

BRIGALOW BELT SOUTH BIOREGION OPTIONS - REFER TO MAP 1

OPTION A

Option A was developed by the Western Regional Assessment Steering Committee and allows for a 2% reduction to the current volumes of sustainable yield of white cypress pine to be supplied with little or no impact on the existing timber industry. Existing volumes of ironbark will remain the same and will be obtained from within the remaining areas of operational State forest. Option A also creates 29 380ha of formal reserves (national parks, nature reserves), 44 606ha of informal reserves managed by NPWS as State Conservation Areas and 23 484ha of informal reserves managed specifically for conservation in Forest Management Zone 2. In addition, 50 390ha are reserved by prescription to protect specific conservation values under Forest Management Zones 3a and 3b on State forests. Option A has the following impact on the Stakeholder Community Group's stated goals and indicators:

Aboriginal Cultural Heritage

- Memorandum of Understanding to be developed to ensure Aboriginal communities have ownership and control of management of cultural heritage information.
- Willala Knobs, Dandry Gorge, Deriah SF as areas for Aboriginal ownership.
- Increased joint management of cultural heritage sites on national parks and State forests.
- Improved access to training and funding for site survey and management.

Job Security

- Minimal direct job impacts. Potential timber job opportunities due to greater resource security provided under Forest Agreement.
- Jobs potential (short-medium term): cypress thinning, dependent on funding (≈ 50) SFNSW est.; apiary, dependent on resource security (≈ 60) – NSW Apiary Association est.; potential new NPWS jobs.
- Jobs potential in medium to long term: coal and petroleum industries, dependent on access and investment (≈ 500) – DMR est.
- Potential increase in jobs in coal and petroleum industries, cultural heritage surveys, public sector positions for Aboriginal people and tourism related jobs.

Industry Development Opportunities

- Cypress development opportunities include lamination plant, supplementary thinning, firewood harvesting from greenwood thinnings and under-utilised species, maximising export markets, co-product utilisation (e.g. cypress oil, briquette), silviculture to ensure future premium timber supply/cypress posts.
- Hardwood and other native timber development opportunities include ironbark flooring / power poles / sleepers / fencing poles / fence droppers, furniture (sleeper backs, black cypress and bullock), broom bush, didgeridoos, bush foods, seeds, foliage, firewood harvesting.
- Coal and petroleum opportunities through open cut and underground coal mining, conventional gas, coal seam methane, quarrying and other mining.
- Over \$2billion potential capital investment in bioregion in coal and petroleum industries.
- Long term potential for plantations / woodlots for new timber products and to establish new farm enterprises.
- Potential for apiary development through branding and marketing, co-product development based on wax, tourist attraction linked to regional tours and tourism products, and additional packaged bee exports.
- Aboriginal development opportunities through the Pilliga Forest Heritage Centre, greenwood firewood, cypress thinning, Aboriginal cultural heritage tourism, Aboriginal studies/surveys, site assessment services to coal/petroleum industries, Aboriginal management of national parks and culturally significant sites.

Viable Timber Industry

- 68 400m³/yr of white cypress pine, and 9 670m³/yr (existing allocation) of hardwood sawlogs (SFNSW).

Management of Public Land

- Coordinated landscape approach to feral animal, noxious weed and fire management on public land.

Reserve System and Protection of Native Vegetation, Biodiversity and Natural Processes

- Substantial enlargement of Pilliga Nature Reserve to include some areas provisionally identified as wilderness.
- Additions to Mt Kaputar NP include protecting Ooline (threatened tree species) in Deriah under conservation agreement with the LALC.
- Protection of about a quarter of known Malleefowl habitat (which is at its eastern most distribution) in Goonoo.
- New State Conservation Area created adjacent to Pilliga NR protecting habitat for Pilliga Mouse, wilderness (PIW), ironbark and broombush communities.
- Conservation in Bebo of known areas of Delicate Mouse habitat – a newly found species for NSW.
- Provides new conservation reserves for remnant vegetation in the Mudgee forests.
- Provides protection to known significant Aboriginal sites.
- 29 380ha of new formal reserves (national parks, nature reserves).
- 44 606ha of new informal reserves managed by NPWS (State conservation areas).
- 23 484ha of new informal reserves managed by SFNSW (Forest Management Zone 2)
- 50 390ha of new areas reserved by prescription on State forests under Forest Management Zone 3a or 3b.
- Aboriginal Areas and/or areas owned and managed by Local Aboriginal Land Councils.
- Increase of 41 282 ha (23% of available on public land) of rare / endangered vegetation communities protected in CAR reserve system.
- Increase of 1611 ha (8% of available on public land) of vulnerable vegetation communities protected in CAR reserve system.
- Increase of 20 719ha (32% of available on public land) of refugia (ie rocky areas, wetlands and streams) protected in CAR reserve system.
- 94% of provisionally identified wilderness¹ on public land protected in CAR reserve system.

Access to Public Land

- Access for recreation users maintained.
- Apiary access to new national parks and nature reserves retained.
- Negligible effect on access for all current forest based industries (incl. apiary, timber industry, firewood, forest workers, gas, grazing, mining/exploration, tourism).
- Increased access and management of Aboriginal cultural heritage on public land by Aboriginal groups.

Conservation Management on Private Land

- Voluntary private land conservation incentive package developed in consultation with landholders to promote conservation management on freehold and leasehold land.

Community Vitality

- Potential for community vitality to be enhanced by through increased development opportunities (see above) and services associated with new industries and retained forest reliant industries.

¹ Provisionally identified wilderness will be considered for identification under the NSW Wilderness Act 1987. Identified wilderness may be declared under the Act and added to existing wilderness areas in the region following a separate wilderness consultation process.

BRIGALOW BELT SOUTH BIOREGION OPTIONS - REFER TO MAP 2

OPTION B

Option B was developed by the Western Regional Assessment Steering Committee and allows for a 3% reduction to the current volumes of sustainable yield of white cypress pine to be supplied with little or no impact on the existing timber industry. Existing volumes of ironbark will remain the same and will be obtained from within the remaining areas of operational State forest. Option B also creates 29 880ha of formal reserves (national parks, nature reserves), 62 040ha of informal reserves managed by NPWS as State Conservation Areas and 23 210ha of informal reserves managed specifically for conservation in Forest Management Zone 2. In addition, 64 550ha are reserved by prescription to protect specific conservation values under Forest Management Zones 3a and 3b on State forests. Option B has the following impact on the Stakeholder Community Group's stated goals and indicators:

Aboriginal Cultural Heritage

- Memorandum of Understanding to be developed to ensure Aboriginal communities have ownership and control of management of cultural heritage information.
- Willala Knobs, Dandry Gorge, Deriah SF as areas for Aboriginal ownership.
- Increased joint management of cultural heritage sites on national parks and State forests.
- Improved access to training and funding for site survey and management.

Job Security

- Minimal direct job impacts. Potential timber job opportunities due to greater resource security provided under Forest Agreement.
- Jobs potential (short-medium term): cypress thinning, dependent on funding (≈ 50) – SFNSW est.; apiary, dependent on resource security (≈ 60) – NSW Apiary Association est.; potential new NPWS jobs.
- Jobs potential in medium to long term: coal and petroleum industries, dependent on access and investment (≈ 500) – DMR est.
- Potential increase in jobs in coal and petroleum industries, cultural heritage surveys, public sector positions for Aboriginal people and tourism related jobs.

Industry Development Opportunities

- Cypress development opportunities include lamination plant, supplementary thinning, firewood harvesting from greenwood thinnings and under-utilised species, maximising export markets, co-product utilisation (e.g. cypress oil, briquette), silviculture to ensure future premium timber supply and cypress posts.
- Hardwood and other native timber development opportunities include ironbark flooring / power poles / sleepers / fencing poles / fence droppers, furniture (sleeper backs, black cypress and bullock), broom bush, didgeridoos, bush foods, seeds, foliage, firewood harvesting.
- Coal and petroleum opportunities through open cut and underground coal mining. Conventional gas, coal seam methane, quarrying and other mining opportunities may also be available with some restrictions.
- Over \$2billion potential capital investment in bioregion in coal and petroleum industries.
- Long term potential for plantations / woodlots for new timber products and to establish new farm enterprises.
- Potential for apiary development through branding and marketing, co-product development based on wax, tourist attraction linked to regional tours and tourism products, and additional packaged bee exports.
- Aboriginal development opportunities through the Pilliga Forest Heritage Centre, greenwood firewood, cypress thinning, Aboriginal cultural heritage tourism, Aboriginal studies/surveys, site assessment services to coal/petroleum industries, Aboriginal management of national parks and culturally significant sites.

Viable Timber Industry

- 67 450m³/yr of white cypress pine, and 9 670m³/yr (existing allocation) of hardwood sawlogs (SFNSW).

Management of Public Land

- Coordinated landscape approach to feral animal, noxious weed and fire management on public land.

Reserve System and Protection of Native Vegetation, Biodiversity and Natural Processes

- Substantial enlargement of Pilliga Nature Reserve to include some areas provisionally identified as wilderness.
- Additions to Mt Kaputar NP include protecting Ooline (threatened tree species) in Deriah under conservation agreement with the LALC.
- Protection of about a third of known Malleefowl habitat (which is at its eastern most distribution) in Goonoo.
- New State Conservation Area created adjacent to Pilliga NR protecting further habitat for Pilliga Mouse, wilderness (PIW), ironbark and broombush communities.
- Conservation in Bebo of known areas of Delicate Mouse habitat – a newly found species for NSW.
- Provides some reservation of some of the last remnants on the Liverpool Plains such as parts of Trinkey SF and White Box communities in part of Leard SF.
- Provides new conservation reserves for remnant vegetation in the Mudgee forests.
- Provides protection to known significant Aboriginal sites.
- 29 880ha of new formal reserves (national parks, nature reserves).
- 62 040ha of new informal reserves managed by NPWS (State conservation areas).
- 23 210ha of new informal reserves managed by SFNSW (Forest Management Zone 2).
- 64 550ha of new areas reserved by prescription on State forests under Forest Management Zone 3a or 3b.
- Aboriginal Areas and/or areas owned and managed by Local Aboriginal Land Councils.
- Increase of 51 939 ha (29% of available on public land) of rare / endangered vegetation communities protected in CAR reserve system.
- Increase of 2141 ha (10% of available on public land) of vulnerable vegetation communities protected in CAR reserve system.
- Increase of 28 212 .ha (43% of available on public land) of refugia (ie rocky areas, wetlands and streams) protected in CAR reserve system.
- 95 % of provisionally identified wilderness² on public land protected in CAR reserve system.

Access to Public Land

- Access for recreation users maintained.
- Apiary access to new national parks and nature reserves retained.
- Negligible effect on access for all current forest based industries (incl. apiary, timber industry, firewood, forest workers, gas, grazing, mining/exploration, tourism).
- Increased access and management of Aboriginal cultural heritage on public land by Aboriginal groups.

Conservation Management on Private Land

- Voluntary private land conservation incentive package developed in consultation with landholders to promote conservation management on freehold and leasehold land.

Community Vitality

- Potential for community vitality to be enhanced by through increased development opportunities (see above) and services associated with new industries and retained forest reliant industries.

² Provisionally identified wilderness will be considered for identification under the NSW Wilderness Act 1987. Identified wilderness may be declared under the Act and added to existing wilderness areas in the region following a separate wilderness consultation process.

BRIGALOW BELT SOUTH BIOREGION OPTIONS - REFER TO MAP 3

OPTION C

Option C was developed by the Western Regional Assessment Steering Committee and allows for a 32% reduction to the current volumes of sustainable yield of white cypress pine to be supplied. Ironbark volumes will also be reduced. Option C also creates 110 530ha of formal reserves (national parks, nature reserves), 127 990ha of informal reserves managed by NPWS as State Conservation Areas and 16 260ha of informal reserves managed specifically for conservation in Forest Management Zone 2. In addition, 15 370ha are also reserved by prescription to protect specific conservation values under Forest Management Zones 3a and 3b on State forests. Option C has the following impact on the Stakeholder Community Group's stated goals and indicators:

Aboriginal Cultural Heritage

- Memorandum of Understanding to be developed to ensure Aboriginal communities have ownership and control of management of cultural heritage information.
- Willala Knobs, Dandry Gorge, Deriah SF as areas for Aboriginal ownership.
- Increased joint management of cultural heritage sites on national parks and State forests.
- Improved access to training and funding for site survey and management.

Job Security

- Estimated potential direct job losses: timber industry (≈ 60), SFNSW employees (≈ 18) – SFNSW est. Limited potential timber job opportunities due to greater resource security provided under Forest Agreement.
- Jobs potential (short-medium term): cypress thinning, dependent on funding (≈ 35) – SFNSW est.; apiary, dependent on resource security (≈ 60) – NSW Apiary Association est.; potential new NPWS jobs.
- Jobs potential in medium to long term: coal and petroleum industries, dependent on access and investment (≈ 500) – DMR est.
- Potential increase in jobs in coal and petroleum industries, cultural heritage surveys, public sector positions for Aboriginal people and tourism related jobs.

Industry Development Opportunities

- Reduced potential for Cypress development opportunities compared to Options A and B due to significant reduction in supply (e.g. lamination plant, supplementary thinning, firewood harvesting from greenwood thinnings and under-utilised species, maximising export markets, co-product utilisation (e.g. cypress oil, briquette), silviculture to ensure future premium timber supply and cypress posts).
- Reduced potential for Hardwood and other native timber development opportunities due to significant reduction in supply (e.g. ironbark flooring / power poles / sleepers / fencing poles / fence droppers, furniture, broom bush, didgeridoos, bush foods, seeds, foliage, firewood harvesting).
- Coal and petroleum opportunities through open cut, conventional gas and coal seam methane. Underground coal mining, quarrying and other mining opportunities may also be possible with some restrictions.
- Over \$2billion potential capital investment in bioregion in Coal and petroleum industries.
- Long term potential for plantations / woodlots for new timber products and to establish new farm enterprises.
- Potential for apiary development through branding and marketing, co-product development based on wax, tourist attraction linked to regional tours and tourism products, and additional packaged bee exports.
- Aboriginal development opportunities through the Pilliga Forest Heritage Centre, Aboriginal cultural heritage tourism, Aboriginal studies/surveys, site assessment services to coal/ petroleum industries, Aboriginal management of national parks and culturally significant sites.
- Potential for opportunities in Aboriginal development opportunities in greenwood firewood, cypress thinning.

Viable Timber Industry

- 47,500m³/yr of white cypress pine, and 6,575m³/yr of hardwood sawlogs (SFNSW).

Management of Public Land

- Coordinated landscape approach to feral animal, noxious weed and fire management on public land.

- **Reserve System and Protection of Native Vegetation, Biodiversity and Natural Processes**

- Reservation of Goonoo, protecting a range of threatened species including Malleefowl, woodland birds. Provides a permanent vegetation link between Castlereagh and Talbragar Rivers to assist in salinity mitigation.
 - Significant reservation in the Pilliga Outwash province conserving areas of Narrow leaved Ironbark, Bimble Box and Pilliga Box in the BBS and western slopes of NSW as well as threatened Barking Owl habitat.
 - Substantial enlargement of Pilliga Nature Reserve to include some areas provisionally identified as wilderness.
 - Conserves significant areas of remaining Box and Ironbark forests on western slopes, habitat for threatened Malleefowl, Barking Owl, Squirrel Glider, Pilliga Mouse, Koala and declining woodland birds in formal reserves.
 - Additions to Mt Kaputar NP include protecting Ooline (threatened tree species) in Deriah under conservation agreement with the LALC.
 - Protection of most of the known Malleefowl habitat in BBS (which is at its eastern most distribution) in Goonoo.
 - New State Conservation Area created adjacent to Pilliga NR protecting further habitat for Pilliga Mouse, wilderness (PIW), ironbark and broombush communities.
 - Conservation in Bebo of all known areas of Delicate Mouse habitat – a newly found species for NSW.
 - Provides some reservation of some last remnants on Liverpool Plains such as Trinkey, Wondoba and part Leard.
 - Protects White Box communities in parts of Warialda and Leard.
 - Provides new conservation reserves for remnant vegetation in the Mudgee forests.
 - Provides protection to known significant Aboriginal values.
 - 110 530ha of new formal reserves (national parks, nature reserves).
 - 127 990ha of new informal reserve managed by NPWS (State Conservation Area).
 - 16 260ha of new informal reserves managed by SFNSW (Forest Management Zone 2).
 - 15 370ha of new areas reserved by prescription under FMZ 3a or 3b.
 - Increase of 56 434 ha (47% of available on public land) of rare / endangered vegetation communities protected in CAR reserve system.
 - Increase of 13 451 ha (65% of available on public land) of vulnerable vegetation communities protected in CAR reserve system.
 - Increase of 31 913ha (49% of available on public land) of refugia (ie rocky areas, wetlands and streams) protected in CAR reserve system.
 - 97 % of provisionally identified wilderness³ on public land protected in CAR reserve system.
- Access to Public Land**
- Significant opportunity for increased tourism access in new national parks.
 - Recreational opportunities maintained on all public lands.
 - Apiary access to new national parks and nature reserves retained.
 - Significant reduction in access to public land (due to increased areas of formal reserves) for timber industry, firewood, grazing, forest workers. Minor restrictions for gas, mining/exploration.
 - Increased access and management of Aboriginal cultural heritage on public land by Aboriginal groups.
- Conservation Management on Private Land**
- Voluntary private land conservation incentive package developed in consultation with landholders to promote conservation management on freehold and leasehold land.
- Community Vitality**
- Potential for increased community vitality through increased tourism industry.
 - Limited potential for community vitality to be enhanced through new forest based industries or retained forest reliant industries.
 - Significant reduction in community vitality for communities where timber mills close.
 - Increased reliance on government funding for timber/forest industry structural adjustment, funding of new and value added industries and to enhance services to communities dependent on forest based industries.

³ Provisionally identified wilderness will be considered for identification under the NSW Wilderness Act 1987. Identified wilderness may be declared under the Act and added to existing wilderness areas in the region following a separate wilderness consultation process.

BRIGALOW BELT SOUTH BIOREGION OPTIONS - REFER TO MAP 4

OPTION D

Option D was developed by the Western Regional Assessment Steering Committee and allows for a 40% reduction to the current volumes of sustainable yield of white cypress pine to be supplied. Ironbark volumes will also be significantly reduced. Option D also creates 146 710ha of formal reserves (national parks, nature reserves), 140 100ha of informal reserves managed by NPWS as State Conservation Areas and 9 480ha of informal reserves managed specifically for conservation in Forest Management Zone 2. In addition, 33 430ha are reserved by prescription to protect specific conservation values under Forest Management Zones 3a and 3b on State forests. Option D has the following impact on the Stakeholder Community Group's stated goals and indicators:

Aboriginal Cultural Heritage

- Memorandum of Understanding to be developed to ensure Aboriginal communities have ownership and control of management of cultural heritage information.
- Willala Knobs, Dandry Gorge, Deriah SF as areas for Aboriginal ownership.
- Increased joint management of cultural heritage sites on national parks and State forests.
- Improved access to training and funding for site survey and management.

Job Security

- Estimated potential direct job losses: timber industry (≈ 75), SFNSW employees (≈ 22) – SFNSW est. Limited potential timber job opportunities due to greater resource security provided under Forest Agreement.
- Jobs potential (short-medium term): cypress thinning, dependent on funding (≈ 30) – SFNSW est; apiary, dependent on resource security (≈ 60) – NSW Apiary Association est; potential new NPWS jobs.
- Jobs potential in medium to long term: coal and petroleum industries, dependent on access and investment (≈ 500) – DMR est.
- Potential increase in jobs in coal and petroleum industries, cultural heritage surveys, public sector positions for Aboriginal people and tourism related jobs.

Industry Development Opportunities

- Limited potential for Cypress development opportunities compared to Options A, B and C due to significant reduction in supply (e.g. lamination plant, supplementary thinning, firewood harvesting from greenwood thinnings and under-utilised species, maximising export markets, co-product utilisation (e.g. cypress oil, briquette), silviculture to ensure future premium timber supply and cypress posts).
- Limited potential for Hardwood and other native timber development opportunities due to significant reduction in supply (e.g. ironbark flooring / power poles / sleepers / fencing poles / fence droppers, furniture, broom bush, didgeridoos, bush foods, seeds, foliage, firewood harvesting).
- Coal and underground coal mining opportunities possible. Open cut, petroleum, conventional gas, coal seam methane, quarrying and other mining opportunities may also be possible with some restrictions.
- Over \$2billion potential capital investment in bioregion in coal and petroleum industries.
- Long term potential for plantations / woodlots for new timber products and to establish new farm enterprises.
- Potential for apiary development through branding and marketing, co-product development based on wax, tourist attraction linked to regional tours and tourism products, and additional packaged bee exports.
- Aboriginal development opportunities through the Pilliga Forest Heritage Centre, Aboriginal cultural heritage tourism, Aboriginal studies/surveys, site assessment services to coal/ petroleum industries, Aboriginal management of national parks and culturally significant sites.
- Reduced potential for Aboriginal development opportunities in greenwood firewood, cypress thinning

Viable Timber Industry

- 41 800m³/yr of white cypress pine, and 5 800m³/yr of hardwood sawlogs (SFNSW).

Management of Public Land

- Coordinated landscape approach to feral animal, noxious weed and fire management on public land.

Reserve System and Protection of Native Vegetation, Biodiversity and Natural Processes

- Reservation of Goonoo, protecting a range of threatened species including Malleefowl, woodland birds. Provides a permanent vegetation link between Castlereagh and Talbragar river to assist in salinity mitigation.
- Significant reservation in the Pilliga Outwash province conserving areas of Narrow leaved Ironbark, Bimble Box and Pilliga Box in the BBS and western slopes of NSW as well as threatened Barking Owl habitat. Substantial enlargement of Pilliga Nature Reserve to include some areas provisionally identified as wilderness.
- Conserves significant areas of remaining Box and Ironbark forests on western slopes, habitat for threatened Malleefowl, Barking Owl, Squirrel Glider, Pilliga Mouse, Koala and declining woodland birds in formal reserves.
- Additions to Mt Kaputar NP protect Ooline (threatened tree sp.) in Deriah conservation agreement with LALC.
- Protection of most of the known Malleefowl habitat in BBS (which is at its eastern most distribution) in Goonoo.
- New State Conservation Area created adjacent to Pilliga NR protecting further habitat for Pilliga Mouse, wilderness (PIW), ironbark and broombush communities.
- Conservation in Bebo of all known areas of Delicate Mouse habitat – a newly found species for NSW.
- Conservation of known threatened Black Striped Wallaby habitat.
- Provides reservation of some last remnants on the Liverpool Plains such as Trinkey, Wondoba and part Leard.
- Protects White Box communities in parts of Warialda and Leard.
- Provides new conservation reserves for remnant vegetation in the Mudgee forests.
- Provides protection to known significant Aboriginal values.
- 146 710ha of new formal reserves (national parks, nature reserves).
- 140 100ha of new informal reserves managed by NPWS (State conservation areas).
- 9 480ha of new informal reserves managed by SFNSW (Forest Management Zone 2).
- 33 430ha of new areas reserved by prescription on State forests under Forest Management Zone 3a or 3b.
- Increase of 107 351 ha (60% of available on public land) of rare / endangered vegetation communities protected in CAR reserve system.
- Increase of 14 653 ha (71% of available on public land) of vulnerable vegetation communities protected in CAR reserve system.
- Increase of 41 593ha (64% of available on public land) of refugia (ie rocky areas, wetlands and streams) protected in CAR reserve system.
- 100 % of provisionally identified wilderness⁴ on public land protected in CAR reserve system.

Access to Public Land

- Significant opportunity for increased tourism access in new national parks.
- Recreational opportunities maintained on all public lands.
- Apiary access to new national parks and nature reserves retained.
- Significant reduction in access to public land (due to increased areas of formal reserves) for timber industry, firewood, grazing, forest workers. Minor restrictions for gas, mining/exploration.
- Increased access and management of Aboriginal cultural heritage on public land by Aboriginal groups.

Conservation Management on Private Land

- Voluntary private land conservation incentive package developed in consultation with landholders to promote conservation management on freehold and leasehold land.

Community Vitality

- Potential for increased nature based tourism industry could enhance communities.
- Vitality of communities reliant on timber industry will decline due to mill closures.
- Limited potential for community vitality to be enhanced through increased development opportunities (see above) and services associated with new industries and retained forest reliant industries.
- Increased reliance on government funding for timber/forest industry structural adjustment, funding of new and value added industries and to enhance services to communities dependent on forest based industries.

⁴ Provisionally identified wilderness will be considered for identification under the NSW Wilderness Act 1987. Identified wilderness may be declared under the Act and added to existing wilderness areas in the region following a separate wilderness consultation process.

BRIGALOW BELT SOUTH BIOREGION OPTIONS - REFER TO MAP 5

OPTION E

Option E was developed by the Western Regional Assessment Steering Committee at the request of the government and allows for a 50% reduction to the current volumes of sustainable yield of white cypress pine to be supplied. Ironbark volumes will also be significantly reduced. Option E also creates 132 700ha of formal reserves (national parks, nature reserves), 182 440ha of informal reserves managed by NPWS as State Conservation Areas and 5 517ha of informal reserves managed specifically for conservation in Forest Management Zone 2. In addition, 70 110ha are reserved by prescription to protect specific conservation values under Forest Management Zones 3a and 3b on State forests. Option e has the following impact on the Stakeholder Community Group's stated goals and indicators:

Aboriginal Cultural Heritage

- Memorandum of Understanding to be developed to ensure Aboriginal communities have ownership and control of management of cultural heritage information.
- Willala Knobs, Dandry Gorge, Deriah SF as areas for Aboriginal ownership.
- Increased joint management of cultural heritage sites on national parks and State forests.
- Improved access to training and funding for site survey and management.

Job Security

- Estimated potential direct job losses: timber industry (≈ 91), SFNSW employees (≈ 27) –SFNSW est.
- Jobs potential (short-medium term): cypress pine thinning, dependent on funding (≈ 30) – SFNSW est.; apiary, dependent on resource security (≈ 60) – NSW Apiarists Association est.; potential new NPWS jobs; potential for increase in tourism related jobs.
- Likely increases in medium to long term in coal and petroleum industries (>500) – DMR est.
- Very limited potential for new job opportunities in timber industries due to greater resource security provided under Forest Agreement.
- Increased number of jobs in coal and petroleum industries, cultural heritage surveys, public sector positions for Aboriginal people.

Industry Development Opportunities

- Limited potential for Cypress development opportunities compared to Options A-D due to significant reduction in supply (e.g. lamination plant, supplementary thinning, firewood harvesting from greenwood thinnings and under-utilised species, maximising export markets, co-product utilisation (e.g. cypress oil, briquette), silviculture to ensure future premium timber supply and cypress posts).
- Limited potential for Hardwood and other native timber development opportunities due to significant reduction in supply (e.g. ironbark flooring / power poles / sleepers / fencing poles / fence droppers, furniture, broom bush, didgeridoos, bush foods, seeds, foliage, firewood harvesting).
- Coal and underground coal mining opportunities possible. Open cut, petroleum, conventional gas, coal seam methane, quarrying and other mining opportunities may also be possible with some restrictions.
- Over \$2billion potential capital investment in bioregion in coal and petroleum industries.
- Long term potential for plantations / woodlots for new timber products and to establish new farm enterprises.
- Potential for apiary development through branding and marketing, co-product development based on wax, tourist attraction linked to regional tours and tourism products, and additional packaged bee exports.
- Aboriginal development opportunities through the Pilliga Forest Heritage Centre, Aboriginal cultural heritage tourism, Aboriginal studies/surveys, site assessment services to coal/ petroleum industries, Aboriginal management of national parks and culturally significant sites.
- Reduced potential for Aboriginal development opportunities in greenwood firewood, cypress thinning.

Viable Timber Industry

- 36 000m³/yr of white cypress pine and 4 835m³/yr of hardwood sawlogs (SFNSW).

Management of Public Land

- Coordinated landscape approach to feral animal, noxious weed and fire management on public land.

Reserve System and Protection of Native Vegetation, Biodiversity and Natural Processes

- Reservation of Goonoo, protecting a range of threatened species including Malleefowl, woodland birds.
- Provides permanent vegetation link between Castlereagh and Talbragar river to assist in salinity mitigation.
- Significant reservation in the Pilliga Outwash province conserving areas of Narrow leaved Ironbark, Bimble Box and Pilliga Box in the BBS and western slopes of NSW as well as threatened Barking Owl habitat.
- Substantial enlargement of Pilliga Nature Reserve to include some areas provisionally identified as wilderness.
- Conserves significant areas of remaining Box and Ironbark forests on western slopes, habitat for threatened Malleefowl, Barking Owl, Squirrel Glider, Pilliga Mouse, Koala and declining woodland birds in formal reserves.
- Additions to Mt Kaputar NP include protecting Ooline (threatened tree sp) in Deriah under agreement with LALC.
- Protection of most of the known Malleefowl habitat in BBS (which is at its eastern most distribution) in Goonoo.
- New State Conservation Area created adjacent to Pilliga NR protecting further habitat for Pilliga Mouse, wilderness (PIW), ironbark and broombush communities.
- Conservation in Bebo of all known areas of Delicate Mouse habitat – a newly found species for NSW.
- Conservation of known threatened Black Striped Wallaby habitat.
- Provides reservation of some of last remnants on the Liverpool Plains such as Trinkey, Wondoba and part Leard.
- Protects White Box communities in parts of Warialda and Leard.
- Provides new conservation reserves for remnant vegetation in the Mudgee forests.
- Provides protection to known significant Aboriginal values.
- 132 700ha of new formal reserves (national parks, nature reserves).
- 182 440ha of new informal reserves managed by NPWS (State conservation areas).
- 5 517ha of new informal reserves managed by SFNSW (Forest Management Zone 2).
- 70 110ha of new areas reserved by prescription on State forests under Forest Management Zone 3a or 3b.
- Increase of 14 599 ha (64% of available on public land) of rare / endangered vegetation communities protected in CAR reserve system.
- Increase of 15 210 ha (73% of available on public land) of vulnerable vegetation communities protected in CAR reserve system.
- Increase of 41 593ha (67% of available on public land) of refugia (ie rocky areas, wetlands and streams) protected in CAR reserve system.
- 100 % of provisionally identified wilderness⁵ on public land protected in CAR reserve system.

Access to Public Land

- Significant opportunity for increased tourism access in new national parks.
- Recreational opportunities maintained on all public lands.
- Apiary access to new national parks and nature reserves retained.
- Significant reduction in access to public land (due to increased areas of formal reserves) for timber industry, firewood, grazing, forest workers. Restrictions for gas, mining/exploration.
- Increased access and management of Aboriginal cultural heritage on public land by Aboriginal groups.

Conservation Management on Private Land

- Voluntary private land conservation incentive package developed in consultation with landholders to promote conservation management on freehold and leasehold land.

Community Vitality

- Potential for increased nature based tourism industry could enhance communities.
- Vitality of communities reliant on timber industry will decline due to mill closures.
- Limited potential for community vitality to be enhanced through increased development opportunities (see above) and services associated with new industries and retained forest reliant industries.
- Increased reliance on government funding for timber/forest industry structural adjustment, funding of new and value added industries and to enhance services to communities dependent on forest based industries.

⁵ Provisionally identified wilderness will be considered for identification under the NSW Wilderness Act 1987. Identified wilderness may be declared under the Act and added to existing wilderness areas in the region following a separate wilderness consultation process.

BRIGALOW BELT SOUTH BIOREGION OPTIONS - REFER TO MAP 6

OPTION F - EXISTING MANAGEMENT ARRANGEMENTS ON PUBLIC LAND

Option F is a “no change” option and represents the existing reserve boundaries and management arrangements currently being implemented on State forests, national parks / nature reserves and areas of other Crown land in the bioregion. There are currently 187 970ha of formal reserves comprised 183 880ha of existing national parks and nature reserves, and 4 090ha of existing flora reserves. The current volumes of sustainable yield of white cypress pine to be supplied remains at 70,300m³/yr, and 9,670m³/yr of hardwood sawlogs to be obtained from within areas of operational State forest.

Conservation values on State forests will be managed through a combination of Forest Management Zone (FMZ) exclusions from harvesting and through application of the Threatened Species Licence, Environment Protection Authority Licence and the Fisheries Licence under an Integrated Forestry Operations Approval (IFOA).

Opportunities for Aboriginal ownership and joint management arrangements between Local Aboriginal Land Councils and NPWS or SFNSW on existing tenures remain possible under this Option.

Option F has the following impact on the Stakeholder Community Group’s stated goals and indicators:

Aboriginal Cultural Heritage

- Memorandum of Understanding to be developed to ensure Aboriginal communities have ownership and control of management of cultural heritage information.
- Willala Knobs, Dandry Gorge, Deriah SF as areas for Aboriginal ownership.
- Increased joint management of cultural heritage sites on national parks and State forests.
- Improved access to training and funding for site survey and management.

Job Security

- Potential timber job opportunities due to greater resource security provided under Forest Agreement.
- Jobs potential (short-medium term): cypress thinning, dependent on funding (≈50) – SFNSW est.; apiary, dependent on resource security (≈60) – NSW Apiary Association est.
- Jobs potential in medium to long term: coal and petroleum industries, dependent on access and investment (≈500) – DMR est.
- Potential increase in jobs in coal and petroleum industries, cultural heritage surveys, public sector positions for Aboriginal people and tourism related jobs.

Industry Development Opportunities

- Cypress development opportunities include lamination plant, supplementary thinning, firewood harvesting from greenwood thinnings and under-utilised species, maximising export markets, co-product utilisation (e.g. cypress oil, briquette), silviculture to ensure future premium timber supply and cypress posts.
- Hardwood and other native timber development opportunities include ironbark flooring / power poles / sleepers / fencing poles / fence droppers, furniture (sleeper backs, black cypress and bulloak), broom bush, didgeridoos, bush foods, seeds, foliage, firewood harvesting.
- Coal and petroleum opportunities through open cut and underground coal mining. Conventional gas, coal seam methane, quarrying and other mining opportunities may also be available with some restrictions.
- Over \$2billion potential capital investment in bioregion in Coal and petroleum industries.
- Long term potential for plantations / woodlots for new timber products and to establish new farm enterprises.
- Potential for apiary development through branding and marketing, co-product development based on wax, tourist attraction linked to regional tours and tourism products, and additional packaged bee exports.
- Aboriginal development opportunities through the Pilliga Forest Heritage Centre, greenwood firewood, cypress thinning, Aboriginal cultural heritage tourism, Aboriginal studies/surveys, site assessment services to coal/ petroleum industries, Aboriginal management of national parks and culturally significant sites.

Viable Timber Industry

- 70 340m³/yr of white cypress pine, and 9 760m³/yr of hardwood sawlogs.

Management of Public Land

- Coordinated landscape approach to feral animal, noxious weed and fire management on public land.

Reserve System and Protection of Native Vegetation, Biodiversity and Natural Processes

- Approximately a of existing formal reserves
- Aboriginal Areas and/or areas owned and managed by Local Aboriginal Land Councils.
- 42 730ha of rare / endangered vegetation communities protected in CAR reserve system.
- 30 320ha of refugia (ie rocky areas, wetlands and streams) protected in CAR reserve system.
- 115 394ha (approx. 71%) of provisionally identified wilderness⁶ on public land protected in CAR reserve system.

Access to Public Land

- Access for recreation users maintained.
- No effect on access for all current forest based industries (incl. apiary, timber industry, firewood, forest workers, gas, grazing, mining/exploration, tourism).
- Increased access and management of Aboriginal cultural heritage on public land by Aboriginal groups.

Conservation Management on Private Land

- Voluntary private land conservation incentive package developed in consultation with landholders to promote conservation management on freehold and leasehold land.

Community Vitality

- Potential for community vitality to be enhanced by through increased development opportunities (see above) and services associated with new industries and retained forest reliant industries.

⁶ Provisionally identified wilderness will be considered for identification under the NSW Wilderness Act 1987. Identified wilderness may be declared under the Act and added to existing wilderness areas in the region following a separate wilderness consultation process.

WESTERN CONSERVATION ALLIANCE (WCA) OPTION

The WCA Option was developed by the Western Conservation Alliance (WCA) and allows for a 76% reduction to the current volumes of sustainable yield of white cypress pine to be supplied. Ironbark volumes will also be significantly reduced. The WCA Option also creates 470 960ha of formal reserves (national parks, nature reserves). The WCA Option has the following impact on the Stakeholder Community Group's stated goals and indicators:

Aboriginal Cultural Heritage

- Memorandum of Understanding to be developed to ensure Aboriginal communities have ownership and control of management of cultural heritage information.
- Willala Knobs, Dandry Gorge, Deriah SF as areas for Aboriginal ownership.
- Increased joint management of cultural heritage sites on national parks and State forests.
- Improved access to training and funding for site survey and management.

Job Security

- Estimated potential direct job losses: timber industry (≈ 170), SFNSW employees (≈ 42) – SFNSW est.
- Jobs potential (short-medium term): cypress thinning, dependent on funding (≈ 25) – WCA est.; apiary, dependent on resource security (≈ 60) – NSW Apiary Association est.; potential new NPWS jobs.
- No increases in coal and petroleum industries expected on public land due to large areas of formal reserves.
- Potential increase in jobs in coal and petroleum industries, cultural heritage surveys, public sector positions for Aboriginal people and tourism related jobs (≈ 29) – WCA est.

Industry Development Opportunities

- Unlikely potential for Cypress development opportunities due to substantial reduction in supply. Some opportunity for use of cypress waste/residue timber (WCA).
- Unlikely potential for Hardwood and other native timber development opportunities due to substantial reduction in supply.
- No potential for open cut and underground coal mining, petroleum, conventional gas, coal seam methane, possible from public land. Some mining opportunities and quarrying may also be possible with major restrictions. Mining opportunities on private land remain unchanged.
- Capital investment in bioregion in coal and petroleum industries would be severely impacted.
- Long term potential for plantations / woodlots for new timber products and to establish new farm enterprises.
- Potential for apiary development through branding and marketing, co-product development based on wax, tourist attraction linked to regional tours and tourism products, and additional packaged bee exports.
- Aboriginal development opportunities through the Pilliga Forest Heritage Centre, Aboriginal cultural heritage tourism, Aboriginal studies/surveys, site assessment services to coal/ petroleum industries, Aboriginal management of national parks and culturally significant sites.
- Some potential for Aboriginal development opportunities in greenwood firewood, cypress thinning.

Viable Timber Industry

- Timber supply would be able to sustain 4-5 small cypress mills (WCA estimate).

Management of Public Land

- Coordinated landscape approach to feral animal, noxious weed and fire management on public land.

Reserve System and Protection of Native Vegetation, Biodiversity and Natural Processes

- Substantial increase to formal reserves in bioregion.
- 470 960ha of new formal reserves (national parks, nature reserves).
- Aboriginal Areas and/or areas owned and managed by Local Aboriginal Land Councils.
- Increase of formal reserves in poorly represented provinces of Pilliga Outwash (from 0.09% to 27.4 % reserved) and Liverpool Plains (from 0.13% to 3.91 % reserved).
- Increase of 143 170ha (80% of available on public land) of rare / endangered vegetation communities protected in CAR reserve system.
- Increase of 17 527ha (85% of available on public land) of vulnerable vegetation communities protected in CAR reserve system.
- Increase of 51 794ha (79% of available on public land) of high quality habitat - refugia (ie rocky areas, wetlands and streams) protected in CAR reserve system.
- 2194 plant species and 396 fauna species (63 rare or threatened flora and 41 threatened fauna) recorded within the CAR reserve system.
- 100% of provisionally identified wilderness⁷ on public land protected in CAR reserve system.

Access to Public Land

- Significant opportunity for increased tourism access in new national parks.
- Recreational opportunities enhanced through improved visitor facilities, access roads, interpretation (WCA).
- Apiary access to new national parks and nature reserves retained.
- Significant reduction in access to public land (due to increased areas of formal reserves) for timber industry, firewood, grazing, forest workers, gas, mining/exploration.
- Increased access and management of Aboriginal cultural heritage on public land by Aboriginal groups.

Conservation Management on Private Land

- Voluntary private land conservation incentive package developed in consultation with landholders to promote conservation management on freehold and leasehold land.

Community Vitality

- Potential for increased nature based tourism industry will enhance communities (WCA).
- Several communities reliant on the timber industry may suffer decreased community vitality due to mill closures and job losses.
- Mill closures could be offset by increases in tourism, conservation and other areas (WCA).

⁷ Provisionally identified wilderness will be considered for identification under the NSW Wilderness Act 1987. Identified wilderness may be declared under the Act and added to existing wilderness areas in the region following a separate wilderness consultation process.

BRIGALOW BELT SOUTH BIOREGION OPTIONS - REFER TO MAP 8

BRIGALOW REGION UNITED STAKEHOLDERS (BRUS) OPTION

The BRUS Option was developed by the Brigalow Region United Stakeholders (BRUS) and allows for a 2% reduction to the current volumes of sustainable yield of white cypress pine to be supplied with little or no impact on the existing timber industry. Existing volumes of ironbark will remain the same and will be obtained from within the remaining areas of operational State forest. The BRUS Option also creates 10 190ha of formal reserves (national parks, nature reserves), 28 070ha of informal reserves managed by NPWS as State Conservation Areas and ha of informal reserves managed specifically for conservation in Forest Management Zone 2. In addition, 113 231ha are reserved by prescription to protect specific conservation values under Forest Management Zones 3a and 3b on State forests. The BRUS Option has the following impact on the Stakeholder Community Group's stated goals and indicators:

Aboriginal Cultural Heritage

- Memorandum of Understanding to be developed to ensure Aboriginal communities have ownership and control of management of cultural heritage information.
- Willala Knobs, Dandry Gorge, Deriah SF as areas for Aboriginal ownership.
- Increased joint management of cultural heritage sites on national parks and State forests.
- Improved access to training and funding for site survey and management.

Job Security

- Minimal direct job impacts. Potential timber job opportunities due to greater resource security provided under Forest Agreement.
- Jobs potential (short-medium term): cypress thinning, dependent on funding (≈ 50) – SFNSW est.; apiary, dependent on resource security (≈ 60) – NSW Apiary Association est.; potential new NPWS jobs.
- Jobs potential in medium to long term: coal and petroleum industries, dependent on access and investment (≈ 500) – DMR est.
- Potential increase in jobs in coal and petroleum industries, cultural heritage surveys, public sector positions for Aboriginal people and tourism related jobs.

Industry Development Opportunities

- Cypress development opportunities include lamination plant, supplementary thinning, firewood harvesting from greenwood thinnings and under-utilised species, maximising export markets, co-product utilisation (e.g. cypress oil, briquette), silviculture to ensure future premium timber supply and cypress poles.
- Hardwood and other native timber development opportunities include ironbark flooring / power poles / sleepers / fencing poles / fence droppers, furniture (sleeper backs, black cypress and bullock), broom bush, didgeridoos, bush foods, seeds, foliage, firewood harvesting.
- Coal and petroleum opportunities through open cut and underground coal mining. Conventional gas, coal seam methane, quarrying and other mining opportunities may also be available with some restrictions. Over \$2billion potential capital investment in bioregion in coal and petroleum industries.
- Long term potential for plantations / woodlots for new timber products and to establish new farm enterprises.
- Potential for apiary development through branding and marketing, co-product development based on wax, tourist attraction linked to regional tours and tourism products, and additional packaged bee exports.
- Aboriginal development opportunities through the Pilliga Forest Heritage Centre, greenwood firewood, cypress thinning, Aboriginal cultural heritage tourism, Aboriginal studies/surveys, site assessment services to coal/petroleum industries, Aboriginal management of national parks and culturally significant sites.

Viable Timber Industry

- 68 400m³/yr of white cypress pine, and 9 760m³/yr of hardwood sawlogs.

Management of Public Land

- Coordinated landscape approach to feral animal, noxious weed and fire management on public land.

Reserve System and Protection of Native Vegetation, Biodiversity and Natural Processes

- Conservation reserves adjacent to Pilliga Nature Reserve to include some areas provisionally identified as wilderness protecting further habitat for Pilliga Mouse, wilderness (PIW), ironbark and broom bush communities.
- Reserve additions adjacent to Mt Kaputar NP include protecting Ooline (threatened tree species).
- Protection of about a third of known Malleefowl habitat (which is at its eastern most distribution) in Goonoo.
- Conservation in Bebo of known areas of Delicate Mouse habitat – a newly found species for NSW.
- Provides some reservation of some of the last remnants on the Liverpool Plains such as parts of Trinkey SF and White Box communities in part of Leard SF.
- Provides new conservation reserves for remnant vegetation in the Mudgee forests.
- Provides protection to known significant Aboriginal sites.
- 189 000ha of new reserves comprised primarily of informal reserves managed specifically for conservation in Forest Management Zone 2, and by prescription to protect specific conservation values under Forest Management Zones 3a and 3b on State forests.
- Aboriginal Areas and/or areas owned and managed by Local Aboriginal Land Councils.
- Increase of approx. 51 000 ha (29% of available on public land) of rare / endangered vegetation communities protected in CAR reserve system.
- Increase of approx. 2000 ha (10% of available on public land) of vulnerable vegetation communities protected in CAR reserve system.
- Increase of approx. 28 000ha (43% of available on public land) of refugia (ie rocky areas, wetlands and streams) protected in CAR reserve system.
- Approx 95 % of provisionally identified wilderness⁸ on public land protected in CAR reserve system.

Access to Public Land

- Access for recreation users maintained.
- Apiary access to new national parks and nature reserves retained.
- Negligible effect on access for all current forest based industries (incl. apiary, timber industry, firewood, forest workers, gas, grazing, mining/exploration, tourism).
- Increased access and management of Aboriginal cultural heritage on public land by Aboriginal groups.

Conservation Management on Private Land

- Voluntary private land conservation incentive package developed in consultation with landholders to promote conservation management on freehold and leasehold land.

Community Vitality

- Potential for community vitality to be enhanced by through increased development opportunities (see above) and services associated with new industries and retained forest reliant industries.

⁸ Provisionally identified wilderness will be considered for identification under the NSW Wilderness Act 1987. Identified wilderness may be declared under the Act and added to existing wilderness areas in the region following a separate wilderness consultation process.