LU 76); Boyland (1984), 15a; Neldner (1984), 58 (120, 121), 44b (117, in north); Mills (1990), G2 (LU 40)

**Subregions:** 8, 10, 9, (11), (4.4), (5.5), (7), (6), (5.6), (5.8)

**Protected areas:** Currawinya NP, Welford NP, Idalia NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 6.9.4: Potential habitat for NCA listed species: *Eremophila stenophylla*.

**Comments:** 6.9.4: Some clearing has occurred.  
6.9.4x40: Previously partly mapped as 6.9.4. Some clearing has occurred.  
6.9.4x50: Previously partly mapped as 6.9.4. Some clearing has occurred.

**Estimated extent:**<sup>1</sup> Pre-clearing 396000 ha; Remnant 2021 345000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 6.12.1

**Description:** Scattered shrubs or trees, including *Acacia aneura*, *Corymbia terminalis* and *Alstonia constricta*. Occurs around granite boulders. Extensive bare areas may be present at the base of boulders. It is associated with Devonian coarse-grained granitic outcrops. Not a Wetland. (BVG1M: 23b).

**Short description:** Scattered *Acacia aneura*, *Corymbia terminalis* or *Alstonia constricta* around granite boulders

**Supplementary descriptions:** Addicott: 1997

**Subregions:** 8, 7

**Protected areas:** Currawinya NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 6.12.1: May be associated with mound springs (6.3.23) in the western Mulga Lands bioregion.

**Comments:** 6.12.1: This regional ecosystem can also occur as granitic boulder stacks and slabs, free of vegetation. Very limited extent, confined to around Eulo and Currawinya National Park.

**Estimated extent:**<sup>1</sup> Pre-clearing 300 ha; Remnant 2021 300 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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<sup>1</sup> Estimated extent is from the current released version of the pre-clearing and remnant regional ecosystem mapping. Figures are rounded for simplicity. For more precise estimates, including breakdowns by tenure and other themes see remnant vegetation in Queensland (<https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/remnant-vegetation/>)

<sup>2</sup> Superseded: Revision of the regional ecosystem classification removed this regional ecosystem code from use. It is included in the regional ecosystem description database because the RE code may appear in older versions of RE mapping and the Vegetation Management regulation.