

# Government Gazette

OF THE STATE OF NEW SOUTH WALES

Number 119 Friday, 8 October 2010

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# **LEGISLATION**

# Online notification of the making of statutory instruments

Week beginning 27 September 2010

THE following instruments were officially notified on the NSW legislation website (<a href="www.legislation.nsw.gov.au">www.legislation.nsw.gov.au</a>) on the dates indicated:

# **Proclamations commencing Acts**

Electricity and Gas Supply Legislation Amendment (Retail Price Disclosures and Comparisons) Act 2010 No. 50 (2010-560) – published LW 30 September 2010

Food Amendment (Food Safety Supervisors) Act 2009 No. 85 (2010-561) - published LW 1 October 2010

# Regulations and other statutory instruments

<u>Food Amendment (Penalty Notice Offences) Regulation 2010</u> (2010-562) – published LW 1 October 2010 <u>Health Services Amendment (Hammondcare Health and Hospitals) Order 2010</u> (2010-563) – published LW 1 October 2010

<u>Law Enforcement and National Security (Assumed Identities) General Regulation 2010 (2010-559)</u> – published LW 29 September 2010

<u>Motor Accidents (Determination of Non-Economic Loss) Amendment Order 2010</u> (2010-565) – published LW 1 October 2010

Motor Accidents Compensation (Determination of Loss) Amendment Order 2010 (2010-564) – published LW 1 October 2010

Non-Indigenous Animals Amendment (Licensing) Regulation 2010 (2010-566) – published LW 1 October 2010

<u>Prevention of Cruelty to Animals (General) Amendment (Offences) Regulation 2010</u> (2010-567) – published LW 1 October 2010

Water Management (Water Supply Authorities) Amendment (Cobar Water Board) Regulation 2010 (2010-568) – published LW 1 October 2010

# **Environmental Planning Instruments**

Byron Local Environmental Plan 1988 (Amendment No. 140) (2010-569) – published LW 1 October 2010

# **OFFICIAL NOTICES**

# **Appointments**

#### **EDUCATION ACT 1990**

Notification of an Appointment to the Board of Studies

I, VERITY FIRTH, M.P., Minister for Education and Training, in pursuance of Schedule 1, Clause 8 of the Education Act 1990, appoint Dr Brian CROKE as a member of the Board of Studies, being a nominee provided under section 100 (3) (c), for a term commencing on and from 5 July 2010 until 4 July 2013.

VERITY FIRTH, M.P., Minister for Education and Training

#### PARRAMATTA PARK TRUST ACT 2001

Communities NSW

Appointment of Trustees to the Parramatta Park Trust

THE Hon. KEVIN GREENE, M.P., Minister for Sport and Recreation, has appointed the following persons under section 5 (1) of the Parramatta Park Trust Act 2001, as part-time Trustees of the Parramatta Park Trust for the following terms:

A term of two years from the 4 October 2010 (inclusive):

Tom UREN, AO,

John LANDAU, and

Jackie PUCKERIDGE.

A term of one year from the 4 October 2010 (inclusive):

Alan OVERTON, AM, OAM,

Penelope PIKE, and

Elaine EVANS.

Pursuant to Schedule 2 (1) of the said Act, the Minister has appointed Mr Tom UREN, AO, as Chairperson of the Parramatta Park Trust for the term of his appointment.

Kevin GREENE, M.P., Minister for Gaming and Racing, Minister for Major Events and Minister for Sport and Recreation

# POLICE REGULATION (SUPERANNUATION) ACT 1906

Appointment of a Member and Deputy of the Police Superannuation Advisory Committee

IN accordance with section 2H and Schedule 4 to the Police Regulation (Superannuation) Act 1906, I have approved the following appointments to the Police Superannuation Advisory Committee from this day to 31 August 2011.

Mr Michael AALDERS, as Deputy to Mr Gregory Chilvers

Ms Prudence BURGAN and Mr John MORGAN, as Deputies to Mr Raff Del Vecchio

Mr Michael PLOTECKI, as Deputy to Mr Gregory Black

The above appointees were nominated by the Police Association of New South Wales.

Dated at Sydney, 5 October 2010.

MICHAEL DALEY, M.P., Minister for Police and Minister for Finance

# **Department of Industry and Investment**

# **RURAL ASSISTANCE ACT 1989**

Appointment of Acting Chief Executive NSW Rural Assistance

I, STEVE WHAN, M.P., Minister for Primary Industries, pursuant to Clause 3 of Schedule 2 to the Rural Assistance Act 1989 appoint Mr STEPHEN GRIFFITH as Acting Chief Executive of the New South Wales Rural Assistance Authority from 11 October to 20 October 2010 inclusive.

Dated this 1st day of October 2010.

STEVE WHAN, M.P., Minister for Primary Industries

#### MINERAL RESOURCES

NOTICE is given that the following applications have been received:

# REQUEST FOR CANCELLATION OF AUTHORITY

(04-0586)

Exploration Licence No. 6343, VALE INCO RESOURCES (AUSTRALIA) PTY LTD, (ACN 096 361 876), County of Evelyn, area of 64 units.

Application for Cancellation was received on 1 October 2010.

(04-0588)

Exploration Licence No. 6344, VALE INCO RESOURCES (AUSTRALIA) PTY LTD, (ACN 096 361 876), Counties of Mootwingee & Yungnulgra, area of 61 units.

Application for Cancellation was received on 1 October 2010.

(04-0634)

Exploration Licence No. 6397, VALE INCO RESOURCES (AUSTRALIA) PTY LTD, (ACN 096 361 876), County of Mootwingee, area of 161 units.

Application for Cancellation was received on 1 October 2010.

(04-0635)

Exploration Licence No. 6398, VALE INCO RESOURCES (AUSTRALIA) PTY LTD, (ACN 096 361 876), County of Mootwingee, area of 14 units.

Application for Cancellation was received on 1 October 2010.

(04-0636)

Exploration Licence No. 6399, VALE INCO RESOURCES (AUSTRALIA) PTY LTD, (ACN 096 361 876), Counties of Evelyn & Mootwingee, area of 198 units.

Application for Cancellation was received on 1 October 2010.

(T07-0454)

Exploration Licence No. 7011, CONRAD SILVER MINES PTY LTD, (ACN 106 967 506), Counties of Burnett & Murchison, area of 50 units.

Application for Cancellation was received on 5 October 2010.

# **EXPLORATION LICENCE APPLICATIONS**

(T10-0226)

No. 4090, GOLD AND COPPER RESOURCES PTY LIMITED (ACN 124 534 863), area of 100 units, for Group 1, dated 29 September 2010. (Orange Mining Division).

(T10-0227)

No. 4091, CENTRAL WEST GOLD NL (ACN 003 078 591), area of 8 units, for Group 1, dated 30 September 2010. (Orange Mining Division).

STEVE WHAN, M.P., Minister for Primary Industries

NOTICE is given that the following application has been withdrawn:

# EXPLORATION LICENCE APPLICATION

(T10-0219)

No. 4083, OAKLAND RESOURCES PTY LTD (ACN 137 606 476), County of Bathurst and County of Wellington, Map Sheet (8731). Withdrawal took effect on 28 September 2010.

STEVE WHAN, M.P., Minister for Primary Industries

NOTICE is given that the following applications for renewal have been received:

(08-7759)

Exploration Licence No. 5646, BROKEN HILL OPERATIONS PTY LTD (ACN 054 920 893), area of 11 units. Application for renewal received 1 October 2010.

(06-0219)

Exploration Licence No. 6657, COMET RESOURCES LIMITED (ACN 060 628 202), area of 10 units. Application for renewal received 5 October 2010.

(T08-0049)

Exploration Licence No. 7230, BOUNTY RESOURCES PTY LIMITED (ACN 108 458 420), area of 8 units. Application for renewal received 30 September 2010.

(T08-0054)

Exploration Licence No. 7231, IMPERIAL GOLD 1 PTY LTD (ACN 131 379 096), area of 12 units. Application for renewal received 28 September 2010.

(T08-0055)

Exploration Licence No. 7232, IMPERIAL GOLD 2 PTY LTD (ACN 131 379 103), area of 8 units. Application for renewal received 28 September 2010.

(T08-0112)

Exploration Licence No. 7242, AGRICULTURAL EQUITY INVESTMENTS PTY LIMITED (ACN 064 646 108), area of 23 units. Application for renewal received 28 September 2010.

# (T08-0187)

Exploration Licence No. 7257, TRI ORIGIN MINING PTY LIMITED (ACN 115 529 112), area of 62 units. Application for renewal received 1 October 2010.

STEVE WHAN, M.P., Minister for Primary Industries

#### RENEWAL OF CERTAIN AUTHORITIES

NOTICE is given that the following authorities have been renewed:

#### (08-4640)

Exploration Licence No. 4657, PLATSEARCH NL (ACN 003 254 395), County of Yancowinna, Map Sheet (7134), area of 2 units, for a further term until 20 April 2012. Renewal effective on and from 23 September 2010.

#### (T01-0102)

Exploration Licence No. 5879, PERILYA BROKEN HILL LIMITED (ACN 099 761 289), County of Yancowinna, Map Sheet (7234), area of 5 units, for a further term until 25 July 2011. Renewal effective on and from 1 September 2010.

#### (T04-0021)

Exploration Licence No. 6381, FORGE RESOURCES LTD (ACN 139 886 187), Counties of Beresford and Murray, Map Sheet (8726, 8727), area of 91 units, for a further term until 21 February 2012. Renewal effective on and from 29 September 2010.

#### (05-0305)

Exploration Licence No. 6542, SILVER CITY MINERALS LIMITED (ACN 130 933 309), Counties of Farnell and Yancowinna, Map Sheet (7134), area of 5 units, for a further term until 21 March 2012. Renewal effective on and from 24 September 2010.

# (07-0211)

Exploration Licence No. 6932, PLATSEARCH NL (ACN 003 254 395), County of Macquarie, Map Sheet (9335, 9435), area of 50 units, for a further term until 5 November 2011. Renewal effective on and from 23 September 2010.

# (07-0366)

Exploration Licence No. 7060, NEWMONT EXPLORATION PTY LTD (ACN 006 306 690), County of Wellington, Map Sheet (8632, 8732), area of 19 units, for a further term until 4 February 2012. Renewal effective on and from 27 September 2010.

#### (07-0368)

Exploration Licence No. 7062, NEWMONT EXPLORATION PTY LTD (ACN 006 306 690), County of Phillip, Map Sheet (8832, 8833), area of 53 units, for a further term until 4 February 2012. Renewal effective on and from 17 September 2010.

#### (07-0369)

Exploration Licence No. 7063, NEWMONT EXPLORATION PTY LTD (ACN 006 306 690), Counties of Bligh, Gordon, Lincoln and Wellington, Map Sheet (8632, 8732), area of 33 units, for a further term until 4 February 2012. Renewal effective on and from 27 September 2010.

#### (07-0371)

Exploration Licence No. 7064, NEWMONT EXPLORATION PTY LTD (ACN 006 306 690), County of Lincoln, Map Sheet (8633), area of 27 units, for a further term until 4 February 2012. Renewal effective on and from 27 September 2010.

STEVE WHAN, M.P., Minister for Primary Industries

# WITHDRAWAL OF APPLICATIONS FOR RENEWAL

NOTICE is given that the applications for renewal in respect of the following authorities have been withdrawn:

#### (07-0321)

Exploration Licence No. 7021, HARDIE INFRASTRUCTURE PTY LTD (ACN 105 959 804), County of Narran, Map Sheet (8239), area of 28 units. The authority ceased to have effect on 29 September 2010.

# (T07-0451)

Exploration Licence No. 7054, HARDIE INFRASTRUCTURE PTY LTD (ACN 105 959 804), County of Narran, Map Sheet (8339, 8439), area of 26 units. The authority ceased to have effect on 29 September 2010.

STEVE WHAN, M.P., Minister for Primary Industries

# **Land and Property Management Authority**

# ARMIDALE OFFICE

108 Faulkner Street (PO Box 199A), Armidale NSW 2350 Phone: (02) 6770 3100 Fax (02) 6772 8782

# NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

#### Description

Land District – Armidale; L.G.A. – Armidale Dumaresq

Road Closed: Lots 1, 2 and 3, DP 1154584 at Armidale and Donald Creek, Parish Donald, County Sandon.

File No.: AE06 H 155.

# Schedule

On closing, the land within Lots 1, 2 and 3, DP 1154584 remains vested in the State of New South Wales as Crown Land.

#### **ROADS ACT 1993**

# **ORDER**

Transfer of Crown Roads to a Council

IN pursuance of the provisions of section 151, Roads Act 1993, the Crown public roads specified in each Schedule 1 are transferred to the Roads Authority specified in the corresponding Schedule 2 hereunder, as from the date of publication of this notice and as from that date, the roads specified in each Schedule 1, cease to be Crown public roads.

TONY KELLY, M.L.C., Minister for Lands

#### SCHEDULE 1

Parish, Town and Environs – Uralla; County – Sandon; Land District – Armidale: L.G.A. – Uralla

The Crown road, 20.115m, known as Quartz Gully Road and Crown road 10.06m wide, as shown by solid black shading on the diagram hereunder.



# SCHEDULE 2

Roads Authority: Uralla Shire Council.

File No.: 09/02207.W476579. Councils Reference: Robert Bell.

# **GOULBURN OFFICE**

# 159 Auburn Street (PO Box 748), Goulburn NSW 2580 Phone: (02) 4824 3700 Fax: (02) 4822 4287

# **ROADS ACT 1993**

# ORDER

Transfer of Crown Road to a Council

IN pursuance of the provisions of section 151 of the Act, the Crown road specified in Schedule 1 is transferred to the roads authority specified in Schedule 2 hereunder, as from the date of publication of this notice and as from that date the road specified in Schedule 1 ceases to be a Crown road.

TONY KELLY, M.L.C., Minister for Lands

# SCHEDULE 1

Parish – Jinden; County – Dampier; Land District – Braidwood; L.G.A. – Palerang

Description: Crown road part north of Lot 33, DP 752149 for a distance of 25 metres and ending at the western boundary of Lot 52, DP 752149 (as shown by black colour in diagram below).



# SCHEDULE 2

Roads Authority: Palerang.

Council's Reference: EN:19:32:1.

File No.: 10/15694.

# **GRAFTON OFFICE**

# 76 Victoria Street (PO Box 272), Grafton NSW 2460 Phone: (02) 6640 3400 Fax: (02) 6642 5375

# NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

#### Description

Land District - Casino; L.G.A. - Kyogle

Road Closed: Lot 1, DP 1148565 at Peacock Creek, Parish Peacock, County Buller.

File No.: GF05 H 967.

Schedule

On closing, the land within Lot 1, DP 1148565 remains vested in the State of New South Wales as Crown Land.

# Description

Land Districts - Casino and Lismore; L.G.A. - Lismore

Road Closed: Lot 1, DP 1145517 at Fernside, Parish Bungabbee, County Rous.

File No.: GF03 H 328.

Schedule

On closing, the land within Lot 1, DP 1145517 remains vested in the State of New South Wales as Crown Land.

# Description

Land District - Grafton; L.G.A. - Clarence Valley

Road Closed: Lot 3, DP 1155670 at Shannondale, Parish Toothill, County Fitzroy.

File No.: 10/05942.

Schedule

On closing, the land within Lot 3, DP 1155670 remains vested in the State of New South Wales as Crown Land.

# **HAY OFFICE**

# 126 Lachlan Street (PO Box 182), Hay NSW 2711 Phone: (02) 6990 1800 Fax: (02) 6993 1135

# NOTIFICATION OF CLOSING OF PUBLIC ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closure, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

# Description

Land District - Hillston; L.G.A. - Carrathool

Lot 1 in DP 1155787, Parish of Goolgowi South, County of Nicholson.

File No.: HY98 H 98.

#### Schedule

On closing, title for the land comprised in Lot 1, DP 1155787 remains vested in the State of New South Wales as Crown Land.

#### **ROADS ACT 1993**

# **ORDER**

Transfer of Crown Road to a Council

IN pursuance of the provisions of section 151, Roads Act 1993, the Crown public roads specified in Schedule 1 are transferred to the Roads Authority specified in Schedule 2 hereunder, as from the date of publication of this notice and as from that date, the roads specified in Schedule 1 cease to be Crown public road.

TONY KELLY, M.L.C., Minister for Lands

# SCHEDULE 1

Parishes – Bama and Caloola; County – Cadell; Land District – Deniliquin; Locality – Moama

The crown road south of Lots 1 and 2, DP 528254.

#### SCHEDULE 2

Roads Authority: Murray Shire Council.

File No.: HY99 H 59.

### ADDITION TO RESERVED CROWN LAND

PURSUANT to section 88 of the Crown Lands Act 1989, the Crown Land specified in Column 1 of the Schedule hereunder, is added to the reserved land specified opposite thereto in Column 2 of the Schedule.

TONY KELLY, M.L.C., Minister for Lands

#### **SCHEDULE**

Column 1

Land District: Deniliquin.
Local Government Area:
Deniliquin Council.
Locality: North Deniliquin.
Lot 113, DP No. 756310,
Parish North Deniliquin,
County Townsend.
Lot 100, DP No. 756310,
Parish North Deniliquin,

County Townsend. Lot 97, DP No. 756310, Parish North Deniliquin, County Townsend.

Lot 7301, DP No. 1142606, Parish North Deniliquin, County Townsend. Lot 7300, DP No. 1142606,

Parish North Deniliquin, County Townsend. Area: 140.18 hectares.

access.

Column 2

Reserve No.: 79140. Public Purpose: Public recreation.

Notified: 7 December 1956. Lot 7030, DP No. 1120492#, Parish North Deniliquin, County Townsend.

Lot 7012, DP No. 1120697#, Parish North Deniliquin, County Townsend. New Area: 150.29 hectares.

File No.: 10/14871.

Note: This addition does not revoke Reserve 79158 for

Disclaimer: Please note that the above Lot numbers marked # are for Departmental use only.

# ORDER – AUTHORISATION OF ADDITIONAL PURPOSE UNDER S121A

PURSUANT to s121A of the Crown Lands Act 1989, I authorise by this Order, the purpose specified in Column 1 to be an additional purpose to the declared purpose of the reserves specified opposite thereto in Column 2 of the Schedule.

TONY KELLY, M.L.C., Minister for Lands

# **SCHEDULE**

Column 1

Column 2

Environmental protection.

Reserve No.: 79140. Public Purpose: Public

recreation.

Notified: 7 December 1956. File No.: 10/14871.

# MAITLAND OFFICE

# Corner Newcastle Road and Banks Street (PO Box 6), East Maitland NSW 2323 Phone: (02) 4937 9300 Fax: (02) 4934 2252

# NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished.

TONY KELLY, M.L.C., Minister for Lands

# Description

Parish – Sutton; County – Gloucester; Land District – Newcastle; Local Government Area – Port Stephens

Road Closed: Lot 1, DP 1154134 at Swan Bay, subject to easement for electricity and other purposes 20.115 wide created by DP 1154134.

File No.: 07/1060.

Note: On closing, the land within Lot 1, DP 1154134 will remain vested in the Crown as Crown Land.

# NOTIFICATION OF CLOSING OF PUBLIC ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

#### Description

Parish – Sutton; County – Gloucester; Land District – Newcastle; L.G.A. – Port Stephens

Road Closed: Lot 1, DP 1155908 (not being land under the Real Property Act).

File No.: 08/9571.

#### Schedule

On closing, the land within Lot 1, DP 1155908 remains vested in the State of New South Wales as Crown Land.

# **MOREE OFFICE**

Frome Street (PO Box 388), Moree NSW 2400 Phone: (02) 6750 6400 Fax: (02) 6752 1707

# NOTIFICATION OF CLOSING OF ROADS

IN pursuance of the provisions of the Roads Act 1993, the roads hereunder described are closed and the land comprised therein ceases to be public road and the rights of passage and access that previously existed in relation to the roads is extinguished. On road closing, title to the land comprising the former public roads vest in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

# Description

Land District – Narrabri; Council – Narrabri Shire; Parish – Woolabrar; County – Jamison

Road Closed: Lot 1 in DP 1157542.

File No.: ME06 H 127.

#### Schedule

On closing, title to the land within Lot 1 in DP 1157542 remains vested in the State of New South Wales as Crown Land.

# Description

Land District – Bingara; Council – Gwydir Shire; Parish – Boomi; County – Murchison

Road Closed: Lots 1 in DP 1157570.

File No.: ME05 H 112.

#### Schedule

On closing, title to the land within Lot 1 in DP 1157570 remains vested in the State of New South Wales as Crown Land.

# Description

Land District – Narrabri; Council – Narrabri Shire; Parishes – Leard and Therribri; County – Nandewar

Road Closed: Lots 1 in DP 1157540.

File No.: 07/4902.

# Schedule

On closing, title to the land within Lot 1 in DP 1157540 remains vested in the State of New South Wales as Crown Land.

# Description

Land District – Moree; Council – Moree Plains Shire; Parish – Menadool; County – Courallie

Road Closed: Lot 1 in DP 1157568.

File No.: ME06 H 23.

#### Schedule

On closing, title to the land within Lot 1 in DP 1157568 remains vested in the State of New South Wales as Crown Land.

#### **ROADS ACT 1993**

#### **ORDER**

Transfer of a Crown Road to a Council

IN pursuance of the provisions of section 151, Roads Act 1993, the Crown roads specified in Schedule 1 is hereby transferred to the Roads Authority specified in Schedule 2 hereunder, as from the date of publication of this notice and as from the date, the road specified in Schedule 1, ceases to be Crown road.

TONY KELLY, M.L.C., Minister for Lands

# SCHEDULE 1

Parish – Wyndham; County – Murchison; Land District – Bingara; Shire – Gwydir Shire Council

Crown public road separating Lot 9 from Lot 146, DP 754864 and traversing Lots 98 and 99, DP 754864, known locally as Clevecourt Road.

Width to be Transferred: Whole width.

# SCHEDULE 2

Roads Authority: Gwydir Shire Council.

Council's Reference: Clevecourt Road.

LPMA Reference: 10/14632.

#### SCHEDULE 1

Parish – Bingara; County – Murchison; Land District – Bingara; Shire – Gwydir Shire Council

Crown public road north of Lot 137, DP 754819 and within and north of Lot 2, DP 1122807.

Width to be Transferred: Whole width.

#### SCHEDULE 2

Roads Authority: Gwydir Shire Council.

Council's Reference: Crown Road – Fossikers Way south of Bingara.

LPMA Reference: 10/14632.

# **NOWRA OFFICE**

# 5 O'Keefe Avenue (PO Box 309), Nowra NSW 2541 Phone: (02) 4428 9100 Fax: (02) 4421 2172

# APPOINTMENT OF TRUST BOARD MEMBERS

PURSUANT to section 93 of the Crown Lands Act 1989, the persons whose names are specified in Column 1 of the Schedule hereunder, are appointed for the terms of office specified, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

# TONY KELLY, M.L.C., Minister for Lands

# **SCHEDULE**

Column 1 Column 2 Column 3 Kevin Patrick Bemboka Reserve No.: 40788. **MADDERN** Showground Public Purpose: Showground. (new member), Notified: 22 August 1906. Trust. Fred HATTY File No.: NA84 R 35. (new member). Peta ALCOCK (new member), Garry John BRUCE

#### Term of Office

(new member).

For a term commencing this day and expiring 18 December 2013.

# NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

#### Description

Parish – Cootamundra; County – Harden; Land District – Cootamundra; Local Government Area – Cootamundra

Road Closed: Lots 1-2, DP 1151656 at Cootamundra.

File No.: 09/15599.

#### Schedule

On closing, the land within Lots 1-2, DP 1151656 remains vested in the State of New South Wales as Crown Land.

# Description

Parish – Kiama; County – Camden; Land District – Kiama; Local Government Area – Kiama

Road Closed: Lot 1, DP 1156159 at Jamberoo.

File No.: 09/09594.

# Schedule

On closing, the land within Lot 1, DP 1156159 remains vested in the State of New South Wales as Crown Land.

# **ORANGE OFFICE**

# 92 Kite Street (PO Box 2146), Orange NSW 2800 Phone: (02) 6391 4300 Fax: (02) 6362 3896

# NOTIFICATION OF CLOSING OF PUBLIC ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

#### Description

Parish – Cudgymaguntry; County – Monteagle; Land District – Grenfell; L.G.A. – Weddin

Road Closed: Lot 1, DP 1155916 (not being land under the Real Property Act).

File No.: CL/00489.

Schedule

On closing, the land within Lot 1 remains vested in the State of New South Wales as Crown Land.

# Description

Parish – Ponsonby; County – Bathurst; Land District – Bathurst; L.G.A. – Bathurst Regional

Road Closed: Lots 1, 2 and 3, DP 1156355 (not being land under the Real Property Act).

File No.: 08/8896.

Schedule

On closing, the land within Lots 1, 2 and 3 remains vested in the State of New South Wales as Crown Land.

# Description

Land District - Cowra; L.G.A. - Cowra

Road Closed: Lot 1, DP 1151304 at Gooloogong, Parish Conimbla, County Forbes.

File No.: 07/5626.

Schedule

On closing, the land within Lot 1, DP 1151304 remains vested in the State of New South Wales as Crown Land.

# SYDNEY METROPOLITAN OFFICE

# Level 12, Macquarie Tower, 10 Valentine Avenue, Parramatta 2150 (PO Box 3935, Parramatta NSW 2124)

Fax: (02) 8836 5365 Phone: (02) 8836 5300

# REVOCATION OF RESERVATION OF CROWN **LAND**

PURSUANT to section 90(1) of the Crown Lands Act 1989, the reservation of Crown Land specified in Column 1 of the Schedule hereunder, is revoked to the extent specified opposite thereto in Column 2 of the Schedule.

> TONY KELLY, M.L.C., Minister for Lands

# **SCHEDULE**

Column 1

Land District: Kempsey. Council: Kempsey. Parish: Yarravel. County: Dudley. Location: West Kempsey.

Reserve Nos: 11438 and 752439.

Purpose: Public buildings and future public requirements respectively. Date of Notification: 7 May 1890 and 29 June 2007,

respectively. File No.: 09/09693.

#### Column 2

Reserve 11438 comprising the whole of Lot 31, DP 1127454 and Lot 21, DP 1150827 and Part Reserve 752439 comprising the whole of Lot 22, DP 1150827 respectively.

# NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be public road and the rights of passage and access that previously existed in relation to the road are extinguished. Upon closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

> TONY KELLY, M.L.C., Minister for Lands

# Description

Parish - Carwoola; County - Murray; Land District – Queanbeyan; Local Government Area – Palerang

Road Closed: Lot 1, DP 1155755 at Yarrow (not being land under the Real Property Act).

File No.: GB05 H 382.

#### Schedule

On closing, the title for the land in Lot 1, DP 1155755 remains vested in the State of New South Wales as Crown Land.

# **TAMWORTH OFFICE**

# 25-27 Fitzroy Street (PO Box 535), Tamworth NSW 2340 Phone: (02) 6764 5100 Fax: (02) 6766 3805

# NOTIFICATION OF CLOSING OF A ROAD

IN pursuance to the provisions of the Roads Act 1993, the road hereunder specified is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished.

TONY KELLY, M.L.C., Minister for Lands

# Description

Localities – Gowrie and Currabubula; Land District – Tamworth;

L.G.A. -Liverpool Plains Shire and Tamworth Regional

Road Closed: Lots 1-2 in Deposited Plan 1153282 and Lots 3-5 in Deposited Plan 1153283, Parish Currabubula, County Buckland.

File No.: 07/0816.

Note: On closing, title to the land comprised in Lot 1-2 and 3-5 will remain vested in the State of New South Wales as Crown Land.

# NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

#### Description

Land Districts – Tamworth and Armidale; L.G.A. – Tamworth Regional

Road Closed: Lot 1, DP 1155989 at Limbri, Parish South Burke, County Inglis.

File No.: 06/6736.

#### Schedule

On closing, the land within Lot 1, DP 1155989 remains vested in the State of New South Wales as Crown Land.

# TAREE OFFICE

# 98 Victoria Street (PO Box 440), Taree NSW 2430 Phone: (02) 6591 3500 Fax: (02) 6552 2816

# NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the Roads Act 1993, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

TONY KELLY, M.L.C., Minister for Lands

# Description

Land Districts – Taree and Port Macquarie; L.G.A. – Port Macquarie-Hastings

Road Closed: Lot 1, DP 1153181 at Boorganna, Parish Kerewong, County Macquarie.

File No.: TE05 H 243.

# Schedule

On closing, the land within Lot 1, DP 1153181 remains vested in the State of New South Wales as Crown Land.

# Description

Land District - Taree; L.G.A. - Greater Taree

Road Closed: Lot 1, DP 1155220 at Knorrit-Flat, Parish Knorrit, County Macquarie.

File No.: TE05 H 245.

# Schedule

On closing, the land within Lot 1, DP 1155220 remains vested in the State of New South Wales as Crown Land.

# WESTERN REGION OFFICE

45 Wingewarra Street (PO Box 1840), Dubbo NSW 2830 Phone: (02) 6883 5400 Fax: (02) 6884 2067

# WITHDRAWAL OF LANDS FROM WESTERN LANDS LEASES

PURSUANT to section 35Q of the Western Lands Act 1901, the lands described in Column 1 of the Schedule hereunder, are withdrawn from the leases described in Column 2 of the Schedule for the purpose of being dedicated as public roads.

TONY KELLY, M.L.C., Minister for Lands

# **SCHEDULE**

# Descriptions

Counties – Livingstone and Manara; Administrative Districts – Wilcannia, Hillston North and Broken Hill; Central Darling

Column 1 Land Withdrawn From Lease (Lot/DP)	Column 2 Lease Affected by Withdrawal	Column 3 Title affected	Column 4 Area Withdrawn from Lease (hectares)	Column 5 Lease Area Following Withdrawal (hectares)
1/1152855	5976	3405/765694	77.97	26653
2/1152855	5975	3406/765695	90.74	33486
3/1152855	8180	3997/766470	132.6	32209
4/1152855 5/1152855 10/1152855	7829	3995/766468	182.6	34112
6/1152855	4409	2223/764139	23.83	6520
7/1152855	4406	2222/764138	30.61	8477
8/1152855	3116	1120/762451	75	19919
9/1152855	2321	31/774252	4.933	14668
11/1152855	8360	3998/766471	52.45	29139
12/1152855	3357	3999/766472	120.1	23852
13/1152855		1297/762854		
14/1152855	8380	4128/766633	113.3	29802
15/1152855 20/1152855	8361	4065/766540	150.5	31525
16/1152855	2393	458/761315	109.1	13241
17/1152855	4148	6493/761320	3365 square metres	6506
18/1152855	2384	462/761319	70.42	13089
19/1152855	2383	461/761318	72.1	12845
21/1152855	3972	1824/763730	74.67	6276
22/1152855	3969	1/803408	19.22	6941
23/1152855	2874	944/762580	37.73	6679

File No.: 10/05055.

# DEDICATION OF CROWN LAND AS PUBLIC ROAD

PURSUANT to section 12 of the Roads Act 1993, the Crown Land described hereunder, is from the date of publication of this notice, dedicated as public road. The public road hereby dedicated is declared not to be Crown road within the meaning of the Roads Act 1993.

TONY KELLY, M.L.C., Minister for Lands

### Description

Counties – Livingstone and Manara; Administrative Districts – Wilcannia, Hillston North and Broken Hill; Central Darling

Lot 1, DP 1152855; Lot 2, DP 1152855; Lot 3, DP 1152855; Lot 4, DP 1152855; Lot 5, DP 1152855; Lot 6, DP 1152855; Lot 7, DP 1152855; Lot 8, DP 1152855; Lot 9, DP 1152855; Lot 10, DP 1152855; Lot 11, DP 1152855; Lot 12, DP 1152855; Lot 13, DP 1152855; Lot 14, DP 1152855; Lot 15, DP 1152855; Lot 16, DP 1152855; Lot 17, DP 1152855; Lot 18, DP 1152855; Lot 19, DP 1152855; Lot 20, DP 1152855; Lot 21, DP 1152855; Lot 22, DP 1152855 and Lot 23, DP 1152855.

Note: Affected parts of Crown Reserves 564, 9475, 624, 8746 and 4334 are hereby revoked.

File No.: 10/05055.

# **Department of Planning**

# **HERITAGE ACT, 1977**

Direction pursuant to section 34(1)(a) to list an item on the State Heritage Register

#### The Ben Hall Sites

- Escort Rock, Escort Way, Eugowra;
- · Cliefden, Belubula Way, Mandurama;
- Wandi, 16501 Hume Highway, Narambulla Creek;
- Bushranger Hotel, 24 Church Street, Collector;
- Death Site, Ben Halls Road, Forbes;
- Grave, Bogan Gate Road, Forbes.

#### **SHR No 1827**

In pursuance of Section 34(1)(a) of the Heritage Act, 1977, I, the Minister for Planning, having considered a recommendation of the Heritage Council of New South Wales, direct the Council to list the item of environmental heritage specified in Schedule "A" on the State Heritage Register. This listing shall apply to the curtilage or site of the item, being the land described in Schedule "B". The listing is subject to the exemptions from approval under Section 57(2) of the Heritage Act, 1977, described in Schedule "C" and in addition to the standard exemptions.

The Hon TONY KELLY, M.L.C., Minister for Planning

Sydney, 5 day of October 2010.

# SCHEDULE "A"

The item known as The Ben Hall Sites, situated on the land described in Schedule "B".

# SCHEDULE "B"

All those pieces or parcels of land known as Escort Rock, Part of Lot 159 of Deposited Plan 750159, Parish of Goimbla, County of Ashburnham shown on the plan catalogued HC 2276; Cliefden, Part of Lot 11 of Deposited Plan 566218, Parish of Hampton, County of Bathurst shown on the plan catalogued HC 2277; Wandi, Part of Lot 5 of Deposited Plan 657521, Parish of Marulan, County of Argyle shown on the plan catalogued HC 2278; Bushranger Hotel, Lot 3 of Deposited Plan 554640, Parish of Collector, County of Argyle shown on the plan catalogued HC 2279; Death Site, Part of Lot 11 of Deposited Plan 6869, Parish of Yarragong, County of Ashburnham shown on the plan catalogued HC 2280; Grave, Part of Lot 7094 of Deposited Plan 1023245, Parish of Hampton, County of Bathurst shown on the plan catalogued HC 2281 in the office of the Heritage Council of New South Wales.

# SCHEDULE "C"

# Site Specific Exemptions - Cliefden

- 1. Continuing maintenance, cleaning and repairs of existing fabric and structures, such as brickwork and roofing, where such activities are in accordance with the Standard Exemptions.
- 2. Minor activities with no adverse impact on heritage significance or significant fabric, where such activities are in accordance with the Standard Exemptions.

- 3. Activities for installing and replacing electrical and lighting services where such activities are sympathetic to and minimise alterations to heritage fabric and spaces.
- Activities for installing and replacing plumbing services where these activities are sympathetic to and minimise alterations to heritage fabric and spaces.
- 5. Activities for maintaining and altering the stormwater disposal system, such as roofing, guttering, downpipes and drainage systems, where such activities are sympathetic to and minimise alterations to heritage fabric and spaces.
- 6. Activities for rectifying, replacing or upgrading electrical, plumbing, fire safety, health, workplace or animal welfare systems or conditions to meet required standards as might be ordered by any government or regulatory authority provided such activities are sympathetic to and carried out in such a way as to minimise alterations to heritage fabric and spaces.
- All activities for gardening in existing garden beds and areas provided these activities do not impact on or damage existing built structures, such as retaining walls and fences.

#### Site Specific Exemptions – Ben Hall's Grave

Placement of interpretive signs and benches within the curtilage but outside the area of the grave marked by the picket fence providing they adhere to policies and guidelines specified in the document Interpreting Heritage Places and Items published by the Heritage Council.

#### **HERITAGE ACT, 1977**

Direction pursuant to section 34(1)(a) to list an item on the State Heritage Register

# Cox's Cottage Curtilage Extension

2 St Thomas Road Mulgoa

SHR No 171

In pursuance of Section 34(1)(a) of the Heritage Act, 1977, I, the Minister for Planning, having considered a recommendation of the Heritage Council of New South Wales, direct the Council to list the item of environmental heritage specified in Schedule "A" on the State Heritage Register. This listing shall apply to the curtilage or site of the item, being the land described in Schedule "B". The listing is subject to the exemptions from approval under Section 57(2) of the Heritage Act, 1977, described in Schedule "C" and in addition to the standard exemptions.

The Hon TONY KELLY, M.L.C., Minister for Planning

Sydney, 24 day of September 2010.

# SCHEDULE "A"

The item known as Lot 2, curtilage to Cox's Cottage, situated on the land described in Schedule "B".

# SCHEDULE "B"

All those pieces or parcels of land known as Lots 2, 3 and 4, DP 241971 in Parish of Mulgoa, County of Cumberland shown on the plan catalogued HC 2330 in the office of the Heritage Council of New South Wales.

# SCHEDULE "C"

- (a) All activities associated with the ongoing use of the land for pastoral, agricultural or agistment purposes, excluding any new development that may materially affect the significance of the item.
- (b) All activities associated with the rehabilitation and re-vegetation of the landscape where these activities do not involve the disturbance of the early nineteenth century vineyard terracing and do not materially affect the significance of the item.

# **Roads and Traffic Authority**

# ROAD TRANSPORT (GENERAL) ACT 2005

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

BLAND SHIRE COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which Road Train Vehicles may be used subject to any requirements or conditions set out in the Schedule.

Dated: 30 September 2010.

RAY SMITH, General Manager, Bland Shire Council (by delegation from the Minister for Roads)

#### **SCHEDULE**

#### 1. Citation

This Notice may be cited as Bland Shire Council Notice No. 1/2010.

# 2. Commencement

This Notice takes effect on the date of publication in the New South Wales Government Gazette.

#### 3. Effect

This Notice remains in force until 30th September 2015 unless it is amended or repealed earlier.

# 4. Application

This Notice applies to those Road Train vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 2 of the Road Transport (Vehicle Registration) Regulation 2007.

#### 5. Routes

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Ariah Park Road, Tallimba.	Tallimba Road.	Meaghers Lane.	Travel permitted 1 November to 28 February.
Road train.	Bashams Lane Road, Tallimba.	Gunn Road.	Timothys Lane.	Travel permitted 1 November to 28 February.
Road train.	Beatties Lane, Barellan.	Kolkilbertoo Road.	Overs Lane.	Travel permitted 1 November to 28 February.
Road train.	Begargo Road, Naradhan.	Bland Lachlan Shire Boundary, approx 2.3km west of Mercers Lane.	Bland Lachlan Shire Boundary, approx 1km north of Mercers Lane.	Travel permitted 1 November to 28 February.
Road train.	Bimbeen Road, Girral.	MR57 West Wyalong Condobolin Road.	Koops Lane.	Travel permitted 1 November to 28 February.
Road train.	Blow Clear Road, Lake Cowal.	Wamboyne Road.	Bonehams Lane.	Travel permitted 1 November to 28 February.
Road train.	Bodels Lane, Wyalong.	SH17 Newell Highway.	Clear Ridge Road.	Travel permitted 1 November to 28 February.
Road train.	Bonehams Lane, Lake Cowal.	Blow Clear Road.	Cowal Gold Access.	Travel permitted 1 November to 28 February.
Road train.	Bootoowa Road, Naradhan.	MR371 Rankins Springs  – Lake Cargelligo Road.	Bland Lachlan Shire Boundary approx 0.9km north of Morris Lane.	Travel permitted 1 November to 28 February.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Boreamble Road, Kikoira.	Kikoira Road.	Bland Lachlan Shire Boundary at Tuggerabach Road.	Travel permitted 1 November to 28 February.
Road train.	Brennans Tank Road, Tallimba.	Halls Lane.	Bygoo Road.	Travel permitted 1 November to 28 February.
Road train.	Brolga Road, North Yalgogrin.	HW6 Mid Western Highway.	Thulloo Road.	Travel permitted 1 November to 28 February.
Road train.	Browns Lane, West Wyalong.	HW6 Mid Western Highway.	Merrengreen Road.	Travel permitted 1 November to 28 February.
Road train.	Bulga Street, Weethalle.	Warrego Street.	Hill Street.	Travel permitted 1 November to 28 February.
Road train.	Buralyang Road, Tallimba.	Bygoo Road.	Sandy Creek Road.	Travel permitted 1 November to 28 February.
Road train.	Bygoo Road, Tallimba.	Kikoira Street. Tallimba.	Bland Coolamon Shire Boundary, Stewarts Lane.	Travel permitted 1 November to 28 February.
Road train.	Calleen Lane, West Wyalong.	MR57 West Wyalong Condobolin Road.	MR57 West Wyalong Condobolin Road.	Travel permitted 1 November to 28 February.
Road train.	Central Road, West Wyalong.	SH17 Newell Highway (Neeld Street).	MR639 Compton Road, (West Wyalong By-Pass).	Travel permitted 1 November to 28 February.
Road train.	Chanters Lane, Weethalle.	HW6 Mid Western Highway.	Mud Hut Road East.	Travel permitted 1 November to 28 February.
Road train.	Clear Ridge Road, Wyalong.	SH17 Newell Highway (Neeld Street).	Blow Clear Road.	Travel permitted 1 November to 28 February.
Road train.	Clements Lane, West Wyalong.	HW6 Mid Western Highway.	Tallimba Road.	Travel permitted 1 November to 28 February.
Road train.	Clowery Tank Road, Weethalle.	Dundas Road.	Mud Hut Road West.	Travel permitted 1 November to 28 February.
Road train.	Collins Lane, West Wyalong.	MR57 West Wyalong Condobolin Road.	Pace Farm Access, approx 1 0.9km from MR57 Goldfields Way.	Travel permitted 1 November to 28 February.
Road train.	Crown Camp Road, Ungarie.	MR231 Girral-Lake Cargelligo Road at Ungarie.	Bland-Lachlan Shire Boundary, approx 2km south of Swansons Road.	Travel permitted 1 November to 28 February.
Road train.	Dalgleish Lane, Tallimba.	Bygoo Road.	Gunn Road.	Travel permitted 1 November to 28 February.
Road train.	Danahers Lane, Barellan.	Johns Road.	South Yalgogrin Road.	Travel permitted 1 November to 28 February.
Road train.	Dundas Road, Weethalle.	HW6 Mid Western Highway.	Bradburys Lane.	Travel permitted 1 November to 28 February.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Dunlops Lane, Tallimba.	Brennans Tank Road.	Russells Lane.	Travel permitted 1 November to 28 February.
Road train.	Euratha Road, Weethalle.	HW6 Mid Western Highway.	Carrathool-Bland Shire Boundary, approx 2km south of Martens Lane.	Travel permitted 1 November to 28 February.
Road train.	Fishers Lane, Barellan.	Kolkilbertoo Road.	Sandy Creek Road.	Travel permitted 1 November to 28 February.
Road train.	Flaggs Lane, Barellan.	Gunn Road.	Danahers Lane.	Travel permitted 1 November to 28 February.
Road train.	Fullers Lane, Ungarie.	MR231 Girral – Lake Cargelligo Road.	Merrengreen Road.	Travel permitted 1 November to 28 February.
Road train.	Genista Road, Barellan.	Kolkilbrtoo Road.	Sandy Creek Road.	Travel permitted 1 November to 28 February.
Road train.	Girral Road, Girral.	Wamboyne Road.	MR57 West Wyalong Condobolin Road.	Travel permitted 1 November to 28 February.
Road train.	Griffiths Lane, Naradhan.	Naradhan Road.	Tuggerabach Road.	Travel permitted 1 November to 28 February.
Road train.	Gubatta Road, Naradhan.	Naradhan Road.	Tuggerabach Road.	Travel permitted 1 November to 28 February.
Road train.	Gunn Road, Tallimba.	Manglesdorfs Lane.	Sandy Creek Road.	Travel permitted 1 November to 28 February.
Road train.	Halls Lane, Tallimba.	Ariah Park Road.	Brennans Tank Road.	Travel permitted 1 November to 28 February.
Road train.	Hannan Road, Weethalle.	HW6 Mid Western Highway.	Mud Hut Road West.	Travel permitted 1 November to 28 February.
Road train.	Hatelys Lane, West Wyalong.	MR57 West Wyalong Condobolin Road.	AWB Access Road, approx 900m from MR57 West Wyalong Condobolin Road.	Permanent.
Road train.	Hatelys Lane, West Wyalong.	AWB Access Road, approx 900m from MR57 West Wyalong Condobolin Road.	Calleen Lane.	Travel permitted 1 November to 28 February.
Road train.	Heatons Lane, Weethalle.	Hannan Road.	Kneales Lane.	Travel permitted 1 November to 28 February.
Road train.	Jansens Lane, Weethalle.	Kolkilbertoo Road.	Euratha Road.	Travel permitted 1 November to 28 February.
Road train.	Johns Road, Barellan.	Gunn Road.	Danahers Lane.	Travel permitted 1 November to 28 February.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Kikoira Road, Kikoira.	MR231 Girral – Lake Cargelligo Road.	Dundas Road.	Travel permitted 1 November to 28 February.
Road train.	Kolkilbertoo Road, Weethalle.	Wilga Street, Weethalle.	Bland Narrandera Shire Boundary, approx 1km west of Genista Road.	Travel permitted 1 November to 28 February.
Road train.	Langes Lane, West Wyalong.	Clements Lane.	Pfeiffers Lane.	Travel permitted 1 November to 28 February.
Road train.	Lewes Road, Weethalle.	HW6 Mid Western Highway.	Paynes Road.	Travel permitted 1 November to 28 February.
Road train.	Livingston Road, Lake Cowal.	Wamboyne Road.	Bland-Lachlan Shire Boundary, approx. 200m north of Wamboyne Road.	Travel permitted 1 November to 28 February.
Road train.	Mallons Lane, Weethalle.	Mud Hut Road West.	Rutledges Lane.	Travel permitted 1 November to 28 February.
Road train.	Malones Lane, Weethalle.	Kolkilbertoo Road.	Euratha Road.	Travel permitted 1 November to 28 February.
Road train.	Manglesdorfs Lane, Barellan.	Bygoo Road.	Gunn Road.	Travel permitted 1 November to 28 February.
Road train.	Martens Lane, Barellan.	Kolkilbertoo Road.	Euratha Road.	Travel permitted 1 November to 28 February.
Road train.	Meaghers Lane, West Wyalong.	Ariah Park Road.	Tallimba Road.	Travel permitted 1 November to 28 February.
Road train.	Mercers Lane, Naradhan.	Begargo Road.	Tuggerabach Road.	Travel permitted 1 November to 28 February.
Road train.	Merrengreen Road, Ungarie.	MR231 Girral – Lake Cargelligo Road.	MR57 West Wyalong Condobolin Road.	Travel permitted 1 November to 28 February.
Road train.	Minogues Lane, West Wyalong.	HW6 Mid Western Highway.	Mulga Lane.	Travel permitted 1 November to 28 February.
Road train.	Monia Gap Road, Naradhan.	MR371 Rankins Springs  – Lake Cargelligo Road.	Warburtons Lane.	Travel permitted 1 November to 28 February.
Road train.	Morris Lane, Naradhan.	Monia Gap Road.	Bootoowa Road.	Travel permitted 1 November to 28 February.
Road train.	Mud Hut Road West, Weethalle.	Dundas Road.	Hannan Road.	Travel permitted 1 November to 28 February.
Road train.	Mud Hut Road East, Weethalle.	Dundas Road.	Thulloo Road.	Travel permitted 1 November to 28 February.
Road train.	Mulga Lane, West Wyalong.	Hatelys Lane.	Cattles Lane.	Travel permitted 1 November to 28 February.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Naradhan Road, Naradhan.	Budda Street, Naradhan.	Dundas Road.	Travel permitted 1 November to 28 February.
Road train.	Narriah Road, North Yalgogrin.	HW6 Mid Western Highway.	Lewes Road.	Travel permitted 1 November to 28 February.
Road train.	Overs Lane, Barellan.	Kolkilbertoo Road.	Beatties Lane.	Travel permitted 1 November to 28 February.
Road train.	Oxley Road, Weethalle.	HW6 Mid Western Highway.	Stuarts Lane.	Travel permitted 1 November to 28 February.
Road train.	Paynes Road, Tallimba.	HW6 Mid Western Highway.	Bygoo Road.	Travel permitted 1 November to 28 February.
Road train.	Pfeiffers Lane, West Wyalong.	HW6 Mid Western Highway.	Langes Lane.	Travel permitted 1 November to 28 February.
Road train.	Popes Lane, Tallimba.	Bygoo Road.	Dunlops Lane.	Travel permitted 1 November to 28 February.
Road train.	Ridleys Lane, West Wyalong.	MR57 West Wyalong Condobolin Road.	Hatelys Lane.	Travel permitted 1 November to 28 February.
Road train.	Russells Lane, Ungarie.	MR231 Girral – Lake Cargelligo Road.	Deacons Lane.	Travel permitted 1 November to 28 February.
Road train.	Russells Lane, Ardlethan.	Bygoo Road.	Dunlops Lane.	Travel permitted 1 November to 28 February.
Road train.	Rutledges Lane, Weethalle.	Talleeban Road.	Dundas Lane.	Travel permitted 1 November to 28 February.
Road train.	Sandy Creek Road, Barellan.	Genista Road.	Lewes Road.	Travel permitted 1 November to 28 February.
Road train.	Showground Road, West Wyalong.	HW6 Mid Western Highway.	Saleyards access (approx 340m from HW6).	Permanent.
Road train.	Showground Road, West Wyalong By-Pass.	HW6 Mid Western Highway.	SH17 Newell Highway, West Wyalong.	Travel permitted 1 November to 28 February.
Road train.	Spencers Lane, Kamarah.	Yalgogorin Road.	Manglesdorfs Lane.	Travel permitted 1 November to 28 February.
Road train.	South Yalgogrin Road, Barellan.	Sandy Creek Road.	Gunn Road.	Travel permitted 1 November to 28 February.
Road train.	Sullivans Lane, West Wyalong.	Girral Road.	Wamboyne Road.	Travel permitted 1 November to permanent.
Road train.	Talleeban Road, Weethalle.	Kneales Lane.	Naradhan Road.	Travel permitted 1 November to permanent.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Tallimba Road, Tallimba.	HW17 Newell Highway.	Hiawatha Street, Tallimba.	Travel permitted 1 November to permanent.
Road train.	Tallimba Street, Tallimba.	Hiawatha Street, Tallimba.	Kikoira Street, Tallimba.	Travel permitted 1 November to 28 February.
Road train.	Thulloo Road, North Yalgogrin.	HW6 Mid Western Highway.	Kikoira Road.	Travel permitted 1 November to 28 February.
Road train.	Timothys Lane, Tallimba.	Bygoo Road.	Buralyang Road.	Travel permitted 1 November to 28 February.
Road train.	Tuggerabach Road Kikoira.	Bland-Lachlan Shire Boundary, approx 1.4km west of Bradburys Lane.	Blackers Lane.	Travel permitted 1 November to 28 February.
Road train.	Ungarie-Condobolin Road, Ungarie.	Crown Camp Road.	Bland-Lachlan Shire Boundary, approx 600m north of Webbs Lane.	Travel permitted 1 November to 28 February.
Road train.	Wamboyne Road, West Wyalong.	MR57 West Wyalong Condobolin Road.	Livingstone Road.	Travel permitted 1 November to 28 February.
Road train.	Wamboyne Dip Road, Girral.	Livingstone Road.	Bland Lachlan Shire Boundary, at Buttenshaws Lane.	Travel permitted 1 November to 28 February.
Road train.	Warburtons Lane, Rankins Springs.	MR368 Rankins Springs – Hillston Road.	Monia Gap Road.	Travel permitted 1 November to 28 February.
Road train.	Warrego Street, Weethalle.	HW6 Mid Western Highway.	Wilga Street.	Travel permitted 1 November to 28 February.
Road train.	Weja Road, Ungarie.	Kikoira Road.	MR231 Girral – Lake Cargelligo Road.	Travel permitted 1 November to 28 February.
Road train.	Wilga Plains Road, Ungarie.	Crown Camp Road.	Deacons Lane.	Travel permitted 1 November to 28 February.
Road train.	Winnunga Road, Ungarie.	MR231 Girral – Lake Cargelligo Road.	Kikoira Road.	Travel permitted 1 November to 28 February.
Road train.	Yarran Street, Naradhan.	MR371 Rankins Springs  – Lake Cargelligo Road.	Budda Road Street.	Travel permitted 1 November to 28 February.
Road train.	Younga Plains Road, Girral.	MR57 West Wyalong Condobolin Road.	Wamboyne Road.	Travel permitted 1 November to 28 February.
Road train.	Youngagreen Road, North Yalgogrin.	HW6 Mid Western Highway.	Kikoira Road.	Travel permitted 1 November to 28 February.

Notice under the Road Transport (Mass, Loading and Access) Regulation 2005

BLAND SHIRE COUNCIL, in pursuance of the Road Transport (Mass, Loading, Access) Regulation 2005, makes the amendment in the Schedule to the routes and areas previously specified on or in which Road Train may be used.

Dated: 30 September 2010.

RAY SMITH, General Manager, Bland Shire Council (by delegation from the Minister for Roads)

# **SCHEDULE**

# 1. Citation

This Notice may be cited as the Bland Shire Council Road Train Repeal Notice No. 1/2010.

# 2. Commencement

This Notice takes effect on the date of gazettal.

# 3. Amendment

The Class 2 Road Train Notice 2010 is amended by omitting the following from that Notice:

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Ariah Park Road, Tallimba.	Tallimba Road.	Meaghers Lane.	Travel permitted 1 November to 31 January.
Road train.	Bashams Lane Road, Tallimba.	Gunn Road.	Timothys Lane.	Travel permitted 1 November to 31 January.
Road train.	Beatties Lane, Barellan.	Kolkilbertoo Road.	Overs Lane.	Travel permitted 1 November to 31 January.
Road train.	Begargo Road, Naradhan.	Bland Lachlan Shire Boundary, approx 2.3km west of Mercers Lane.	Bland Lachlan Shire Boundary, approx 1km north of Mercers Lane.	Travel permitted 1 November to 31 January.
Road train.	Bimbeen Road, Girral.	MR57 Goldfields Way, (West Wyalong Condobolin Road).	Koops Lane.	Travel permitted 1 November to 31 January.
Road train.	Blow Clear Road, Lake Cowal.	Wamboyne Road.	Bonehams Lane.	Travel permitted 1 November to 31 January.
Road train.	Bonehams Lane, Lake Cowal.	Blow Clear Road.	Cowal Gold Access.	Travel permitted 1 November to 31 January.
Road train.	Bootoowa Road, Naradhan.	MR371 Rankins Springs – Lake Cargelligo Road.	Bland Lachlan Shire Boundary, approx 0.9km north of Morris Lane.	Travel permitted 1 November to 31 January.
Road train.	Boreamble Road, Kikoira.	Kikoira Road.	Bland Lachlan Shire Boundary at Tuggerabach Road.	Travel permitted 1 November to 31 January.
Road train.	Brennans Tank Road, Tallimba.	Halls Lane.	Bygoo Road.	Travel permitted 1 November to 31 January.
Road train.	Brolga Road, North Yalgogrin.	HW6 Mid Western Highway.	Thulloo Road.	Travel permitted 1 November to 31 January.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Browns Lane, West Wyalong.	HW6 Mid Western Highway.	Merrengreen Road.	Travel permitted 1 November to 31 January.
Road train.	Bulga Street, Weethalle.	Warrego Street.	Hill Street.	Travel permitted 1 November to 31 January.
Road train.	Buralyang Road, Tallimba.	Bygoo Road.	Sandy Creek Road.	Travel permitted 1 November to 31 January.
Road train.	Bygoo Road, Tallimba.	Kikoira Street, Tallimba.	Bland Coolamon Shire Boundary, Stewarts Lane.	Travel permitted 1 November to 31 January.
Road train.	Calleen Lane, West Wyalong.	MR57 Goldfields Way (West Wyalong Condobolin Road).	MR57 Goldfields Way (West Wyalong Condobolin Road).	Travel permitted 1 November to 31 January.
Road train.	Chanters Lane, Weethalle.	HW6 Mid Western Highway.	Mud Hut Road East.	Travel permitted 1 November to 31 January.
Road train.	Clements Lane, West Wyalong.	HW6 Mid Western Highway.	Tallimba Road.	Travel permitted 1 November to 31 January.
Road train.	Clowery Tank Road, Weethalle.	Dundas Road.	Mud Hut Road West.	Travel permitted 1 November to 31 January.
Road train.	Collins Lane, West Wyalong.	MR57 Goldfields Way (West Wyalong Condobolin Road).	Pace Farm access, approx 1 0.9km from MR57 Goldfields Way.	Travel permitted 1 November to 31 January.
Road train.	Crown Camp Road, Ungarie.	MR231 Girral-Lake Cargelligo Road at Ungarie.	Bland-Lachlan Shire Boundary, approx 2km south of Swansons Road.	Travel permitted 1 November to 31 January.
Road train.	Dalgleish Lane, Tallimba.	Bygoo Road.	Gunn Road.	Travel permitted 1 November to 31 January.
Road train.	Danahers Lane, Barellan.	Johns Road.	South Yalgogrin Road.	Travel permitted 1 November to 31 January.
Road train.	Dundas Road, Weethalle.	HW6 Mid Western Highway.	Kikoira Road.	Travel permitted 1 November to 31 January.
Road train.	Dunlops Lane, Tallimba.	Brennans Tank Road.	Russells Lane.	Travel permitted 1 November to 31 January.
Road train.	Euratha Road, Weethalle.	HW6 Mid Western Highway.	Carrathool-Bland Shire Boundary, approx 2km south of Trethowans Lane.	Travel permitted 1 November to 31 January.
Road train.	Fishers Lane, Barellan.	Kolkilbertoo Road.	Sandy Creek Road.	Travel permitted 1 November to 31 January.
Road train.	Flaggs Lane, Barellan.	Gunn Road.	Danahers Lane.	Travel permitted 1 November to 31 January.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Fullers Lane, Ungarie.	MR231 Girral – Lake Cargelligo Road.	Merrengreen Road.	Travel permitted 1 November to 31 January.
Road train.	Genista Road, Barellan.	Kolkilbrtoo Road.	Sandy Creek Road.	Travel permitted 1 November to 31 January.
Road train.	Girral Road, Girral.	Wamboyne Road.	MR57 Goldfields Way (West Wyalong Condobolin Road).	Travel permitted 1 November to 31 January.
Road train.	Griffiths Lane, Naradhan.	Naradhan Road.	Tuggerabach Road.	Travel permitted 1 November to 31 January.
Road train.	Gubatta Road, Naradhan.	Naradhan Road.	Tuggerabach Road.	Travel permitted 1 November to 31 January.
Road train.	Gunn Road, Tallimba.	Manglesdorfs Lane.	Sandy Creek Road.	Travel permitted 1 November to 31 January.
Road train.	Halls Lane, Tallimba.	Ariah Park Road.	Brennans Tank Road.	Travel permitted 1 November to 31 January.
Road train.	Hannan Road, Weethalle.	HW6 Mid Western Highway.	Mud Hut Road West.	Travel permitted 1 November to 31 January.
Road train.	Hatelys Lane, West Wyalong.	MR57 Goldfields Way (West Wyalong Condobolin Road).	AWB Access Road, approx 900m from MR57 Goldfields Way.	
Road train.	Hatelys Lane, West Wyalong.	AWB Access Road, approx 900m from MR57 Goldfields Way.	Calleen Lane.	Travel permitted 1 November to 31 January.
Road train.	Heatons Lane, Weethalle.	HW6 Mid Western Highway.	Kneales Lane.	Travel permitted 1 November to 31 January.
Road train.	Jansens Lane, Weethalle.	Kolkilbertoo Road.	Euratha Road.	Travel permitted 1 November to 31 January.
Road train.	Johns Road, Barellan.	Gunn Road.	Danahers Lane.	Travel permitted 1 November to 31 January.
Road train.	Kikoira Road, Kikoira.	MR231 Girral – Lake Cargelligo Road.	Dundas Road.	Travel permitted 1 November to 31 January.
Road train.	Kolkilbertoo Road, Weethalle.	Wilga Street, Weethalle.	Bland Narrandera Shire Boundary, approx 1km west of Genista Road.	Travel permitted 1 November to 31 January.
Road train.	Lewes Road, Weethalle.	HW6 Mid Western Highway.	Paynes Road.	Travel permitted 1 November to 31 January.
Road train.	Langes Lane, West Wyalong.	Clements Lane.	Pfeiffers Lane.	Travel permitted 1 November to 31 January.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Lewes Road, Weethalle.	HW6 Mid Western Highway.	Paynes Road.	Travel permitted 1 November to 31 January.
Road train.	Livingston Road, Lake Cowal.	Wamboyne Road.	Bland-Lachlan Shire Boundary, approx. 200m north of Wamboyne Road.	Travel permitted 1 November to 31 January.
Road train.	Malones Lane, Weethalle.	Kolkilbertoo Road.	Euratha Road.	Travel permitted 1 November to 31 January.
Road train.	Mallons Lane, Weethalle.	Mud Hut Road West.	Rutledges Lane.	Travel permitted 1 November to 31 January.
Road train.	Manglesdorfs Lane, Barellan.	Bygoo Road.	Gunn Road.	Travel permitted 1 November to 31 January.
Road train.	Martens Lane, Barellan.	Kolkilbertoo Road.	Euratha Road.	Travel permitted 1 November to 31 January.
Road train.	Meaghers Lane, West Wyalong.	HW6 Mid Western Highway.	Tallimba Road.	Travel permitted 1 November to 31 January.
Road train.	Mercers Lane, Naradhan.	Begargo Road.	Tuggerabach Road.	Travel permitted 1 November to 31 January.
Road train.	Merrengreen Road, Ungarie.	MR231 Girral – Lake Cargelligo Road.	MR57 Goldfields Way (West Wyalong Condobolin Road).	Travel permitted 1 November to 31 January.
Road train.	Minogues Lane, West Wyalong.	HW6 Mid Western Highway.	Mulga Lane.	Travel permitted 1 November to 31 January.
Road train.	Monia Gap Road, Naradhan.	MR371 Rankins Springs – Lake Cargelligo Road.	Warburtons Lane.	Travel permitted 1 November to 31 January.
Road train.	Morris Lane, Naradhan.	Monia Gap Road.	Bootoowa Road.	Travel permitted 1 November to 31 January.
Road train.	Mud Hut Road West, Weethalle.	Dundas Road.	Hannan Road.	Travel permitted 1 November to 31 January.
Road train.	Mud Hut Road East, Weethalle.	Dundas Road.	Thulloo Road.	Travel permitted 1 November to 31 January.
Road train.	Mulga Lane, West Wyalong.	Hatelys Lane.	Cattles Lane.	Travel permitted 1 November to 31 January.
Road train.	Naradhan Road, Naradhan.	Budda Street, Naradhan.	Dundas Road.	Travel permitted 1 November to 31 January.
Road train.	Narriah Road, North Yalgogrin.	HW6 Mid Western Highway.	Lewes Road.	Travel permitted 1 November to 31 January.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Overs Lane, Barellan.	Kolkilbertoo Road.	Beatties Lane.	Travel permitted 1 November to 31 January.
Road train.	Oxley Road Weethalle.	HW6 Mid Western Highway.	Stuarts Lane.	Travel permitted 1 November to 31 January.
Road train.	Paynes Road, Talimba.	HW6 Mid Western Highway.	Bygoo Road.	Travel permitted 1 November to 31 January.
Road train.	Pfeiffers Lane, West Wyalong.	HW6 Mid Western Highway.	Clements Lane.	Travel permitted 1 November to 31 January.
Road train.	Popes Lane, Tallimba.	Bygoo Road.	Dunlops Lane.	Travel permitted 1 November to 31 January.
Road train.	Ridleys Lane, West Wyalong.	MR57 Goldfields Way (West Wyalong Condobolin Road).	Hatelys Lane.	Travel permitted 1 November to 31 January.
Road train.	Russells Lane, Ungarie.	MR231 Girral – Lake Cargelligo Road.	Deacons Lane.	Travel permitted 1 November to 31 January.
Road train.	Russells Lane, Ardlethan.	Bygoo Road.	Dunlops Lane.	Travel permitted 1 November to 31 January.
Road train.	Rutledges Lane, Weethalle.	Talleeban Road.	Dundas Lane.	Travel permitted 1 November to 31 January.
Road train.	Sandy Creek Road, Barellan.	Genista Road.	Lewes Road.	Travel permitted 1 November to 31 January.
Road train.	Showground Road, West Wyalong.	HW6 Mid Western Highway.	Saleyards Access (approx 340m from HW6).	
Road train.	Spencers Lane, Kamarah.	Yalgogorin Road.	Manglesdorfs Lane.	Travel permitted 1 November to 31 January.
Road train.	South Yalgogrin Road, Barellan.	Sandy Creek Road.	Gunn Road.	Travel permitted 1 November to 31 January.
Road train.	Sullivans Lane, West Wyalong.	Girral Road.	Wamboyne Road.	Travel permitted 1 November to 31 January.
Road train.	Talleeban Road, Weethalle.	Kneales Lane.	Naradhan Road.	Travel permitted 1 November to 31 January.
Road train.	Tallimba Road, Tallimba.	HW17 Newell Highway.	Kikoira Street, Tallimba.	Travel permitted 1 November to 31 January.
Road train.	Thulloo Road, North Yalgogrin.	HW6 Mid Western Highway.	Kikoira Road.	Travel permitted 1 November to 31 January.

Туре	Road Name	Starting Point	Finishing Point	Conditions
Road train.	Timothys Lane, Tallimba.	Bygoo Road.	Buralyang Road.	Travel permitted 1 November to 31 January.
Road train.	Tuggerabach Road, Kikoira.	Bland-Lachlan Shire Boundary, approx 1.4km west of Bradburys Lane.	Blackers Lane.	Travel permitted 1 November to 31 January.
Road train.	Ungarie-Condobolin Road, Ungarie.	Crown Camp Road.	Bland-Lachlan Shire Boundary, approx 600m north of Webbs Lane.	Travel permitted 1 November to 31 January.
Road train.	Wamboyne Road, West Wyalong.	MR57 Goldfields Way (West Wyalong Condobolin Road).	Livingstone Road.	Travel permitted 1 November to 31 January.
Road train.	Wamboyne Dip Road, Girral.	Livingstone Road.	Bland Lachlan Shire Boundary, at Buttenshaws Road Lane.	Travel permitted 1 November to 31 January.
Road train.	Warburtons Lane, Rankins Springs.	MR368 Rankins Springs – Hillston Road.	Monia Gap Road.	Travel permitted 1 November to 31 January.
Road train.	Warrego Street, Weethalle.	HW6 Mid Western Highway.	Wilga Street.	Travel permitted 1 November to 31 January.
Road train.	Weja Road Ungarie.	Kikoira Road.	MR231 Girral – Lake Cargelligo Road.	Travel permitted 1 November to 31 January.
Road train.	Wilga Plains Road, Ungarie.	Crown Camp Road.	Deacons Lane.	Travel permitted 1 November to 31 January.
Road train.	Winnunga Road, Ungarie.	MR231 Girral – Lake Cargelligo Road.	Kikoira Road.	Travel permitted 1 November to 31 January.
Road train.	Yarran Street, Naradhan.	MR371 Rankins Springs – Lake Cargelligo Road.	Budda Road Street.	Travel permitted 1 November to 31 January.
Road train.	Younga Plains Road, Girral.	MR57 Goldfields Way (West Wyalong Condobolin Road).	Wamboyne Road.	Travel permitted 1 November to 31 January.
Road train.	Youngagreen Road, North Yalgogrin.	HW6 Mid Western Highway.	Kikoira Road.	Travel permitted 1 November to 31 January.

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

MURRAY SHIRE COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which 25 metre B-Doubles may be used subject to any requirements or conditions set out in the Schedule.

Dated: 30 September 2010.

GREG MURDOCH, General Manager, Murray Shire Council (by delegation from the Minister for Roads)

# **SCHEDULE**

#### 1. Citation

This Notice may be cited as Murray Shire Council 25 Metre B-Double Route Notice No. 1/2010.

#### 2. Commencement

This Notice takes effect on the date of gazettal.

# 3. Effect

This Notice remains in force until 1st September 2015 unless it is amended or repealed earlier.

# 4. Application

This Notice applies to those 25 metre B-Double vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 2 of the Road Transport (Vehicle Registration) Regulation 2007.

# 5. Routes

Туре	Road Name	Starting Point	Finishing Point
25m.	Aratula Road, Deniliquin.	Conargo Murray Shire Boundary, approx 300m north of Comalla Road.	Dudleys Lane, Comalla.
25m.	Dudley Road, Comalla.	Dudleys Lane.	Tocumwal Road.
25m.	Lower River Road, Comalla.	Tocumwal Road.	Berrigan Conargo Shire Boundary, approx 17km from Tuppal Road.
25m.	Picnic Point Road, Mathoura.	HW21 Cobb Highway.	Approx 1km east of Millewa Road.
25m.	Millewa Road, Mathoura.	Picnic Point Road.	Lower River Road, Comalla.

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

NARRANDERA SHIRE COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which **25 metre B-Doubles** may be used subject to any requirements or conditions set out in the Schedule.

Dated: 30 September 2010.

MARK AMIRTHARAJAH, General Manager, Narrandera Shire Council (by delegation from the Minister for Roads)

#### **SCHEDULE**

#### 1. Citation

This Notice may be cited as Narrandera Shire Council 25 Metre B-Double Route Notice No. 4/2010.

#### 2. Commencement

This Notice takes effect on the date of gazettal.

#### 3. Effect

This Notice remains in force until 1st September 2015 unless it is amended or repealed earlier.

### 4. Application

This Notice applies to those 25 metre B-Double vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 2 of the Road Transport (Vehicle Registration) Regulation 2007.

#### 5. Routes

Туре	Road Name	Starting Point	Finishing Point
25.	Nullong Road, Grong Grong.	HW17 Newell Highway.	AWB property, approx 400m from HW17 Newell Highway.

#### **ROAD TRANSPORT (GENERAL) ACT 2005**

Notice under Clause 20 of the Road Transport (Mass, Loading and Access) Regulation 2005

YOUNG SHIRE COUNCIL, in pursuance of Division 4 of Part 2 of the Road Transport (Mass, Loading, Access) Regulation 2005, by this Notice, specify the routes and areas on or in which 25 metre B-Doubles may be used subject to any requirements or conditions set out in the Schedule.

Dated: 29 September 2010.

PETER VLATKO, General Manager, Young Shire Council (by delegation from the Minister for Roads)

# **SCHEDULE**

# 1. Citation

This Notice may be cited as Young Shire Council 25 Metre B-Double Route Notice No. 2/2010.

### 2. Commencement

This Notice takes effect on the date of gazettal.

# 3. Effect

This Notice remains in force until 1st September 2015 unless it is amended or repealed earlier.

# 4. Application

This Notice applies to those 25 metre B-Double vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 2 of the Road Transport (Vehicle Registration) Regulation 2007.

# 5. Routes

Туре	Road Name	Starting Point	Finishing Point
25m.	Quandialla Road, Bribbaree.	Young Weddin Shire Boundary.	Bribbaree Road.

Road Transport (Mass, Loading and Access) Regulation 2005

Class 2 Road Train Notice 2010

I, Michael Bushby, Chief Executive of the Roads and Traffic Authority, pursuant to Part 2, Division 4 of the Road Transport (Mass, Loading and Access) Regulation 2005, hereby amend the Class 2 Road Train Notice 2010 as published in the *NSW Government Gazette* on 24 September 2010, No. 117 at pages 4671 to 4718 as set out in the Schedule of this Notice.

MICHAEL BUSHBY, Chief Executive, Roads and Traffic Authority

#### **SCHEDULE**

The Class 2 Road Train Notice that was published on 24 September 2010 in *NSW Government Gazette* No. 117 at pages 4671 to 4718 is amended as follows:

- [1] Insert after 2.2 (h):
  - 2.2 (g) a road train that includes a quad axle group.
- [2] Insert after 3.2

# **PART 4 Mass Limits**

- 4.1 Maximum gross mass limits
  - 4.1.1 The maximum gross mass limit for a road train, with an overall length not exceeding 36.5 metres, must not exceed the lowest of:
    - (a) 79.0 tonnes;
    - (b) the sum of the axle and axle group mass limits as determined by Table 1 of Schedule 1 to the Road Transport (Mass, Loading and Access) Regulation 2005;
    - (c) the sum of the manufacturer's mass limits for the prime mover (GVM) and the semi-trailers; or
    - (d) the gross combination mass (GCM) limit specified by the prime mover manufacturer.
  - 4.1.2 The maximum gross mass limit for a road train exceeding 36.5 metres in length, up to 53.5 metres in length must not exceed the lowest of:
    - (a) 115.5 tonnes;
    - (b) the sum of the axle and axle group mass limits as determined by Table 1, Clause 2, Schedule 1 to the Road Transport (Mass, Loading and Access) Regulation 2005;
    - (c) the sum of the manufacturer's mass limits for the prime mover (GVM) and the semi-trailers; or
    - (d) the gross combination mass (GCM) limit specified by the prime mover manufacturer.

# **ROADS ACT 1993**

Notice of Dedication of Land as Public Road at Blacktown in the Blacktown City Council area

THE Roads and Traffic Authority of New South Wales, by its delegate, dedicates the land described in the schedule below as public road under section 10 of the Roads Act 1993.

T D Craig

Manager, Compulsory Acquisition & Road Dedication Roads and Traffic Authority of New South Wales

#### **SCHEDULE**

All those pieces or parcels of land situated in the Blacktown City Council area, Parish of Prospect and County of Cumberland, shown as:

Lot 2 Deposited Plan 1063433; and

Lots 107 to 111 inclusive Deposited Plan 1059635.

(RTA Papers: 9M4049; RO 40.12636)

# **ROADS ACT 1993**

Notice of Dedication of Land as Public Road at Riverstone and Rouse Hill in the Blacktown City Council area

THE Roads and Traffic Authority of New South Wales, by its delegate, dedicates the land described in the schedule below as public road under section 10 of the Roads Act 1993.

T D Craig
Manager, Compulsory Acquisition & Road Dedication
Roads and Traffic Authority of New South Wales

# SCHEDULE

All those pieces or parcels of land situated in the Blacktown City Council area, Parishes of St Matthew and Gidley, County of Cumberland, shown as:

<u>Description</u>	Title Particulars	
Lot 7 Deposited Plan 243803		
Lot 8 Deposited Plan 243803	1	
Lot 9 Deposited Plan 243803		
Lot 10 Deposited Plan 243803	Certificate of Title Volume 4559 Folio 11	
Lot 11 Deposited Plan 243803		
Lot 12 Deposited Plan 243803		
Lot 13 Deposited Plan 243803		
Lot 14 Deposited Plan 243803		
Lot 15 Deposited Plan 243803	Folio Identifier 15 / 243803	
Lot 16 Deposited Plan 243803	Folio Identifier 16 / 243803	
Lot 17 Deposited Plan 243803	Folio Identifier 17 / 243803	
Lot 18 Deposited Plan 243803	Folio Identifier 18 / 243803	
Lot 19 Deposited Plan 243803		
Lot 20 Deposited Plan 243803		
Lot 21 Deposited Plan 243803		
Lot 22 Deposited Plan 243803		
Lot 23 Deposited Plan 243803	Certificate of Title Volume 5506 Folio 212	
Lot 24 Deposited Plan 243803	Certificate of Title volume 3300 Folio 212	
Lot 25 Deposited Plan 243803		
Lot 26 Deposited Plan 243803		
Lot 27 Deposited Plan 243803		
Lot 28 Deposited Plan 243803		
Lot 29 Deposited Plan 243803	Certificate of Title Volume 5506 Folio 211	
Lot 30 Deposited Plan 243803	Certificate of Title Volume 3300 Folio 211	
Lot 31 Deposited Plan 243803		
Lot 32 Deposited Plan 243803		
Lot 33 Deposited Plan 243803	Certificate of Title Volume 4642 Folio 138	
Lot 34 Deposited Plan 243803		
Lot 35 Deposited Plan 243803		
Lot 36 Deposited Plan 243803		
Lot 37 Deposited Plan 243803		
Lot 38 Deposited Plan 243803		
Lot 39 Deposited Plan 243803	Certificate of Title Volume 7824 Folio 26	
Lot 40 Deposited Plan 243803	Certificate of Title Volume 7824 Polio 20	
Lot 41 Deposited Plan 243803		
Lot 42 Deposited Plan 243803		
Lot 1 Deposited Plan 446467	Certificate of Title Volume 4406 Folio 218	
Lot 2 Deposited Plan 1033570	Folio Identifier 2 / 1033570	

(RTA Papers: 9M4049; RO 40.12636)

# Office of Water

# WATER ACT 1912

APPLICATIONS for licences under Part 2, section 10 of the Water Act 1912, within a proclaimed (declared) local area under section 5 (4) has been received as follows:

# Border Rivers Valley

Howard Lindsay HALL for a pump on the Mole River on Lot 58, DP 751542, Parish Woodside, County Clive, for irrigation of 2 hectares (new licence – permanent transfer of existing entitlement) (Reference: 90SL101062).

Christopher Rolfe HOPPE for three pumps on the Deepwater River on Lots 7, 8 and 63, DP 753302, Parish Parkes, County Gough, for irrigation of 31.50 hectares (new licence – permanent transfer of an existing entitlement) (Reference: 90SL101061).

Written objections to the applications specifying grounds thereof may be made by any statutory authority or local occupier within the proclaimed area, whose interests may be affected and must be lodged with the NSW Office of Water, PO Box 486, Moree NSW 2400, within 28 days of the date of publication.

A. COLVIN, Licensing Officer (Moree)

#### WATER ACT 1912

Order under Section 20Z

Repeal of Reduction in Water Allocations Belubula River Catchment Water Source (High Security Entitlements Only)

# Various Entitlements

PURSUANT to section 20Z of the Water Act 1912 ("the Act"), I, George Gates, having delegated authority from the Water Administration Ministerial Corporation, do, by this Order, repeal that part of the order made under section 20Z of the Act dated 29 June 2010 and published in the New South Wales Government Gazette No. 89 by special supplement at page 3140 on 30 July 2010, which reduced water allocations in the Belubula River Catchment water source for High Security entitlements to 50% of entitlement for the 2010/2011 water year. This Order does not repeal any other part of that order.

This Order takes effect upon being published in the *New South Wales Government Gazette* and in a newspaper circulating in the district in which the water source is located.

Dated at Sydney, this 30th day of September 2010.

GEORGE GATES,
Acting Director,
Water Management and Implementation,
NSW Office of Water
Signed for the Water Administration
Ministerial Corporation (by delegation)

#### Note:

- (1) This order allows holders of High Security entitlements to access up to 100% of their water allocation for the 2010/2011 water year.
- (2) This order does not affect the existing restriction in place for holders of General Security entitlements, restricting water allocation to 0% for the 2010/2011 water year.

#### **WATER ACT 1912**

AN application for a licence under Part 2, section 10 of the Water Act 1912, for works within a proclaimed (declared) local area under section 5 (4) has been received as follows:

# Macquarie River Valley

Jacqueline Lorraine REES for 1 x bywash dam and 1 x 50mm centrifugal pump on an unnamed watercourse, Lot 22, DP 1091118, Parish Burrabadine, County Narromine, for stock and domestic purposes (new licence) (Reference: 80SL96344).

Written objections to the applications specifying the grounds thereof may be made by any statutory authority or local occupier within the proclaimed local area whose interests may be affected and must be lodged with the NSW Office of Water, PO Box 717, Dubbo NSW 2830, within 28 days of the date of publication.

R. WHEATLEY, A/Licensing Manager (Macquarie-Western)

#### **WATER ACT 1912**

APPLICATIONS under Part 8 of the Water Act 1912, being within a proclaimed (declared) local area have been received as follows:

# Namoi River Valley

David Stanley DUDDY and OTHERS for controlled works consisting of levees, supply channels and earthen storages on the Lower Namoi Floodplain on Lots 29 and 37, DP 750268, Parish Dangar, County Baradine, on the property known as "Keelendi" for prevention of inundation of land by floodwater and irrigation development on the floodplain (new approval) (Reference: 90CW810814).

David Stanley DUDDY and OTHERS for controlled works levees, supply channels and earthen storages on the Lower Namoi Floodplain on Lots 37, 39, 42 and 49, DP 750268, Parish Dangar, County Baradine, on the property known as "Keelendi" for prevention of inundation of land by floodwater and irrigation development on the floodplain (new approval) (Reference: 90CW810779).

Written objections to the applications specifying the grounds thereof must be lodged with the NSW Office of Water, PO Box 382, Narrabri NSW 2390, within 28 days of the date of publication.

R. ALBERT, Licensing Officer (Narrabri)

# **WATER ACT 1912**

AN application for a part replacement licence under section 10 of the Water Act 1912, as amended, has been received from:

Graham Stuart BILBE for a pump on unnamed watercourse on Lot 1, DP 707991, Parish Walibree, County Maquarie, for irrigation of 10 hectares (new licence – 10ML allocation by way of permanent transfer) (Reference: 30SL067118).

Written and signed objections specifying the grounds for the objection must be lodged with the NSW Office of Water, Locked Bag 10, Grafton NSW 2460, within 28 days of the date of publication.

> K. DIGHTON, Licensing Officer (Grafton)

# **Other Notices**

# ASSOCIATIONS INCORPORATION ACT 2009

Reinstatement of Cancelled Association Pursuant to Section 84

THE incorporation of LAKESIDE QUILTERS INCORPORATED (INC9876346) cancelled on 11 July 2008 is reinstated pursuant to section 84 of the Associations Incorporation Act 2009.

Dated: 6 October 2010.

ANTHONY DONOVAN, A/Manager, Financial Analysis, Registry of Co-operatives & Associations, NSW Fair Trading

# **CONTAMINATED LAND MANAGEMENT ACT 1997**

Environment Protection Authority
Notice to End Significantly Contaminated Land
Declaration

(Section 44 of the Contaminated Land Management Act 1997)

Notice Number 20104405; Area Number 3363

# Background

The land to which this notice applies was declared as "significantly contaminated land" (declaration no. 21015). The proponent carried out groundwater and vapour monitoring works on the land. The monitoring has been completed and the results have been made available to the EPA\*.

# Repeal

Having reviewed the results of the monitoring, the EPA is satisfied that it no longer has reason to believe that the land to which this notice applies is contaminated and that the contamination is significant enough to warrant regulation under the Act.

Pursuant to section 44 of the Contaminated Land Management Act 1997, Declaration of significantly contaminated land number 21015, dated 20 November 2002, gazetted on 22 November 2002, ceases to be in force on the date on which this notice is signed in so far as the Declaration apply to the land to which this notice applies.

Land to which this notice applies

Description	Address
That section of Lots 4 and 5 in Deposited Plan 1080653, in the local government area of Wollongong.	46 to 58 Montague Street, Fairy Meadow NSW
That part of Montague Street which adjoins Lots 4 and 5 that is impacted by contaminated groundwater.	

Date: 1 October 2010.

NIALL JOHNSTON, Manager, Contaminated Sites, Department of Environment, Climate Change and Water

# NOTE:

Information recorded by the EPA

Section 58 of the Contaminated Land Management Act 1997 requires the EPA to maintain a public record. A copy of this notice will be included in the public record.

Information recorded by councils

Section 59 of the Act requires the EPA to give a copy of this notice to the relevant local council. The council may then make appropriate consequential modifications to the planning certificate issued in relation to the land to which this notice applies pursuant to section 149 of the Environmental Planning and Assessment Act 1979.

Relationship to other regulatory instrument

This repeal notice does not affect the provisions of any relevant environmental planning instruments which apply to the land or provisions of any other environmental protection legislation administered by the EPA.

Previous regulatory instrument

As of 1 July 2009, all current declarations for investigation area or declarations for remediation sites are taken to be declarations for significantly contaminated land, all current orders for investigation area and orders for remediation site are taken to be management orders and all current voluntary investigation and remediation agreements are taken to be voluntary management proposals.

\* The DECCW exercises certain statutory powers in the name of the EPA.

#### **CORPORATIONS ACT 2001**

Notice Under Section 601AC (2) of the Corporations Act 2001 as Applied by Section 64 of the Associations Incorporation Act 2009

NOTICE is hereby given that the incorporated association mentioned below will be deregistered when three months have passed since the publication of this notice:

Holy Cross After School Care Incorporated (in liquidation) Y2326239

Dated this fifth day of October 2010.

A. DONOVAN, Delegate of the Registrar of Co-Operatives

# **CORPORATIONS ACT 2001**

Notice Under Section 601AC (2) of the Corporations Act 2001 as Applied by Section 64 of the Associations Incorporation Act 2009

NOTICE is hereby given that the Incorporated Association mentioned below will be deregistered when three months have passed since the publication of this notice:

The Penrith Hockey Centre Incorporated (in liquidation) Y1297905

Dated this fifth day of October 2010.

A. DONOVAN, Delegate of the Registrar of Co-operatives

# **ELECTRICITY (CONSUMER SAFETY) ACT 2004**

#### Order Under Section 5

- I, Peter Duncan, Director General of the Department of Services, Technology and Administration:
  - (1) revoke, on and from the date on which this Order is published in the *New South Wales Government Gazette*, the Order dated 9 April 2009 published in the *New South Wales Government Gazette* of 24 April 2009, No. 65 at page 1816; and
  - (2) pursuant to sections 5 (2) and 5 (3) of the Electricity (Consumer Safety) Act 2004 by this Order, declare the electrical articles of a class described in Schedule 1 to be, on and from the date on which this Order is published in the *New South Wales Government Gazette*, declared electrical articles for the purposes of Part 2 of the Electricity (Consumer Safety) Act 2004 and the specifications, including modifications, specified in Schedule 1 to be those applicable to electrical articles of that class.

Signed this 6th day of October 2010.

PETER DUNCAN,
Director General,
Department of Services, Technology
and Administration

# SCHEDULE 1

# **Declared Electrical Articles**

#### Interpretation:

In this schedule a reference to:

AS/NZS 3350.1 means AS/NZS 3350.1:2002 with amendments 1 to 4;

AS/NZS 60335.1 means AS/NZS 60335.1:2002 with amendments 1 to 3:

AS/NZS 3100 means AS/NZS 3100:2009;

AS/NZS 60745.1 means AS/NZS 60745.1:2009 or AS/NZS 60745.1: 2003. The 2009 edition will supersede AS/NZS 60745.1:2003 and its amendments after all of the Parts 2 of that standard have been superseded.

AS/NZS 60598.1 means AS/NZS 60598.1:2003;

AS/NZS 61347.1 means AS/NZS 61347.1:2002

AS/NZS 61535.1 means AS/NZS 61535.1:2003

AS/NZS 61558.1 means AS/NZS 61558.1:2000 with amendments 1 to 6 (until 30 May 2011) or AS/NZS 61558.1:2008;

- APPLIANCE CONNECTOR an electrical device which
  - (a) is for attachment to a flexible cord; and
  - (b) makes a detachable connection between the conductors of the cord and the pins or contacts of any low voltage appliance or equipment of a type intended or generally used for household applications;

but does not include -

- (c) a connector within the scope of AS/NZS 3123; or
- (d) a plug or socket-outlet within the scope of AS/NZS 3131; or
- (e) an installation coupler within the scope of AS/NZS 61535.1

Class specification:

Appliance connector –

AS/NZS 60320.1:2004.

Plug connector –

AS/NZS 60320.1:2004 and AS/NZS 60320.2.2:2004

- ARC WELDING MACHINE an electrical appliance which
  - (a) is for use in the electric arc welding process;
  - (b) is for connection to single phase low voltage supply;
  - (c) is fitted with a flexible cord and plug rated at not more than 16 A;
  - (d) can easily be moved from one place to another while it is connected to supply; and
  - (e) has, for GMAW (gas metal arc welding), GTAW (gas tungsten arc welding), and FCAW (flux cored arc welding) machines, a 100% output rating not exceeding 65 A.

The 100% rating is calculated from the square root of the marked duty cycle expressed in decimal form multiplied by the marked output current associated with the duty cycle in amperes;

but does not include -

(f) an arc welding machine promoted exclusively to industry.

# Class specification:

AS/NZS 60974.6:2006

- BAYONET LAMPHOLDER an electrical device which
  - (a) accommodates a lamp with a bayonet cap of 15 mm or 22 mm nominal diameter;

but does not include -

- (b) a lampholder which by design is restricted to specific appliances; or
- (c) a lampholder which is for incorporation in industrial equipment only.

Class specification:

AS/NZS 3100 and AS/NZS 3117: 2007 (until 30 December 2016); or

AS/NZS 61184:2007

- 4. BAYONET LAMPHOLDER ADAPTOR an electrical device which
  - (a) is for insertion into a B22 bayonet lampholder; and
  - (b) is for connection to a flexible cord; or
  - (c) has one or more lampholders.

# Class specification:

AS/NZS 3100 and AS 3119:1994.

- 5. BLANKET an electrical appliance which
  - (a) is for the application of heat to a bed;
  - (b) is flexible;
  - (c) has a fabric enclosure; and
  - (d) has a projected surface area exceeding 0.6 square metres:

and includes -

(e) any associated power supply or controller.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.17:2000 with amendments 1 to 3 (until 31 May 2011); or

AS/NZS 60335.1 and AS/NZS 60335.2.17:2004 with amendment 1 to 2.

- 6. BREAD TOASTER an electrical appliance which
  - (a) is a household type; and
  - (b) is for toasting bread or similar foods.

#### Class specification:

AS/NZS 60335.1 and AS/NZS 60335.2.9:2002 with amendments 1 to 4. (until 29/05/2011).

AS/NZS 60335.2.9: 2009

- 7. CLOTHES DRYER an electrical appliance which
  - (a) is a household type; and
  - (b) is for drying textile material.

but does not include -

(c) a heated towel rail

# Class specification:

Rotary type -

AS/NZS 3350.1 and AS/NZS 3350.2.11:2001 with amendment 1 (until 22 November 2009) or

AS/NZS 60335.1 and AS/NZS 60335.2.11:2002 with amendments 1 and 2 (until 29 May 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.11: 2009

#### Cabinet type -

AS/NZS 3350.1 and AS/NZS 3350.2.43:2001 with amendments 1 and 2 (until 17 June 2012) or

AS/NZS 60335.1 and AS/NZS 60335.2.43:2005 with amendment 1 and 2.

- 8. CONTROL OR CONDITIONING DEVICE an electrical device which
  - (a) is a household type;
  - (b) is for automatically controlling or conditioning the electrical input to electrical apparatus;
  - (c) is self contained; and
  - (d) connects to supply by means of a flexible cord and plug, appliance inlet or pins for engagement with a socket-outlet.

# Class specification:

AS/NZS 3100 and AS/NZS 3197:2005 with amendment 1.

- 9. COOKING APPLIANCE PORTABLE TYPE an electrical appliance which
  - (a) is a household type;
  - (b) is for cooking or warming food by electrical energy;
  - (c) is portable.

# Class specification:

Griller, roaster or oven (including breadmaker) –

AS/NZS 60335.1 and AS/NZS 60335.2.9:2002 with amendments 1 to 4. (until 29/05/2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.9: 2009

#### Warming plate and similar –

AS/NZS 3350.1 and AS/NZS 3350.2.12:1997 with amendments 1 to 3 (until 31 May 2011); or

AS/NZS 60335.1 and AS/NZS 60335.2.12:2004 with amendment1.

Frying pan, deep fryer or wok -

AS/NZS 3350.1 and AS/NZS 3350.2.13:2001 with amendment 1 (until 31 May 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.13:2004 with amendments 1 and 2.

#### Outdoor barbecue -

AS/NZS 3350.1 and AS/NZS 3350.2.78:1996 with amendments 1 to 3 (until 17 June 2012) or

AS/NZS 60335.1 and AS/NZS 60335.2.78:2005 with amendment 1-2.

- CORD EXTENSION SOCKET an electrical device which –
  - (a) is for attachment to a flexible cord;
  - (b) has a maximum rating of 20 A at low voltage; and
  - (c) has contacts whereby a detachable connection may be made with the corresponding pins of a plug or an inlet;

but does not include -

- (d) a connector or appliance connector designated in AS/NZS 3123; or
- (e) a socket outlet designated in AS/NZS 3131.
- (f) an installation coupler designated in AS/NZS 61535.1

#### Class specification:

AS/NZS 3100 and AS/NZS 3120:1999.

- 11. CORD-LINE SWITCH an electrical device which
  - (a) is for attachment in a flexible cord;
  - (b) manually opens and closes an electrical circuit; and
  - (c) has a rating not exceeding 16 A at low voltage;

but does not include –

(d) bell push and pendant switches.

AS/NZS 3100 and AS/NZS 3127:2005.

- 12. DECORATIVE LIGHTING OUTFIT an electrical appliance which
  - (a) is for decorative, display or illumination purposes;
  - (b) is portable;

Class specification:

- (c) consists of -
  - (i) lamps (including Light Emitting Diode "LED" types) or lampholders interconnected by flexible cord of less than 2.5 mm<sup>2</sup>cross-sectional area; or
  - (ii) lamps (including Light Emitting Diode "LED" types) within a flexible enclosure; and
- (d) may be integral with a frame or similar support; and includes –
- (e) any integral power supply or control device.

# Class specification:

AS/NZS 60598.1 and AS/NZS 60598.2.20:2002.

- 13. DISHWASHING MACHINE an electrical appliance which
  - (a) is a household type; and
  - (b) is for washing of eating or cooking utensils.

# Class specification:

AS/NZS 60335.1 and AS/NZS 60335.2.5:2002 with amendment 1-3.

- 14. EDISON SCREW LAMPHOLDER an electrical device which
  - (a) accommodates a lamp with an Edison screw cap of 14 mm or 27 mm nominal outside diameter;

but does not include -

- (b) a lampholder which by design is restricted to specific appliances; or
- (c) a lampholder which is for incorporation in industrial equipment only.

# Class specification:

AS/NZS 3100 and AS/NZS 3140:2007 (until 30 December 2016) or AS/NZS 60238:2007.

- 15. FAN an electrical appliance which
  - (a) is a household type;
  - (b) has a primary function of moving air in its vicinity for comfort or extraction purposes; and
  - (c) is self-contained;

and includes -

(d) any associated ancillary equipment.

# Class specification:

- AS/NZS 3350.1 and AS/NZS 3350.2.80:1998 with amendments 1 to 4 (until 15 October 2011) or AS/NZS 60335.1 and AS/NZS 60335.2.80:2004 with Amdt 1.
- 16. FENCE ENERGISER an electrical appliance which regulates and controls the supply of electrical energy to an electric fence.

#### Class specification:

AS/NZS 60335.1 and AS/NZS 60335.2.76:2003 with amendment 1.

- 17. FLEXIBLE HEATING PAD an electrical appliance which
  - (a) is for application of heat to parts of the human body;
  - (b) is in the form of a flexible pad; and
  - (c) has a projected area not exceeding 0.6 square metres.

# Class specification:

Foot warmer and foot mat -

AS/NZS 3350.1 and AS/NZS 3350.2.81:1998 with amendments 1 and 2 (until 20 October 2013) or AS/NZS 60335.1 and AS/NZS 60335.2.81:2006 with amendment 1

#### Other –

AS/NZS 3350.1 and AS/NZS 3350.2.17:2000 with amendments 1 to 3 (until 31 May 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.17:2004 with amendment 1-2.

- 18. FLOOR POLISHER/SCRUBBER an electrical appliance which
  - (a) is a household type; and
  - (b) is used to polish or scrub floors.

#### Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.10:1996 with amendments 1 to 3 (until 23 June 2013) or

AS/NZS 60335.1 and AS/NZS 60335.2.10:2006 with amendment 1

- FLUORESCENT LAMP BALLAST an electrical device which
  - (a) is for controlling the magnitude of current flowing through the discharge path of a fluorescent lamp;
  - (b) is of the independent or built-in type intended for use with luminaires (portable or fixed); or
  - (c) is of the integral type, rated at 60 watts or less, such that it forms a non-replaceable part of a fluorescent lamp/ballast combination; or
  - (d) is of the adaptor type such that it allows the insertion of a fluorescent lamp into the ballast by the user;

and includes -

(e) any capacitor incorporated in or supplied with the ballast;

but does not include -

(f) a ballast which is incorporated in luminaires certified for compliance with the requirements for electrical equipment with increased safety type protection (Ex e) for use in hazardous locations.

# Class specification:

Integral (self ballasted lamp) magnetic and electronic types –

AS/NZS 60968:2001.

Other magnetic type -

AS/NZS 61347.1and AS/NZS 61347.2.8:2003.

Other electronic type -

AS/NZS 6137.1 and AS/NZS 61347.2.3:2004.

- 20. FLUORESCENT LAMP STARTER an electrical device which
  - (a) is for starting preheat type fluorescent lamps;
  - (b) is a glow-start type; and
  - (c) has an enclosure of insulating material.

#### Class specification:

AS/NZS 60155:2000 (Section 1) with amendments 1 and 2.

- HAIR CARE APPLIANCE an electrical appliance which –
  - (a) is a household type or a commercial hand-held type;
  - (b) is for drying, styling or the caring of human hair.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.23:2001 with amendments 1 to 4 (until 31 May 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.23:2004 with amendment 1.

For hair straighteners only –

- (a) the approval period is limited to 2 (Two) years,
- (b) the test report must indicate testing carried out no more than 12 months prior to application date,
- (c) and, the test report must clearly identify the model number and brand name or the manufacturer must provide a clear and concise statement that clarifies any deviation from the report details.
- 22. HEDGE CLIPPER an electrical appliance which
  - (a) is for trimming hedges; and
  - (b) is hand held.

# Class specification:

AS/NZS 60745.1 and AS/NZS 60745.2.15:2006.

- 23. IMMERSION HEATER an electrical appliance which
  - (a) is a household type;
  - (b) is for heating liquid in which it may be immersed; and
  - (c) is self contained;

and includes -

(d) aquarium type immersion heaters.

#### Class specification:

# Aquarium type -

AS/NZS 3350.1 and AS/NZS 3350.2.55:1998 with amendments 1 to 3 (until 15 October

2011) or AS/NZS 60335.1 and AS/NZS 60335.2.55:2004 with amendment 1-2.

# Portable (other than aquarium) type -

AS/NZS 3350.1 and AS/NZS 3350.2.74:2001 with amendment 1 (until 17 June 2012) or

AS/NZS 60335.1 and AS/NZS 60335.2.74:2005 with amendment 1.

# Fixed type -

AS/NZS 3350.1 and AS/NZS 3350.2.73:1996 with amendments 1 to 3 (until 17 June 2012) or

AS/NZS 60335.1 and AS/NZS 60335.2.73:2005 with amendment 1.

- 24. INSECT ELECTROCUTOR an electrical appliance which
  - (a) is a household type; and
  - (b) kills insects by the application of electrical energy.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.59:1999 with amendments 1 to 3 (until 17 June 2012) or

AS/NZS 60335.1 and AS/NZS 60335.2.59:2005 with amendment 1 and 2.

- 25. INSPECTION HANDLAMP an electrical appliance which
  - (a) is for inspection purposes using illumination;
  - (b) holds an incandescent or discharge lamp; and
  - (c) is hand held;

but does not include -

(d) handlamps with a magnification facility.

#### Class specification:

AS/NZS 60598.1 and AS/NZS 60598.2.8:2002.

- 26. IRON an electrical appliance which
  - (a) is a household type;
  - (b) is for smoothing or pressing fabric by the application of heat or steam; and
  - (c) is hand held except for any separate steam generator; and includes –
  - (d) any associated equipment.

#### Class specification:

# Fabric steamer –

AS/NZS 3350.1 and AS/NZS 3350.2.85:1998 with amendments 1 and 2 (until 17 June 2012) or

AS/NZS 60335.1 and AS/NZS 60335.2.85:2005.

#### Other –

AS/NZS 60335.1 and AS/NZS 60335.2.3:2002 with amendment 1-2.

- 27. KITCHEN MACHINE an electrical appliance which -
  - (a) is a household type;
  - (b) is for the preparation of food by mechanical means; or
  - (c) is for opening cans; or
  - (d) is for sharpening of knives.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.14:1995 with amendments 1 to 4 (until 25 May 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.14:2007 with amendment 1.

- 28. LAWN CARE APPLIANCE an electrical appliance which
  - (a) is a household type; and
  - (b) is for cutting grass or lawn.

#### Class specification:

# Mower -

AS/NZS 60335.1 and AS/NZS 60335.2.77:2002 with amendment 1.

Trimmer (with non-metallic filament line or cutter/s) – AS/NZS 60335.1 and AS/NZS 60335.2.91:2002 with amendments 1 and 2 (until 31 October 2010) or AS/NZS 60335.1 and 60335.2.91:2008 with amendment 1

# Trimmer (other) –

AS/NZS 60335.2.91:2008 with amendment 1.

#### Grass Shears:

AS/NZS 60335.2.94 : 2002 (until 31 October 2010) AS/NZS 60335.2.94 : 2008

- 29. LIQUID HEATING APPLIANCE an electrical appliance which
  - (a) is a household type;
  - (b) is portable;
  - (c) has a capacity not exceeding 10L; and
  - (d) heats liquid for:
    - (i) humidifying room air; or
    - (ii) use in or as, a hot beverage; or
    - (iii) cooking.

# Class specification:

# Humidifier –

AS/NZS 3350.1 and AS/NZS 3350.2.98:1998 with amendments 1 and 2 (until 17 June 2012) or

AS/NZS 60335.1 and AS/NZS 60335.2.98:2005 with amendment 1.

#### Other -

AS/NZS 60335.1 and AS/NZS 60335.2.15:2002 with amendments 1 to 3.

- 30. LUMINAIRE PORTABLE TYPE an electrical appliance which
  - (a) is a household type;
  - (b) provides illumination or for decorative purposes, produces light;

- (c) is fitted with a supply flexible cord, an appliance inlet socket or a power supply unit with integral pins for insertion into a socket outlet;
- (d) is for standing on a table or floor or is fitted with a clamp or similar for attachment to vertical or horizontal surfaces;
- (e) is for use with tungsten filament, tubular fluorescent or other discharge lamps; and
- (f) is constructed to represent a model, person or animal and by its design and materials is likely to be treated by a child as a toy; or
- (g) has metal parts which are required to be earthed or double insulated from live parts (excluding live parts of an all insulated lampholder).

# Class specification:

Child appealing type (refer to clause (f)) –

AS/NZS 60598.1 and AS/NZS 60598.2.10:1998.

AS/NZS 60598.2.10:1998 is modified to deem luminaires to be of class III construction where they are permanently connected to an approved safety extra-low voltage source and that source is separated from the child appealing part by at least 2m.

Type fitted with a built-in transformer or convertor – AS/NZS 60598.1 and AS/NZS 60598.2.6:1998.

Floodlight -

AS/NZS 60598.1 and AS/NZS 60598.2.5:2002.

Other -

AS/NZS 60598.1 and AS/NZS 60598.2.4: 2005 with amendment 1.

- MASSAGE APPLIANCE an electrical appliance which
  - (a) is a household type;
  - (b) is for massaging the human body;
  - (c) is portable; and
  - (d) is self-contained.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.32:2001 with amendment 1 (until 3 September 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.32:2004 with amendment 1.

- 32. MICROWAVE OVEN an electrical appliance which
  - (a) is a household type; and
  - (b) applies heat to food, liquid or other substances in a chamber by means of high frequency electromagnetic radiation.

#### Class specification:

AS/NZS 60335.1 and AS/NZS 60335.2.25:2002 with amendments 1 to 4.

- 33. MINIATURE OVERCURRENT CIRCUIT-BREAKER

   an electrical device which
  - (a) is an enclosed air-break switch;
  - (b) opens a low voltage circuit automatically under pre-determined conditions of overcurrent;
  - (c) has a nominal rating not exceeding 125 A; and has
    - (i) a current breaking capacity up to but not including 10 kA;

and/or

(ii) a projected panel mounting area not exceeding 4000 square millimetres per pole;

but does not include -

(d) miniature overcurrent circuit-breakers as defined but which are intended and marked as being only for use in industrial application.

# Class specification:

AS 3111 : 2009 or AS/NZS 60898.1:2004 and 60898.2:2004.

- 34. OUTLET DEVICE an electrical device which
  - (a) is a household type;
  - (b) as its primary function, extends supply from a socket-outlet;
  - (c) is portable;
  - (d) incorporates facilities for the insertion of a plug or plugs; and
  - (e) has a rating not exceeding 20 A;

but does not include -

(f) a cord extension set.

# Class specification:

Integral pin type (including travel adaptor) –

AS/NZS 3100 and AS/NZS 3122:2005.

AS/NZS 3122:2005 is modified to preclude types that can be rewired by the user.

Other -

AS/NZS 3100 and AS/NZS 3105:2007 with amendment 1.

- 35. PLUG an electrical device which
  - (a) makes a detachable connection between the contacts of a socket-outlet and the conductors of a flexible cord;
  - (b) has two, three or four pins for insertion into a socketoutlet; and
  - (c) has a rating not exceeding 20A;

but does not include –

- (d) a plug which is within the scope of AS/NZS 3123:1994 with amendment 1 and is intended for industrial use; or
- (e) a plug which is within the scope of AS/NZS 3131:2001.

# Class specification:

AS/NZS 3100 and AS/NZS 3112: 2004 with amendment 1.

- 36. POWER SUPPLY OR CHARGER an electrical appliance which
  - (a) provides an output not exceeding 50 volts a.c. or 120 volts ripple free d.c.; and
  - (b) is a type to provide supply to separate luminaires; or
  - (c) is a household type for either charging batteries or to provide a supply to separate equipment.

# Class specification:

Power supply for general use -

AS/NZS 61558.1 and AS/NZS 61558.2.6 : 2001 A1 (until 30/10/2012); or

AS/NZS 61558.1 and AS/NZS 61558.2.6:2009

Power supply (electronic or transformer types) designated for use with specific electronic equipment –

AS/NZS 60065 : 2003 with amendment 1; or AS/NZS 60950.1:2003 with amendments 1 to 3; or AS/NZS 61558.1 and AS/NZS 61558.2.16: 2010

Power supply for toys –

AS/NZS 61558.1 and AS/NZS 61558.2.7:2001 (until 31 October 2010); or

AS/NZS 61558.1:2008 and 61558.2.7:2008.

Power supply for bells or chimes –

AS/NZS 61558.1 and AS/NZS 61558.2.8:2001.

Power supply for lighting purposes –

Electronic Type:

LED modules: AS/NZS 61347.1 and IEC 61347.2.13 edition 1.0

Other: AS/NZS 61347.1 and AS/NZS 61347.2.2:2007. Ferromagnetic Type: AS/NZS 61558.2.6: 2009

Power supply for Handlamps –

AS/NZS 61558.1 and AS/NZS 61558.2.9:2003.

Battery charger -

AS/NZS 3350.1 and AS/NZS 3350.2.29:2001with amendment 1 (until 31 May 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.29:2004 with amendment 1.

- 37. PROJECTOR an electrical appliance which
  - (a) is a household type; and
  - (b) is for projecting an image from a photographic slide or moving film.

#### Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.56:1998 with amendments 1 to 3 (until 23 June 2013) or

AS/NZS 60335.1 and AS/NZS 60335.2.56:2006 with amendment 1.

- 38. RANGE an electrical appliance which -
  - (a) is a household type;
  - (b) is for cooking food using heat produced by electrical energy; and
  - (c) is stationary.

# Class specification:

AS/NZS 60335.1 and AS/NZS 60335.2.6:2008 with amendment 1-3.

- 39. RANGE HOOD an electrical appliance which
  - (a) is a household type;
  - (b) collects and/or filters air; and
  - (c) is for installation above a cooking appliance.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.31:2001 with amendments 1 and 2 (until 15 October 2011) or AS/NZS 60335.1 and 60335.2.31:2004 with amendments 1-3

- RAZOR/HAIR CLIPPER an electrical appliance which –
  - (a) is a household type; and
  - (b) shaves, cuts or trims human hair.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.8:1995 with amendments 1 to 3 (until 31 May 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.8:2004 with amendment 1-2.

- 41. REFRIGERATOR/FREEZER an electrical appliance which
  - (a) is a household type; and
  - (b) cools and stores food.

#### Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.24:2001 with amendment 1 (until 14 November 2010) or

AS/NZS 60335.1 and AS/NZS 60335.2.24:2003 with amendments 1 to 3.

- 42. RESIDUAL CURRENT DEVICE an electrical device which
  - (a) isolates or initiates a tripping signal to isolate a lowvoltage supply to protected circuits, sockets-outlets or equipment in the event of a current flow to earth which exceeds a pre-determined level;
  - (b) has a rated residual current not exceeding 300 mA for devices intended for connection to fixed wiring or 30 mA for other devices; and
  - (c) has a rated load current not exceeding 125 A for devices intended for connection to fixed wiring or 20 A for other devices;

but does not include -

- (d) a device intended to be used with a particular circuit-breaker other than a miniature overcurrent circuit-breaker; or
- (e) a device intended to protect an electricity supply authority distribution system; or
- (f) a device covered by AS 2081 and intended for mines use.

#### Class specification:

Without integral overcurrent protection – AS/NZS 61008.1:2004 or AS3190:2009

With integral overcurrent protection –

AS/NZS 61009.1:2004 with amendment 1 or; AS/NZS 3190:2009 and AS3111-2009

Type 'B' and 'F' devices: IEC 62423

Type SPE - PRCDs: IEC62355

- 43. ROOM HEATER an electrical appliance which -
  - (a) is a household type; and
  - (b) is for heating, by electrical energy, the atmosphere for comfort purposes;

and includes -

(c) an appliance that accommodates one or more heatlamps;

but does not include -

- (d) an air-conditioning appliance;
- (e) a heating system that is intended to heat the atmosphere of a room primarily by raising the temperature of any floor, wall or ceiling area; or
- (f) an under-carpet heating system.

# Class specification:

Thermal storage type –

AS/NZS 3350.1 and AS/NZS 3350.2.61:2001 with amendment 1 (until 17 June 2012) or

AS/NZS 60335.1 and AS/NZS 60335.2.61:2005 with amendment 1.

#### Other -

AS/NZS 3350.2.30 : 2007 A1 (until 29 October 2009) AS/NZS 60335.1 and AS/NZS 60335.2.30:2009

- 44. SEWING MACHINE an electrical appliance which
  - (a) is a household type; and
  - (b) is for stitching fabric or other material.

#### Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.28:1996 with amendments 1 to 3 (until 23 June 2013) or

AS/NZS 60335.1 and AS/NZS 60335.2.28:2006 with amendment 1.

- 45. SOCKET-OUTLET an electrical device which
  - (a) is for fixing at a point at which fixed wiring terminates;
  - (b) provides a detachable connection with the pins of a plug;
  - (c) has two, three or four contacts; and
  - (d) has a rating not exceeding 20A.;

but does not include -

(e) an outlet within the scope of AS/NZS 3123 or AS/ NZS 3131 or AS/NZS 61535.

# Class specification:

AS/NZS 3100 and AS/NZS 3112:2004 with amendment 1

- 46. SOLDERING IRON an electrical appliance which
  - (a) is for the application or removal of solder; and
  - (b) is hand held;

and includes -

- (c) any integral or associated power supply or controller; but does not include –
- (d) a soldering iron promoted exclusively to industry.

#### Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.45:1997 with amendments 1 to 3 (until 15 October 2011) or AS/NZS 60335.1 and AS/NZS 60335.2.45:2004 with amendment 1.

- 47. SUPPLY FLEXIBLE CORD an electrical cord which
  - (a) is unscreened and flexible;
  - (b) is designed for use at low voltage;
  - (c) consists of two or three elastomer or PVC insulated cores of multistrand construction;
  - (d) has a cross-sectional area of each conductor not exceeding 2.5 square millimetres; and
  - (e) has for other than tinsel cords, individual wire strandings not exceeding
    - (i) 0.21 mm for conductor sizes up to 1 square millimetre; or
    - (ii) 0.26 mm for conductor sizes exceeding 1 square millimetre;

but does not include -

(f) a flexible cord directly connected to equipment or approved non-rewirable accessories which is marked in accordance with the CENELEC HAR marking scheme for flexible cords.

# Class specification:

AS 3191:2008; or

AS/NZS 60227.5:2003 with amendment 1 (PVC); or AS/NZS 60245.4:2003 with amendment 1 (Rubber).

- 48. SWIMMING POOL OR SPA EQUIPMENT an electrical appliance or device
  - (a) that is a transportable spa pool or transportable spabath, or
  - (b) that is for circulating air or water in a conventional bath; or
  - (c) that is for use in the operation or cleaning of a swimming pool, non-transportable spa pool or non-transportable spa-bath.

but does not include -

- (d) an appliance or device exclusively promoted for commercial use; or
- (e) a heat pump

#### Class specification:

#### Pump -

AS/NZS 3350.1 and AS/NZS 3350.2.41:1997 with amendments 1 to 3 (until 15 October 2011); or AS/NZS 60335.1 and AS/NZS 60335.2.41:2004.

Spa pool, Spa bath or an appliance intended to circulate air or water in a conventional bath –

AS/NZS 3350.1 and AS/NZS 3350.2.60:2000 with amendments 1 to 4 (until 24 March 2013) or

AS/NZS 60335.1 and AS/NZS 60335.2.60:2006 with amendment 1.

#### Other -

AS/NZS 3100 and AS/NZS 3136:2001 with amendments 1 and 2.

- 49. TELEVISION RECEIVER an electrical appliance which
  - (a) is for household use;
  - (b) is for the display of public or subscription television broadcasts; and
  - (c) incorporates a single cathode ray picture tube.

#### Class specification:

AS/NZS 60065: 2003 A1

- THERAPEUTIC LAMP an electrical appliance which
  - (a) is a household type;
  - (b) produces ultraviolet or infra-red radiation for personal, therapeutic or cosmetic purposes; and
  - (c) is portable.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.27:1996 with amendments 1 to 3 (until 31 May 2011) or

AS/NZS 60335.1 and AS/NZS 60335.2.27:2004 with amendments 1 and 2.

- TOOL PORTABLE TYPE an electrical appliance which
  - (a) is for machining, drilling, sawing or surface preparation; and
  - (b) may be entirely supported by hand during operation; but does not include –
  - (c) a tool, portable type, promoted exclusively to industry.

# Class specification:

Drill -

AS/NZS 60745.1 and AS/NZS 60745.2.1:2003 (until 29 May 2011)

AS/NZS 60745.1 and AS/NZS 60745.2.1:2009

Sander or polisher (other than disk types) –

AS/NZS 60745.1 and AS/NZS 60745.2.4:2003.(until 29 May 2011)

AS/NZS 60745.1 and AS/NZS 60745.2.4: 2009

Circular saw -

AS/NZS 60745.1 and AS/NZS 60745.2.5:2007 with amendment 1

Jig or sabre saw -

AS/NZS 60745.1 and AS/NZS 60745.2.11:2003 (until 29 May 2011)

AS/NZS 60745.1 and AS/NZS 60745.2.11: 2009

Planer -

AS/NZS 60745.1 and AS/NZS 60745.2.14:2003 with amendment 1

Router -

AS/NZS 60745.1 and AS/NZS 60745.2.17:2003.

Grinder, polisher and disk type sander –

AS/NZS 60745.1 and AS/NZS 60745.2.3:2006 (until 29 May 2011)

AS/NZS 60745.1 and AS/NZS 60745.2.3: 2009

Chain saw -

AS/NZS 60745.1 and AS/NZS 60745.2 13:2006.

Jointer -

AS/NZS 60745.1 and AS/NZS60745.2 19:2005.

Other part 2s in AS/NZS 60745 Series, when published: AS/NZS 60745.1 plus the appropriate AS/NZS 60745 Series Part 2.

Other: AS/NZS 3100 and AS/NZS 3160: 2009

- 52. VACUUM CLEANER an electrical appliance which
  - (a) is a household type;
  - (b) is portable; and
  - (c) removes dust, dirt or moisture and the like from floor coverings by suction; or
  - (d) removes garden refuse from lawns or paths and the like by suction.

# Class specification:

Hand held garden type -

AS/NZS 3350.1 and AS/NZS 3350.2.2:2001 with amendment 1 (until 14 November 2010);or

AS/NZS 60335.1 and AS/NZS 60335.2.100:2003

Other -

AS/NZS 3350.1 and AS/NZS 3350.2.2:2001with amendment 1 (until 22 November 2009) or

AS/NZS 60335.1 and AS/NZS 60335.2.2:2002 with amendments 1 and 2.

- 53. WALL SWITCH an electrical device which -
  - (a) is an air-break switch;
  - (b) is for connection to the wiring of an electrical installation;
  - (c) is primarily for mounting on a vertical surface;
  - (d) is manually opened and manually closed; and
  - (e) has a rating not exceeding 20 A.

# Class specification:

AS/NZS 3100 and AS/NZS 3133:2008 with amendment 1.

- 54. WASHING MACHINE an electrical appliance which
  - (a) is a household type; and
  - (b) is used for washing clothes.

# Class specification:

AS/NZS 60335.1 and AS/NZS 60335.2.7:2002 with amendments 1 to 3 (until 29 May 2011).

AS/NZS 60335.2.7: 2009

- 55. WATER BED HEATER an electrical appliance which
  - (a) is for installation under a water bed envelope; and
  - (b) heats water contained in that envelope; and includes –
  - (c) any associated control device.

# Class specification:

AS/NZS 3350.1 and AS/NZS 3350.2.66:1997 with amendments 1 to 3 (until 3 September 2011) or AS/NZS 60335.1 and AS/NZS 60335.2.66:2004 with amendment 1.

- 56. WATER HEATER an electrical appliance which
  - (a) is for heating and storage of water for bathing, washing or similar purposes;
  - (b) incorporates a heating element;
  - (c) is unvented; and
  - (d) has a storage capacity not less than 4.5 L nor more than 680 L. or
  - (e) is for heating water
  - (f) is of the instantaneous type; and
  - (g) incorporates live parts in contact with water.

#### Class specification:

# Pressure storage -

AS/NZS 3350.1 and AS/NZS 3350.2.21:1999 with amendments 1 to 5 (until 22 November 2009) or AS/NZS 60335.1 and AS/NZS 60335.2.21:2002 with amendments 1-3.

# Instantaneous -

AS/NZS 3350.1 and AS/NZS 3350.2.35:1999 with amendments 1 and 2 (until 15 October 2011) or AS/NZS 60335.1 and AS/NZS 60335.2.35:2004 with amendment 1.

# HOMEBUSH MOTOR RACING (SYDNEY 400) ACT 2008

#### Erratum

THE three notices for Homebush Motor Racing (Sydney 400) Act 2008 which appeared in the *NSW Government Gazette* No. 118 on 1 October 2010, folios 5052 and 5053, contained an error. Each notice states:

"I, the Minister for State and Regional Development," this should read

"I, the Minister for Major Events,"

This erratum now amends these errors with the gazettal date remaining the 1 October 2010.

# **HOUSING ACT 2001**

ROADS ACT 1993

Proclamation

Her Excellency Professor Marie Bashir, AC, CVO, Governor

I, Professor Marie Bashir, Companion of the Order of Australia, Commander of the Royal Victorian Order, Governor of the State of New South Wales in the Commonwealth of Australia, with the advice of the Executive Council, on the recommendation of the Minister for Housing and in pursuance of section 13 of the Roads Act 1993, do, by this my Proclamation, dedicate as a public road the land referred to in the Schedule of this Proclamation.

Signed and sealed at Sydney, this 29th day of September 2010.

By Her Excellency's Command,

FRANK TERENZINI, M.P.,
Minister for Housing,
Minister for Small Business
and Minister Assisting the Premier on Veterans' Affairs

# GOD SAVE THE QUEEN!

# **SCHEDULE**

The land shown as a splay corner bounded by Dry Dock Road and Sunshine Avenue, on the plan of land at Tweed Heads South, in the Local Government area of Tweed, Parish of Terranora, County of Rous registered at Land and Property Management Authority as Deposited Plan No. 827232.

# **LEGAL PROFESSION ADMISSION RULES 2005**

THE Legal Profession Admission Board has approved two rule amendments to the Legal Profession Admission Rules 2005:

In the Second Schedule,

after "University of Sydney LLB",

add "or JD".

In the Second Schedule,

after "University of New England Legal Ethics and Professional Conduct",

add "OR Professional Conduct".

# MOTOR ACCIDENTS (LIFETIME CARE AND SUPPORT) ACT 2006

Part 14 – Home Modifications

THIS part of the Lifetime Care and Support Guidelines is issued under section 58 of the Motor Accidents (Lifetime Care and Support) Act 2006.

To avoid requirements that might be unreasonable in the circumstances on any participant, the Authority may waive observance of any part or parts of these Guidelines.

#### **Background**

The Authority recognises that as a consequence of their motor accident injury, home modifications will be the preferred option for some participants to access their homes and live safely. Home modifications are considered in the overall decision making process regarding the living arrangements of the participant. In deciding the best residential outcome for the participant, the Authority will consider the participant's short and long term living arrangements, and all reasonable alternatives such as the provision and installation of equipment, and relocation to a more appropriate residence, as well as home modifications to an existing residence.

All home modifications require prior approval in writing by the Authority.

#### **Policy**

The Authority will fund the reasonable and necessary cost of home modifications for a participant who is residing in a new home or returning to their existing home for the long term, and the need for home modifications is related to the motor accident injury.

#### **Definitions**

**Home** – a domestic structure which is a participant's usual place of residence, for example, a house or unit.

**Home modification** – modification to the structure, layout or fittings of a home where the motor accident injury restricts or prevents the ability to utilise the home's standard fittings or facilities.

**Relocation costs** – costs directly related to moving from one home to another.

**Rental property** – a home lived in by a participant whereby rent is paid to a private owner, Department of Housing, or Community Housing Association.

# 1. Consent

The participant, wherever possible, should be involved in the decision making processes relating to their home modification and agree to any proposed modifications. Agreement and permission from the home owner must be obtained before the home modification process can proceed.

# 2. Ensuring the home can be modified

The Authority will first ensure that the participant's home is reasonably able to be modified. This will be assessed on several factors including but not limited to:

- access and egress to the home;
- accessibility to all areas of the home;
- the safety of the participant, family members and attendant care workers;

- the ownership of the home;
- the cost and extent of the home modifications; and
- the participant's expected length of tenancy if the home is rented.

To ensure that the home is reasonably able to be modified, all proposed home modifications must be approved where necessary by local council and/or planning authorities before any work may begin.

The Authority will not fund home modifications for any residence or property that constitutes, is likely to constitute, or will result in, an illegal structure. An illegal structure is one that is contrary to relevant building and construction codes or local council planning guidelines, statutes and/or laws.

# 3. Assessment of the need for home modifications

The Authority will require a home assessment to be conducted by an occupational therapist with appropriate experience in home modifications. The assessment should include the participant's functional status and their proposed home environment. The assessment should identify environmental barriers relating to the motor accident injury, including all options to overcome these barriers. For example, any existing equipment and non-structural home modifications should be considered as an option if they enable an appropriate level of independence or safety for the participant and family.

Recommendations for home modification as a preferred option must include clear clinical justification as to why home modifications are reasonable and necessary, and the feasibility of the proposed home modification compared with other alternatives such as relocation.

The participant's need for home modifications is determined by the extent of physical injury and/or permanent loss of physical functioning and mobility that a participant has experienced as a result of their motor accident injury. The participant's need may also be determined by the extent of the participant's cognitive and/or behavioural impairment.

Factors to consider when assessing a participant's need for home modifications may include:

- impaired mobility;
- wheelchair use, including type of wheelchair;
- ability to transfer;
- impaired arm and/or hand function;
- impaired thermo-regulation;
- cognitive impairment such as impulsiveness, lack of awareness or insight and poor judgement;
- behavioural impairment that may place the participant, their family or attendant care workers at risk;
- ability to perform activities of daily living (ADLs);
- level of functional performance;
- life roles and associated responsibilities;
- the participant's physical and social environment, including social supports; and
- whether any future improvement or change in the above factors is likely.

# 4. Factors impacting upon whether home modifications are reasonable and necessary

Factors taken into account when deciding if a home modification is reasonable and necessary include:

- the anticipated length of time that the participant will need home modifications and whether this need is likely to change;
- structural constraints, for example, size, surrounding terrain and condition of the home;
- ownership of the property;
- permission of the owner or body corporate to temporarily or permanently undertake modification to the home;
- local planning regulations;
- · building permits;
- length of lease of a rental property;
- anticipated period of occupancy of the home to be modified:
- the scale and cost of the proposed modifications when considered in conjunction with alternative residential options; and
- the Authority's ability to negotiate any necessary agreement or consent required on modifications with any external parties.

The Authority will assess whether home modifications are reasonable and necessary based on information contained in building modification project plans, reports from the home assessment completed by the occupational therapist, final modification costs and any other relevant information or reports.

The Authority may approve home modifications in principle if final costs for modifications are being established. The Authority may delay definitive modifications where the participant's injury is likely to change or improve. In these circumstances the Authority may approve staged modifications to ensure the safety of the participant in the short term.

# 4.1 Modifications costing less than \$10,000

The Authority will fund reasonable and necessary home modifications that cost less than or equal to \$10,000 (GST exclusive) irrespective of the type of residence or accommodation being modified, if the owner of the premises agrees to the proposed modifications and the home is able to be modified.

# 4.2 Modifications to a rental property

The Authority will fund reasonable and necessary home modifications for participants in a private rental property or rental with family. The Authority will fund up to \$10,000 in home modifications for every year of a guaranteed lease, if the owner of the premises agrees to the proposed modifications and the home is able to be modified.

If the participant moves out of a private rental property, the Authority will fund the reasonable and necessary costs of returning a rental property to its former state, when the costs:

- are related to the services or modifications that were previously approved or installed by the Authority;
- are reasonable and necessary; and

 are related to the participant's motor accident injury.

For example, the Authority may fund the removal of grab rails, wedge ramps or replacement of a shower screen or hob at the end of a long-term tenancy.

The Authority will only consider other costs relating to returning a rental property to its former state if they are reasonable and necessary, related to the motor accident injury and specifically requested by the owner, such as wear and tear to carpets as a result of wheelchair use.

The Authority will not fund other costs associated with the end of a tenancy that are a condition of the lease, such as advertising costs associated with breaking a lease, steam cleaning of carpets or cleaning a property at the end of a tenancy.

# 4.3 Modifications to a home owned by the participant or their family

The Authority will fund home modifications where:

- the home to be modified is the primary residence of the participant or their family;
- the participant intends to remain living at that residence for the foreseeable future; and
- relocation to another residence, or a more suitable residence, is not an appropriate option for the participant or their family.

For participants living within the family home or who occupy their own home, the Authority may seek:

- agreement for costs to be cleared at 10% per year over ten years for home modifications above \$100,000; and
- reimbursement from the owner for any costs not fully cleared on a pro rata basis in the case that the home is sold within ten years of installation of a home modification above \$100,000.

Requests for home modifications that do not fall within the situations above will be considered on a case by case basis.

# 4.4 Transitional accommodation

The Authority will fund the costs of shortterm transitional accommodation in limited circumstances when a home modification is in process.

Transitional accommodation is defined by the Authority as accommodation required when:

- a home modification has been approved or is in process;
- the need for accommodation is related to the motor accident injury; and
- the participant's usual place of residence is not accessible due to the motor accident injury and there is no other existing suitable accommodation option.

The Authority will fund transitional accommodation for a maximum duration of 6 months. The Authority will only fund transitional accommodation for the first home modification.

The Authority will consider funding the reasonable and necessary costs of transitional accommodation with regard to the following factors:

- whether discharge from hospital or inpatient rehabilitation is possible without home modification;
- the length of time for completion of home modifications and whether home modifications are able to be staged to allow earlier access to the home;
- whether the home to be modified is able to be occupied during the home modification process;
- the factors (such as Council approval) impacting on completion of the home modifications and the length of time that transitional accommodation is required;
- the nature of the participant's injury and whether the participant requires treatment, rehabilitation and care services that would be delivered in the transitional accommodation setting;
- the need for attendant care and the suitability of the transitional accommodation setting in which care would be delivered;
- whether all other alternative accommodation options have been considered and discounted; and
- whether transitional accommodation is the most cost effective option compared to other accommodation options when a home modification is in process.

#### The Authority will not fund:

- the costs of transitional accommodation for a participant when their accommodation issues existed prior to the motor accident injury (e.g. homelessness):
- accommodation that is not transitional, that is, accommodation when a home modification is not in progress; and
- accommodation where the need is not due to the motor accident injury.

#### 5. Relocation if the home is not suitable for modification

If the home is unable to be modified, or if relocation is considered the most appropriate option, the Authority will fund the reasonable and necessary costs of:

- assistance to locate to an appropriate home. This may include an assessment by an occupational therapist or an appropriately qualified person approved by the Authority;
- real estate agent fees;
- legal fees associated with property purchase;
- stamp duty;
- cleaning costs associated with preparing a home for sale; and
- furniture removal.

# 5.1 Assistance to locate a suitable home for purchase

If a participant's home is unable to be reasonably modified, or if relocation is the most appropriate option, the Authority may assist the participant to locate a suitable home for purchase by funding the reasonable and necessary costs of services to assist the participant to locate a suitable property. This will be considered where the participant is unable to look for alternative properties by searching the internet or liaising with real estate agents, or does not have family or friends to assist them locate a suitable property.

#### 5.2. Changes of residence

The participant and their family must consider the participant's individual needs as related to the motor accident injury, including current and expected function, prior to any change of residence. The Authority may fund professional assistance in order to identify suitable residential options for the participant and family.

# 5.3 Assistance when purchasing a new home

When considering purchasing a home, the Authority expects that the participant will locate a property that does not require substantial modification, and the approximate cost of any home modification required will not be greater than \$70,000. The Authority does not consider it reasonable that a participant with significant functional limitations chooses to move to a home where substantial modifications need to be undertaken to allow them to reasonably access the home.

The Authority considers the approximate cost of home modifications will not be greater than \$70,000 to enable the participant to access the following areas of the home:

- one point of access/egress;
- a bathroom and toilet:
- · a bedroom;
- a living/dining area; and
- a kitchen (for participants who can fully or partially prepare their own food or beverages).

If the participant indicates a serious interest in purchasing a home and intends making an offer, the Authority requires a current building report or strata report (for units/townhouses) and pest report be provided to the Authority before purchase to ensure that the home is reasonably able to be modified. The cost of the building report or strata report, and pest report, will be reimbursed after the home is purchased.

#### The Authority will not fund:

- the cost of more than one strata report, building report or pest inspection report;
- costs of any repairs or maintenance issues identified in strata, building or pest inspection reports;
- cost of internet to research suitable properties;
- body corporate/strata fees;
- council or water rates;
- repairs to the home; and
- any modifications undertaken that are not approved by the Authority. For example, the Authority is not liable for the costs of modifications to a home if a participant is advised that the home is unsuitable to modify and the participant proceeds to purchase or rent the home.

# 6. Service providers for home modifications

All home modifications funded by the Authority must be provided by an appropriately qualified licensed builder or tradesperson who holds current registration as a company or as a business/sole trader.

The home modification must be in accordance with the quotation approved by the Authority and in accordance with the plans and job specifications submitted to the value of the approved quotation.

# 7. Additional work/cost-sharing

Modifications will be approved on an as-needed basis. A quotation is requested for works that are necessary for the proposed modifications. At times, the owner of the property, the participant and/or their legal representative or family member may request additional building works, or higher cost finishes because of aesthetic, architectural or other reasons, which are outside the scope of the Authority's funding. These works need to be quoted separately, agreed upon and the cost borne by the participant and/or property owner. Any additional work should not affect participant access to or within the area being modified, or in any way adversely compromise the impact of any modifications that have been approved.

# 8. Home modification to a secondary home that is lived in concurrently

The Authority will fund the reasonable cost of basic access, for example, ramps, rails, doorway widening and minor bathroom modifications for a secondary residence which is lived in concurrently by a participant. For example, a participant who is a child may require a second home modification to stay at the residence of the parent who is not the primary carer, has joint custody or agreed regular overnight access visits in an agreement ratified by the Family Court or agreed to by both parents.

If modifications to a secondary residence are requested, the Authority will consider the nature and extent of any previous home modifications approved by the Authority, along with the anticipated amount of time that the participant is expected to spend in the secondary residence and the potential benefit of modifying the secondary residence.

# 9. Subsequent home modification

The Authority recognises it may be reasonable and necessary to fund more than one home modification as the participant's circumstances change. Such circumstances may include, but are not limited to:

- a participant living with others who becomes able to live independently, such as a young adult leaving home:
- deterioration in the participant's health as a direct result of the motor accident injury; or
- a participant who may need to relocate in order to access employment or services more readily; or
- other significant changes in the participant's personal circumstances such as marriage, separation or having children.

If subsequent home modifications are requested, the Authority will consider:

- the extent of the requested modifications;
- the age of the participant; and
- the likely future circumstances of the participant.

Funding available for subsequent home modifications will be considered in accordance with section 4 above.

#### 10. Repairs and maintenance

The Authority will fund the reasonable and necessary cost of repairs and maintenance on home modifications funded by the Authority that are essential for participant access or safety. The Authority will consider funding the costs of repairs and maintenance for any additional wear and tear to a property that is a result of the motor accident injury, such as damage to floorboards from wheelchair use.

If costs for home modifications were not funded in full by the Authority (for example, shared with the property owner), then the Authority will fund the cost of repairs or maintenance proportional to the original costs paid.

The participant or property owner is responsible for any repairs and maintenance as a result of normal wear and tear (such as replacement of bathroom fittings/fixtures), for the upkeep of a residence (such as house painting) or maintenance of any additional works not funded by the Authority.

# The Authority will not fund:

- home modifications that are undertaken without approval from the Authority,
- items that are normal household items (such as furniture or whitegoods, smoke alarms, surge protectors, towel rails, fans, lights, hot water services, security doors and windows) and are not related to the participant's need arising from their motor accident injury;
- other home modifications or renovations intended to add value to an existing property that are not related to the participant's motor accident injury;
- building or construction of in-ground or above-ground pools, spas or other aqua-therapy facilities;
- home modifications where the owner, body corporate or other responsible authority has not given permission for the modifications;
- upgrades of any materials required for home modificatioitems or labour not included in the final contract for modifications agreed to by the Authority, unless prior approval has been obtained from the Authority;
- home modifications required as a result of a condition that existed before a motor accident or that are not a result of a motor accident;
- home modifications that provide no clear benefit to a participant;
- insurance of the modifications or the home in which the modifications have been installed; or
- any loss of value of any home resulting from any modifications to, or removal of modifications from, the home.

# 11. Room temperature control equipment

The Authority will fund the reasonable and necessary cost of room temperature control equipment if the participant is unable to self regulate their body temperature as a result of a motor accident injury, or if the lack of room temperature control causes secondary care complications.

# 11.1 Information required by the Authority

For a participant with a complete spinal cord lesion at or above the level of T6, the Authority will fund the reasonable and necessary cost of the provision and installation of a reverse cycle air conditioner to provide heating and cooling. This does not require the certification of a medical specialist.

For participants other than those who have sustained a complete spinal cord lesion at or above the level of T6, the Authority requires documentation that the participant has an impaired or absent ability to regulate their body temperature which will not resolve, or secondary care complications, including any clinical evidence such as documented changes in the participant's function in extremes of temperature. This must be certified by a suitably qualified medical specialist.

# 11.2 Areas of the home the Authority will fund room temperature control equipment

Where the medical need for room temperature control equipment has been established, the Authority will determine the areas of the participant's home that it is reasonable and necessary to heat or cool, having regard to the following factors:

- the main areas of the house that the participant is required to access for substantial periods of time:
- the structure and layout of the participant's home, e.g. a house with a second storey that the participant cannot access; and
- the amount of time that the participant spends or is likely to spend at home as part of their regular weekly routine.

In considering any requests to fund room temperature control equipment for areas other than the participant's home, the Authority will consider the following factors:

- the participant's family situation (e.g. a participant who is a child whose parents are separated, and spends time at both parents' homes);
- frequency of visits and length of time spent per visit to the area that room temperature control equipment is requested;
- benefit to the participant from funding room temperature control equipment as requested; and
- alternatives and any consequences of the service not being provided.

# The Authority will not fund:

- room temperature control equipment where there is no clinical evidence that the participant is unable to self regulate their body temperature as a result of the motor accident injury;
- room temperature control equipment for a condition that is not related to or caused by the motor accident injury; or
- room temperature control equipment for areas
  of a participant's home that the participant is
  unable to access or is not required to access on a
  daily basis, such as a second bathroom or second
  lounge room.

# 11.3 Contribution to operating costs

The Authority may contribute to the costs associated with the operation of room temperature control equipment. Operating costs may include the cost of electricity or gas and consumable items such as lubricating oil and filters. The Authority will only consider a contribution to the cost of electricity or gas where an increase in the total consumption can be shown to relate directly to the running of the room temperature control equipment whether the equipment was purchased by the Authority or previously owned by the participant. For example, the participant is required to use the room temperature control equipment more frequently as a result of the injuries from the motor accident.

The production of accounts or account summaries will be required to be provided for the Authority to identify the difference in pre- and post-accident electricity or gas costs, and to calculate payment for the amount of electricity or gas for which the Authority is liable. The Authority will calculate additional electricity or gas costs based on the increase in kilowatt hours or cubic metres multiplied by the cost per unit, rather than the gross dollar increase, which may be related to increases in other costs for which the Authority is not liable.

The Authority will calculate the costs associated with the operation of room temperature control equipment by considering the following factors:

- the equipment to be operated, e.g. air-conditioner or heater:
- the number and size of rooms to be heated/ cooled;
- whether the room temperature control equipment is used by the participant alone and whether there is a mutual benefit for other household members;
- the proportion of the pre-accident utility accounts related to the participant's usage; and
- eligibility for energy concessions such as the pensioner concession card.

Any change of domestic circumstances or prolonged absence from home will require a reassessment of the Authority's contribution rate to the operating costs.

# 11.4 Contribution to maintenance and repair costs

The Authority may contribute to the costs associated with the maintenance and repair of room temperature control equipment. Maintenance and repair costs may include servicing, preventative maintenance and repairs. The Authority will fund a contribution to the reasonable costs of servicing, preventative maintenance and repairs of room temperature control equipment.

The Authority will negotiate this contribution having regard to the equipment to be operated, e.g. air-conditioner or heater and the number and size of rooms to be heated or cooled.

Any change of domestic circumstances or prolonged absence from home will require a reassessment of contribution rate. To reimburse the approved contribution to gas or electricity costs, the Authority requires a copy of the gas or electricity account showing the calculation of cost for utility consumption and evidence of payment of the account.

#### The Authority will not fund:

- electricity service and supply charges;
- · the entire costs of electricity bills; or
- prospective payments for electricity costs in advance.

Monetary amounts referred to in these Guidelines will be adjusted in accordance with the annual indexation percentage increase applicable to non-economic loss payments under the Motor Accidents Compensation Act 1999. This adjustment is the percentage change estimated by the Australian Statistician in the average weekly total earnings of full-time adults in New South Wales over the four quarters preceding the date of the declaration, being 1 October. This percentage is published in the Motor Accidents (Determination of Non-Economic Loss) Order for the year commencing 1 October each year.

Note: This version of Part 14 of the Lifetime Care and Support Guidelines applies to all new applications for participation in the Lifetime Care and Support Scheme received on or after 8 October 2010, and applies to all participants in the Scheme on or after that date.

#### PART 8 - Attendant Care

THIS part of the Lifetime Care and Support Guidelines is issued under section 58 of the Motor Accidents (Lifetime Care and Support) Act 2006.

To avoid requirements that might be unreasonable in the circumstances on any participant, the Authority may waive observance of any part or parts of these Guidelines.

#### **Policy**

The Authority will fund reasonable and necessary attendant care services for participants in relation to the injury sustained in the motor accident.

# **Background**

Attendant care services are paid services that assist the participant to perform tasks they would normally be able to do for themselves. Attendant care services focus on maximising the participant's independence across a variety of settings: home, work/vocational activities and community/avocational activities, with the aim of facilitating a return to their former roles or developing new functional skills and roles. Attendant care services should be centred on the participant and their family and be the most age appropriate and least restrictive response to meet their needs.

Attendant care services include personal assistance, domestic assistance, assistance to access the community, gardening, rehabilitation support, registered nursing and home maintenance. The type of assistance provided to the participant may include physical assistance, prompting and/or supervision.

The Authority will fund attendant care where it is identified as being the most age appropriate and least restrictive response to a participant's needs.

All referrals for attendant care services will be directed to the list of approved attendant care providers, unless otherwise specified in writing by the Authority.

# 1 Attendant care services funded by the Authority

The Authority's decision on whether the attendant care services are reasonable and necessary will be based on the participant's care needs assessment.

- 1.1 The Authority will fund reasonable and necessary attendant care services required as a result of the motor accident injury to assist and support a participant to perform personal care tasks including:
  - showering, bathing, oral hygiene, dressing and grooming;
  - personal hygiene including bowel and bladder care:
  - · eating and drinking;
  - · medication use;
  - fitting and use of aids and appliances, hearing and communication devices;
  - · mobility and transfers; or
  - health maintenance, for example positioning, application of splints, regular and routine exercises or stretches.
- 1.2 The Authority will fund reasonable and necessary attendant care services required as a result of the motor accident injury to supervise a participant who is assessed as being at risk, having regard to the following factors:
  - the likely and significant risk of harm to the participant or their family;
  - the likely and significant risk of a medical emergency without supervision;
  - whether electronic communication devices, alarms or environmental control systems are unable to summon help quickly enough or the participant is unable to use these devices to reduce the participant's exposure to the identified risk; or
  - whether appropriate meaningful daytime activities such as open or supported employment, educational and community access programs are available.
- 1.3 The Authority will fund reasonable and necessary attendant care services required as a result of the motor accident injury to assist and support a participant to organise and participate in activities of daily living and instrumental activities of daily living, including:
  - selecting and planning activities;
  - meal preparation and other domestic tasks;
  - caring for dependents;
  - · banking and shopping;
  - home maintenance and gardening previously undertaken by the participant e.g. cleaning the gutters; or
  - attending rehabilitation or medical appointments.
- 1.4 The Authority will fund reasonable and necessary attendant care services required as a result of the motor accident injury to support and assist a participant to undertake vocational and educational activities and access and use recreational facilities

in the community, for example, supporting a participant to:

- return to and maintain employment or school attendance;
- participate in a community based course; or
- attend a school camp.
- 1.5 The Authority will fund reasonable and necessary attendant care services required as a result of the motor accident injury to ensure that a participant can participate fully in their rehabilitation program, including:
  - attendant care for community based activities;
  - therapy support, to implement a therapy program under the guidance and supervision of a health professional; or
  - weekend leave while the participant is an inpatient to meet a rehabilitation goal.

The Authority will not fund:

- personal care and nursing services whilst the participant is an inpatient in a hospital or during inpatient rehabilitation;
- services for an injury, condition or circumstance that existed before a motor accident or that are not a result of the motor accident;
- services that are of no clear benefit to a participant;
- services for other members of the participant's family or household;
- any costs of travel for the participant or attendant care workers except to and from treatment, rehabilitation and care services approved by the Authority that are related to the motor accident injury;
- services that replace parental responsibilities, such as the supervision of a young child;
- services for an injury, condition or circumstance that existed before the motor vehicle accident or that is not a direct result of the motor vehicle accident; or
- services that place an attendant care worker at risk of harm, for example lifting a participant where this has been assessed as a manual handling risk or service provision in an unsafe environment.

# 2 Attendant care for participants who are children

The Authority will fund the reasonable and necessary costs for attendant care for participants when the participant is a child. Attendant care provided for children does not replace the usual care and supervision provided by a parent or paid for by a parent, such as babysitters, child care costs and out of school hours care. For example, the Authority will not fund attendant care for very young children requiring supervision, as this is considered to be parental responsibility.

In the case of young children, the substitution of other assistance in place of attendant care may be considered in order to allow the parent to meet a care need that is related to the motor accident injury. For example, when a young child participant has behavioural needs due to cognitive impairment and requires additional supervision beyond that which would be age-appropriate, domestic

assistance may be substituted in place of attendant care to allow a parent to closely supervise the participant. Alternatively, in the same situation, child minding for siblings may be substituted in place of attendant care hours to allow the parent to provide one-on-one supervision to the participant.

Requests for attendant care for a participant who is a child should include a description of the care and supervision provided by parents and carers as part of their usual responsibility for the child, and the need related to the motor accident injury that requires the assistance of an attendant care worker. For example, a ten-year-old child who was previously supervised on their walk to and from school by an older sibling now requires the assistance of an attendant care worker due to cognitive and behavioural issues from the motor accident injury, because there is an increased need for supervision that is beyond the capabilities of the child's sibling.

The presence of an attendant care worker to meet care needs related to the motor accident injury does not replace parental responsibility to supervise and provide non-injury related care to the participant who is a child. The role of the attendant care worker is to provide attendant care services to the participant, and not to provide direct care or supervision to other family members such as the participant's siblings.

# 3 Attendant care for adult participants who are caring for children

The Authority will fund the reasonable and necessary costs for attendant care for participants when the participant has responsibilities to care for a child. The role of the attendant care worker is to provide attendant care services to the participant.

Provision of attendant care services in this case aims to maximise the participant's independence and support the participant in their role as a parent and caregiver. The presence of an attendant care worker for care needs related to the motor accident injury does not replace parental responsibility. For example, an attendant care worker may assist a participant to travel with their children to and from school, but is not solely responsible for taking the children to and from school.

# 4 Attendant care holiday support

The Authority will fund the reasonable and necessary costs of attendant care for a participant who is on holiday.

- 4.1 Request for attendant care holiday support
  - Attendant care holiday support does not require prior approval in writing when:
  - no additional attendant care hours are being requested for the duration of the participant's holiday; and
  - the participant will be using the same attendant care provider engaged for their regular weekly attendant care program.

Attendant care holiday support requires prior approval when:

- additional attendant care hours are being requested for the duration of the participant's holiday;
- attendant care worker travel or accommodation costs are being requested; or

- the participant will use a different attendant care provider than the one engaged to provide their regular attendant care program.
- 4.2 Attendant care holiday support funded by the Authority

The Authority will fund the additional costs for attendant care holiday support in the following circumstances:

- when continuity of an attendant care worker is required, that is, when it can be demonstrated that a change in attendant care worker would cause secondary care complications or behavioural complications or the change in attendant care worker may increase the need for attendant care;
- when the participant requires support to travel to and from the holiday destination beyond that provided by airlines, boat or rail systems; or
- when there is an additional need for attendant care on holiday because of the participant's level of function, accommodation environment, unfamiliar surroundings or access to equipment.

In the above circumstances, the Authority may fund the following additional attendant care costs:

- the reasonable and necessary additional attendant care hours for holiday support for a maximum of 28 days per calendar year (pro rata);
- the reasonable additional attendant care worker costs incurred by a participant in relation to the holiday,
- one return fare (economy) per year to a destination within Australia for the attendant care worker in cases where the participant cannot travel without an attendant care worker present, or
- the reasonable additional cost of accommodation incurred by a participant due to an attendant care worker staying in the same room as the participant or a separate room from the participant, for a maximum of 28 days per calendar year.
- 4.3 Equipment hire while a participant is on holidays

  The Authority will fund the hire of equipment
  required for attendant care provision such as a
  hoist or shower commode where it is not practical
  to transport equipment from the participant's
  home to the holiday destination. The Authority
  will not fund the cost of any recreation equipment
  hired on holiday, but will fund the additional
  cost of equipment hire required as a result of the
  participant's motor accident injury.

The Authority will not fund:

- services for an injury, condition or circumstance sustained before a motor accident or that is not a result of a motor accident;
- services that are of no clear benefit to a participant;
- attendant care worker travel costs to accompany a participant to and from the holiday destination, where a participant is assessed as being able to travel with the support provided by airlines, boat or rail systems;
- attendant care holiday support services for persons other than the participant;

- the participant's personal holiday costs such as travel, meals and accommodation;
- the cost of the participant's entry to tourist attractions or the cost of participating in holiday activities;
- · business or first class air, rail or boat fares; or
- travel insurance or any other costs associated with changes to travel plans for participants or attendant care workers.

#### 5 Alternatives to attendant care service provision

The Authority will consider funding reasonable and necessary alternatives to attendant care provision such as school holiday programs, child care, community based groups or community access programs. This will be considered when they are age appropriate, provide appropriate support and are assessed as a suitable alternative to meet the participant's motor accident related needs.

The Authority will not pay for everyday activity costs that are not related to the need arising from the motor accident injury.

# 6 Attendant care – family and friends as paid attendant care workers

Policy

Employment of family members or friends as paid attendant care workers is not encouraged by the Authority, but may be necessary in some circumstances, for example, in rural and remote areas where access to attendant care workers may be limited.

Family members or friends will only be employed to provide attendant care services when it is determined by the Authority and attendant care service provider, with input from the participant and their family, to be in the best interests of the participant. This option will only be considered when all other alternative options to provision of attendant care have been exhausted.

#### 6.1 Principles

The Authority will consider all of the following principles when considering the provision of paid attendant care services by a family member or friend.

- The needs of the participant will be the primary criteria for considering the use of a family member or friend as a paid attendant care worker, and will be considered in accordance with the objectives of the Scheme to maximise participation.
- The provision of paid care services by a family member should not jeopardise a participant's ability to reach their maximum independence or maintain functional skills or capacities.
- A family's need for an additional income source is never an appropriate justification for the provision of paid care services by a family member.
- The provision of attendant care services by a friend or family member should not put the overall functioning of the family unit or an existing friendship, at risk. The needs of other family members, especially children, should be taken into account.

- Recruitment of family and friends as attendant care workers is only an option when all other alternatives to attendant care service provision have been considered and trialled where appropriate.
- The decision to allow the family member to work as a paid member of the attendant care team will be regularly reviewed, depending on the circumstances of the participant and family.
- The decision to allow the family member to work as a member of the attendant care team will be reviewed at least annually when the participant is aged 12 or older.
- 6.2 Alternative options and issues to be considered The family and the Authority should explore all alternative options to employing family and friends as paid attendant care workers, including:
  - the availability and nature of existing attendant care workers in the participant's local area;
  - any factors impacting on the choice of attendant care provider, e.g. whether the participant's choice of provider from the Authority's list of approved attendant care providers is limited due to cultural, religious or geographical circumstances specific to the participant;
  - the nature and complexity of the required care tasks, such as assistance with toileting or bathing, tracheostomy care or the method of nutritional intake; and
  - whether the decision to recruit family or friends as attendant care workers would cause the participant distress that would contribute to health deterioration of the participant or family member
- 6.3 Requirements for funding family and friends as attendant care workers

The Authority will only fund reasonable and necessary attendant care provided by a family member as an attendant care worker, as a member of the wider team of service providers, when the following requirements are met:

- 6.3.1 The attendant care hours are approved by the Authority:
  - the participant has been assessed as requiring attendant care and the Authority has approved the care; and
  - there is written justification for the family member to provide care, which includes why this option is in the best interest of the participant, and how all other viable alternatives have been considered before making this recommendation.
- 6.3.2 The participant agrees to the arrangement:
  - the participant is aware of the plan for attendant care provision by the family member or friend as a paid attendant care worker, is aware of the alternatives, and supports the arrangement. Where a participant does not have capacity, their guardian supports the arrangement.

- 6.3.3 The requirements for the family member or friend:
  - the family member is employed by an approved attendant care provider and has met that provider's criteria with the demonstrated skills, knowledge and attitude necessary to provide the required level of attendant care to the participant;
  - the family member is able to meet the attendant care provider's standards for service delivery and comply with Occupational Health and Safety guidelines and other legislated standards;
  - the family member is able to meet the ongoing training requirements of the attendant care provider;
  - there is no obvious conflict of interest arising from attendant care provided by a family member or friend as a paid attendant care worker that may impact on the participant's ability to maximise their independence or maintain functional skills or capacities;
  - the Authority has discussed the proposed arrangements with the participant, family, treating health team and attendant care provider to identify any issues or potential barriers associated with the provision of paid care by the family member or friend; and
  - an appropriate back up service is identified and utilised in case of the employed family member's illness, annual/recreational leave or days off.

The Authority will not fund attendant care services that are provided by family or friends and payment for the services is requested from the Authority, where the Authority has not approved the need for care or the care provided is not part of the participant's care plan. The Authority will not fund a family member or friend to provide inactive sleepovers.

(Note: This version of Part 8 of the Lifetime Care and Support Guidelines applies to all new applications for participation in the Lifetime Care and Support Scheme received on or after 8 October 2010, and applies to all participants in the Scheme on or after that date.)

# NATIONAL PARKS AND WILDLIFE ACT 1974

#### **ERRATUM**

IN the notice published in the *NSW Government Gazette* dated 1 October 2010, folio 5054, reserving part of Wolli Creek Regional Park, the following words should be "NOTICE OF RESERVATION OF A REGIONAL PARK" Not "NOTICE OF RESERVATION OF A STATE CONSERVATION AREA".

Director-General Department of Environment and Climate Change

# **RURAL FIRES ACT 1997**

Local Bush Fire Danger Period Variation

PURSUANT to section 82 of the Rural Fires Act 1997, as amended, the Commissioner of the NSW Rural Fire Service, following consultation with the local stakeholders, declares the following Local Bush Fire Danger Period Variation:

Area of Variation:

Mid West Team incorporating: Carrathool Shire Council Hay Shire Council

The Local Bush Fire Danger period has been revoked for the period 1 October until 31 October 2010.

During this period permits pursuant to section 87 of the Rural Fires Act 1997, as amended, will not be required for the lighting of fire for the purposes of land clearance or firebreaks.

SHANE FITZSIMMONS, AFSM, Commissioner

# STATE EMERGENCY AND RESCUE MANAGEMENT ACT 1989

Changes to Emergency Management Districts

IN pursuance of section 21 (1) of the State Emergency and Rescue Management Act 1989, I have reallocated the Wingecarribbee Local Emergency Management Committee from the Sydney South West District to the Southern Highlands District, reallocated the Eurobodalla Local Emergency Management Committee from the Monaro District to the Illawarra District and reallocated the Bega Valley Local Emergency Management Committee from the Monaro District to the Illawarra District. I have also renamed the Illawarra Emergency Management District to the Illawarra / South Coast Emergency Management District. The Local Government Areas now included in these affected Districts are described hereunder.

STEVE WHAN, M.P., Minister for Emergency Services

# Description

The Sydney South West Emergency Management District comprises the following Local Government Areas:

Bankstown City Council Camden Council Campbelltown City Council Fairfield City Council Liverpool City Council Wollondilly Council

The Southern Highlands Emergency Management District comprises the following Local Government Areas:

Boorowa Council
Cootamundra Council
Goulburn Mulwaree Council
Gundagai Council
Harden Council
Tumut Council
Upper Lachlan Council
Weddin Council
Wingecarribee Council
Yass Valley Council
Young Council

The Monaro Emergency Management District comprises the following Local Government Areas:

Bombala Council Cooma-Monaro Council Palerang Council Queanbeyan City Council Snowy River Council

The Illawarra / South Coast Emergency Management District comprises the following Local Government Areas:

Bega Valley Council Eurobodalla Council Council of the Municipality of Kiama Shellharbour City Council Shoalhaven City Council Wollongong City Council the waters of Jervis Bay

#### TRANSPORT ADMINISTRATION ACT 1988

LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

Notice of Compulsory Acquisition of Land for the Purposes of the Transport Construction Authority

THE Transport Construction Authority with the approval of Her Excellency the Governor with the advice of the Executive Council, declares that the land described in the Schedule hereto is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purposes of the Transport Construction Authority as authorised by the Transport Administration Act 1988.

Dated this 22nd day of September 2010.

CHRIS LOCK, Chief Executive

# **SCHEDULE**

All that piece or parcel of land situated at Schofields, in the Local Government area of Blacktown, Parish of Gidley, County of Cumberland and State of New South Wales, being Lot 1 in Deposited Plan 1140856 having an area of 383.5 square metres and said to be in the possession of Blacktown City Council. TCA Reference: 844640-1.

# TRANSPORT ADMINISTRATION ACT 1988

LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

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Dated this 22nd day of September 2010.

CHRIS LOCK, Chief Executive

# **SCHEDULE**

All that piece or parcel of land situated at Woolooware, in the Local Government area of Sutherland Shire, Parish of Sutherland, County of Cumberland and State of New South Wales, being Lot 1 in Deposited Plan 1142135 having an area of 53.01 square metres and said to be in the possession of Sutherland Shire Council. TCA Reference: 843654-1.

#### TRANSPORT ADMINISTRATION ACT 1988

# LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

#### Erratum

IN the notice published in the *New South Wales Government Gazette* No. 36 on 5 March 2010, on pages 1158 to 1160, for the Compulsory Acquisition of Land for the Southern Sydney Freight Line, the plan of acquisition file reference R31093 in the office of RailCorp NSW has been registered as DP 1144402. The notice is amended as below.

# SCHEDULE 1

#### Land

In the fifth, sixth, seventh and eighth paragraphs 'file reference R31093 in the office of RailCorp NSW' should be replaced with 'DP 1144402'.

# SCHEDULE 2

#### Interest in Land

In the second paragraph and in 1.5 Definitions, Easement Site 'file reference R31093 in the Office of RailCorp NSW' should be replaced with 'DP 1144402'.

Date: 23 September 2010.

ROB MASON, Chief Executive Officer, Rail Corporation, New South Wales.

#### TRANSPORT ADMINISTRATION ACT 1988

# LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

# Erratum

IN the notice published in the *New South Wales Government Gazette* No. 36 on 5 March 2010, on pages 1160 to 1162, for the Compulsory Acquisition of Land for the Southern Sydney Freight Line, the plan of acquisition file reference R31093 in the office of RailCorp NSW has been registered as DP 1144402. The notice is amended as below.

# SCHEDULE 2

#### Interest in Land

In the second paragraph and in 1.5 Definitions, Easement Site 'file reference R31093 in the Office of RailCorp NSW' should be replaced with 'DP 1144402'.

ROB MASON, Chief Executive Officer, Rail Corporation, New South Wales.



# Native Vegetation Regulation 2005 Environmental Outcomes Assessment Methodology

Protecting and investing in healthy and productive landscapes for the people of New South Wales

Under clause 24 of the Native Vegetation Regulation 2005, I approve this document as the Environmental Outcomes Assessment Methodology.

Hon. Frank Sartor MP

Date: 8 October 2010

This version was originally published in the NSW Government Gazette on 18<sup>th</sup> November 2005 and incorporates amendments published on 21<sup>st</sup> July 2006, 24<sup>th</sup> November 2006, 2<sup>nd</sup> March 2007 and 8<sup>th</sup> October 2010.

Native Vegetation Regulation 2005: Environmental Outcomes Assessment Methodology

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# Report pollution and environmental incidents

Environment Line: 131 555 (NSW only) or <a href="mailto:info@environment.nsw.gov.au">info@environment.nsw.gov.au</a>
See also www.environment.nsw.gov.au

Ph: (02) 9995 5000 (switchboard)

Ph: 131 555 (environment information and publications requests)

Ph: 1300 361 967 (national parks, climate change and energy efficiency information and publications requests)

Fax: (02) 9995 5999 TTY: (02) 9211 4723

Email: info@environment.nsw.gov.au Website: www.environment.nsw.gov.au

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# **Contents**

1	Intr	oduction	4			
2	Ass	essment of broadscale clearing proposals	6			
	2.1	Overview				
	2.2	The improve or maintain test	6 7			
	2.3	Offsets	7			
	2.4	Data variation	8			
3	Wat	er Quality Assessment	10			
	3.1	Introduction	10			
	3.2	The improve or maintain test for water quality	10			
	3.3	Definitions	11			
	3.4	Using the modified Strahler Stream ordering system	13			
	3.5	Measuring buffer distances	13			
4	Sali	nity Assessment	16			
	4.1	Introduction	16			
	4.2	Assessing salinity hazard	17			
	4.3	Definitions	20			
	4.4	Using the Salinity Benefits Index Tool	21			
	4.5	Using the Salt Mobilisation Tool	27			
	4.6	Catchments covered by the Salinity Benefits Index tool	32			
5		diversity Assessment	35			
	5.1	Introduction	35			
	5.2	Overcleared vegetation and landscapes	35			
	5.3	Assessing impacts of clearing generally	37			
	5.4 5.5	Assessing thinning to benchmark stem densities	47 49			
	5.6	Improve or maintain test for Threatened Species Identify whether any Threatened Species are known or are predicted as likely	48			
	5.0	to occur	50			
	5.7	Loss of Threatened Species, habitat components or key habitat features	52			
	5.8	Can any likely loss be offset?	53			
	5.9	Definitions	54			
6		Assessment	58			
Ü	6.1	Introduction	58			
		Land and soil capability classification	58			
	6.3	The improve or maintain test for land degradation	59			
	6.4	Assessing clearing on sensitive terrain	60			
	6.5	Assessing water erosion hazard	62			
	6.6	Assessing wind erosion hazard	63			
	6.7	Assessing shallow and rocky soil hazard	67			
	6.8	Assessing earth mass movement hazard	67			
	6.9	Assessing acid sulfate soils hazard	68			
	6.10	Assessing soil structure hazard	69			
7		asive Native Scrub Assessment	71			
	7.1	Introduction	71			
	7.2	Assessing invasive native species clearing proposals	71			
Α	PPEN	DICES	96			
	Apper	ndix A. Sub-regions of NSW Catchment Management Authority Areas	96			
	Appendix B. Management Actions Specified by the Clearing Module of the LSC Tool					
		for Assessed Land Degradation Hazards to Pass the Improve or Maintain Test.	102			
	Apper	ndix C. Management Actions Specified by the Offsets Module of the LSC Tool				
		for Assessed Land Degradation Hazards to Pass the Improve or Maintain Test.	105			

# 1 Introduction

In December 2003 the NSW Government undertook a major overhaul of natural resource management institutions in NSW by passing the *Natural Resources Commission Act 2003*, the *Catchment Management Authorities Act 2003* and the *Native Vegetation Act 2003*.

These new reforms were built on the Wentworth Group's report to Premier Carr in February 2003. Their report, titled "A New Model for Landscape Conservation in New South Wales" contained five interdependent recommendations:

- 1) strengthen and simplify native vegetation regulation ending the broadscale clearing of remnant vegetation and protected regrowth;
- 2) set environmental standards and clarify responsibilities for native vegetation management which will, over time, create healthy rivers and catchments;
- 3) use property management plans to provide investment security, management flexibility and financial support for farmers;
- 4) provide significant public funding to farmers to help meet new environmental standards and support on-ground conservation; and
- 5) strengthen institutions by obtaining scientific input into policy setting, improving information systems, and regionalising administration.

The Native Vegetation Reform Implementation Group was established to advise the Premier on how to implement the Wentworth Group's reforms. This group comprised senior representatives from farmer groups, environment groups, scientists and members of NSW public service agencies. The Native Vegetation Reform Implementation Group Report identified that:

"New South Wales needs a sound approach to the management of our native vegetation that:

- is built on a shared commitment to develop the world's leading agricultural production systems that utilise maximum water efficiency and sustainable farming practices;
- is capable of sustaining regional development with secure access to natural resources;
- protects the environment by restoring and maintaining the quality of our water, soil and biodiversity: and
- is based on mutual trust between farmers, environmentalists, governments, and the wider community."

In December 2003 the *Natural Resources Commission Act 2003, Catchment Management Authorities Act 2003* and the *Native Vegetation Act 2003* were passed to deliver this framework.

The *Natural Resources Commission Act 2003* created the Natural Resources Commission. One of the primary functions of the Commission is to set State—wide standards and targets for natural resource management. The Commission is required to have regard to, among other things, the principles of ecologically sustainable development, the social and economic implications of its recommendations and advice, and regional variation in the environment.

The Catchment Management Authorities Act 2003 creates Catchment Management Authorities. The Authorities have both an operational role and a planning role. Operationally the Catchment Management Authorities are responsible for approving property vegetation plans under the Native Vegetation Act 2003 and delivering incentives to landholders from funding provided by Government. Catchment Management Authorities are also responsible for preparing catchment action plans. The catchment action plans are the link between the State-wide standards and targets and on ground actions at the regional level.

An objective of the *Native Vegetation Act 2003* is to end broadscale clearing except where the clearing will improve or maintain environmental outcomes. This Environmental Outcomes Assessment Methodology sets out the circumstances in which broadscale clearing is to be regarded as improving or maintaining environmental outcomes. It provides the scientific underpinning for, and the logic used in this assessment. It will continue to be refined as the science improves.

The Environmental Outcomes Assessment Methodology is applied using an objective, computer-based decision support software known as the Native Vegetation Assessment Tools (NVAT). This software weighs up the positive and negative benefits of different management actions helping assessment officers to make practical decisions based on the best scientific information available.

The Native Vegetation Assessment Tools will be used by Catchment Management Authorities to assist farmers prepare Property Vegetation Plans. Property Vegetation Plans will be the main vehicle for delivering on farm incentives and for securing and clarifying farmers' rights to manage native vegetation consistent with the *Native Vegetation Act 2003*.

Detailed explanations on the use of the software outlined in the methodology are provided in Operations Manuals.

The methodology and software has evolved as a result of extensive field trials, public submissions and review by panels of independent scientists, farming and environmental interests.

It will continue to be refined as scientific knowledge advances. All future improvements to the Native Vegetation Assessment Tools will require consideration by the Natural Resources Commission and approved by the Minister for Climate Change and the Environment (in relation to aspects of assessment concerned with salinity, soil, water quality, biodiversity and threatened species).

Notes in this document are explanatory notes and do not form part of the document for the purposes of the Native Vegetation Regulation 2005.

**Note:** For further information please see the following:

Wentworth Group of Concerned Scientists, 2003 A New Model for Landscape Conservation in New South Wales, NSW Government

http://www.wwf.org.au/News and information/Publications/PDF/Report/new model report to carr.pdf

Native Vegetation Reform Implementation Group, 2003 *Final Report.* Department of Infrastructure, Planning and Natural Resources

http://www.nativevegetation.nsw.gov.au/methodology/index.shtml

Department of Natural Resources (DNR), 2003 A New Approach to Natural Resource Management.

http://www.nativevegetation.nsw.gov.au/methodology/index.shtml

The Native Vegetation Assessment Tools (NVAT) were known in previous versions of this EOAM as the Property Vegetation Plan Developer (PVP Developer).

# 2 Assessment of broadscale clearing proposals

# 2.1 Overview

The *Native Vegetation Act 2003* states that broadscale clearing proposed in a development consent or a property vegetation plan may only be approved if the clearing will improve or maintain environmental outcomes. Sections 15 and 32 of the *Native Vegetation Act 2003* allows the Native Vegetation Regulation 2005 to make provision for or with respect to "the circumstances in which broadscale clearing is to be regarded as improving or maintaining environmental outcomes"

This document sets out the circumstances in which clearing and, where appropriate associated offsets, are to be regarded as improving or maintaining environmental outcomes.

This document is adopted into the Native Vegetation Regulation 2005 (as required by the *Native Vegetation Act 2003*) by clause 24 of the Native Vegetation Regulation 2005. The Environmental Outcomes Assessment Methodology can only be varied in accordance with the process set out in clause 25 of the Native Vegetation Regulation 2005. In particular, before any change takes effect, the Native Vegetation Regulation 2005 will need to be updated to refer to the amended version (clause 25(1)(g)) of the Environmental Outcomes Assessment Methodology.

The environmental outcomes of clearing are highly variable and depend on a range of issues such as the type of vegetation being cleared, how the clearing will be undertaken and the existing state of the landscape in the area where the clearing is proposed. This document and the data that underlies some of the requirements (see Chapter Section 2.4) reflect this complexity.

To facilitate timely assessment of clearing proposals in accordance with the Environmental Outcomes Assessment Methodology, the methodology has been programmed into a decision support tool called the Native Vegetation Assessment Tool (NVAT). This allows local environmental variables and details of the clearing and any offset proposals to be entered into the computer, with the results of ensuing computations being available to assist decision making by the appropriate authorities as to whether the proposed broadscale clearing is to be regarded as improving or maintaining environmental outcomes in accordance with this Environmental Outcomes Assessment Methodology. An officer delegated by the Minister must certify that the Native Vegetation Assessment Tool complies in all aspects with the Environmental Outcomes Assessment Methodology. Decisions made in accordance with the Native Vegetation Assessment Tool will be regarded as improving or maintaining environmental outcomes.

The Director General of the Department of Environment, Climate Change and Water (or delegate) will maintain version control of the Native Vegetation Assessment Tool in accordance with amendments to the Environmental Outcomes Assessment Methodology made under clause 25 of the Native Vegetation Regulation 2005. Version control is managed through the PVPs Agreements Data and Customer Service (PADACS) system that automatically maintains the version of the Native Vegetation Assessment Tool and its databases used for a Property Vegetation Plan. A PVP can not be generated without reference to the PVPs Agreements Data and Customer Service system.

Broadscale clearing must be assessed in accordance with Chapters 2 to 6. The overall impacts of proposed broadscale clearing are to be determined by separately assessing the impacts of the proposal on:

- water quality (Chapter 3);
- salinity (Chapter 4);
- biodiversity (Chapter 5); and
- land degradation (soil) (Chapter 6).

Where the broadscale clearing is of an invasive native scrub species listed in Table 7.1 the option is available to have the proposal assessed in accordance with Chapter 7 only.

**Note:** The PVPs Agreements Data and Customer Service (PADACS) system was known in previous versions of this EOAM as the Property Administration Management System (PAMS).

# 2.2 The improve or maintain test

Proposed broadscale clearing assessed under this test is to be regarded as improving or maintaining environmental outcomes if either:

- 1) In relation to development applications, the impacts of the proposed clearing will improve or maintain environmental outcomes for each *relevant environmental value* ( that is, water quality, salinity, biodiversity and land degradation (soil)); or
- 2) In relation to a draft Property Vegetation Plan (PVP), the impacts of the proposed clearing and the benefits from any offset whether the same property or elsewhere, will improve or maintain environmental outcomes for each relevant environmental value.

If a clearing proposal that involves clearing of native vegetation (other than invasive native scrub) the proposal must be assessed against each of the relevant environmental values (that is, water quality, salinity, biodiversity and soils). For each environmental value, the clearing (and, where relevant, any offsets) must improve or maintain environmental outcomes, according to this Environmental Outcomes Assessment Methodology.

If a clearing proposal is for the purpose of clearing of invasive native scrub (as defined by this Environmental Outcomes Assessment Methodology in Chapter 7), then that proposal is assessed **only under Chapter 7** to determine whether the proposed clearing will improve or maintain environmental outcomes. If the assessment under Chapter 7 indicates that the proposed clearing will improve or maintain environmental outcomes, then there is no need to assess the proposal under Chapter 3 (water quality), Chapter 4 (salinity), Chapter 5 (biodiversity) and Chapter 6 (soils).

For a clearing proposal that deals with the clearing of invasive native scrub, if the assessment under Chapter 7 indicates that the clearing will **not** improve or maintain environmental outcomes, then the clearing proposal must be assessed in the same way as a proposal that involves clearing native vegetation that is not invasive native scrub.

# 2.3 Offsets

Where management actions that have environmental benefits (referred to as offsets) are proposed in a Property Vegetation Plan, the benefits of the proposed action are to be determined by separately assessing the benefits of the offset in relation to each of the environmental values listed above.

In addition to any specific requirements for offsets set out in Chapter Sections 3 to 6, the benefits of a proposed offset may only be taken into account when assessing whether proposed clearing will improve or maintain environmental outcomes if the:

- benefits of the offset persist for at least the duration of the negative impact of the proposed clearing; and
- offset is additional to actions or works carried out using public funds or to fulfil regulatory obligations.

Offsets may only be proposed in a Property Vegetation Plan.

# Note:

- **1.** The principles for the use of offsets are:
- A. the benefits of the offset persist for at least the duration of the negative impact of the proposed clearing (usually in perpetuity); and
- B. the benefits from any offset whether the same property or elsewhere will improve or maintain environmental outcomes for each relevant environmental value; and
- C. the offset vegetation for biodiversity is either of equal or greater regional conservation significance as the site proposed for clearing; and
- D. management actions are likely to be deliverable and enforceable; and
- E. permanent conservation measures are given greater value than other management actions; and
- F. the benefits of the offset are assessed using the same methodologies used to assess the impacts of the proposed clearing; and
- G. the offset is additional to actions or works carried out using public funds or to fulfil regulatory obligations; and
- H. only benefits from the management action or permanent conservation action may comprise the offset.
- **2.** Offsets (that are not related to how the proposed clearing is carried out) are not available as part of development applications as there is no way of ensuring that these actions are implemented by subsequent landholders.
- **3.** When the Minister on the advice of the Natural Resources Commission, approves the appropriate method(s) within the Environmental Outcomes Assessment Methodology the net effect of impacts and benefits on water quality, land degradation (soil) and salinity will be assessed and the flow-on effects of the impacts and benefits between water quality, land degradation (soil) and salinity will be taken into account. Biodiversity outcomes will not be tradeable.

# 2.4 Data variation

# 2.4.1 Databases containing environmental information

Chapters 3, 4, 5, 6 and 7 specify the circumstances in which broadscale clearing is to be regarded as improving or maintaining environmental outcomes for water quality, salinity, biodiversity, soils and invasive native scrub respectively.

To apply these circumstances accurately and meaningfully to the enormous range of possible clearing and offset proposals in the diverse environments that exist throughout the State it is necessary to rely on detailed data about the state of the environment in NSW. The information is held in the following databases:

- threatened species profile database;
- vegetation benchmarks database;
- overcleared landscapes database;
- overcleared vegetation types database;
- coastal thinning genera database;
- major rivers database;
- important wetlands database;
- soil subregions database; and
- invasive native scrub species database.

These databases are available from the web site of the Department of Environment, Climate Change and Water.

# 2.4.2 Changing the databases

The databases are updated in response to increasing knowledge about the environment and changes in the environment itself. Prior to updating the databases the Director General of the Department responsible for that database must consult the Natural Resources Commission, the Catchment Management Authorities and any other public authorities, bodies or persons that are, in the opinion of the Director General, likely to be affected by the proposal.

Changes to the databases must be published on the internet.

# 2.4.3 Using more appropriate local data

Where an assessment of proposed broadscale clearing using the approved database(s) indicates that the proposal does not improve or maintain environmental outcomes, it may be possible to utilise more appropriate local data.

If an **accredited expert** certifies that data is available that more accurately reflects local environmental conditions (compared to the data in the approved databases) in relation to:

- vegetation benchmarks;
- overcleared landscapes;
- overcleared vegetation types;
- · coastal thinning genera; and
- threatened species profile data, including (but not limited to) whether threatened animal species
  are likely to occur on the land in that vegetation type or key habitat feature in the subregion and
  the estimated percentage increase in population that can be expected in response to a proposed
  management action, as measured by either an increase in the number of individuals, or area of
  habitat component or key habitat feature;

the Catchment Management Authority Board or General Manager (exercising power delegated by the Minister) may authorise the replacement of the approved data with data that the accredited expert advises is more appropriate.

After the data is varied the proposal may be reassessed in accordance with clause 26(1)(a) of the Native Vegetation Regulation 2005.

In certifying that data is available that more accurately reflects local environmental conditions (compared to the data in the approved databases), the accredited expert must:

- · Provide reasons for this opinion; and
- Comply with any assessment protocols approved by the Minister for Climate Change and the Environment (in relation to aspects of assessment concerned with salinity, soil, water quality, biodiversity and threatened species) and the Minister for Primary Industries (in relation to aspects of assessment concerned with fish and marine vegetation).

**Accredited expert** means a person accredited by the Minister for Climate Change and the Environment as an expert for the purposes of this Chapter Section, being accreditation on the basis of criteria approved by the Minister for Climate Change and the Environment (in relation to aspects of assessment concerned with salinity, soil, water quality, biodiversity and threatened species) and the Minister for Primary Industries (in relation to aspects of assessment concerned with fish and marine vegetation).

If broadscale clearing is approved after data has been varied in accordance with this Chapter Section the requirements of clause 29 of the Native Vegetation Regulation 2005 must be complied with.

# 3 Water Quality Assessment

# 3.1 Introduction

Riparian vegetation provides multiple benefits for water quality, land degradation (soil), salinity and terrestrial and aquatic biodiversity. Riparian (or riverside) vegetation therefore is used as a surrogate for water quality impacts, where the term "water quality" is used broadly to mean "river health". In addition to the sediment and nutrient aspects of water quality, this also encompasses aquatic habitat (for biodiversity protection) and geomorphologicall considerations.

"Riparian land is important because it is usually the most fertile and productive part of the landscape, in terms of both agriculture and natural ecosystems. It often has better quality soils than surrounding hill-slopes and, because of its lower position in the landscape, often retains moisture over a longer period" (Cotton Research and Development Corporation, 2003).

"Riparian land often supports a greater diversity of plants and animals than non-riparian land. This is a result of its wide range of habitats and food types, its closeness to water, its microclimate and its ability to provide refuge. Many native plants and animals are found only, or mainly, in riparian lands, and this makes these areas essential to many animals for all or part of their lifecycle" (Cotton Research and Development Corporation, 2003).

"Riparian land also provides a refuge for native plants and animals in times of drought and fire, as well as providing corridors for wildlife in highly-cleared landscapes" (Cotton Research and Development Corporation, 2003).

"Careful management of riparian land is vital for the conservation of Australia's unique biodiversity" (Cotton Research and Development Corporation, 2003).

# 3.2 The improve or maintain test for water quality

The water quality tool is to be used in the field during site visits. The user is to apply the tool if all or part of a stream or wetland area can be seen on the ground within the proposed Property Vegetation Plan area or within the following distances from the boundary of the Property Vegetation Plan area:

- coast and tablelands- 40 metres;
- western slopes and plains-100 metres; or
- estuarine areas-50 metres;

Otherwise there is no need to apply the tool and clearing is deemed to improve or maintain environmental outcomes for water quality.

# 3.2.1 Clearing that does not improve or maintain environmental outcomes for water quality

Subject to Chapter Section 3.2.3, below, the following clearing does not improve or maintain environmental outcomes *for water quality* and cannot be offset:

- clearing within 20 metres of, and within, a stream listed in Major Rivers Database (NSW Government, 1977);
- clearing within the riparian buffer distance around important wetlands or minor wetlands (as defined in Table 3.1).

Table 3.1 Definition of riparian buffer distance	Table 3.1	Definition	of riparian	buffer	distances
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	Size of stream/wetland				
Location	Minor watercourses, flood runners and effluents	Minor creeks & lagoons	Minor rivers, minor wetlands & major creeks	Major rivers & important wetlands	
Coast & tablelands	10 m	20 m	30 m	40 m	
Western slopes & plains	20 m	40 m	60 m	100 m	
Estuarine areas	50 m from the astronomical high tide mark (where no obvious bank).				

# 3.2.2 Clearing that may improve or maintain environmental outcomes for water quality with appropriate offsets

Subject to Chapter Sections 3.2.1 and 3.2.3, it is deemed that clearing within the riparian buffer distance will not improve or maintain environmental outcomes for water quality without offsets. The offset:

- must provide commensurate vegetation cover (to minimise soil erosion and filter sediment); and
- must be within the riparian buffer distance that applies to the stream or wetland where the offset is to be located; the offset need not be on the same stream or lagoon as the clearing.

Offsets for water quality are calculated using the process described for biodiversity in Chapter 5. Proposed offsets may need to be assessed under Chapters 4 and 6 to determine whether the water quality offset has any negative impacts on salinity or land degradation.

# 3.2.3 Clearing that does improve or maintain environmental outcomes for water quality

The following clearing is deemed to improve or maintain environmental outcomes for water quality:

- · clearing outside the riparian buffer distances for streams and wetlands; or
- clearing within the riparian buffer distances for streams and wetlands if it is for thinning of native vegetation to benchmark conditions for biodiversity (see Chapter Section 5.4).

# 3.3 Definitions

**Stream** means any river, creek, or natural watercourse, whether artificially modified or not, in which water flows, regardless of flow regime, in a defined flow path, bed or channel.

**Effluent** means an anabranch or distributary that is:

- a) listed in the Major Rivers Database (see definition of Minor River); or
- b) not listed in the Major Rivers Database but is shown on the topographic map in the Native Vegetation Assessment Tool.

**Lagoon** means a wetland that is visible on the ground but may or may not be marked on a 1:25,000 (or next best available scale) topographic map, is not listed in the Important Wetlands Database, is not a SEPP 14 Wetland and is not shown on the map of wetlands in the Native Vegetation Assessment Tool.

**Major river** means any part of a stream that is listed as a "major river" in the Major Rivers Database which is:

- a) downstream of the most upstream tributary listed in the Major Rivers Database; or
- b) downstream of another stream that is listed as a "major river" in the Major Rivers Database.

# Minor river means any part of a stream that is:

- a) listed as a tributary or effluent in the Major Rivers Database, and has one or more upstream tributaries that are 2<sup>nd</sup> order based on the topographic map in the Native Vegetation Assessment Tool: or
- b) listed as a "major river" in the Major Rivers Database, and is:
  - (i) above the highest tributary listed in the Major Rivers Database; and
  - (ii) does not have another stream upstream of it that is listed as a "major river" in the Major Rivers Database; and
  - (iii) has one or more upstream tributaries that are 2<sup>nd</sup> order based on the topographic map in the Native Vegetation Assessment Tool.

# Major creek means any part of a stream that is:

a) Major creek has the same meaning as "Minor river" in the context of the Native Vegetation Assessment Tool.

# Minor creek means any part of a stream that is:

- a) not listed in the Major Rivers Database, is not an effluent or flood runner and the topographic map in the Native Vegetation Assessment Tool shows it has tributaries upstream of it; or
- b) a listed tributary or effluent of a "major river" in the Major Rivers Database, and the stream section is above the highest 2<sup>nd</sup> order tributary marked on the topographic map in the Native Vegetation Assessment Tool; or
- c) listed as a "major river" in the Major Rivers Database, and the stream section is above the highest 2<sup>nd</sup> order tributary marked on the topographic map in the Native Vegetation Assessment Tool.

# Minor watercourse means any part of a stream:

- a) that is not listed in the Major Rivers Database and the topographic map in the Native Vegetation Assessment Tool shows it has no tributaries upstream of it; and
- b) for which there is a visible path where water flows intermittently, ephemerally or permanently, that may be vegetated and which may or may not have an eroded channel.

*Important wetland* means a wetland that is listed in the Important Wetlands Database or is a SEPP 14 wetland.

*Minor wetland* means a wetland that is shown on the map of wetlands in the Native Vegetation Assessment Tool but is not listed in the Important Wetlands Database and is not a SEPP 14 wetland.

**Flood runner** means a continuous channel across or down a floodplain that only carries flow during an overbank flood.

**SEPP 14 wetland** means a wetland that is shown on the map of SEPP 14 wetlands in the Native Vegetation Assessment Tool.

*Visible channel* means a visible path where water flows, regardless of flow regime, which shows some degree of incision or erosion.

# Note:

- 1. The classification of major and minor rivers in the Major Rivers Database is based on the publication "Restrictions on the removal of trees on NSW watercourses" (NSW Government, 1977), stream ordering and visual inspection. All streams listed in the booklet, whether listed as "major rivers" or not, have been provided with the same protection zone (within 20 m of their banks) since 1964. Minor amendments have been made to the list in the booklet to make it suitable for current needs and the amended listing has been reorganised into one table for each Catchment Management Authority, and a separate table of "major rivers" (see in the Major Rivers Database). The amendments preserve the original protection afforded to listed streams.
- 2. The Commonwealth Department of Environment and Heritage has listed 'nationally important wetlands', a subset of which is a list of Nationally Important Wetlands in NSW. A list of these wetlands, *Nationally Important Wetlands in NSW*, is provided by Catchment Management Authority area in the Operations Manual (see the Important Wetlands Database).
- 3. SEPP 14 wetlands are shown on the map of SEPP 14 wetlands provided in the Native Vegetation Assessment Tool.

# 3.4 Using the modified Strahler Stream ordering system

Progressing upstream, rivers and creeks become progressively smaller and their default riparian buffer distance requirements reduce. For example, working upstream, the Murrumbidgee starts as a "major river" but it progressively dwindles to be a "minor river or major creek" and then to be a "minor creek" before it peters out altogether. Provision has also been made in the Major Rivers Database for streams, such as the Darling, that undergo name changes.

Where stream ordering is used in the above definitions, this is determined using the Strahler system, which starts with 1<sup>st</sup> order at the top of the stream network (based on a 1:25,000 or next best available scale topographic map). The modified Strahler system is illustrated in Figure 3.1.

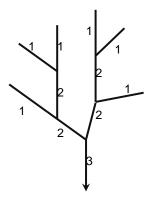


Figure 3.1 Modified Strahler stream ordering system

The stream ordering system is designed to produce results that are consistent between catchments, but also recognise legitimate regional differences. It is also designed to be simple enough to be useful to practitioners in the field, but at the same time reflect the differentiation in Table 3.1.

# 3.5 Measuring buffer distances

For streams, riparian buffer distances are measured on both sides of the stream from top of bank if this is defined, otherwise from the centre of the stream. Where a stream has more than one bank on either side, the bank closest to the main channel should be used, to protect vegetation on and within the stream banks.

For wetlands, riparian buffer distances are measured on all sides from the wetland limit. Where a wetland has more than one bank, the bank closest to the wetland area should be used.

Where a clearing or offset site is adjacent to a wetland, the distances for both streams and wetlands should be measured and the greater riparian buffer distance should be adopted.

# Note: References

Cotton Research and Development Corporation (2003), *Managing riparian lands in the cotton industry*, Narrabri.

www.crdc.com.au

Department of Environment and Heritage, 2001 *Nationally Important Wetlands in NSW*, Canberra.

www.deh.gov.au/water/wetlands/database/directory/pubs/ch6.pdf

Kingsford, R.T., Brandis, K., Thomas, R., Crighton, P., Knowles, E. and Gale, E., 2003. *Distribution of Wetlands in NSW*, Hurstville.

www.nationalparks.nsw.gov.au/PDFs/Wetland\_distribution\_report.pdf

NSW Government, 1977. 'Restrictions on the removal of trees on NSW watercourses'.

# **Note Bibliography**

- Askey- Doran M. 1999. 'Managing and rehabilitating riparian vegetation' in *Riparian Land Management Technical Guidelines Volume Two: On-ground Management Tools and Techniques.* Price, P. & Lovett, S. (eds) LWRRDC, Canberra.
- (Caterall, 1993). 'The Importance of Riparian Zones to Terrestrial Wildlife' in *Ecology and Management of Riparian Zones in Australia*. Bunn, S.E et al (eds). Proceedings of a National Workshop on research and management needs for riparian zones in Australia, Marcoola, Southeast QLD April 13-14 1993.
- DEH, 2001. 'Inland Water Theme Report' in *Australian State of the Environment 2001 (Theme Report)*. Department of Environment and Heritage, Canberra. <a href="http://www.deh.gov.au/soe/2001/inland">http://www.deh.gov.au/soe/2001/inland</a>
- Dickson, J.G. and Williamson J.H, 1988. 'Small mammals in streamside management zones in pine plantations' 375-378 in *Management of amphibians, reptiles and small mammals in North America*. General Technical Report USDA Forest Service, RM166:1-458. Cited in Anderson S. and Masters R., (2003). *Riparian Forest Buffers*. OSU Extension Facts, Division of Agricultural Sciences and Natural Resources, Oklahoma State University. <a href="http://www.ttrs.org.au/images/pdfs/f\_5034%20Riparian%20Forest%20Buffers.pdf">http://www.ttrs.org.au/images/pdfs/f\_5034%20Riparian%20Forest%20Buffers.pdf</a>
- DSNR, 2003. Draft Riparian Corridor Management Study: covering all of the Wollongong Local Government Area and Calderwoood Valley in the Shellharbour Local Government Area. NSW Department of Sustainable Natural Resources.
- GB Catchment Management Authority, 2000. Goulburn Broken Native Vegetation Plan Vol 2: Native Vegetation Retention Controls- Regional Guidelines for the Goulburn Broken Catchment Draft August 2000. Goulburn Broken Catchment Management Authority.
- Halse S.A. Jensen A. and Davis J.A, 1993. 'Riparian zone management in WA and SA: policy and practice' in *Ecology and Management of Riparian Zones in Australia*. Bunn, S.E et al (eds). Proceedings of a National Workshop on research and management needs for riparian zones in Australia, Marcoola, Southeast QLD April 13-14 1993.
- Hines H.B and the Southeast Queensland Threatened Frogs Recovery Team 2002. *Recovery plan for stream frogs of southeast Queensland 2001-2005.* Report to Environment Australia, Canberra. Queensland Parks and Wildlife Service, Brisbane.
- Jansen A. and Robertson A., 2001. 'Relationship between livestock management and the ecological condition of riparian habitats along an Australian floodplain river' in *Journal of Applied Ecology*, 38, 63-75.

- Jorgensen E. Canfield T. and Mayer P., 2002. *Research Needs in Riparian Buffer Restoration* Issue Paper Advances in Restoration Science No. 1. United States Environmental Protection Agency.
  - http://www.epa.gov.ada.download/issue/epa\_600\_s02\_002.pdf
- Lismore City Council, 2002. *Development Control Plan No. 27 Buffer Areas*. <a href="http://www.lismore.nsw.gov.au">http://www.lismore.nsw.gov.au</a>
- Lovett S. and Price P., 2001. 'Land and Water Habitats' in *Managing Riparian Lands in the Sugar Industry: a guide to principles and practices.* Sugar Research & Development Corporation/Land & Water Australia, Brisbane.
- Lynch R.J. and Catterall C.P., 1999. 'Managing riparian land for terrestrial wildlife' in *Riparian Land Management Technical Guidelines Volume Two: On-ground Management Tools and Techniques*. Price, P. & Lovett, S. (eds) LWRRDC, Canberra.
- Munks S, 1996. A guide to riparian vegetation and its management. Tasmanian Department of Primary Industries and Fisheries, Hobart.
- NRE, 2002. Victoria's Native Vegetation Management- A Framework for Action. Department of Natural Resources and Environment. <a href="http://www.dse.vic.gov.au">http://www.dse.vic.gov.au</a>
- NRM, 2003. Nebo-Broadsound Draft Regional Vegetation Management Plan 2003. QLD Department of Natural Resources Mines and Energy. http://www.nrm.qld.gov.au/vegetation/pdf/nebo\_broadsound/nebo\_draft\_rvmp.pdf
- Prosser I. Karssies L. Ogden R. and Hairsine P., 1999. 'Using buffers to reduce sediment and nutrient delivery to streams' in *Riparian Land Management Technical Guidelines Volume Two: On-ground Management Tools and Techniques.* Price, P. & Lovett, S. (eds) LWRRDC, Canberra.
- Thompson, L. Robertson, A. Jansen, A. and Davies, P. 2003. *Identifying Best Management Practices for Riparian Habitats in Gippsland Dairy Regions: Riparian Condition and Relationships with Farm Management.* Johnstone Centre, CSU Wagga Wagga.

# 4 Salinity Assessment

#### 4.1 Introduction

This Environmental Outcomes Assessment Methodology defines the circumstances in which broadscale clearing is to be regarded as improving or maintaining environmental outcomes for salinity under the *Native Vegetation Act 2003* including for the purposes of agreeing to a Property Vegetation Plan.

The assessment of the impacts of clearing on salinity, and the calculation of offsets, varies with location in NSW of the proposal:

- in upland areas of the Murray-Darling Basin, most of the Hunter catchment and a few coastal catchments, where dryland salinity has been identified as a significant hazard, the procedure involves calculating a Salinity Benefits Index, which is a measure of the change in stream salinity from current levels arising from a change in land cover. Chapter Section 4.4 describes the procedure for applying the improve or maintain test to clearing proposals and evaluating offsets using the Salinity Benefits Index;
- in the western part of NSW, where the geomorphic province is best described as "plains" but can also include some upland areas, the hydrologic processes and connectivity of salt stores with the surface drainage network are not adequately represented by the Salinity Benefits Index modelling approach. Here, the assessment procedure involves calculating a Salt Mobilisation Index which is a measure of the change in salt mobilised following a change in land use or cover (Department Infrastructure Planning and Natural Resources, 2005). Chapter Section 4.5 outlines the procedure for applying the improve or maintain test to clearing proposals in these areas;
- on the coastal slopes and tablelands an assessment of salinity is undertaken using only the Land and Soil Capability Tool (LSC); and
- on the coastal plains, a salinity assessment is not required because the dryland salinity hazard is low except in the Hawkesbury-Nepean coastal plain.

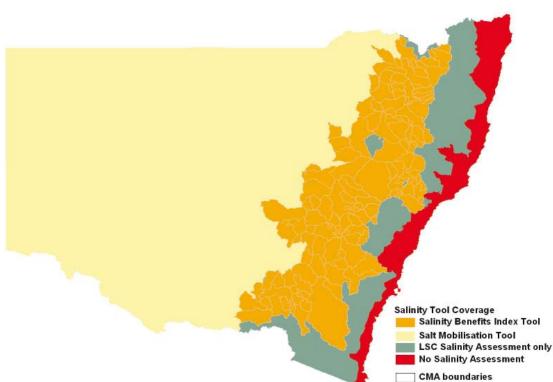


Figure 4.1 Map showing where each salinity assessment procedure is used

# 4.2 Assessing salinity hazard

The Land and Soil Capability Tool provides a preliminary assessment of clearing and offset proposals to check whether they are likely to improve or maintain environmental outcomes for dryland salinity.

A salinity hazard assessment is undertaken for all Catchment Hazard Areas where the clearing of native vegetation is proposed, excluding most of the Coastal Plains Catchment Hazard Areas. The one Coastal Plains exception is the Hawkesbury-Nepean Coastal Plain, where a preliminary assessment of salinity hazard is required.

A salinity hazard assessment is not required where the proposal to clear native vegetation involves the removal of paddock trees, as defined for the *BioMetric* Tool.

The criteria used by the Land and Soil Capability Tool to assess salinity hazard depend on the Catchment Hazard Area in which the assessment is undertaken and include:

- evidence of salinity outbreaks in the Land and Soil Capability zone;
- evidence of salinity outbreaks down-slope from the Land and Soil Capability zone;
- whether the Land and Soil Capability zone is in a known high salt store area;
- permeability of the soil; and
- condition of existing native vegetation.

The criteria (and relationships between the criteria) used by the Land and Soil Capability Tool to determine the Land and Soil Capability Class are shown in Table 4.1 for all Slopes and Tablelands Catchment Hazard Areas and the Hawkesbury-Nepean Coastal Plain Catchment Hazard Area, and in Table 4.2 for the Inland Plains Catchment Hazard Area.

If a preliminary salinity hazard assessment by the Land and Soil Capability Tool results in Land and Soil Capability Class 3 to 6, in the case of a clearing proposal, or Land and Soil Capability Class 3 to 8 in the case of an offset proposal, then:

- where the Salinity Benefits Index Tool is available for the Catchment Hazard Area, this Tool must be run to determine the salinity offset requirement, if any; or
- where the Salinity Benefits Index Tool is not available for the Catchment Hazard Area, and the Salt Mobilisation Tool is available, then the Salt Mobilisation Tool must be run to determine the salinity offset requirements.

Table 4.1 Criteria for determining Land and Soil Capability Class for Salinity Hazard for all Slopes and Tablelands Catchment Hazard Areas and the Hawkesbury - Nepean Coastal Plains Catchment Hazard Area.

Evidence of salinity outbreaks in the Land and Soil Capability Zone	Evidence of salinity outbreaks downslope from the Land and Soil Capability Zone	Salt Store Class	Land and Soil Capability Class
		Very Low	1
		Very Low to Low; Low Low to Moderate;	2
	No salt outbreaks M		3-6
		High; High to Very High	7
No salt outbreaks		Very High	8
NO Sait Outbreaks	Salt outbreaks observed but not extensive and no	Very Low; Very Low to Low; Low; Low to Moderate; Moderate	3-6
	severe scalding	Moderate to High; High	7
	· ·	High to Very High; Very High	8
	Salt outbreaks extensive and severe scalding	Any	7-8
	No salt outbreaks	Very Low; Very Low to Low; Low; Low to Moderate; Moderate	3-6
		Moderate to High; High	7
Salt outbreaks observed		High to Very High; Very High	8
but not extensive and no severe scalding	Salt outbreaks observed	Very Low; Very Low to Low; Low; Low to Moderate	3-6
but not extensive and no severe scalding	but not extensive and no severe scalding	Moderate; Moderate to High; High	7
	_	High to Very High; Very High	8
Salt outbreaks extensive and severe scalding		Not Required	7-8
Salt outbreaks extensive and severe scalding	Not Required	Not Required	7-8

Table 4.2 Criteria for determining Land and Soil Capability Class for Salinity Hazard for the Inland Plains Catchment Hazard Area.

Evidence of salinity outbreaks in the Land and Soil Capability Zone	Salt Store Class	Soil Permeability Class <sup>1</sup>	Low Condition Vegetation <sup>2</sup>	Land and Soil Capability Class
		Low	Yes	1
	Very Low;		No	1
	Very Low	Moderate	Yes No	1 2
	to Low		Yes	2
		High	No	3
		1	Yes	1
	Low; Low	Low	No	2
	to to	Moderate	Yes	2
	Moderate	Moderate	No	3
	Moderate	High	Yes	3
		9	No	4
		Low	Yes No	<u>2</u> 3
			Yes	3
No salt outbreaks	Moderate	Moderate	No	4
	j †	مانه!! ا	Yes	4
		High	No	5
		Low	Yes	3
	Moderate	LUVV	No	4
	to High;	Moderate	Yes	4
	High	- Inodorato	No	5
	1 11911	High	Yes No	5 6
			Yes	4
	I limb to	Low	No	5
		High to	Yes	5
	Very High;		No	6
	Very High	Lliab	Yes	6
		High	No	7
		Low	Yes	3
	Very Low;	LOW	No	3
	Very Low	Moderate	Yes	3
	to Low		No Yes	3
		High	No	3 4
			Yes	3
	Lovelove	Low	No	3
	Low; Low	Moderate	Yes	3
	to	Moderate	No	4
	Moderate	High	Yes	4
		i ligit	No	4
		Low	Yes	3
Salt outbreaks and/or	<b> </b>		No Yes	<u>4</u> 4
scalding	Moderate	Moderate	No	4
Scalding			Yes	4
		High	No	5
		Law	Yes	4
	Moderate	Low	No	4
	to High;	Moderate	Yes	4
	High	www.	No	5
	1 "9"	High	Yes	5
	<u> </u>		No Yes	<u>6</u> 4
		Low	Yes No	5
	High to		Yes	5
	Very High;	Moderate	No	6
	Very High	High	Yes	6
				7

<sup>&</sup>lt;sup>1</sup> Defined in Section 4.5.4

<sup>&</sup>lt;sup>2</sup> Defined in Section 4.3.7

#### 4.3 Definitions

#### 4.3.1 Streamflow

Streamflow is the total volume of water in a stream channel, for a specified time. It is measured at gauging stations and therefore is only known for discrete locations. In this model, streamflow (expressed in megalitres/year) is reported as an average annual value for the period 1975-2000.

Streamflow is separated into two flow components: quickflow and baseflow:

- Quickflow is the component of streamflow that is generated quickly during a rainfall event. It is sourced from surface runoff and lateral shallow subsurface runoff (i.e. pathways of water movement that are at or close to the ground surface). Quickflow is assumed to be a function of rainfall, soil, topography and land use.
- Baseflow is the component of streamflow that travels more slowly from the catchment to the stream and tends to sustain flow in a channel between rainfall events. It is sourced from rainfall that has infiltrated deep into the soil profile to recharge groundwater. This pathway of flow is typically slower than surface runoff pathways. Baseflow is assumed to be a function of rainfall, soil and land use.

# 4.3.2 Recharge

Recharge refers to the component of rainfall that infiltrates (percolates) down through the soil, beyond the root zone of the vegetation cover and into the groundwater aquifer. Rates of recharge tend to be slow. Where recharge water is discharged from a groundwater aquifer into a stream, it contributes to baseflow.

#### 4.3.3 Surface Runoff

We use the term surface runoff to refer to the component of rainfall that flows at or relatively close to the ground surface and which, when it reaches a stream channel, contributes to the quickflow component of streamflow. It includes flow across the land surface and lateral shallow subsurface flow.

#### 4.3.4 Salt Load

Salt load is the quantity of salt carried by a stream, over a specified time. It is a function of the salinity of streamflow and the volume of streamflow:

Salt Load 
$$(M)$$
 = Streamflow  $(V)$  \* Salinity  $(M/V)$ 

#### 4.3.5 Stream Salinity

Stream salinity is the concentration of salt in a volume of water – in other words, the mass of salt per unit volume of water:

$$Salinity = \frac{Salt(M)}{Water(V)}$$

#### 4.3.6 Local Reference Point

The local reference point is the nearest downstream gauging station from the list approved by the Minister. The list can be found in Tables 4.7 to 4.10 in Chapter Section 4.6.

# 4.3.7 Low Condition Vegetation

For the purposes of the salinity assessments:

- Native woody vegetation is in low condition if:
  - the over-storey percent foliage cover is less than 50% of the over storey percent foliage cover benchmark for that vegetation type; and
  - the percent ground cover tends(or is on average) less than 50%.
- Native grassland, shrubland, wetland or herb field is in low condition if:
  - the percent ground cover tends (or is on average) less than 50%.

Ground cover can comprise non-native species, including weeds, as the interest from a salinity perspective is in water use by the vegetation cover. This represents a slight variation on the definition of 'low condition' used in biodiversity assessments.

#### 4.3.8 Paddock Trees

Paddock trees refer to "native vegetation with an over-storey projected foliage cover less than 25% of the lower benchmark for the vegetation community and where the ground layer is either exotic crop, ploughed fallow or almost exclusively perennial or annual exotic pasture (90% plus of the cover is exotic species)".

# 4.4 Using the Salinity Benefits Index Tool

At any given point along a stream network, stream salinity provides an integrated signature of the salinity processes operating in the area contributing to that point. The salinity benefits index value is used to determine whether the improve or maintain condition for a proposal to clear native vegetation is met and, if not met, the minimum level of offset (expressed in terms of the salinity benefits index) required to meet the improve or maintain test. The rationale for, and calculation of, the Salinity Benefits Index are described in Chapter Sections 4.4.4 and 4.4.5.

#### 4.4.1 Clearing Areas

Clearing is deemed to improve or maintain instream salinity conditions if there is no increase in the long-term average stream salinity. The following general rules are used to interpret the Salinity Benefits Index (SBI) for clearing:

- If SBI > 0, then the proposal improves stream salinity outcomes and there is no requirement for salinity offsets;
- If **SBI** = **0**, indicates that at the reference location there is no net change in average annual stream salinity, and there is no requirement for salinity offsets;
- If **SBI < 0**, then the proposal does not improve or maintain stream salinity outcomes. The proposal can only occur if actions are undertaken elsewhere on the property to offset the negative salinity impact.

#### 4.4.2 Offset Areas

If offsets are required to mitigate against salinity impacts from a proposal to clear native vegetation, then the following rules are used to interpret the offset salinity benefits index relative to the clearing Salinity Benefits Index (SBI):

- If SBI<sub>offset</sub> ≥ 0 and SBI<sub>offset</sub> ≥ (SBI<sub>clearing</sub> ignoring its minus sign), then the cumulative impact of the clearing and offset actions improve salinity outcomes;
- If SBI<sub>offset</sub> ≥ 0 and SBI<sub>offset</sub> < (SBI<sub>clearing</sub> ignoring its minus sign), then the proposed offset provides
  a partial offset to the clearing impact, but the net outcome is that stream salinity is not improved
  or maintained. Additional or alternative salinity offsets are required;

 If SBI<sub>offset</sub> < 0, then no salinity benefit is gained and the proposed offset does not improve or maintain stream salinity outcomes.

To obtain consistent and meaningful results the Salinity Benefits Indices for the impacts of a clearing proposal and any proposed offsets must be evaluated at the same reference point.

Offsets must be located:

- on the 'same property' as that where the clearing is proposed, and
- in catchments of the same stream order (Strahler system) or lower, and
- in the same SBI catchment as that of the clearing proposal.

The 'same property' assumes a contiguous block of land, but this definition can be expanded at the discretion of the CMA to include a property that is fragmented, so long as the clearing and offset sites are within the same local catchment, groundwater flow system or salinity hazard area. In circumstances where group PVP proposals are considered, the 'same property' refers to all properties making up the group bid, but with offset areas still subject to the other constraints listed above.

# 4.4.3 Reference Location

Salinity Benefits Index values are evaluated at the Local Reference Point (see Tables 4.7 to 4.10 in Chapter Section 4.6). It is assumed that:

- where the Salinity Benefits Index is negative at the reference location, the offset will negate any
  adverse impact such that there is no change in average stream salinity anywhere along the
  stream length;
- where the local Salinity Benefits Index is positive at the reference location (hence not requiring a salinity offset), any negative impact that might occur downstream of this point will be negligible, reflecting the increasing attenuation of impacts with distance downstream of the area of change.

#### 4.4.4 Conceptual Framework for the Salinity Benefits Index Tool

It is assumed that if:

- the quantities of water and salt flowing past a given point in a stream; and
- the physical characteristics, which influence catchment water and salt yields (e.g. rainfall, topography, soil properties, salt stores, land cover), of the area contributing to that point;
- are known, then the water and salt loads at the measurement point can be apportioned to different parts of the catchment based on hydrologic principles and salt storage patterns.

In other words, every part of a contributing catchment can be defined in terms of its contribution to catchment water yield and salt export.

The approach adopted assumes that:

- there are two salt stores within the system: a soil salt store and a groundwater salt store;
- the salt from the soil salt store is mobilised by surface runoff and contributes to the salt load in quickflow;
- the salt from the groundwater salt store is mobilised by recharge and contributes to the salt load in baseflow;
- changing land cover can affect quickflow and baseflow in different proportions; and
- that soil and groundwater salinities are unaffected by land cover change.

Therefore, to capture the different pathways for salt mobilisation and differences in the way that quickflow and baseflow are impacted by a land cover change, streamflow is separated into two flow components. Source area maps represent the spatial variability of each component. For example, the source area map for quickflow describes the relative significance of every part of a catchment in terms of its contribution to quickflow. These source area maps are inputs to the Salinity Benefits Index Tool, which sits behind the Native Vegetation Assessment Tool software.

Because quickflow and baseflow are influenced by land cover, when a land cover change is made, the source area distributions also change. The differences between the current condition and new condition source area distributions are used to calculate new quickflow and baseflow volumes. The changes in quickflow and baseflow cause changes in their respective salt loads, and these new flows and salt loads are used to calculate a Salinity Benefits Index.

# 4.4.5 Calculating the Salinity Benefits Index

The Salinity Benefits Index is a measure of the relative change in stream salinity from current salinity levels at a specific location, caused by changes in land cover and/or management.

A Salinity Benefits Index value is calculated as follows:

$$SBI = \frac{\frac{Salt_{current}}{Water_{current}} - \frac{Salt_{new}}{Water_{new}}}{\frac{Salt_{current}}{Water_{current}}} = \frac{Salinity_{current} - Salinity_{new}}{Salinity_{current}} * 1000$$

Where the subscript *current* refers to the mean annual salt load, water and salinity under current land cover conditions and subscript *new* refers to these same terms under the proposed land cover changes (Herron *et al.*, 2004). This equation says that the Salinity Benefits Index is the proportional change in stream salinity from current conditions caused by the land cover change.

The Salinity Benefits Index is evaluated at a reference point and applies to that reference point only. A reference point is a location downstream of the area of proposed clearing or other land use/management change at which measured streamflow and salinity data are available (i.e. a gauging station). The period 1975-2000 serves as the standard benchmark period for all catchment salinity assessments in the Murray-Darling Basin Salinity Management Strategy (MDBMC, 2003), and has therefore been used for deriving mean annual streamflow and salt load estimates for use in the Salinity Tool in the Native Vegetation Assessment Tool.

# 4.4.6 Defining Current Land Use Conditions

#### **Streamflow**

Streamflow is monitored in New South Wales' rivers by a network of gauging stations. A subset of these gauging stations is used to delineate the catchments used in the Salinity Benefits Index Tool for calculating the Salinity Benefits Index (see Tables 4.7 to 4.10 in Chapter Section 4.6). The selected gauging stations have good flow records and provide data, which is also used in NSW for surface water resources management planning.

The daily streamflow record for each gauging station is split into quickflow and baseflow components, using a digital filter approach. This is a standard hydrologic procedure for separating long term continuous records (Lyne & Hollick, 1979).

#### **Salt Loads**

Stream salinities are also measured at the gauging stations, although the record is generally shorter than for streamflow monitoring. Relationships between stream salinity and flow have been developed for each catchment based on the available data and these relationships are used to generate continuous time-series data of salinity, from which salt loads can be calculated. Salt load is split into quickflow and baseflow salt loads using the approach in CATSALT v1.5 (Tuteja et al., 2003; Vaze et al., 2004).

#### **Spatial Data**

A catchment is represented as a grid composed of square pixels (or cells) with sides of 25 metres. To represent the spatial pattern of a particular catchment attribute, whether it is elevation, groundwater salinity, recharge or some other attribute, each pixel within a grid is assigned a numerical value

representing the attribute value in that part of the catchment. Different catchment attributes, represented as individual grids, are combined to produce weighted surfaces, reflecting the contributions from each pixel to total guickflow, baseflow and associated salt loads.

The weighted surface is a source area map in which the magnitude of the value assigned to each pixel of a catchment reflects its contribution to the total. Table 4.3 lists the individual grid layers used to generate weighted surfaces for quickflow, baseflow, quickflow salt load and baseflow salt load.

The proportional contribution,  $P_i$ , that cell i makes to some catchment total (eg. baseflow) is a function of the value of that cell,  $w_i$ , in the weighted grid relative to the sum of all the cell values ( $\Sigma$  = sum of) within the weighted grid,  $\Sigma w_i$ :

$$P_i = \frac{w_i}{\sum_i w_i}$$

When  $P_i$  is multiplied by, for example, the mean annual baseflow for the catchment, the result is the volume of water contributed by pixel i to the total at the catchment outlet.

Table 4.3 The catchment attributes combined to produce weighted surfaces for quickflow, baseflow, quickflow salt load and baseflow salt load.

Quickflow	Baseflow	Quickflow Salt Load	Baseflow Salt Load
Digital Elevation Model(DEM)  →* Compound topographic index (CTI)	Climate → Recharge	Soil Salinity	Groundwater salinity
Climate → Runoff	Soils → Recharge	Salt Outbreaks	Baseflow
Soils → Runoff		DEM → Flowpath length	
Land Cover	Land Cover	DEM → slope	
		Quickflow	

 $<sup>^*</sup>$  The  $\rightarrow$  symbol indicates a processing step from the first attribute to a derived attribute.

# **Factors Influencing Quickflow and Baseflow**

- Rainfall influences the amount of water entering the system. Everything else being equal, a
  pixel with a high mean annual rainfall will be a more significant source of quickflow than one with
  low rainfall. Modelled rainfall grids (five kilometre grid resolution) are derived by interpolating
  between points where rainfall has been measured (Hutchinson, 1995);
- Soils different soils have different physical properties, which influence how readily they store
  and transmit water. The best available mapped soils data are used to define the spatial pattern of
  soils across each catchment. Soil hydraulic properties are assigned to each of the different soil
  types, based on measured data and, where measured data is not available, standard modelling
  techniques for deriving soil hydraulic properties;
- Runoff the soil hydraulic properties and rainfall data are in the generation of a state-wide runoff
  grid. Water balance modelling was undertaken for every unique combination of climate zone and
  soil type occurring in the state to calculate average annual runoff (in mm). The spatial variability in
  runoff, as influenced by climate and soil type (i.e. no vegetation cover) is represented in the
  resultant runoff grid;
- Recharge the soil hydraulic properties and rainfall data are in the generation of a state-wide recharge grid. Water balance modelling was undertaken for every unique combination of climate zone and soil type occurring in the state to calculate average annual recharge (in mm). The spatial variability in recharge, as influenced by climate and soil type (i.e. no vegetation cover) is represented in the resultant recharge grid;
- Topographic position influences the re-distribution of catchment water between rainfall events.
  Locations with large contributing areas and low local gradients tend to accumulate catchment
  water. As a result they are more likely to generate quickflow (i.e. shed water quickly) when it rains
  because their relatively high moisture content prevents more rain from infiltrating. They also tend

to be near the stream so delivery of runoff to the stream occurs quickly. Locations with low contributing areas and/or steep gradients tend to drain relatively quickly, which means that on average they tend to be relatively dry. When it rains, more rain can infiltrate. These areas tend to be distant from streams, and are less significant sources of quickflow. A modelled index, the compound topographic index (CTI of Beven and Kirkby (1979)) is used to reflect this characteristic:

• Land cover — influences the evapotranspiration term of the catchment water balance and the partitioning between overland flow and infiltrated runoff. Perennial vegetation types use more water through a year via evapotranspiration than annual vegetation types, which are active for only part of the year (Zhang et al., 2001). In general, trees use more water than perennial grass systems because they tend to have deeper root networks, and can access water stored deeper in the soil profile. Where there is no vegetation cover, the transfer of rainfall back to the atmosphere is by evaporation from the soil and this is restricted to a fairly shallow depth. These differences between vegetation types and cover influence the quantity of rainfall, which is available for quickflow and baseflow.

A water balance model is also used to calculate the weight assigned to each land cover class to reflect its influence on recharge and runoff. A bare soil condition is set as the reference condition and assigned a weighting of one (1). Since plant cover has the effect of reducing runoff and recharge, relative to bare soil, the land cover weightings are between zero (0) and one (1), where zero (0) is no runoff or recharge and one (1) is the same runoff or recharge as bare soil.

In the SBI Tool, the land cover/use layer maps to a look-up table which contains the land use weightings for runoff and recharge for every land cover/use type. These weightings vary from catchment to catchment.

#### Weighted Quickflow Surface

A weighted quickflow surface,  $QF_w$ , is generated by combining the runoff grid (based on soil-rainfall data) with the CTI surface and the weighted land use surface for quickflow ( $LU_{qf}$ ):

$$QF_w = Runoff * CTI * LU_{af}$$

# **Weighted Baseflow Surface**

A weighted baseflow surface,  $BF_w$ , is generated by combining the recharge grid (based on soil-rainfall data) and the weighted land use surface for baseflow ( $LU_{bf}$ ):

$$BF_w = Recharge * LU_{bf}$$

# **Factors Influencing Salt Load**

- Soil Salinity reflects the concentration of salt in the soil and available for mobilisation by quickflow. Everything else being equal, areas of high salinity are assumed to be more significant source areas of salt than areas of low salinity. Soil salinity spatial units are based on mapped soil type or geology, salt outbreak areas and landscape position. Estimates of soil salinity for each spatial unit are based on measured data and generalisations from point data to the wider area. Soil salinity is adjusted by topographic factors to account for landscape connectivity. In other words, each pixel is weighted to reflect the concentration of salt that the quickflow generated on the pixel would acquire in its journey to the stream. If a pixel is close to the stream, its weighting will be less than a pixel that is far away from the stream network, everything else being equal. Furthermore, if quickflow from two pixels must travel the same distance to the stream, but the pathway for one pixel is through very saline cells, while the other pathway is through relatively non-saline cells, the pixel with the more saline pathway will have the higher weighting;
- Groundwater salinity reflects the concentration of salt in groundwater and contributing to baseflow salt loads. Areas with high groundwater salinities are assumed to be more significant source areas of salt than areas of low groundwater salinity. Groundwater salinity spatial units are

defined on the basis of groundwater flow systems mapping, and each unit is assigned a salinity value based on measured data and extrapolation from measured data to the wider area.

# Weighted Quickflow Salt Load Surface

As quickflow salt load is a function of soil salinity and volume of quickflow, the weighted quickflow salt load grid,  $S_{QFw}$ , is generated by combining the weighted quickflow grid with the weighted soil salinity grid,  $SoilEC_w$ :

$$S_{OFw} = QF_w * SoilEC_w$$

# **Weighted Baseflow Salt Load Surface**

As baseflow salt load is a function of groundwater salinity and volume of baseflow, the weighted baseflow salt load grid,  $S_{BFw}$ , is generated by combining the weighted baseflow grid with the groundwater salinity grid,  $GWEC_w$ :

$$S_{BFw} = BF_w * GWEC$$

# 4.4.7 Land Cover Change

Once the distribution of catchment exports is defined for current land use conditions, different land use changes can be modelled and the change in mean annual salt loads and streamflow estimated.

The land cover term is the only variable in the model. All of the other catchment characteristics are assumed to not change. When land cover is changed, the amount of rainfall that returns to the atmosphere changes, as do the amounts of rainfall that become runoff (quickflow) and recharge (baseflow).

If an area of annual crops is converted to woodland, runoff and recharge is reduced. In the model, the weightings for cropping, which might be around 0.7 or 0.8, are changed to the appropriate land cover weightings for woodland, which are more like 0.2 or 0.3. This causes the weighted quickflow and baseflow surfaces to change – in this instance the sum of the weighted grids for quickflow and baseflow under the proposed land use change are lower than under the current conditions. The sum of the weighted grid under the new condition is compared to that for the current condition. The ratio, which in this case will be less than 1, is multiplied by the mean annual quickflow (baseflow) to obtain a new mean annual quickflow (baseflow).

A change in quickflow and baseflow volumes influences the export of salt from the affected area and the weighted quickflow salt load and baseflow salt surfaces also change. Using the same approach, the new salt load for the land cover change is calculated.

The new exports are calculated as follows:

#### Quickflow

$$QF^{new} = \frac{\sum QF_{w}^{new}}{\sum QF_{w}} * QF_{ann}$$

#### **Baseflow**

$$BF^{new} = \frac{\sum BF_{w}^{new}}{\sum BF_{w}} * BF_{ann}$$

#### **Quickflow Salt Load**

$$S_{\mathit{QF}}^{\mathit{new}} = \frac{\sum S_{\mathit{QFw}}^{\mathit{new}}}{\sum S_{\mathit{QFw}}} * S_{\mathit{QF}}^{\mathit{ann}}$$

# **Baseflow Salt Load**

$$S_{BF}^{new} = \frac{\sum S_{BFw}^{new}}{\sum S_{BFw}} * S_{BF}^{ann}$$

Where QF is quickflow, BF is baseflow, S is salt load and new denotes parameters for the new land use scenario. These equations compare the sum of all the cells in the weighted grid for the new land use scenario to that of the current land use for each flow and salt component and multiply the ratio by the current mean annual quickflow,  $QF_{ann}$ , baseflow,  $BF_{ann}$ , quickflow salt load,  $S_{OF}^{ann}$  and baseflow salt

load,  $S_{BF}^{ann}$ , respectively. Thus, using information about current exports and the best available hydrologic and salt storage data, estimates of the impacts of land use changes on average annual streamflow and salt load are derived.

Finally, the salinity benefits index is calculated by:

- summing together quickflow and baseflow for current conditions and for the new conditions to produce total streamflows for current and new conditions:
- summing together the quickflow and baseflow salt loads for current conditions and the new conditions to produce current and new total salt loads;
- putting these values into the salinity benefits index equation; and
- rounding to the nearest whole (integer) number.

# 4.5 Using the Salt Mobilisation Tool

In the western parts of NSW, where landscapes tend to be flat and the connectivity between salt stores, hydrologic pathways and the stream network is not well understood, it is assumed that land cover changes which reduce average annual recharge benefit the environment through reducing the mobilisation of salt in the landscape.

The Salt Mobilisation Tool is used to calculate a Salt Mobilisation Index (SMI) for each site where clearing or offsets is proposed. The Salt Mobilisation Index is a measure of potential salt mobilisation as a function of recharge and salt store. The Salt Mobilisation Index is used to determine whether the improve or maintain condition for a proposal to clear native vegetation is met and, if not met, the minimum level of offset required to meet the improve or maintain test. The rationale for, and calculation of, the Salt Mobilisation Index are described in Chapter Sections 4.5.3 and 4.5.4.

# 4.5.1 Clearing Areas

Clearing is deemed to improve or maintain salinity outcomes if there is no increase in local recharge, hence salt mobilisation. The following general rules are used to interpret the Salt Mobilisation Index (SMI) for clearing:

- If SMI ≥ 0, then the proposal is deemed to improve or maintain salinity outcomes and there is no requirement for salinity offsets;
- If SMI < 0, then the proposal is deemed to not improve or maintain salinity outcomes. The
  proposal can only occur if actions are undertaken elsewhere on the property to offset the negative
  salinity impact.</li>

The majority of proposals to clear native vegetation in western NSW are likely to cause an increase in local recharge, and will typically require offsets. The steps for calculating the salt mobilisation offset requirement are described in Chapter Sections 4.5.2 and 4.5.4.

#### 4.5.2 Offset Areas

If offsets are required to produce a net no salt mobilisation outcome from a proposal to clear native vegetation, then the following rules are used to interpret the offset Salt Mobilisation Index relative to the clearing Salt Mobilisation Index (SMI):

- If SMI<sub>offset</sub> > 0 and SMI<sub>offset</sub> > (SMI<sub>clearing</sub> ignoring its minus sign), then the cumulative impact of the clearing and offset actions is deemed to improve or maintain salinity outcomes;
- If **SMI**<sub>offset</sub> > **0** and **SMI**<sub>offset</sub> < **(SMI**<sub>clearing</sub> ignoring its minus sign**)**, then the proposed offset provides a partial offset to the clearing impact, but the net outcome is that some salt is mobilised and the improve or maintain test is not met. Additional or alternative salinity offsets are required;
- If **SMI**<sub>offset</sub> < **0**, then the offset proposal is likely to increase salt mobilisation, hence provides no offset. The improve or maintain test is not met for salinity outcomes.

#### Offsets must be located:

- on the 'same property' as that where the clearing is proposed, and
- in catchments of the same stream order (Strahler system) or lower.

The 'same property' assumes a contiguous block of land, but this definition can be expanded at the discretion of the Catchment Management Authority to include a property that is fragmented, so long as the clearing and offset sites are within the same local catchment, groundwater flow system or salinity hazard area. In circumstances where group PVP proposals are considered, the 'same property' refers to all properties making up the group bid, but with offset areas still subject to the other constraints listed above.

#### 4.5.3 Conceptual Framework for the Salt Mobilisation Tool

The approach adopted for assessing salinity impacts in relatively flat, floodplain environments is based on a very different assumption from the upland areas, where the assessment is based around the impacts on stream salinity. Here, the assumption is simply that reducing the mobilisation of salt stored in the ground is beneficial to the environment. Reducing salt mobilisation can be achieved through land cover changes that increase plant water uptake and, hence, reduce recharge. With respect to the clearing of native vegetation, unless the clearing involves the replacement of native grasses with some higher water use vegetation cover such as trees, the impacts will always be negative and require a salinity offset.

The Salt Mobilisation Tool uses current land cover, proposed land cover, salt store class, soil permeability class and the area of the clearing and offset sites to determine whether salinity outcomes are improved or maintained.

#### 4.5.4 Calculating the Salt Mobilisation Offset requirement

The Salt Mobilisation Index is a function of the change in recharge caused by the proposed land cover change and the salt store weighting for the area. A limited set of recharge estimates has been defined to cover the range of land covers and soil types of the Inland Plains.

Each land cover available for selection in the tool has been classified into one of five classes according to its water use characteristics. In general, deep-rooted, perennial vegetation covers are on average higher water users than shallow-rooted or annual vegetation systems and the rating reflects this. Table 4.4 gives the water use efficiency rating that has been assigned to a range of different land cover options in western NSW.

For the native vegetation classes, it is assumed that water use will be less efficient where vegetation is in a "low condition" than where it is in a relatively undisturbed condition. Chapter Section 4.3.7 provides the definition of "low condition" for salinity purposes. Note that this definition differs somewhat from the biodiversity definition of low condition, since from a water use perspective a groundcover dominated by weeds can be as efficient as the natural groundcover. In other words, it is not the composition of the groundcover, so much as the extent of coverage, which is significant in terms of water use. In Table 4.4, each of the native vegetation classes has a water use efficiency classification reflecting the two conditions.

Paddock trees are assumed to be native vegetation remaining in areas of cropping or pasture (Chapter Section 4.3.8 for definition). The Salt Mobilisation Tool treats the clearing of paddock trees

as having no impact on recharge, hence salt mobilisation. Thus clearing of paddock trees is deemed to maintain environmental outcomes.

Table 4.4 Vegetation covers classified into water use efficiency classes.

Variation Class	Water Use Efficiency Class		
Vegetation Class	Not Low Condition	Low Condition	
Arid and semi-arid shrublands <sup>1</sup>	Very High	High	
Semi arid woodlands <sup>1</sup>	Very High	High	
Sclerophyll grassy woodlands <sup>1</sup>	Very High	High	
Dry sclerophyll shrub/grass forest <sup>1</sup>	Very High	High	
Dry sclerophyll shrub forest <sup>1</sup>	Very High	High	
Forested Wetlands <sup>1</sup>	Very High	High	
Grasslands (native) <sup>1</sup>	High	Moderate	
Horticulture (with DIMP <sup>2</sup> )	High	N/A	
High water use pasture (e.g. lucerne)	High	N/A	
Response cropping	High	N/A	
Pasture with paddock trees	High	N/A	
No till cropping / Deep-rooted perennial pasture rotation	High	N/A	
Continuous no till cropping	High	N/A	
No till winter cropping	Moderate	N/A	
Crops with paddock trees	Moderate	N/A	
Summer-winter cropping	Moderate	N/A	
Pasture (e.g. annual grasses/medic)	Moderate	N/A	
Winter cropping (with conventional fallow)	Low	N/A	
Annual pasture (e.g. oats)	Low	N/A	
Horticulture (with no DIMP <sup>2</sup> )	Very Low	N/A	

<sup>&</sup>lt;sup>1</sup> Based on Keith vegetation formations relevant to western NSW and non-native vegetation types relevant to western NSW.

<sup>2</sup> DIMP is drainage and irrigation management plan (DIMP).

Soil permeability classes are defined on the basis of their clay and sand content:

- low: light, medium and heavy clays;
- moderate: loams, clay loams;
- high: sandy loams, loamy sands, sands.

Sandy soils tend to have lower water holding capacities and higher conductivities than clay-rich soils, hence, everything else being equal, areas characterised by sandy soils have higher recharge rates.

The combined effects of soil permeability and water use efficiency on recharge are summarised in Table 4.5. Recharge estimates are based on values reported in the literature for areas with average annual rainfalls less than about 500 mm. It is the accuracy of the relative differences between classes, rather than that of the absolute values, which is significant for the calculations undertaken here.

Table 4.5 Estimates of average annual recharge (mm) in western NSW.

Soil Permeability Class	Vegetation Water Use Efficiency Class				
Son Fernieability Class	Very Low	Low	Moderate	High	Very High
High	100	60	20	5	0.5
Moderate	60	30	10	3	0.1
Low	20	10	5	1	0.1

These values (in mm) are used to calculate the impact of changing land cover on recharge, *R*, on both the clearing and offset sites, as follows:

$$\begin{split} \Delta R_{\textit{clearing}} &= \left(R_{\textit{clearing}}^{\textit{NV}} - R_{\textit{clearing}}^{\textit{proposed}}\right) * A_{\textit{clearing}} \\ \Delta R_{\textit{offset}} &= \left(R_{\textit{offset}}^{\textit{current}} - R_{\textit{offset}}^{\textit{proposed}}\right) * A_{\textit{offset}} \end{split}$$

where  $\Delta R$  is the change in average annual recharge (mm) from changing land cover, multiplied by the area, A, of clearing. The subscripts and superscripts *offset*, *clearing*, *current*, *proposed* and *NV* refer to the offset site, clearing site, current vegetation cover, proposed vegetation cover and native vegetation, respectively. The formulation of the equation is such that a change to lower water use vegetation will result in a negative  $\Delta R$ , whereas a change to higher water use vegetation will result in a positive  $\Delta R$ .

The change in recharge from the land cover change is multiplied by the salt store weighting,  $S_w$ , (Table 4.6) for the site to produce an index of salt mobilisation.

$$SMI = \Delta R * S_w$$

With respect to a proposal to clear native vegetation, a negative SMI value on the clearing site will indicate the need for a salt mobilisation offset and the magnitude of the SMI will indicate how large an offset is required.

Table 4.6 Salt store classes and their model weighting.

Salt Store Class	Weighting, $S_w$
Very High	350
High – Very High	250
High	175
Moderate - High	145
Moderate	100
Low – Moderate	55
Low	35
Very Low – Low	25
Very Low	10

Salt weightings have been assigned to a salt store map of New South Wales (Figure 4.2), which was produced as part of the Salinity Hazard Mapping project (Department of Natural Resources). The salt store map represents the spatial pattern of salt storage in the groundwater, regolith and soil, taken together. The PVP Mapper version has been classified into 9 classes (Table 4.6) and the weightings assigned to each class are based on the range of salinity values from groundwater data. Weightings have been used in preference to actual salinity values because of uncertainties in the soil, regolith and groundwater salt store data.

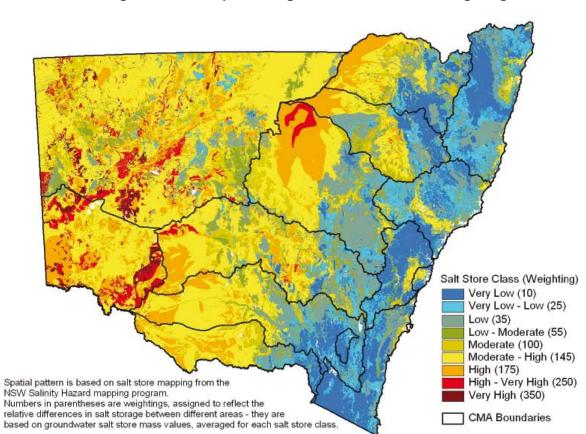


Figure 4.2 Map showing salt store class and weightings.

**CMA Boundaries** 

# 4.6 Catchments covered by the Salinity Benefits Index tool

Table 4.7 Border Rivers/Gwydir and Namoi

Stream Gauge	Description of Location	Stream Gauge	Description of Location
Number		Number	
Border Riv		Namoi	
416003	Tenterfield Creek	419001	Namoi River @ Gunnedah
416006	Severn River @ Ashford	419005	Namoi River @ North Cuerindi
416008	Beardy River @ Haystack No 4	419006	Peel River @ Carrol Gap
416010	Macintyre River @ Wallangra	419007	Namoi River @ Keepit Dam
416012	Macintyre River @ Holdfast	419012	Namoi River @ Boggabri
416020	Ottleys Creek @ Coolatai	419015	Peel River @ Piallamore
416021	Frazers Creek @ Ashford	419016	Cockburn River
416026	Reedy Creek	419020	Manilla River @ Briabri
416032	Mole River @ Donaldson	419022	Namoi River @ Manilla Railway Bridge
416039	Severn River @ Strathbogie	419024	Peel River @ Paradise Weir
Gwydir		419027	Mooki River
418001	Gwydir River @ Pallamallawa	419029	Halls Creek
418005	Copes Creek	419032	Coxs Creek
418012	Gwydir River @ Pinegrove	419035	Goonoo Goonoo Creek
418013	Gwydir River @ Gravesend Bridge	419036	Duncans Creek
418015	Horton River	419043	Manilla River @ Tarpoly Weir
418016	Warialda Creek	419045	Peel River @ Chaffey Dam
418017	Myall Creek	419051	Maules Creek
418018	Keera Creek		
418021	Laura Creek		
418022	Georges Creek		
418023	Moredun Creek		
418025	Halls Creek		
418026	Gwydir River @ Copeton Dam		
418029	Gwydir River @ Stonybatter		
418032	Tycannah Creek		
418033	Bakers Creek		

Table 4.8 Murrumbidgee and Murray

Stream Gauge Number	Description of Location	Stream Gauge Number	Description of Location
Murrumbio	dgee		
410001	Murrumbidgee River @ Wagga Wagga	410048	Kyeamba Creek
410004	Murrumbidgee River @ Gundagai	410057	Goobarragandra River
410025	Jugiong Creek	410059	Gilmore Creek
410026	Yass River	410061	Adelong Creek
410038	Adjungbilly Creek	410071	Brungle Creek
410039	Tumut River @ Brungle Bridge	410073	Tumut River @ Oddy's Bridge
410043	Hillas Creek	410087	Bullenbung Creek
410044	Muttama Creek	410103	Houlaghans Creek
410045	Billabung Creek		
410047	Tarcutta Creek	Murray	
		410091	Billabong Creek @ Walbundrie

Table 4.9 Castlereagh, Macquarie and Lachlan

Stream Gauge Number	Description of Location	Stream Gauge Number	Description of Location
Macquarie		Castlereag	jh
421001	Macquarie River @ Dubbo	420004	Castlereagh River @ Mendooran
421007	Macquarie River @ Bathurst	420007	Castlereagh River @ Binnaway
421018	Bell River		
421019	Cudgegong River @ Yamble Bridge	Lachlan	
421025	Macquarie River @ Bruinbun	412002	Lachlan River @ Cowra
421026	Turon River	412004	Lachlan River @ Forbes
421035	Fish River	412009	Belubula River @ Canowindra
421040	Macquarie River d/s Burrendong Dam	412028	Abercrombie River
421041	Crudine Creek	412029	Boorowa River
421042	Talbragar River	412030	Mandagery Creek
421048	Little River	412043	Goobang Creek
421052	Lewis Creek	412050	Crookwell River
421053	Queen Charlottes Creek	412055	Belubula River @ Bangaroo Bridge
421058	Wyaldra Creek	412057	Lachlan River @ Nanami
421059	Buckinbah Creek	412065	Lachlan River @ Narrawa
421066	Pyramul Creek	412067	Lachlan River @ Wyangala Dam
421072	Winburndale Creek	412072	Back Creek
421073	Meroo Creek	412077	Belubula River @ Carcoar
421079	Cudgegong River @ Windamere Dam Site	412080	Flyers Creek
421101	Campbells River	412092	Coombing Creek

Table 4.10 Hunter and Hawkesbury (Capertee, Wollondilly and Wolgan)

	abio iiio iiaiikoi aiia iiaiikoobai	y (Gaportoc	, Wondining and Wolgan,
Stream Gauge Number	Description of Location	Stream Gauge Number	Description of Location
Hunter		Hunter	
210055	Hunter River @ Denman	210002	Hunter River @ Muswellbrook Br
210044	Glennies Creek @ Middle Falbrook	210052	Pages River @ Gundy Recorder
210090	Martindale Creek near Martindale		
210089	Black Creek @ Rothbury	Capertee	
210088	Dart Brook @ Aberdeen No.2	212018	Capertee River @ Glen Davis
210087	Doyles Creek @ Doyles Creek	Wolgan	
210071	Glendon Brook @ Glendon Brook	212028	Wolgan River @ Newnes
210040	Wybong Creek @ Wybong	Wollondilly	/
210031	Goulburn River @ Sandy Hollow	212270	Wollondilly River @ Jooriland
210014	Rouchel Brook @ Rouchel Brook (The Vale)	212271	Wollondilly River @ Golden Valley
210064	Hunter River (Singleton-Greta)		

#### Note: References

- Beven, K.J. and Kirkby, M.J. (1979) A physically based, variable contributing area model of basin hydrology, *Hydrological Sciences Bulletin*, 24(1), 43-69.
- Department of Land and Water Conservation (1995) Integrated Quantity-Quality Model (IQQM) Reference Manual, NSW DLWC, Sydney
- Department of Infrastructure, Planning and Natural Resources (2005) "NSW Salinity Hazard Assessment". Draft Report August 2005, Sydney.
- Herron, N.F., Peterson, P. and Black, D. (2004) *The Salinity Benefits Index: A Method for Calculating the Impacts of Land Use Change on Stream Salinities*, NSW Department of Infrastructure Planning and Natural Resources, Sydney, Australia, 23pp
- Hutchinson, M.F. (1995) Interpolating mean rainfall using thin plate smoothing splines, *International Journal of Geographic Information Systems*, 9, 385-403,.
- Lyne, V.D. and M. Hollick, Stochastic time-varying rainfall-runoff modelling. Hydrology and Water Resources Symposium, Perth. Institution of Engineers, Australia, 89-92, 1979.
- Murray-Darling Basin Commission Ministerial Council (2003). Basin Salinity Management Strategy Operational Protocols. Murray-Darling Basin Commission, Canberra.
- Tuteja, N.K., Beale, G.T.H., Dawes, W., Vaze, J., Murphy, B., Barnett, P., Rancic, A., Evans, R., Geeves, G., Rassam, D.W., and Miller, M., 2003. Predicting the effects of landuse change on water and salt balance a case study of a catchment affected by dryland salinity in NSW, Australia, *Journal of Hydrology*, Vol. 283, 1-4, pp.67-90.
- Vaze, J., Barnett, P., Beale, G.T.H., Dawes, W., Evans, R., Tuteja, N.K., Murphy, B., Geeves, G., and Miller, M., 2004. Modelling the effects of landuse change on water and salt delivery from a catchment affected by dryland salinity in south-east Australia, *Hydrological Processes*, Vol. 18, pp. 1613 1637.
- Zhang, L., Dawes, W. R. and Walker, G. R. (2001) The response of mean annual evapotranspiration to vegetation changes at catchment scale, *Water Resources Research*, *37*(3) 701-708.

# 5 Biodiversity Assessment

#### 5.1 Introduction

This Environmental Outcomes Assessment Methodology defines the circumstances in which broad-scale clearing is to be regarded as improving or maintaining environmental outcomes for biodiversity under the *Native Vegetation Act 2003*, including for the purposes of agreeing to a Property Vegetation Plan.

BioMetric is the tool used to assess losses in biodiversity from proposed clearing and gains in biodiversity from proposed offsets. It is also used to assess thinning to benchmark stem densities. BioMetric incorporates data held by the NSW Department of Environment, Climate Change and Water in the following databases: vegetation benchmarks database, overcleared landscapes database, overcleared vegetation types database and coastal thinning genera database. BioMetric includes data on Mitchell Landscapes, vegetation formations, vegetation types and other associated data and formulae needed to assess the value of biodiversity in the context of national, regional, landscape and site scales according to the procedures included in this Environmental Outcomes Assessment Methodology.

Under Chapter Sections 5.2 - 5.3:

- Clearing of native vegetation does not improve or maintain environmental outcomes for biodiversity in vegetation types or landscapes that are overcleared unless the vegetation is in low condition;
- Native vegetation can only be cleared if losses from proposed clearing can be offset by commensurate long-term gains from revegetation or management of native vegetation. Offsets can only improve or maintain environmental outcomes if:
  - 1. i) offsets are in vegetation types of equal or greater Regional Value to the vegetation proposed for clearing or,
    - ii) where the vegetation type proposed for clearing is less than or equal to 70% cleared in the Catchment Management Authority area, offsets may be in vegetation types with Regional Values up to 10% lower than the vegetation proposed for clearing; and
  - 2. improvement in Landscape Value from the offset is equal to or greater than the losses from proposed clearing; and
  - 3. improvement in Site Value from the offset is equal to or greater than losses from proposed clearing.

Prior to assessment of impact, the area to be cleared must be divided into zones comprising each vegetation type and relatively homogenous condition categories. Vegetation that is in low condition, and is greater than 0.25 hectares in area, must always form a separate zone from vegetation that is not in low condition. If the area to be cleared comprises more than one zone, separate assessments must be undertaken for each zone.

Thinning to benchmark stem densities is assessed under Chapter Section 5.4.

# 5.2 Overcleared vegetation and landscapes

This Chapter Section does not apply to clearing that is thinning to benchmark stem densities (Chapter Section 5.4).

# 5.2.1 The improve or maintain test

Clearing of overcleared vegetation does not improve or maintain environmental outcomes for biodiversity, unless the vegetation is in low condition.

Overcleared vegetation is native vegetation that:

- 1. occurs in a Mitchell Landscape that is more than 70% cleared; or
- 2. is a vegetation type that is more than 70% cleared; or

3. is an ecological community listed as 'critically endangered' or 'endangered' under the *Threatened Species Conservation Act 1995* (NSW) or listed as 'critically endangered', 'endangered' or 'vulnerable' under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth).

Offsets cannot be used to balance the impacts of clearing overcleared vegetation that is not in low condition.

#### 5.2.2 Determining whether the vegetation is in low condition

Vegetation in low condition is defined as follows:

#### Native woody vegetation:

- 1. with an over-storey percent foliage cover that is less than 25% of the lower value of the overstorey percent foliage cover benchmark for that vegetation type; and where
- 2. a) less than 50% of the groundcover vegetation is indigenous species; or
  - b) more than 90% of the area is ploughed; or
  - c) more than 90% of the area is fallow; or
  - d) 90% or more of the groundcover vegetation is regrowth but not protected regrowth.

# Native grassland, wetland or herbfield vegetation where:

- 1. a) less than 50% of the groundcover vegetation is indigenous species; or
  - b) more than 90% of the area is ploughed; or
  - c) more than 90% of the area is fallow; or
  - d) 90% or more of the groundcover vegetation is regrowth but not protected regrowth.

For the purposes of determining whether vegetation is in low condition, all vegetation types are assessed as **native woody vegetation** if the tallest structural layer is one metre or greater in height. In this case, the tallest structural layer is assessed as over-storey, and both over-storey and groundcover are assessed to determine whether the vegetation is in low condition.

Where all structural layers are less than one metre in height, the vegetation type is assessed as **native grassland, wetland or herbfield vegetation**. For vegetation types where the upper stratum is less than one metre in height, all strata are assessed as groundcover vegetation.

Only patches of vegetation greater than 0.25 ha are assessed separately (as distinct zones) from surrounding vegetation (e.g. a patch of vegetation with benchmark over-storey cover that is 0.25 ha or less is not assessed separately from surrounding vegetation with sparser over-storey cover).

The over-storey is assessed using one of the methods outlined in the *BioMetric* Operational Manual.

The groundcover is assessed using a method consistent with the *Native Vegetation Regulation 2005* and the *BioMetric* Operational Manual.

# 5.2.3 Determining whether the vegetation is in an overcleared landscape

An overcleared landscape is a Mitchell Landscape area in which more than 70% of native vegetation cover has been cleared. The Mitchell Landscape areas and whether they are overcleared are contained within the overcleared landscapes database.

The overcleared landscapes database is a database held by the NSW Department of Environment, Climate Change and Water and approved by the Director General, NSW Department of Environment, Climate Change and Water.

#### 5.2.4 Determining whether the vegetation is an overcleared vegetation type

An overcleared vegetation type is a vegetation type of which more than 70% has been cleared within the relevant Catchment Management Authority area. The vegetation type and whether it is an overcleared vegetation type is identified from the list within the overcleared vegetation types database.

The overcleared vegetation types database is a database held by the NSW Department of Environment, Climate Change and Water and approved by the Director General, NSW Department of Environment, Climate Change and Water.

# 5.3 Assessing impacts of clearing generally

This Chapter Section does not apply to:

- clearing that is thinning to benchmark stem densities (under Chapter Section 5.4); or
- impacts of clearing on Threatened Species (under Chapter Sections 5.5-5.8).

# 5.3.1 The improve or maintain test

Clearing is to be regarded as improving or maintaining environmental outcomes for biodiversity if the losses in biodiversity from the proposed clearing can be offset by commensurate long-term gains in biodiversity from the proposed offsets. Offsets can only improve or maintain environmental outcomes for biodiversity if:

- either:
  - 1. where the vegetation type proposed for clearing is more than 70% cleared in the Catchment Management Authority area: offsets are in vegetation types of equal or greater Regional Value to the vegetation proposed for clearing; or
  - where the vegetation type proposed for clearing is less than or equal to 70% cleared in the Catchment Management Authority area: offsets are in vegetation types of equal or greater Regional Value to the vegetation proposed for clearing, or are in vegetation types with Regional Values up to 10% lower than the vegetation proposed for clearing;

and

- improvement in Landscape Value from the offset is equal to or greater than losses from clearing;
   and
- improvement in Site Value from the offset is equal to or greater than losses from clearing.

Note: To illustrate condition 2 above, a vegetation type proposed to be cleared that is 60% cleared in the Catchment Management Authority area may be offset by a vegetation type that is no less than 50% cleared in the Catchment Management Authority area.

#### 5.3.2 Assessing Regional Value

Regional Value is calculated from the relationship between the percentage(s) of the vegetation type(s) that is/are cleared relative to its/their pre-European (or pre-1750) extent(s) within each Catchment Management Authority. The greater the percentage of the original extent of a vegetation type that has been cleared the higher is its Regional Value.

BioMetric calculates overall Regional Value for the vegetation type(s) using the equation set out below.

Regional Value of both proposed clearing site and proposed offset site is calculated using:

- The percent that each vegetation type has been cleared relative to predicted pre-European extent; and
- A generic species-area relationship; and
- The proportion of the site occupied by each vegetation type (zone).

Regional Value = 
$$\sum_{i=1}^{n} \left( \left( 1 - \left( \frac{\% cleared}{100} \right) \right)^{0.25} \right) \times \left( \frac{ZoneArea}{TotalArea} \right) \times 100 \right)_{i}$$

Where:

*i* is the *n*th vegetation zone (of either the clearing or offset site);

%cleared is the percent of the vegetation type in the ith vegetation zone that is cleared;

ZoneArea is the area of the ith zone in hectares; and

*TotalArea* on the clearing site is the sum of the area of all zones in the proposal in hectares, where a site includes more than one zone.

TotalArea on the offset site is the sum of the area of all zones in the proposal in hectares.

# 5.3.3 Assessing Landscape Value

Landscape Value encompasses fragmentation, connectivity and adjacency of native vegetation around the clearing and offset sites as well as contributions from riparian areas and Site Value from offset sites. The assessor determines change in landscape value using the following variables:

- Percent cover of native vegetation in the landscape. This is current vegetation cover and future vegetation cover (with proposed clearing at the site and with proposed management actions at the offset site) within radii of 1.79 km (1000 ha) and 0.55 km (100 ha). Each circle is placed to encompass the maximum loss of native vegetation cover from clearing and the maximum gain in native vegetation cover from the management actions. The clearing and offset sites may be within different circles. Percent cover of native woody vegetation is assessed as a combination of extent and over-storey percent cover relative to benchmark cover for that vegetation type. Percent cover of native non-woody vegetation is assessed as a combination of extent and percent cover of native groundcover relative to benchmark cover for those vegetation types. The relevant scores are shown in Table 5.2;
- Connectivity. The loss in connectivity at a clearing site and gain in connectivity at an offset site
  are determined according to changes to linkage width classes and linkage condition classes and
  scored as shown in Table 5.3.3:
- Total adjacent remnant area. This is the total remnant area of which the clearing site is a part. It is recorded as extra large, very large, large, medium or small and scored as shown in Table 5.4;
- Percentage within riparian area (offset site(s) only). Additional points are awarded on the offset site if part or all of the site includes riparian area. Riparian area is defined in Chapter 3. The scores for percentage within riparian area are determined according to Table 5.5;
- Contribution of Site Value offsets to Landscape Value (offset site(s) only). Additional Site Value offsets may contribute to Landscape Value in Mitchell Landscapes and vegetation types that are less than or equal to 30% cleared in the Catchment Management Authority. Where the Site Value score on the offset site is more than the Site Value offset requirements the additional Site Value score may contribute to offsets for Landscape Value, as defined in Table 5.6.

The relative weightings for these variables are provided in Table 5.1.

#### Change in Landscape Value with clearing

Change in Landscape Value with clearing is calculated as the difference between current Landscape Value and Landscape Value with clearing. Landscape Value at the clearing site encompasses fragmentation, connectivity and adjacency of native vegetation around the clearing site.

The change in Landscape Value at the clearing site(s) is determined using the following formula:

$$\textit{Landscape Value}_{\textit{Clearing site}} = \left(\sum_{v=a}^{d} \left(s_{v} w_{v}\right)\right)_{\text{Current}} - \left(\sum_{v=a}^{c} \left(s_{v} w_{v}\right)\right)_{\text{With proposed clearing site}} - \left(\sum_{v=a}^{c} \left(s_{v} w_{v}\right)\right)_{\text{With proposed site}} - \left(\sum_{v=a}^{c} \left(s_{v} w_{v}\right)\right)_{\text{With propos$$

where:

 $s_v$  is the score for the vth variable (a-d) as defined below

 $w_{\nu}$  is the weighting for the  $\nu$ th variable (a-d) as defined below

a =percent cover of native vegetation within a 1.79 km radius of the site (1000 ha)

b = percent cover of native vegetation within a 0.55 km radius of the site (100 ha)

c = connectivity value

d = total adjacent remnant area

# Change in Landscape Value with offset(s)

Change in Landscape Value with the offset(s) is calculated as the difference between the current Landscape Value and future Landscape Value at the offset site. Landscape Value at the offset site encompasses fragmentation, connectivity, adjacency of native vegetation cover with proposed management actions, percentage within riparian area and any contributions from additional Site Value.

The change in Landscape Value at the offset site(s) is determined using the following formula:

$$\textit{Landscape Value}_{\textit{Offset site}} = \left(\sum_{v=a}^{f} \left(s_{v} w_{v}\right)\right)_{\textit{With proposed offsets}} - \left(\sum_{v=a}^{c} \left(s_{v} w_{v}\right)\right)_{\textit{Current}}$$

#### where:

 $s_v$  is the score for the vth variable (a-f) as defined below

 $w_{\nu}$  is the weighting for the  $\nu$ th variable (a-f) as defined below

a = percent cover of native vegetation within a 1.79 km radius of the site (1000 ha)

b =percent cover of native vegetation within a 0.55 km radius of the site (100 ha)

*c* = connectivity value

d = total adjacent remnant area

e = percent within riparian area

f = contribution of additional Site Value offsets to Landscape Value

# **Details of Landscape Value variables**

Table 5.1 Weightings of variables used to calculate Landscape Value.

Variable	Relative weighting
Percent cover of native vegetation within a 1.79 km radius of the site (1000 ha)	11
Percent cover of native vegetation within a 0.55 km radius of the site (100 ha)	9
Connectivity value	8
Total adjacent remnant area	6
Percent within riparian area	6
Contribution of additional Site Value offsets to Landscape Value	4

**Percent cover of native vegetation** is scored in 10% increments (deciles) within circles of 100 ha and 1000 ha as a combination of native vegetation extent and condition. Judgement is applied when scoring percent cover of native vegetation in the circles to determine vegetation condition from imagery. Judgement is used to score loss or gain in percent cover of native vegetation where the loss or gain in the percent cover moves up or down a decile and the overall loss or gain is less than 10%.

Note: to illustrate the above, 30 ha of native vegetation with a condition of 25% of the lower benchmark value in a 100 ha circle is scored as >0-10% cover.

Table 5.2 Details of scoring for percent cover of native vegetation within 1.79 km (1000 ha) and 0.55 km (100 ha) of site.

Radius of circle around site	Percent native vegetation cover within circle	Score
1.79 km (1000 ha)	0	0
	>0 - 10	1.8
	>10 - 20	3.6
	>20 - 30	5.4
	>30 - 40	6.6
	>40 - 50	7.8
	>50 - 60	9.0
	>60 - 70	10.2
	>70 - 80	10.8
	>80 - 90	11.4
	>90 - 100	12.0
0.55 km (100 ha)	0	0
	>0 - 10	1.8
	>10 - 20	3.6
	>20 - 30	5.4
	>30 - 40	6.6
	>40 - 50	7.8
	>50 - 60	9.0
	>60 - 70	10.2
	>70 - 80	10.8
	>80 - 90	11.4
	>90 - 100	12.0

#### Determining the connectivity value score

Connectivity value is determined according to the three step process set out below. The same process is used to determine the loss in connectivity at a clearing site and for the gain in connectivity at an offset site.

The site is linked to adjoining vegetation where the adjoining vegetation:

- is not in low condition; and
- has a patch size greater than 1 ha; and
- is 100 metres or closer for woody vegetation or 30 metres or closer for non-woody vegetation to the site; and
- is not separated from the site by a barrier such as a dual-lane or wider highway.

Step 1: Determining the number of linkage width class thresholds that are crossed – lost or gained.

The linkage width is the average width of the area of vegetation that links the clearing or offset site with the adjoining vegetation.

Table 5.3.1 Linkage width classes and thresholds.

Linkage widths (metres)				
0 – 5	>5 – 30	>30 – 100	>100 – 500	>500
Very Narrow	Narrow	Moderate	Wide	Very Wide

The number of linkage width class thresholds that are crossed by reducing or improving connectivity in the primary connecting linkage to the site with the adjoining vegetation are scored as 0, 1, 2, 3 or 4.

Step 2: Determining the number of linkage condition class thresholds that are crossed – lost or gained.

The condition of the vegetation that forms the connecting linkage, including vegetation on and off the clearing and offset sites, is assessed for its average condition class across the entire link. The linkage condition classes for woody vegetation are determined by assessing either i) over-storey cover and mid-storey cover or ii) over-storey cover and ground stratum cover according to Table 5.3.2a. The linkage condition classes for non-woody vegetation are determined according to Table 5.3.2b.

The number of linkage condition class thresholds that are crossed by reducing or improving connectivity in the primary connecting linkage to the site are scored as 0, 1, 2, 3, 4, 5 or 6. For non-woody vegetation, when a proposal takes the connectivity condition from one class to another, it is counted as crossing *two* thresholds.

#### Table 5.3.2a Linkage condition classes (woody vegetation)

Note: For the purposes of assessing connectivity, shrubland vegetation that is less than one metre in height without an over-storey (i.e. the over-storey benchmark is zero) is assessed as non-woody vegetation. Non-woody vegetation such as sedges, rushes or bulrushes that is one metre or greater in height is assessed as for woody vegetation, i.e. both the over-storey and the ground stratum cover are assessed.

			Over-storey condition				
		No native over-storey OR Exotic vegetation with similar structure to the proposal	% foliage cover <25% of lower benchmark OR Exotic vegetation with similar structure to the proposal	% foliage cover ≥25% of lower benchmark to lower benchmark	% foliage cover within benchmark		
Mid-storey OR ground stratum condition	No mid-storey or ground stratum cover OR Exotic vegetation with similar structure to the proposal	Nil	Nil-Low	Low	Low-Mod		

% foliage cover of mid- storey or ground stratum cover <25% of lower benchmark OR	Nil-Low	Low	Low-Mod	Moderate
Exotic vegetation with similar structure to the proposal				
% foliage cover of mid- storey or ground stratum cover ≥25% of lower benchmark to lower benchmark	Low	Low-Mod	Moderate	Mod-High
% foliage cover of midstorey or ground stratum cover within benchmark	Low-Mod	Moderate	Mod-High	High

Table 5.3.2b Linkage condition classes (non-woody vegetation).

Linkage condition class	Vegetation condition
Nil	Meets none of the definitions below
Low	Percent foliage cover is less than 25% of lower benchmark in native grassland, wetland or herbfield  OR  Exotic vegetation with similar structure to proposal
Moderate	Percent foliage cover is greater than or equal to 25% of lower benchmark and less than lower benchmark in native grassland, wetland or herbfield
High	Percent foliage cover is within benchmark in native grassland, wetland or herbfield

Step 3: Determining the connectivity value score

The final connectivity value score is calculated in Table 5.3.3 by considering both the number of linkage width class thresholds and the number of linkage condition class thresholds that are crossed.

Where there is more than one linkage from the adjoining vegetation to the clearing or offset site, the linkage with the highest combination of current linkage width class and condition classes is used to determine the connectivity value score.

Table 5.3.3 Scores for loss/gain of connectivity value based on number of thresholds crossed.

		Number of linkage width thresholds crossed				
		0	1	2	3 or 4	
Number of	0	0	2	4	6	
linkage condition	1	1	3	5	7	
thresholds	2	2	4	6	8	
crossed	3	3	5	7	9	
	4	4	6	8	10	
	5	5	7	9	11	
	6	6	8	10	12	

Table 5.4 Criteria for assessing total adjacent remnant area. Adjacent remnant area is the area (ha) of native vegetation that is not in low condition and is linked (≤100 m for woody vegetation and ≤30 m for non-woody vegetation) to the clearing or offset site.

Total adjacent		Percent native vegetation cleared in the Mitchell landscape				
remnant area (ha)	Score	<30%	30-70%	>70-90%	>90%	
Extra large	12 points	>1000 ha	>200 ha	>100 ha	>50 ha	
Very large	9 points	>500 – 1000 ha	>100 – 200 ha	>50 – 100 ha	>20 – 50 ha	
Large	6 points	>200 – 500 ha	>50 – 100 ha	>20 - 50 ha	>10 – 20 ha	
Medium	3 points	>100 – 200 ha	>20 – 50 ha	>10 – 20 ha	>1 – 10 ha	
Small	0 points	≤100 ha	≤20 ha	≤10 ha	≤1 ha	

Table 5.5 Scoring percentage of offset site in riparian area (riparian buffer distances as defined in Table 3.1 of Chapter 3).

Score	0 points	4 points	8 points	12 points
Percent within riparian area	<1%	1 - 10%	>10 - 25%	>25%

Additional improvement in Site Value at offset sites may contribute to Landscape Value in Mitchell Landscapes and vegetation types that are less than or equal to 30% cleared in the Catchment Management Authority. Where the change in Site Value score at the offset site is more than the Site Value offset requirements, the additional Site Value score as a proportion of the required Site Value score may contribute to offsets for Landscape Value (up to a maximum of 12 points contribution to Landscape Value).

Note: for example, if a proposal required a Site Value of 500 and the proposed offset scored 800 then the extra 300 would contribute 6 points (60% of the required Site Value) towards Landscape Value provided that the Mitchell Landscape and the vegetation type on the clearing site are both less than or equal to 30% cleared in the Catchment Management Authority area..

Table 5.6 Criteria for scoring contribution of additional Site Value offsets to Landscape Value. Additional Site Value score can only contribute to Landscape Value where Mitchell Landscapes and vegetation types are both less than or equal to 30% cleared in the CMA area.

Contribution of additional Site Value score	Points that contribute to Landscape Value score
Mitchell Landscape and/or vegetation type on the clearing site are more than 30% cleared in the CMA area, or there is no additional Site Value score.	0
Mitchell Landscape and vegetation type are both 30% or less cleared in the CMA area and the additional Site Value score as a proportion of the required Site Value score is as shown below	
>0 – 10%	1
>10 – 20%	2
>20 – 30%	3
>30 – 40%	4
>40 – 50%	5
>50 – 60%	6
>60 – 70%	7
>70 – 80%	8
>80 – 90%	9
>90 – 100%	10
>100%	12

# 5.3.4 Assessing Site Value

Site Value is the quantitative measure of structural and floristic condition of native vegetation assessed for each zone. Ten condition measures in Site Value are assessed against benchmark values as detailed in Table 5.7. For both proposed clearing and proposed offset sites Site Value is calculated as:

Site Value = 
$$\sum_{z=1}^{n} \left( \left( \frac{\sum_{v=a}^{j} (s_{v}w_{v}) + 5((s_{a}s_{g}) + (s_{b}s_{i}) + (s_{h}s_{j}) + (s_{c}s_{k}))}{c} \right) \times (ZoneArea) \right)_{z}$$

where:

z is the *n*th vegetation zone

 $s_{\nu}$  is the score for the  $\nu$ th variable (a-j) as defined in Table 5.7

 $w_v$  is the weighting for the vth variable (a-j) as defined in Table 5.7

 $k = (s_d + s_e + s_f)/3$ 

c is the maximum score that can be obtained given the variables a-j that have a benchmark greater than zero for the vegetation type (i.e. this varies depending on which variables are in the vegetation type)

*ZoneArea* is the total area of the *n*th vegetation zone in hectares

The multipliers for *native over-storey cover x proportion of over-storey species occurring as* regeneration  $(s_bs_i)$  and number of trees with hollows x total length of fallen logs  $(s_hs_i)$  may be omitted from the above Site Value equation (and c recalculated accordingly) for determining Site Value in clearing or offset zones that comprise vegetation types from the following vegetation formations: Grasslands, Heathlands, Alpine Complex, Freshwater Wetlands, Saline Wetlands and Arid Shrublands.

Table 5.7 Explanation of the way each variable in Site Value is calculated

	Variable		Score in E	BioMetric		Percent
		0	1	2	3	weighting
а	Native plant species richness	0	>0-<50% of benchmark	50-<100% of benchmark	≥benchmar k	25
b	Native over- storey cover	0-10% or >200% of benchmark	>10-<50% or >150-200% of benchmark	50-<100% or >100-150% of benchmark	within benchmark	10
С	Native mid- storey cover	0-10% or >200% of benchmark	>10-<50% or >150-200% of benchmark	50-<100% or >100-150% of benchmark	within benchmark	10
d	Native ground stratum cover (grasses)	0-10% or >200% of benchmark	>10-<50% or >150-200% of benchmark	50-<100% or >100-150% of benchmark	within benchmark	2.5
е	Native ground stratum cover (shrubs)	0-10% or >200% of benchmark	>10-<50% or >150-200% of benchmark	50-<100% or >100-150% of benchmark	within benchmark	2.5
f	Native ground stratum cover (other)	0-10% or >200% of benchmark	>10-<50% or >150-200% of benchmark	50-<100% or >100-150% of benchmark	within benchmark	2.5
g	Exotic plant cover (calculated in BioMetric as percent of total native ground stratum and mid-storey cover)	>66%	>33-66%	>5-33%	0-5%	5
h	Number of trees with hollows	0 (unless benchmark includes 0)	>0-<50% of benchmark	50-<100% of benchmark	≥benchmar k	20
i	Proportion of over-storey species occurring as regeneration	0%	>0-<50%	50-<100%	100%	12.5
j	Total length of fallen logs	0-10% of benchmark	>10-50% of benchmark	>50-<100% of benchmark	≥benchmar k	10

Site Value is calculated from site condition in the zone(s) and area(s) of the zone(s), using the above equation.

Current Site Value is determined as follows:

- establish plots or transects in the vegetation zone(s) in the clearing and offset sites in accordance with the *BioMetric* Operational Manual (regeneration is measured across the whole zone);
- measure data for the condition variables native plant species richness, native over-storey cover, native mid-storey cover, native ground stratum cover (grasses), native ground stratum cover (shrubs), native ground stratum cover (other), exotic plant cover, number of trees with hollows, over-storey regeneration, and length of fallen logs;
- enter the measured condition data into BioMetric;

- enter benchmark data for the vegetation type (which may be benchmark data for the vegetation class) directly into *BioMetric* from the vegetation benchmarks database, data obtained from reference sites or from scientific literature;
- the measured data and the benchmark data for condition variables generate a score in *BioMetric* for the current site condition of the native vegetation in the zone. A score between zero and three in relation to the benchmark (0=low, 1=moderate, 2=high, 3=very high) is allocated to each condition variable showing the relationship between its measured value and its benchmark value.

The condition scores for current Site Value are multiplied in *BioMetric* by the area of the zone(s) to provide the measure of current Site Value, using the above equation.

# Change in Site Value with clearing

Change in Site Value with clearing is determined from the difference between the current Site Value and the predicted Site Value following clearing in the zone(s) on the clearing site.

Site Value following clearing is determined by predicting the impact of clearing on each condition variable according to the loss in the condition variable.

The condition scores for Site Value with clearing are multiplied in *BioMetric* by the area of the zone(s) to provide the measure of Site Value following clearing, using the above equation for calculating Site Value.

#### Change in Site Value with offset(s)

Change in Site Value with the offset is determined from the difference between the current Site Value and predicted Site Value with the management actions in the zone(s) on the offset site.

Site Value with offsets is determined by:

- predicting the future score for each condition variable for the vegetation zone(s) in the offset site
  with the proposed management actions in the vegetation zone(s), based on the predicted
  increase in the condition variable with management actions. Ten management actions can be
  undertaken by the landholder, in any combination, to improve condition variables in the offset site;
  and
- multiplying the predicted improvement in condition in the vegetation zone(s) with the management actions in the vegetation zone(s) by the area of the zone(s).

The condition scores for the site condition with the management actions on the offset site are multiplied in *BioMetric* by the area of the zone(s) to provide the measure of Site Value with the management actions on the offset site, using the above equation for calculating Site Value.

The ten management actions are stock grazing exclusion, strategic stock grazing, planting or direct seeding of native vegetation, weed control, erosion control, feral and/or over-abundant native herbivore control, provision of artificial hollows, exclusion of fertilisers, retention of all dead timber, retention of all regrowth (as defined in the *Native Vegetation Act 2003*). Future scores for the condition variables are increased with management actions. When scoring a predicted increase in value of a variable with management, the assessment officer must assess which management action(s) need to be undertaken to achieve the increase in value of one or more variables and how much increase in the variable(s) is achieved from undertaking the management action(s), based on guidelines within the *BioMetric* Operational Manual, including:

- planting or direct seeding will increase cover values of relevant condition variables, but will only
  increase species richness if the species are indigenous to the areas and the seed is sourced
  locally;
- where a condition variable is currently absent from the proposal site and adjacent areas then an
  increase cannot generally be scored unless it is specifically introduced;
- where an increase is not feasible because of other pressures associated with the proposal (e.g. heavy grazing or very high exotic cover) then an increase should not be scored;

 management actions other than the ten actions listed above may be required in combination with one or more of the ten management actions to improve the condition variables. These could include controlling human disturbance, ecological burning, ecological thinning, and reducing water extraction from wetlands.

**Note**: where over-abundant native herbivore control is used as a management action, it is the responsibility of the landholder to obtain any other necessary approvals required under other legislation.

The score for improvement in Site Value for each zone in the offset site is not simply the difference between the current score and the score with management actions. This is because the extent to which the zone could be degraded over time, as allowed under the provisions of the *Native Vegetation Act 2003* is taken into account. Thus the score for improvement in Site Value in the offset zone(s) with management actions includes factors that recognise past good management above that required by the *Native Vegetation Act 2003*, and past good management that has resulted in a score of 3 for one or more condition variable, where the landholder agrees to continue such management as part of the Property Vegetation Plan.

# 5.4 Assessing thinning to benchmark stem densities

**Note:** Thinning under Section 5.4 may not be suitable for assessing thinning of invasive native scrub (see Chapter 7.0 for further details).

Thinning means ecological thinning, where:

- Individual trees or shrubs are removed to benchmark stem densities or greater, with no disturbance to native groundcover, soil and non-target plants (for example, chemical treatment of individual plants, ringbarking) or minimal disturbance to native groundcover, soil and non-target plants (for example, grubbing), and
- No more than 80% of the area of each vegetation zone is thinned, and
- Stems greater than 30cm diameter at breast height over bark (dbhob) are not removed.

Ecological thinning is the removal of individual trees or shrubs that are above benchmark stem densities. The purpose of ecological thinning is to reduce competition between the trees or shrubs to allow growth and maturation of the remaining trees and shrubs, and growth of groundcover. Ecological thinning allows natural regeneration and subsequent growth of native trees, shrubs and groundcover, thus improving or maintaining vegetation composition and structure.

For the purpose of this methodology:

- thinning means ecological thinning to improve or maintain environmental outcomes, and
- stem diameter classes are determined by measuring the dbhob of the stems of the trees and/or shrubs. The stem diameter class of multi-stemmed trees or shrubs is the stem of the tree or shrub with the largest dbhob.

In coastal Catchment Management Authorities, this Chapter Section only applies to species of the genera listed in the coastal thinning genera database (Table 5.8) in vegetation types in the overcleared vegetation types database (section 2.4.1) in the following vegetation formations (Keith 2004):

- Wet Sclerophyll Forests (grassy subformation); and
- Wet Sclerophyll Forests (shrubby subformation); and
- Grassy Woodlands; and
- Dry Sclerophyll Forests (shrub/grass subformation); and
- Dry Sclerophyll Forests (shrubby subformation).

The coastal thinning genera database is a database held by the NSW Department of Environment, Climate Change, and Water and approved by the Director General, NSW Department of Environment, Climate Change and Water, which includes:

- A list of genera which may be thinned in coastal Catchment Management Authorities, and
- The maximum dbhob which may be thinned for each genus in coastal Catchment Management Authorities.

Thinning in non-coastal Catchment Management Authorities is not restricted by genus.

 Table 5.8
 Coastal Thinning Genera Database.

Genus	Maximum dbhob that may be thinned
Eucalyptus	30
Corymbia	30
Angophora	30
Melaleuca	20
Casuarina	20
Allocasuarina	20
Callitris	20
Acacia	20

#### 5.4.1 The improve or maintain test

Thinning is to be regarded as improving or maintaining environmental outcomes if, in relation to each vegetation zone:

- the area over which thinning takes place is no more than 80% of the area of each vegetation zone; and
- the number of stems to be retained in each stem diameter class for the vegetation type is greater than or equal to the benchmark stem densities for the stem diameter class for the vegetation type; and
- the total number of stems to be retained (for all stem diameter classes) for the vegetation type is greater than or equal to the total of all benchmark stem densities for the vegetation type; and
- thinning is undertaken by removing individual trees and shrubs with no or minimal disturbance to native groundcover, soil and non-target plants (e.g. by means such as chemical treatment of individual plants, ringbarking or grubbing), and
- within riparian buffer distances (as set out in Table 3.1 in Chapter 3) thinning is only undertaken by removing individual trees and shrubs with no disturbance to native groundcover, soil and non-target plants, and
- the numbers of stems retained for each stem diameter class are retained at that density on each one hectare of the proposal area, and
- thinning is not undertaken in patches of less than one hectare in area that are not linked to adjoining vegetation.

#### 5.4.2 The Assessment

Vegetation types with different stem density benchmarks must be assessed separately. If the area proposed to be thinned contains vegetation types with different stem density benchmarks, the area must be divided into relatively homogenous vegetation zones, each comprising one or more vegetation types with the same stem density benchmarks in the same broad condition state. Each zone must be separately assessed.

Stem densities must be assessed in each vegetation zone. In each vegetation zone, 0.1 ha plots must be established in accordance with the *BioMetric* Operational Manual, with a minimum of one plot and a maximum of 10 plots per vegetation zone. In each plot, the stems are classified into one of the following stem diameter classes: 0-10cm dbhob, >10-20cm dbhob, and >20-30cm dbhob. The number of stems per plot in each stem diameter class is recorded. The numbers of stems per plot

are used to predict the number of trees (or equivalent spacings between trees) for the vegetation type in each stem diameter class in the vegetation zone. Plotless methods of assessing the number of stems in the stem diameter classes, such as nearest neighbour techniques, may be used instead of plots.

The maximum number of existing stems in each diameter class that can be removed is calculated by comparing stem densities in the zone by diameter class, with benchmark stem densities by diameter class. For all vegetation types, the stems to be removed from each stem diameter class must not reduce the number of retained stems to below the benchmark number of stems for each stem diameter class and the total number of stems to be removed (for all stem diameter classes) must not reduce the number of retained stems to below the total of all benchmark stem densities.

Stems can be thinned to the benchmark values of stem densities for each diameter class up to 30cm dbhob (or as identified in the coastal thinning genera database). That is, thinning may be permitted while:

- Observed stems; are greater than Benchmark stems; and
- Retained stems; are greater than or equal to Benchmark stems;

# otherwise:

thinning proposals must be assessed as for other clearing proposals;

#### where:

- Observed stems<sub>ij</sub> is the number of stems currently present in the *j*th diameter class within the *i*th vegetation zone,
- Retained stems<sub>ij</sub> is the number of stems retained in the jth diameter class within the jth vegetation zone.
- Benchmark stems; is the benchmark number of stems for the vegetation type in the vegetation zone on the site for the *i*th diameter class.

If two or more stem diameter classes (≤30cm dbhob) are in the same age cohort, then one density benchmark for the combined stem density classes in that age cohort can be calculated from the sum of the density benchmarks for the stem diameter classes in the age cohort. The stem retention requirements can then be met by retaining more larger stems and clearing more smaller stems in the combined stem density class, provided the total number of stems retained is greater than or equal to the benchmark number of stems for the combined stem diameter classes for the vegetation type.

If the number of stems in a stem diameter class (one or more of 0-10cm dbhob, >10-20cm dbhob, >20-30cm dbhob) is fewer than the number of benchmark stems for that stem diameter class, then the shortfall number(s) of stems must be retained in the adjacent smaller or larger stem diameter class in addition to the required benchmark number of stems for that stem diameter class. If there are insufficient stems within the adjacent stem diameter class, then any remaining shortfall must be retained in the next smaller or larger stem diameter class. The number of retained stems less than or equal to 30cm dbhob must never be less than the total number of benchmark stems for the three stem diameter classes; 0-10cm dbhob, >10-20cm dbhob, >20-30cm dbhob.

# 5.5 Improve or maintain test for Threatened Species

For the purpose of Chapter Sections 5.5, 5.6, 5.7 and 5.8, 'Threatened Species' refers to:

- the following entities listed under the NSW Threatened Species Conservation Act 1995:
  - a. species listed as 'critically endangered', 'endangered', 'vulnerable' or flora species listed as 'presumed extinct',
  - b. ecological communities listed as 'critically endangered' or 'endangered', and
  - c. 'endangered populations'.

and

- 2. the following entities listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999;* 
  - a. species listed as 'critically endangered', 'endangered' or 'vulnerable', and
  - b. ecological communities listed as 'critically endangered' or 'endangered'.

The *Threatened Species Assessment Tool* is a computer software program that assists in applying this Environmental Outcomes Assessment Methodology to all known and predicted Threatened Species likely to be affected by a clearing proposal. The *Threatened Species Assessment Tool* interrogates the Threatened Species Profile Database in the process of assessing whether a clearing proposal and any proposed offsets passes the improve or maintain test. The Threatened Species Profile Database is a database held by the NSW Department of Environment, Climate Change and Water and approved by the Director General of the NSW Department of Environment, Climate Change and Water. This database is updated as relevant new information is obtained, in accordance with Chapter 2 of this Environmental Outcomes Assessment Methodology.

Broadscale clearing will improve or maintain environmental outcomes for Threatened Species if:

- no Threatened Species (flora) and Threatened Species (ecological communities) are confirmed present within the area to be cleared; and
- no Threatened Species (fauna) are known or are predicted as likely to occur within the area to be cleared; or
- the clearing proposal is not likely to cause a loss of any individuals of any Threatened Species
  confirmed present or predicted as likely to occur, nor likely to cause a loss to the area of habitat
  component or key habitat features for Threatened Species known or predicted as likely to occur
  within the area to be cleared; or
- Threatened Species are identified, known or predicted as likely to occur within the area to be cleared and the clearing causes a loss to any individuals of any of these Threatened Species or their habitat components or key habitat features, but the loss is offset by equivalent or greater gains for these Threatened Species from management actions applied in perpetuity to offsets, as specified in a Property Vegetation Plan.

# 5.6 Identify whether any Threatened Species are known or are predicted as likely to occur

- 1. A Threatened Species is predicted as likely to occur on the area proposed to be cleared if the:
  - a) Threatened Species Profile Database indicates that the Threatened Species is known or predicted as likely to occur in the Catchment Management Authority Area (CMA) sub-region (See Appendix A) and is associated with any of the vegetation types within the area to be cleared; and
  - b) area proposed to be cleared is within any specified geographic constraints for the Threatened Species as defined in the Threatened Species Profile Database (for some Threatened Species the extent of their distribution within a CMA sub-region is known to be limited to within certain geographic areas. In such circumstances the prediction of a Threatened Species within a CMA sub-region can be limited to specified parts of the CMA sub-region); and
  - c) Threatened Species is likely to be able to use vegetation in the assessed condition category. The Threatened Species Profile Database indicates whether the Threatened Species is likely to occur in one or more of three vegetation condition categories (Threatened Species only likely to occur in vegetation in moderate to good condition do not need to be considered further if the vegetation on the area proposed to be cleared is low condition or paddock trees). The condition categories are:
    - Paddock trees condition defined as: native vegetation having an over-storey percent foliage cover less than 25% of the lower percent foliage cover benchmark for the

- vegetation type and the groundcover is either crop, ploughed, fallow or almost exclusively perennial or annual exotic pasture (90% or more of cover is exotic species),
- ii) Low condition vegetation defined as per Section 5.2.2,
- iii) **Moderate to Good condition** vegetation defined as not meeting either paddock trees or low condition definition;

and

- d) cover of native vegetation remaining in the landscape is greater than or equal to the minimum cover class for that Threatened Species (fauna) as identified in the Threatened Species Profile Database. The landscape is defined as the area of land within a 1.79 km radius (1000ha) of the area to be cleared; and
- e) vegetation in the area to be cleared is part of a patch of vegetation greater than or equal to the minimum patch-size class specified for that Threatened Species (fauna) as defined in the Threatened Species Profile Database; and
- f) the vegetation in the area to be cleared contains:
  - i) either important breeding or foraging or shelter habitat components for Threatened Species (fauna) as defined in the Threatened Species Profile Database. Where no specific details are specified for important breeding, foraging or shelter habitat components within the Threatened Species Profile Database then the Threatened Species (fauna) is predicted as likely to occur in vegetation types with which it is associated, or
  - ii) contains essential habitat features for Threatened Species (flora) as identified in the Threatened Species Profile Database. Where no specific details are specified for essential habitat features within the Threatened Species Profile Database then the Threatened Species (flora) is predicted to occur in vegetation types with which it is associated.
- 2. A visual inspection of the area proposed to be cleared must be undertaken prior to approving the Property Vegetation Plan.
- 3. The visual inspection must:
  - a) Determine whether there is any important breeding, foraging or shelter habitat components for Threatened Species (fauna) occurring on the land where a Threatened Species (fauna) is predicted as likely to occur; and
  - b) Determine whether there are any essential habitat features for Threatened Species (flora) occurring on the land where a Threatened Species (flora) is predicted as likely to occur; and
  - Assess the condition of the vegetation and specifically consider whether the identified subject Threatened Species (fauna) is likely to occupy 'Paddock Trees condition' or 'Low condition' vegetation; and
  - d) Specifically consider whether each Threatened Species (flora) that is predicted to occur is actually present; and
  - e) Include in the assessment any additional Threatened Species that are located in the proposal area; and
  - f) Be undertaken in accordance with any requirements in the *Threatened Species Assessment Tool* Operational Manual; and
  - g) Where the Threatened Species Profile Database indicates a particular Threatened Species (flora) is not identifiable at the time of assessment, but the proposal would not impact upon that Threatened Species (flora) if present, then the assessment may continue rather than be deferred to an appropriate time to identify the Threatened Species (flora).
- 4. The Threatened Species Profile Database includes the following information for each Threatened Species:
  - a) A description and, where available, a series of photographs;
  - b) A description of its distribution in NSW;

- c) Known or predicted occurrence in each Catchment Management Authority area sub-region;
- d) Habitat and ecology;
- e) Threats;
- f) Management actions that are relevant to each Threatened Species and the predicted response to each of these by each Threatened Species (expressed as percentage improvement in population or site carrying capacity) when vegetation is either in 'Low condition' or 'Moderate to Good condition'. Differing levels of response may be provided depending on the condition of the vegetation;
- g) Vegetation types with which each Threatened Species is associated;
- h) Geographical constraints to the presence of the Threatened Species;
- i) Minimum surrounding vegetation cover class (cover within 1000 ha assessment circle), minimum patch-size class, important breeding, foraging and shelter habitat components (fauna), and essential habitat features (flora);
- j) The time of year when the Threatened Species is identifiable (used to identify appropriate time for inspection of flora);
- k) Ability of each Threatened Species to sustain a temporary reduction in local population or temporary loss of habitat component;
- Ability of each Threatened Species to occupy 'Paddock Trees condition' or 'Low condition' vegetation; and
- m) For each Threatened Species that is likely to occupy 'Paddock Trees condition', the specified number of equivalent habitat trees that must be managed in an offset for each paddock tree cleared.

# 5.7 Loss of Threatened Species, habitat components or key habitat features

If the proposal will result in loss of individuals of the Threatened Species, or an area of its habitat component or key habitat features, an offset will be needed in order for the clearing to improve or maintain environmental outcomes for Threatened Species.

Key habitat features should be used as a measure of loss when the feature(s) is/are largely the only habitat component present and likely to be used by a Threatened Species (fauna) on the site. Generally, key habitat features should only be used to measure loss for the clearing of vegetation in low condition.

The expected loss of a Threatened Species, or its habitat component or its key habitat features is to be determined in accordance with the following process:

- determine the unit of measure of this loss for each habitat component (breeding, foraging and shelter) that is present (e.g. number of individuals of flora species or of an endangered population of flora, area of habitat of fauna and ecological communities measured by hectares, or key habitat features for fauna measured by number of each feature such as number of hollow-bearing trees). The same unit of measure must also be used for assessing any offset required for that Threatened Species;
- 2. estimate the expected loss for each Threatened Species that is confirmed present or predicted as likely to be present in each vegetation zone;
- 3. if there is more than one vegetation zone within the area proposed to be cleared then the total loss for each Threatened Species is calculated by adding the losses in each vegetation zone, and the same unit of loss must be used for each vegetation zone;
- 4. where the units of loss for the three habitat components of fauna within a vegetation zone include both area and key habitat features, the loss estimate for that vegetation zone is to be measured in area.

# 5.8 Can any likely loss be offset?

Offsets can only be used in relation to a Threatened Species where the local population can sustain the level of likely temporary loss of individuals of the Threatened Species, its three habitat components (important breeding, foraging or shelter) or its key habitat features as specified in the Threatened Species Profile Database, whilst the gains are being achieved on the offset area(s).

**Note:** For the purposes of assessing whether a temporary loss can be sustained, a local population is defined as the total population of the Threatened Species (or the relevant habitat component or key habitat features) within one of the following areas, as specified in the Threatened Species Profile Database. The area used to assess the total local population is primarily based on the home range of the Threatened Species (fauna):

- a 0.2 km radius (10 ha) of the centre of the area to be cleared; or
- a 0.55 km radius (100 ha) of the centre of the area to be cleared; or
- a 1.79 km radius (1000 ha) of the centre of the area to be cleared.

A loss of individuals of the Threatened Species, or of its habitat components or its key habitat features can only be offset by a corresponding gain in individuals of the Threatened Species, or of its habitat components or its key habitat feature, within the same or another suitable vegetation type that is associated with the Threatened Species in the Threatened Species Profile Database.

The Property Vegetation Plan must include management actions for appropriate offset area(s) that will achieve the required gain.

The Threatened Species Profile Database identifies the management actions that can be undertaken to provide gains for Threatened Species. This includes an estimate of the percentage increase in population that can be expected in response to each management action, as measured by either an increase in the number of individuals, or area of habitat components or key habitat feature.

An offset area must:

- a) support the same or a similar vegetation type to that being cleared the offset cannot be used as an offset for a Threatened Species if it does not contain a vegetation type that is known to be used by the subject Threatened Species (as recorded in the Threatened Species Profile Database); or
- b) contain a key habitat feature that would support the Threatened Species; or
- c) be occupied by a sufficient population of the Threatened Species (flora), or support a sufficient area of Threatened Species (ecological communities) as confirmed by site inspection; and
- d) contain the vegetation in a condition suitable to support the subject Threatened Species (fauna); and
- e) retain all native vegetation, remnant native vegetation and regrowth (as defined in the *Native Vegetation Act* 2003) unless otherwise specified within the Property Vegetation Plan; and
- f) be in perpetuity.

The assessment must determine the population, area of habitat component or number of the key habitat features that each offset area contains for each affected Threatened Species.

The gain for each Threatened Species in each vegetation zone is determined by the following formula for vegetation in 'Moderate to Good condition' or 'Low condition' (but not 'Paddock Tree condition'):

Gain<sup>Action</sup> = Expected increase<sup>Action</sup> x Amount<sup>Vegetation Zone k</sup>

Where:

- **Gain** is the increase in the population or area of habitat component or the number of a key habitat feature of each Threatened Species in response to the application of Action *i*;
- Expected increase is the percentage increase in population or carrying capacity (when the increase is applied to area of habitat component or key habitat feature) expected in

response to Action*i* for the Threatened Species, as specified in the Threatened Species Profile Database:

• **Amount** is the number of individuals or area of habitat component or number of the key habitat feature for the Threatened Species that are contained within the proposed offset Vegetation Zone *k*.

The value of actions is additive, so that total gain achieved for each Threatened Species on an offset area is the sum of gains for all actions agreed to be applied on that offset area.

If there is more than one vegetation zone within the area proposed as an offset, then the total gain for each Threatened Species is calculated by adding the gains in each vegetation zone.

If total gain for each Threatened Species known or predicted as likely to occur in the area proposed as an offset is equal to or greater than the total loss then the proposal improves or maintains environmental outcomes for Threatened Species.

If total gain for each Threatened Species known or predicted as likely to occur in the area proposed as an offset is less than the total loss then the proposal does not improve or maintain environmental outcomes for Threatened Species.

For vegetation in 'Paddock Tree condition', the proposal improves or maintains environmental outcomes for Threatened Species if the required number of equivalent habitat trees (as specified in the Threatened Species Profiles Database) are contained within the area proposed as an offset and the offset area is managed to achieve over-storey cover to within benchmark. Where the proposed offset over-storey cover is already within benchmark, then any additional offset requirements must be met (as specified in the Threatened Species Profiles Database).

## 5.9 Definitions

**Age cohort.** Trees or shrubs within a vegetation community that recruited within the same event. An age cohort may fall within one or more stem diameter classes under Section 5.4.2.

Benchmarks or benchmark value or vegetation benchmarks. Quantitative measures of the range of variability in condition attributes of vegetation communities where there is relatively little evidence of modification by humans since European (post 1750) settlement. Benchmarks are available by vegetation class (sensu Keith 2004) at <a href="http://www.environment.nsw.gov.au/projects/BiometricTool.htm">http://www.environment.nsw.gov.au/projects/BiometricTool.htm</a>, and can also be obtained from reference sites or scientific literature or expert knowledge provided that the data has been certified by an accredited expert as set out in section 2.4.3.

**Catchment Management Authority area.** The area of operation of a Catchment Management Authority, as described in Schedule 2 of the *Catchment Management Authorities Act 2003.* 

**Catchment Management Authority area Subregion.** Subregions of Catchment Management Authority areas as set out in Appendix A of the Environmental Outcomes Assessment Methodology, Native Vegetation Regulation 2005.

**Cover of vegetation remaining in the landscape.** The percentage of native vegetation remaining within a 1.79 km radius (1000 ha) of the site to be cleared. In any parts of the area where the woody cover is below benchmark cover, then the cover figure is appropriately reduced. See also **percent cover of native vegetation.** 

Database. See Chapter Section 2.4.1 of this Environmental Outcomes Assessment Methodology.

**Dbhob.** Stem diameter at breast height over bark, i.e. at 1.3 metres above the ground.

**Endangered population.** 'Endangered population' within the meaning of the NSW *Threatened Species Conservation Act 1995.* 

**Essential habitat feature.** A habitat attribute (as specified in the Threatened Species Profile Database) that must be present for a Threatened Species (flora) to be predicted as likely to occur.

**Fallow.** Land that is normally ploughed and cropped but does not contain a crop at the time of assessment. The land must have been ploughed and cropped within the last three years.

**Grassland vegetation.** Herbaceous native vegetation in the Grasslands vegetation formation described in Keith (2004).

Groundcover. Any type of herbaceous vegetation as defined in the Native Vegetation Act 2003.

**Ground stratum.** All native vegetation below one metre in height.

**Ground stratum cover.** Percent foliage cover of the relevant category of ground stratum native vegetation (grasses, shrubs, other).

**Habitat component.** The component of habitat that is used by Threatened Species (fauna) for the purposes of either breeding, foraging or shelter.

**Herbfield vegetation.** Herbaceous native vegetation that does not contain an over-storey or midstorey and where the ground cover is dominated by non-grass species.

Indigenous. 'Indigenous' within the meaning of section 6(2) of the Native Vegetation Act 2003.

**Key habitat feature.** A clearly defined habitat component, such as a tree species with hollows of a specified entrance diameter, which is the only (or the primary) habitat component within a site likely to be used by a particular Threatened Species (fauna). Key habitat features should generally only be considered when measuring the loss of a Threatened Species in vegetation in low condition or existing as paddock trees.

**Landscape value.** Measure of native vegetation cover, connectivity and adjacency of native vegetation. On offset sites Landscape Value may also include riparian areas and any additional Site Value contribution.

**Management action.** An action listed either in this Environmental Outcomes Assessment Methodology (for biodiversity) or the Threatened Species Profile Database (for Threatened Species) that is predicted to improve one or more of the site condition variables (for biodiversity) or the habitat condition or population size (for Threatened Species) within an offset area.

**Mitchell Landscape.** Mitchell Landscape area as defined in Mitchell, P.B. (2002). NSW ecosystems study: background and methodology. Unpublished report to the NSW National Parks and Wildlife Service, Hurstville; and in Mitchell, P.B. (2003). NSW ecosystems database mapping unit descriptions. Unpublished report to the NSW National Parks and Wildlife Service, Hurstville. Updated in *Editing Mitchell Landscapes, Final Report*. A report prepared by Ecological Australia for the NSW Department of Environment and Climate Change (unpublished, 2008).

Non-woody vegetation. Herbaceous vegetation that is grassland, wetland or herbfield vegetation.

**Offset site.** An area (or areas) to which specified management actions are applied in perpetuity to achieve gains in biodiversity, including Threatened Species, in order to balance losses in biodiversity associated with clearing on another site(s).

**Over-abundant native herbivore.** Native herbivores that are in densities or numbers likely to cause detrimental effects on vegetation condition or other biodiversity values (where biodiversity values are defined as in the *Threatened Species Conservation Act 1995* 4A (1)).

**Patch.** An area of native vegetation that is more than 100 metres (or more than 30 metres in grassland, wetland or herbfield vegetation types) away from other native vegetation.

**Patch-size class.** Classes of connected areas of native vegetation that are required to be present in order to have a high probability of the areas supporting particular Threatened Species (fauna). For fauna recorded in the Threatened Species Profile Database as only likely to use 'Moderate to Good condition' vegetation, patch-size class refers to all contributing connected vegetation that is in 'Moderate to Good condition'. For species likely to use both 'Moderate to Good' and 'Low condition' vegetation, patch-size class refers to any contributing connected vegetation that is in 'Low condition' or better.

**Percent cover of native vegetation.** Percentage cover of native vegetation of an area assessed in accordance with Chapter Section 5.3.3.

**Plot.** Area in which some of the 10 site attributes that make up the Site Value score are assessed in a vegetation zone.

**Ploughed.** Soil that has been cultivated in preparation for sowing seed or planting.

**Predicted response.** The percent increase in a population or increase in habitat carrying capacity expected in response to each relevant management action for a Threatened Species, as specified in the Threatened Species Profile Database. The predicted response values are estimated on the basis of offsets being appropriately managed in perpetuity.

**Reference site.** Relatively unmodified sites used to obtain local benchmark information when benchmarks in the vegetation benchmark database are too broad or otherwise not relevant for the particular vegetation type and/or local situation.

**Regional value.** The percentage of a vegetation type's original extent that has been cleared in the Catchment Management Authority area adjusted with a generic species-area relationship.

**Riparian area.** Area in riparian buffer distances as defined in Table 3.1 from Chapter 3 (see below). Refer to Chapter 3 for definitions of types of streams and wetlands.

Table 3.1 Definition of a	riparian buffer	distances.
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	Size of stream/wetland					
Location	Minor watercourses, flood runners and effluents	Minor creeks & lagoons	Minor rivers, minor wetlands & major creeks	Major rivers & important wetlands		
Coast & tablelands	10 m	20 m	30 m	40 m		
Western slopes & plains	20 m	40 m	60 m	100 m		
Estuarine areas	50 m from the astronomical high tide mark (where no obvious bank)					

**Site.** General term for one or more clearing zones and for one or more offset zones. Clearing zones and offset zones can be on the same land. Also used in the context of reference site.

**Site value.** Quantitative measure of structural, compositional and functional condition of native vegetation, measured by site attributes.

m density. Number of stems per hectare, measured in plots or by plotless methods.

**Threatened Species (ecological communities).** Any ecological community that is listed as 'critically endangered' or 'endangered' under the NSW *Threatened Species Conservation Act 1995* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

**Threatened Species (fauna).** Any species of fauna or a population of fauna that is listed as 'critically endangered', 'endangered' or 'vulnerable' under the NSW *Threatened Species Conservation Act 1995* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

**Threatened Species (flora).** Any species of plant or a population of a plant that is listed as 'critically endangered', 'endangered', 'vulnerable' or 'presumed extinct' under the NSW *Threatened Species Conservation Act 1995* or listed as 'critically endangered', 'endangered' or 'vulnerable' under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

**Vegetation class.** An intermediate level of vegetation classification as defined in Keith (2004).

**Vegetation community.** A generic term for vegetation type or combination of types up to vegetation class.

Vegetation formation. As defined in Keith. (2004).

**Vegetation type.** The finest level of classification of native vegetation used in the Environmental Outcomes Assessment Methodology. Vegetation types are assigned to vegetation classes, which in turn are assigned to vegetation formations.

**Vegetation zone.** A relatively homogenous area within a clearing, thinning or offset site that is the same vegetation type and broad condition. A zone may not contain vegetation that is a mix of low and not low condition. A vegetation zone may comprise one or more discontinuous areas.

**Wetland vegetation**. Herbaceous native vegetation in the Freshwater Wetland vegetation formation described in Keith (2004), and is consistent with the definition of wetland in the *Native Vegetation Act* 2003.

**Woody native vegetation.** Native vegetation that contains an over-storey and sometimes a mid-storey that predominantly consist of trees and/or shrubs.

#### Note: References

EcoLogical Australia (undated). Editing Mitchell Landscapes, Final Report. A report prepared by EcoLogical Australia for the NSW Department of Environment and Climate Change.

Gibbons, P., Briggs, S.V., Ayers, D., Seddon, J., Doyle, S., Cosier, P., McElhinny, C., Pelly, V. and Roberts, K. (2009). An operational method to assess impacts of land clearing on terrestrial biodiversity. Ecological Indicators 9, 26-40.

Keith, D. (2004). Ocean shores to desert dunes: the native vegetation of New South Wales and the ACT. NSW Department of Environment and Conservation, Hurstville, NSW.

Mitchell, P.B. (2002). NSW ecosystems study: background and methodology. Unpublished report to the NSW National Parks and Wildlife Service, Hurstville;

Mitchell, P.B. (2003). NSW ecosystems database mapping unit descriptions. Unpublished report to the NSW National Parks and Wildlife Service, Hurstville;

Threatened Species are identified in accordance with the list published by the NSW Department of Environment, Climate Change and Water at:

http://www.environment.nsw.gov.au/threatenedspecies/index.htm

Mitchell Landscapes and vegetation types are identified in accordance with the lists published by the NSW Department of Environment, Climate Change and Water at: http://www.environment.nsw.gov.au/projects/BiometricTool.htm

# 6 Soil Assessment

#### 6.1 Introduction

This Environmental Outcomes Assessment Methodology defines the circumstances in which broadscale clearing is to be regarded as improving or maintaining environmental outcomes for land degradation under the *Native Vegetation Act 2003* including for the purposes of agreeing to a Property Vegetation Plan.

The Land and Soils Capability (LSC) tool assesses the following land degradation hazards:

- areas that are very susceptible to environmental harm arising from clearing of native vegetation;
- water erosion;
- wind erosion;
- earth mass movement;
- acid sulfate soils;
- salinity (see Chapter 4);
- shallow and rocky soils; or
- soil structure.

The Land and Soils Capability class that any associated hazards fall within determines whether a proposal is considered to improve or maintain environmental outcomes:

- Land and Soils Capability classes 1 & 2: the proposal is regarded as improving or maintaining environmental outcomes;
- Land and Soils Capability classes 3 to 6: will not improve or maintain environmental outcomes unless the on-site management actions specified in Appendix B or Appendix C for each applicable hazard and class are undertaken;
- Land and Soils Capability classes 7 & 8: will not improve or maintain environmental outcomes and the impacts cannot be offset by management actions.

The process for assessing clearing and offset proposals in respect of land degradation is the same, except where otherwise stated.

The Land and Soils Capability Tool also assesses biodiversity, salinity or water quality offset proposals that involve soil disturbance in order to determine whether the offsets will improve or maintain environmental outcomes in relation to land degradation.

Where a proposal has several hazards the decision as to whether clearing or offset proposals will improve or maintain environmental outcomes is based on the most significant land degradation risk arising from the proposal, ie the hazard with the highest class.

## 6.2 Land and soil capability classification

The land and soil capability classification is based on the Rural Land Capability system defined by Emery (1985). However, the proposed land and soil capability system places additional emphasis on soil limitations and explicitly incorporates them into the classification.

All parts of the landscape are classified within eight capability classes, designated by numerals 1 to 8, the sequence indicating progressively greater land and soil limitations. These limitations usually restrict the type and diversity of land use activities that can be undertaken without significant land and soil degradation occurring. Although this system is intended primarily to address agricultural activities, it can be used to provide a general indication of the capability of the land for other land use practices, including forestry and urban development. Increasing the degree of constraint imposed by specific limitations, which progressively limit the range of alternative land uses and management practices that are practicable and appropriate, achieves this.

# 6.3 The improve or maintain test for land degradation

The Land and Soils Capability Tool requires 4 key actions:

- identify the land and soils capability zone; these are areas of land that have relatively uniform physical characteristics in relation to slope, rockiness, soil type, soil drainage, landform or salt outbreak:
- identify the relevant catchment hazard area;
- establish slope; and
- establish rainfall.

# 6.3.1 Identify Land and Soils Capability Zone

Land and soils capability zones are areas of land that have relatively uniform physical characteristics in relation to slope, rockiness, soil type, soil drainage, landform or salt outbreak. The proposal must improve or maintain environmental outcomes for all Land and Soils Capability zones it includes in order to pass the 'improve or maintain' test.

# 6.3.2 Identify the Relevant Catchment Hazard Area

To simplify the assessment process, Catchment Management Authority areas have been divided into Catchment Hazard Areas based on common climatic, soil and geomorphic characteristics. These Catchment Hazard Areas are shown in Figure 6.1.

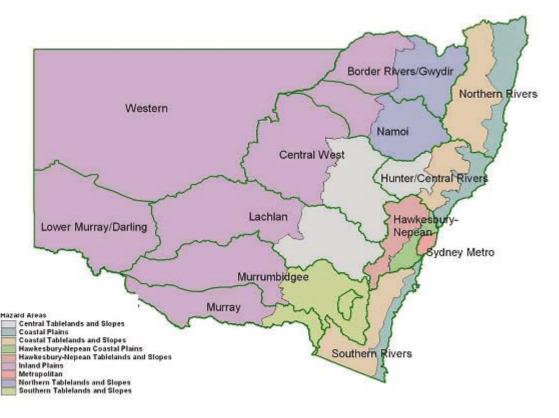


Figure 6.1: Map of Catchment Hazard Areas

In some catchment hazard areas certain hazards are not significant and are deemed to improve or maintain environmental outcomes. For example, acid sulfate soils are only assessed for coastal plains. The hazards assessed for each area are shown in Table 6.1.

Table 6.1 Required Hazard Assessment by Catchment Hazard Areas

		What Hazards are assessed?							
Catchment Hazard Areas	Sensitive terrain	Water erosion hazard	Wind erosion hazard	Salinity hazard (Chapter 4)	Shallow & rocky soil hazard	Earth mass movement hazard	Soil structure hazard	Acid sulfate soil hazard	
Coastal Tableland and Slopes	<b>√</b> *	<b>√</b>		<b>√</b>	<b>√</b>	<b>√</b>			
Northern Tableland and Slopes	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>			
Central Tableland and Slopes	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>			
Southern Tablelands and Slopes	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>			
Coastal Plains excluding Hawkesbury/Nepean	<b>√</b>	<b>√</b>	✓		✓	<b>√</b>		✓	
Coastal Plains - Hawkesbury/Nepean only	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>	<b>√</b>		✓	
Inland Plains	✓	✓	✓	✓	✓		✓		

<sup>\*</sup>Ticked cell indicates hazard is assessed in the Catchment Hazard Area

# 6.3.3 Slope

Slope is used to assess water erosion hazard and mass movement hazard.

Average slope may be either:

- estimated visually in the field by experienced landscape assessors;
- measured using an Abney level or clinometer; or
- estimated from a topographic map or Digital Elevation Model.

The slope classes available as options in the Land and Soils Capability Tool vary between different Catchment Areas to reflect local conditions and the specific criteria required for hazard assessments.

#### 6.3.4 Rainfall

Rainfall is one factor used to assess water erosion hazard, wind erosion hazard, soil structure decline and earth mass movement hazard.

Average annual rainfall requires the selection of the appropriate 100 mm class using information provided by the Australian Bureau of Meteorology. This must relate to the locality if this is available, or, where this is not available, to a nearby town with a similar climate.

# 6.4 Assessing clearing on sensitive terrain

- sensitive terrains are areas of the landscape that are very susceptible to environmental harm arising from clearing of native vegetation. They are defined in Table 6.2.
- clearing of native vegetation on sensitive terrain located in a Catchment Area ticked in Table 6.3 is regarded as not improving or maintaining environmental outcomes.
- it is not possible to offset the impacts of the clearing of sensitive terrain.
- sensitive terrain is not assessed in respect of proposals for biodiversity or salinity offsets.

Table 6.2 Definitions of Sensitive Terrain.

Sensitive Terrain	Definition
Foredune to beach	Elongated, moderately inclined to very steep, single or compound ridge generally less than 15 metres high, built up by the wind from predominantly sand sized particles derived from an adjacent coastal beach.
Derelict mine site	Surface workings of former mining sites, whether remediated or unremediated, which may contain toxic soil, rock or spoil materials.
High run-on area	Areas of the inland plains that have large up-slope catchments and are subject to very high run-on volumes in times of rainfall.
Lakebed within 200 m of shoreline	Beds of ephemeral or fluctuating lakes, whether fresh or saline, of the inland plains. The near-shore areas of these lakebeds are often susceptible to wind erosion and environmental degradation.
Lunette	Occurs mainly in the inland plains and is an elongated, gently recurved, low ridge consisting of sand or pelletised silt and clay which has been built up by wind action on the north eastern or eastern margin of a ephemeral freshwater or saline lake or closed depression. A lunette typically has a wave-modified slope towards the lake or depression.
Flow line	Occurs in the Slopes and Tablelands where surface water flow or seepage is initially concentrated in drainage depressions and is not yet in clearly defined streams.
Sand Dune	Occurs mainly in the inland plains and coastal plains and is a moderately inclined to very steep, sub-parallel linear ridge or hillock built up from sand sized particles by wind action.

 Table 6.3
 Applicability of Sensitive Terrain in Catchment Hazard Areas.

	Sensitive Terrain						
Catchment Hazard Area	Foredune to Beach	Derelict Mine Site	High Run-on Area	Lakebed	Lunette	Flow Line	Sand Dune
Northern Tablelands and Slopes		<b>√</b> *				<b>✓</b>	
Central Tablelands and Slopes		✓				✓	
Southern Tablelands and Slopes		✓				✓	
Coastal Tablelands and Slopes		✓				✓	
Coastal Plains	✓	✓				✓	✓
Inland Plains		✓	✓	✓	✓		✓

<sup>\*</sup>Ticked cell indicates hazard is assessed in the Catchment Hazard Area

# 6.5 Assessing water erosion hazard

- Water erosion hazard is the susceptibility of land to soil erosion by moving water.
- Rainfall erosivity and water availability for plant growth are factors that affect soil erosion. These
  vary significantly between different parts of the State. The Land and Soils Capability Tool uses
  different classes in different Catchment Areas to account for differences in these factors. These
  are set out in Table 6.4.
- The severity of existing water erosion is classed by the Land and Soils Capability Tool as either:
  nil, low, moderate, high, very high, or extreme, according to the definitions of these categories
  contained in Table 6.5.
- If the existing erosion is classed as **nil**, **low or moderate**, the Land and Soils Capability Tool assigns the land and soils capability class indicated in Table 6.4 (based on slope).
- Land and soils capability classes 4 and 5 are not differentiated from each other by slope, but by whether the soils have high natural fertility (class 4) or relatively low natural fertility (class 5).
- If the existing erosion is classed as **high**, the Land and Soils Capability Tool automatically assigns water erosion hazard to land and soils capability class 6, except for land and soils capability zones in the Coastal Tablelands and Slopes Catchment Hazard Area, which are automatically assigned to class 7.
- If the existing erosion is classed as **very high**, the Land and Soils Capability Tool automatically assigns water erosion hazard to land and soils capability class 7.
- If the existing erosion is classed as **extreme**, the Land and Soils Capability Tool automatically assigns water erosion hazard to land and soils capability class 8.

Table 6.4 Slope Class (%) for each land and soils capability class used to determine Water Erosion Hazard in the Catchment Areas.

	Land and soils capability class determined by slope (%)						
Catchment Area	I	2	3	4 & 5	6	7 & 8	
Northern Tablelands and Slopes	< 1	1 – <2	2 - <8	8 - <25	25 - 33	> 33	
Inland Plains	< 1	1 - <3	3 – <10	10 - <25	25 - 33	> 33	
Central Tablelands and Slopes	< 1	1 – <2	2 - <8	8 - <25	25 - 33	> 33	
Southern Tablelands and Slopes	<1.5	1.5 - <5	5 – <12	12 - <25	25 - 33	> 33	
Coastal Tablelands and Slopes	<1	1 – <2	2 - <8	8 - <25	25 - 50	> 50	
Coastal Plains	< 1	1 - <2	2 - <8	8 - 25	25 - 33	> 33	

**Table 6.5 Definitions of Existing Erosion Classes** 

Class	Definition
Nil	No sheet or gully erosion present.
Low	Minor sheet and gully erosion present.
Moderate	Moderate sheet and gully erosion present – gullies restricted to major flow lines.
High	Severe sheet and gully erosion present – rills clearly evident, subsoil and C horizons clearly exposed in many areas, clearly evident depositional areas adjacent to fences and roads - gullies are deep and active in 2 <sup>nd</sup> order streams showing branching into lower parts of 1 <sup>st</sup> order flow lines.
Very high	Severe sheet erosion present causing bare ground and scalding – subsoil and C horizons or bare rock exposed in many areas - clearly evident areas of deposition on lower slopes, adjacent to fences and roads - gullies are active and strongly branched, extending high into 1 <sup>st</sup> order flow lines – gullies often show tunnelling.
Extreme	Majority of the area is bare and scalded, usually extensive areas of active rilling and gullying present – gullies may occupy the majority of the area.

# 6.6 Assessing wind erosion hazard

- Wind erosion hazard is the susceptibility of land to the erosion of soil particles by wind.
- Soil erosion by wind is of particular concern in coastal regions and inland dryland farming areas.
- The criteria used by the Land and Soils Capability Tool to assess wind erosion hazard are:
  - wind erodibility of soil;
  - wind erosive power as indicated on a map in the Land and Soils Capability Tool;
  - exposure to prevailing winds;
  - average annual rainfall.
- The relationship between the criteria in determining the class is shown in Table 6.6.
- Wind erodibility of soil is assessed in the following classes:
  - low: loams, clay loams, or clays (all with greater than 13% clay);
  - moderate: fine sandy loams or sandy loams (all with 6 13% clay);
  - high: loam sands or loose sands (all with less than 6% clay).
- Exposure to prevailing winds is assessed in the following classes:
  - low exposure: sheltered locations in valleys or in the lee of hills;
  - moderate exposure: intermediate situations not low or high exposure locations;
  - high exposure: hilltops or exposed coastal locations.

Table 6.6 Relationship between Wind Erodibility Class of Soil, Wind Erosive Power Exposure to Prevailing Winds, and Annual Rainfall for Land and Soils Capability Classes.

Average Annual Rainfall	Wind Erodibility Class of Soil	Wind Erosive Power	Exposure to Wind	Land and Soils Capability Class
> 500 mm	low	low	low	1
			moderate	1
			high	2
		moderate	low	1
			moderate	2
			high	3
		high	low	2
			moderate	3

Average Annual Rainfall	Wind Erodibility Class of Soil	Wind Erosive Power	Exposure to Wind	Land and Soils Capability Class
			high	4
	moderate	low	low	2
			moderate	3
			high	4
		moderate	low	2
			moderate	3
			high	4
		high	low	3
			moderate	4
			high	5
	high	low	low	3
			moderate	4
			high	5
		moderate	low	4
			moderate	5
			high	6
		high	low	5
			moderate	6
			high	7
300 – 500 mm	low	low	low	2
			moderate	2
			high	3
		moderate	low	2
			moderate	3
			high	4
		high	low	3
			moderate	4
			high	4
	moderate	low	low	3
			moderate	4
			high	5
		moderate	low	3
			moderate	4
			high	5
		high	low	3
			moderate	5
			high	6
	high	low	low	4
			moderate	5
			high	7

Average Annual Rainfall	Wind Erodibility Class of Soil	Wind Erosive Power	Exposure to Wind	Land and Soils Capability Class
		moderate	low	5
			moderate	6
			high	7
		high	low	6
			moderate	7
			high	7
200 – <300 mm	low	low	low	3
			moderate	3
			high	4
		moderate	low	3
			moderate	4
			high	5
		high	low	4
			moderate	5
			high	6
	moderate	low	low	4
			moderate	5
			high	6
		moderate	low	4
			moderate	5
			high	7
		high	low	4
			moderate	6
			high	8
	high	low	low	5
			moderate	6
			high	8
		moderate	low	6
			moderate	7
			high	8
		high	low	7
			moderate	8
			high	8
< 200 mm	low	low	low	8
			moderate	8
			high	8
		moderate	low	8
			moderate	8
			high	8

Average Annual Rainfall	Wind Erodibility Class of Soil	Wind Erosive Power	Exposure to Wind	Land and Soils Capability Class
		high	low	8
			moderate	8
			high	8
	moderate	low	low	8
			moderate	8
			high	8
		moderate	low	8
			moderate	8
			high	8
		high	low	8
			moderate	8
			high	8
	high	low	low	8
			moderate	8
			high	8
		moderate	low	8
			moderate	8
			high	8
		high	low	8
			moderate	8
			high	8

# 6.7 Assessing shallow and rocky soil hazard

- Shallow soils and rockiness reduce the land use capability of soils and land.
- The criteria used by the Land and Soils Capability Tool to assess shallow soil and rockiness hazard are:
  - estimated percentage exposure of rocky outcrops;
  - average soil depth; and
  - · average annual rainfall.
  - The relationship between the criteria in determining the land and soils capability class is shown in Table 6.7.

Table 6.7 Relationship between Soil Depth, Rocky Outcrop, and Average Annual Rainfall for Assessment of Shallow and Rocky Soils.

Soil Depth cm	Rocky Outcrop % Coverage	Land and Soils Capability Class if <500 mm Av. Annual Rainfall	Land and Soils Capability Class if >500 mm Av. Annual Rainfall
>100	<30	1, 2	1, 2
50 – 100		4	1, 2
25 – <50		7, 8	4
<25		7, 8	7, 8
>100	30 - 50	4, 5	4, 5
50 – 100		4, 5	4, 5
25 – <50		7, 8	4, 5
<25		7, 8	7, 8
>100	50 – 70	6	6
50 – 100		6	6
25 – <50		7, 8	6
<25		7, 8	7, 8
>100	>70	7, 8	7, 8
50 – 100		7, 8	7, 8
25 – <50		7, 8	7, 8
<25		7, 8	7, 8

## 6.8 Assessing earth mass movement hazard

- The criteria used by the Land and Soils Capability Tool to assess earth mass movement hazard are:
  - existing evidence of earth mass movement;
  - slope class;
  - average annual rainfall;
  - soil saturation conditions;
  - nature of underlying soil materials.
- The relationship between the criteria in determining the Land and Soils Capability Class is shown in Table 6.8.

Table 6.8 Relationship between Existing Earth Mass Movement, Slope, Average Annual Rainfall, Subsurface Soil Saturation Conditions and Unconsolidated Substrates for Assessing Earth Mass Movement Hazard.

Is there existing earth mass movement?	Slope	Is the average annual rainfall > 900 mm?	Concentration or impedance of seepage flows?	Is the underlying material unconsolidated?	Land and Soils Capability Class
yes	<12%	not required	not required	not required	1
	12% or more	not required	not required	not required	8
no	< 12 %	not required	not required	not required	1
	12 – 25%	yes	yes	yes	7
				no	6
			no	yes	6
				no	3
		no	yes	yes	6
				no	3
			no	yes	3
				no	1
	> 25%	yes	yes	yes	8
				no	7
			no	yes	7
				no	6
		no	yes	yes	6
				no	6
			no	yes	6
				no	3

## 6.9 Assessing acid sulfate soils hazard

- The Land and Soils Capability Tool assesses acid sulfate soils hazard for Coastal Plains in the Northern Rivers Catchment Management Authority, the Southern Rivers Catchment Management Authority, the Hawkesbury Nepean Catchment Management Authority and the coastal subdivision of the Hunter and Central Rivers Catchment Management Authority.
- The criteria used by the Land and Soils Capability Tool to assess acid sulfate soils hazard are:
  - land elevation in metres above Australian Height Datum (AHD);
  - depth to potential or actual acid sulfate soil.
- The depth to acid sulfate soils is estimated from Department of Natural Resources Acid Sulfate Soil maps, or can be obtained through field testing in the relevant Land and Soils Capability zone;
- The relationship between the criteria in determining the land and soils capability class is shown in Table 6.9.

Table 6.9 Relationship between Criteria Determining Class for Acid Sulfate Soils Hazard.

Is land >10 m AHD?	Depth to Acid Sulphate Soils Hazard	Land and Soils Capability Class
Yes	NA	1
No	ASS not present	1
	>4m	3
	2 – 4m	4
	1 – <2m	5
	<1m	8

# 6.10 Assessing soil structure hazard

- Soil structure decline is only assessed by the Land and Soils Capability Tool for the inland plains
  of NSW and only if average annual rainfall is <600 mm;</li>
- The criterion used by the Land and Soils Capability Tool to assess soil structure decline hazard is the nature of surface soils;
- Table 6.10 shows how the Class is determined.

Table 6.10 Relationship between Nature of Surface Soils and Classes for the Assessment of Soil Structural Decline Hazard in the Inland Plains of NSW (where annual rainfall <600 mm).

Nature of surface soils	Class
self-mulching clay surface soils; loose sands	1, 2
fine sandy loam and sandy loam surface soils	3
loam and clay loam surface soils, non sodic	3
mildly sodic, loam, clay loam and clay surface soils	4
sodic, light clay and medium clay surface soils	5, 6
strongly sodic, light clay and medium clay surface soils	7, 8

#### **Note: References**

- Gunn, R.H., Beattie, J.A., Reid, R.E. and van de Graaff, R.H.M. (Eds) 1988. *Australian Soil and Land Survey Handbook: Guidelines for Conducting Surveys*. Inkata Press, Melbourne.
- McKenzie, N.J., Coughlan, K.J. and Cresswell, H.P. (Eds) 2002. *Soil Physical Measurement and Interpretation for Land Evaluation*. Australian Soil and Land Survey Handbook Series, Vol 5. CSIRO Publishing, Collingwood.
- Charman, P.E.V. and Murphy, B.W. 2000. *Soils: Their Properties and Management*. Second Edition. Oxford University Press, Melbourne and NSW Department of Land and Water Conservation, Sydney.
- Emery, K. 1985. Rural Land Capability. Soil Conservation Service of NSW.
- Hannam, I.D. and Hicks, R.W. 1980. 'Soil conservation and land use planning', *Journal of Soil Conservation*, *NSW 36*: 135-145.
- Klingebiel, A.A. and Montgomery, P.H. 1961. *Land Capability Classification, Agriculture Handbook No. 210.* Soil Conservation Service, U.S. Department of Agriculture, Washington, DC.
- Lee, L.K. and Goebel, J. 1984. *The Use of the Land Capability Classification System to Define Erosion Potential on Cropland*. A & P Staff Report No. 85-1. Soil Conservation Service, Washington, DC.
- Leys, J.F., Craven, P., Murphy, S., Clark, P. and Anderson, R. 1994. 'Integrated resource management of the Mallee of South-Western New South Wales'. *Australian Journal of Soil and* Water Conservation, 7(3), 10-19.
- Peverill, K.I. 1999. Soil Analysis: An Interpretation Manual. CSIRO Publishing, Canberra.

# 7 Invasive Native Scrub Assessment

### 7.1 Introduction

This Chapter applies to the clearing of species of invasive native scrub under the Native Vegetation Act 2003.

Regrowth that is not classified as "protected regrowth" under the *Native Vegetation Act 2003* may be cleared without approval under that Act. Clearing of any other vegetation, which is classified under the *Native Vegetation Act 2003* as "remnant vegetation" or "protected regrowth" requires approval from the local Catchment Management Authority. This includes clearing of invasive native species.

Where a proposal only involves clearing of invasive native species a shortened assessment process (within the Native Vegetation Assessment Tool) can be used. This assessment process is designed to maintain or create a mosaic of vegetation states across the landscape and does not require offsets.

Further information on supporting science and application of the Environmental Outcomes Assessment Methodology relating to clearing/thinning of native vegetation known as invasive native scrub under the *Native Vegetation Act 2003* is contained in:

- Operational Manual for the Native Vegetation Assessment Tool;
- Collation of Discussion Paper Submissions and Responses from the Invasive Native Scrub Team (<a href="http://www.nativevegetation.nsw.gov.au/methodology/">http://www.nativevegetation.nsw.gov.au/methodology/</a>).

# 7.2 Assessing invasive native species clearing proposals

This Chapter applies to the clearing of invasive native species.

#### Note:

There are two steps in assessing a proposal to clear invasive native species.

The first step is to determine whether the species proposed to be cleared may be assessed under this Chapter. This involves firstly, determining whether the species is listed in Table 7.1 as generally being invasive in the Catchment Management Authority area and/or the Interim Biogeographic Regionalisation of Australia ("IBRA") region where the proposal is located, and secondly, whether the behaviour of the species in the area of the proposal satisfies certain criteria relating to whether a species can be said to be an invasive native species.

If the species is not an invasive native species, then the clearing proposal may not be assessed under this Chapter.

The second step is assessing whether the clearing proposal satisfies all of the applicable criteria listed below. If the clearing proposal does satisfy all applicable criteria, the clearing is to be regarded as improving or maintaining environmental outcomes and it is not necessary to assess the clearing proposal against the other environmental values listed in the Assessment Methodology (that is, water quality, salinity, soils and biodiversity).

If the clearing proposal does not satisfy all of the applicable criteria, then the proposal may not be assessed under this Chapter.

Invasive native species for the purposes of this Chapter means a plant species that satisfies the following criteria:

 The species is listed in Table 7.1 in respect of the Catchment Management Authority Area or the Catchment Management Authority Area and IBRA region to which the clearing proposal relates; and

- 2) In the opinion of the relevant Catchment Management Authority (or an officer of that Authority who is responsible for making this assessment), the species satisfies the following criteria for acting invasively:
  - (a) the species is invading plant communities where it has not been known to occur previously, **or** the species is regenerating densely following natural or artificial disturbance, **and**
  - (b) the invasion and/ or dense regeneration of the species is resulting in change of structure and/ or composition of a vegetation community, **and**
  - (c) the species is within its natural geographic range.

For the purpose of assessing whether clearing for the purpose of controlling invasive native scrub will improve or maintain environmental outcomes, such clearing is divided into the following clearing types:

- a) burning;
- b) clearing of individual plants with no disturbance to groundcover (for example, chemical spot treatment or ringbarking);
- c) clearing of individual plants with minimal disturbance to groundcover (for example, grubbing);
- d) clearing of plants at paddock scale with nil to minimal disturbance to soil and groundcover (for example, chaining, slashing or roping);
- e) clearing of plants at paddock scale with temporary disturbance to soil and groundcover (for example, bladeploughing); and
- f) clearing of plants at paddock scale with longer-term disturbance to soil and groundcover (for example, short-term cropping).

#### Note:

The examples set out in brackets above are given by way of illustration only and do not limit techniques for clearing which fall within each method.

Proposed invasive native species clearing assessed under this Chapter is regarded as improving or maintaining environmental outcomes in relation to applications for consent or Property Vegetation Plans if it meets all of the following criteria which apply to the proposed clearing.

All of the following criteria apply to all proposed clearing, unless expressly stated to apply only to a specific type of clearing.

In the following criteria:

- "groundcover" means any type of herbaceous vegetation, native and non-native, living or dead;
- "native groundcover" means living, native herbaceous vegetation;
- "the extent of invasive native species on the property" means the extent of the areas on the
  property where invasive native species are currently present and areas on the property where
  they may not presently occur but where invasive native scrub management is required to prevent
  their spread or recurrence, as mapped by the relevant Catchment Management Authority. Non
  native vegetation areas and areas of native vegetation not impacted by invasive native scrub
  should not be included in the extent of invasive native scrub on the property;
- "non-invasive native species" and "non-invasive native vegetation" mean any native species that are not invasive native species, as defined above;
- "diameter at breast height" means the diameter of the stem at 1.3 metres above the ground;
- "erosion risk" means the intrinsic susceptibility of a parcel of land to the prevailing agents of erosion. It is dependent on a combination of climate, landform and soil factors (Houghton & Charman 1986);
- "derived vegetation community" for the purposes of this chapter means a vegetation community
  which has changed from structurally different vegetation community, for example, shrubland that
  has encroached into open woodland or grassland areas. Vegetation communities with mature

- trees of the same species as younger trees in the community are generally not derived communities;
- "high condition" is as defined as benchmark condition (by Chapter 5 of the Environmental Outcomes Assessment Methodology) for the vegetation type which corresponds to the threatened ecological community being treated.
- "density" or "densities" means the number of plants per hectare.

## Purpose of the clearing

 Clearing permitted by these provisions is for the purpose of re-establishing native vegetation or allowing natural regeneration of native species.

# **Native groundcover**

2) After the clearing provisions of the consent or property vegetation plan end, native groundcover on the area where the clearing took place is maintained in perpetuity unless clearing is permitted by a property vegetation plan or consent under the *Native Vegetation Act 2003*.

### Total areas which may be cleared

- Total clearing of invasive native species does not exceed 80% of the extent of invasive native species on the property.
- 4) Where the following types of clearing are carried out
  - burning or
  - · clearing of individual plants with no disturbance to groundcover
  - (a) The clearing does not exceed 80% of the extent of the area of invasive native species on the property (as mapped by the relevant Catchment Management Authority).
- 5) Where the following types of clearing are carried out:
  - clearing of individual plants with minimal disturbance to groundcover or
  - clearing plants at a paddock scale with nil to minimal disturbance to soil and groundcover.
  - a) The clearing does not exceed 60% of the extent of invasive native species on the property, except as set out in 5 b) below.
  - b) Up to a further 20% of the extent of invasive native species on the property is cleared only if the Catchment Management Authority is satisfied that land that was initially cleared by either of these types of clearing has achieved a groundcover of greater than 50% (or higher percentage as determined by the CMA) and the groundcover consists of greater than 75% (or higher percentage as determined by the CMA) native groundcover.
  - c) Groundcover is maintained in perpetuity on land initially cleared by this type of clearing from the date the Catchment Management Authority is satisfied the land is at the groundcover set out in paragraph 5 (b) unless clearing is permitted by a property vegetation plan or consent under the *Native Vegetation Act 2003*.
  - d) If clearing plants at a paddock scale with nil to minimal disturbance to soil and groundcover is carried out with clearing plants at a paddock scale with temporary disturbance to soil and groundcover and/ or clearing of plants at paddock scale with longer-term disturbance to soil and groundcover the total clearing must not exceed 60% of the extent of invasive native species on the property except as set out in paragraph 5 b).
  - e) The CMA must certify in writing that it is satisfied as to the matters set out in paragraph 5 b) before the further clearing referred to in that paragraph can take place.

#### Note:

Criterion 5 d) means that if clearing type d is undertaken in combination with clearing type e and/or f the total initial clearing cannot exceed 60% of the extent of invasive native species on the property.

Due to the other retention requirements within this Chapter the clearing by clearing types d-f may be limited to 72% of the extent of invasive native species on the property in total over the period of the Property Vegetation Plan.

- 6) Where the following type of clearing is carried out:
  - Clearing plants at a paddock scale with temporary disturbance to soil and groundcover.
  - a) The clearing does not exceed 40% of the extent of invasive native species on the property, except as set out in 6 b) below.
  - b) Up to a further 40% of the extent of invasive native species on the property is cleared only if the Catchment Management Authority is satisfied that land that was initially cleared by this type of clearing has achieved a groundcover of greater than 50% (or higher percentage as determined by the CMA) and the groundcover consists of greater than 75% (or higher percentage as determined by the CMA) native groundcover.
  - c) Groundcover is maintained in perpetuity on land initially cleared by this type of clearing from the date the Catchment Management Authority is satisfied the land is at the groundcover set out in set out in paragraph 6 (b) unless clearing is permitted by a property vegetation plan or consent under the *Native Vegetation Act 2003*.
  - d) If both clearing plants at paddock scale with temporary disturbance to soil and groundcover and clearing of plants at paddock scale with longer-term disturbance to soil and groundcover are to be carried out, then criterion 8 also applies.
  - e) The CMA must certify in writing that it is satisfied as to the matters set out in paragraph 6 b) before the further clearing referred to in that paragraph can take place.
- 7) Where the following type of clearing is carried out:
  - Clearing of plants at paddock scale with longer-term disturbance to soil and groundcover.
  - a) The clearing does not exceed 20% of the extent of invasive native species on the property, except as set out in 7 b) below.
  - b) Up to a further 60% of the extent of invasive native species on the property is cleared only if the Catchment Management Authority is satisfied that for each further 20% (up to a maximum of 80%) of the extent of invasive native species on the property, land that was initially cleared by this type of clearing has achieved a groundcover of greater than 50% (or higher percentage as determined by the CMA) and the groundcover consists of greater than 75% (or higher percentage as determined by the CMA) native groundcover.
  - c) Groundcover is maintained in perpetuity on land cleared by this type of clearing from the date the Catchment Management Authority certifies in writing that the land is at the groundcover set out in set out in paragraph 7 b) unless clearing is permitted by a property vegetation plan or consent under the *Native Vegetation Act 2003*.
  - d) The clearing at any one time does not exceed 20% of the invasive native species extent on the property.
  - e) If both clearing plants at paddock scale with temporary disturbance to soil and groundcover and clearing of plants at paddock scale with longer-term disturbance to soil and groundcover are to be carried out, then criterion 8 also applies.
  - f) The CMA must certify in writing that it is satisfied as to the matters set out in paragraph 7 b) before the further clearing referred to in that paragraph can take place.

- 8) Where both of the following types of clearing are carried out:
  - clearing plants at a paddock scale with temporary disturbance to soil and groundcover and
  - clearing of plants at paddock scale with longer-term disturbance to soil and groundcover.
  - a) The clearing does not exceed 40% of the extent of invasive native species on the property except as set out in 8 b) below.
  - b) Up to a further 40% of the extent of invasive native species on the property is cleared only if the Catchment Management Authority is satisfied that land that was initially cleared by either of these types of clearing has achieved a groundcover of greater than 50% (or higher percentage as determined by the CMA) and the groundcover consists of greater than 75% (or higher percentage as determined by the CMA) native groundcover.
  - c) Groundcover is maintained in perpetuity on land initially cleared by this type of clearing from the date the Catchment Management Authority is satisfied the land is at the groundcover set out in set out in paragraph 8 b) unless clearing is permitted by a property vegetation plan or consent under the *Native Vegetation Act 2003*.
  - d) The clearing at any one time does not exceed 40% of the invasive native species extent on the property.
  - e) The CMA must certify in writing that it is satisfied as to the matters set out in paragraph 8 b) before the further clearing referred to in that paragraph can take place.

#### Note:

For example, using this type of clearing, if the extent of invasive native species on a property is 1,000 ha, then the landholder may initially clear 20% of this area, that is, 200 ha. Once the Catchment Management Authority is satisfied that this 200 ha has achieved a groundcover of more than 50% cover and that cover consists of more than 75% native vegetation, then the landholder may clear a further 20% of the extent of invasive native species on the property, that is, a further 200 ha.

Once the Catchment Management Authority is satisfied that the second parcel of 200 ha has achieved the groundcover and percentage of native groundcover described above, then the landholder may clear a further 200 ha and so on, until the landholder has cleared 800 ha, which is the maximum area permitted to be cleared (that is, 80% of 1,000 ha). In this example at any one time, no more than 200 ha may be cleared.

The landholder must not re-clear any areas cleared under these provisions that have achieved the necessary level of groundcover unless another consent or Property Vegetation Plan is obtained.

# Restrictions on which methods of clearing may be used

- 8A) The clearing type that is used (being a type described in Chapter Section 7.2 (a) to (f)) is a type which is permitted for the species being cleared, according to Table 7.1
- 9) The method of clearing is limited to burning, clearing of individual plants with no disturbance to groundcover or clearing of individual plants with minimal disturbance to groundcover where:
  - a) non-invasive native trees and shrubs represent more than 50% of total number of individual trees and shrubs; or
  - b) skeletal/ rocky soils, dunefields or lunettes occur on the area where the proposed clearing is to take place, or

vegetation is a threatened ecological community or threatened population within the meaning of the *Threatened Species Conservation Act 1995* except, if the threatened ecological community is not in high condition and the clearing does not include the key species in the threatened ecological community (species in the title of the listing under the *Threatened Species Conservation Act 1995*) of the threatened ecological community, then the method of clearing of plants at paddock scale with nil to minimal disturbance to soil and groundcover may also be used, but to clear the understorey or groundcover only.

- 10) For methods other than burning, clearing of individual plants with no disturbance to groundcover and clearing of individual plants with minimal disturbance to groundcover, no land of slope greater than 18 degrees is cleared.
- 11) For the method of clearing of plants at paddock scale with longer-term disturbance to soil and groundcover, no vegetation is cleared on land:
  - a) with a soil profile less than 1m in depth; or
  - b) of a medium erosion risk; or
  - c) of a high erosion risk.
- 12) For the method clearing of plants at a paddock scale with temporary disturbance to soil and groundcover, no vegetation is cleared on land of a high erosion risk.
- 13) For methods other than burning, any invasive native species that has a stem or trunk with a diameter at breast height ("dbh") greater than the dbh specified in the column headed "Maximum dbh allowed to be cleared" in Table 7.1 is not cleared except as set out in 13A and 13C.
- 13A) The relevant Catchment Management Authority may vary the measurement in the column "Maximum dbh allowed to be cleared" in Table 7.1 by up to 5 centimetres if, in the judgement of the Catchment Management Authority, the variation is appropriate for the land to be cleared.
- 13B) Any native vegetation other than the invasive native species referred to in 13 with a stem or trunk diameter at breast height greater than 20cm is not cleared except as set out in 13C.
- 13C) Accidental clearing of invasive native species with a stem or trunk dbh greater than the maximum dbh allowed to be cleared and non-invasive native species with a stem or trunk greater than 20cm dbh is limited to 1% of the total number of trees and shrubs in the area to be cleared.
- 14) For methods other than burning or clearing of individual plants with no disturbance to groundcover, no clearing is undertaken within the riparian buffer distances, as set out in Table 3.1of the Environmental Outcomes Assessment Methodology. Rivers and important wetlands are defined by Section 3.3 of the Environmental Outcomes Assessment Methodology. Other watercourses, lagoons and wetlands are to be defined by Section 3.3 of the Environmental Outcomes Assessment Methodology or as defined by the Catchment Management Authority.
- 15) [Note: this criterion has been removed. See criterion 17A.]

#### Non-native vegetation

- 16) For methods of clearing plants at paddock scale with temporary disturbance to soil and groundcover, and clearing of plants at paddock scale with longer term disturbance to soil and groundcover, the clearing does not result in the introduction into the cleared area of any non-native perennial vegetation other than the species listed in Table 7.2 (where in the judgement of the Catchment Management Authority the species listed in Table 7.2 is non-persistent in the area the species is proposed to be introduced)
- 17) For methods other than clearing plants at a paddock scale with temporary disturbance to soil and groundcover and clearing of plants at paddock scale with longer term disturbance to soil and groundcover, the clearing does not result in the introduction into the cleared area of any non-native vegetation.

## Retention of native vegetation

- 17A) For methods of clearing of individual plants with no disturbance to groundcover and clearing of individual plants with minimal disturbance to groundcover:
  - a) Plants of the species listed in Table 7.1 as requiring retention are to be retained at the densities specified in Table 7.1, except
    - I) Where the vegetation is a derived vegetation community; or

- II) As set out in criterion 17A (b);
- b) Where more than one species is present, the total retention requirement for all species does not exceed 20 stems per hectare. If there is more than one species present, the stems retained must reflect the proportion of total individuals for each species present and stems are to be retained for a range of size classes present less than the dbh specified in Table 7.1; and.
- c) Stems retained must represent the proportion of size classes present prior to clearing; and,
- d) The relevant Catchment Management Authority may use its judgement to vary the number of stems per hectare that must be retained as specified by Table 7.1. However, the number of stems per hectare may not be varied to a ratio less than 1 stem under the maximum dbh allowed to be cleared in Table 7.1 to every 1 stem over the maximum dbh allowed to be cleared in Table 7.1, present per hectare for each species present to which this criterion applies. Any such variation does not affect the other requirements of this criterion.

## Note:

For the purposes of criterion 17A, the number of plants per hectare means the number of plants on a one hectare area.

- 18) For the methods of clearing plants at a paddock scale with nil to minimal disturbance to soil and groundcover, clearing plants at a paddock scale with temporary disturbance to soil and groundcover and clearing of plants at paddock scale with longer-term disturbance to soil and groundcover:
  - a) a minimum of 20% of the native vegetation on the area to be cleared is retained; and,
  - b) if more than 500 hectares is to be cleared, then a minimum of 20% of the native vegetation on that area must be retained on each 500 hectare area within or between cleared areas; and
  - c) the 20% retained native vegetation may not be cleared by any other method; and
  - d) The retained native vegetation may include invasive native species; and
  - e) The native vegetation retained for the purposes of this criterion may be included in the calculation of the uncleared area extent of invasive native species on the property for the purposes of criterion 3 to 8.

## Note:

- 1. The 20% retention may be retained in patches or buffers.
- 2. The intention of this criterion is that, for example, if 750 ha are to be cleared, then the 750 ha area is to be divided into a 500 ha "envelope" and a 250 ha "envelope." At least 100 ha must be retained on the 500 ha envelope and at least 50 ha must be retained on the 250 ha envelope. It is not permissible to retain, for example, 150 ha on the 500 ha envelope and retain nothing on the 250 ha envelope.
- 18A) For the methods of clearing plants at a paddock scale with nil to minimal disturbance to soil and groundcover, clearing plants at a paddock scale with temporary disturbance to soil and groundcover and clearing of plants at paddock scale with longer-term disturbance to soil and groundcover, if plants of the species listed in Table 7.1 as requiring retention are present:
  - a) a minimum of 10% of the area of native vegetation on the area to be cleared is retained in patches; and
    - I) if more than 100 hectares is to be cleared, then a minimum of 10% of the area of native vegetation on that area must be retained on each 100 hectare area; and
    - II) the areas retained as required by this criterion are additional to the areas retained for the purposes of criteria 3 to 8 and 18;

or

b) plants are retained individually as specified in 17A).

## Requirements on how the clearing is to be carried out

The clearing is carried out in accordance with the methods set out below:

- 19) If clearing by the method of burning:
  - a) clearing of non-invasive native species is to the minimum extent necessary to clear the invasive native species; and
  - b) the clearing does not result in soil surface disturbance.
- 20) If clearing by the method of clearing of individual plants with no disturbance to groundcover:
  - a) the clearing does not result in soil surface disturbance; and
  - b) non-invasive native trees and shrubs cleared comprise no more than 1% of the total number of individual trees and shrubs cleared; and
  - c) any clearing of groundcover is incidental in extent; and
  - d) the clearing is limited to clearing of individual plants of invasive native species.
- 21) If clearing by the method of clearing of individual plants with minimal disturbance to soil and groundcover:
  - a) disturbance to soil surface is to the minimum extent necessary to clear individual plants; and
  - b) non-invasive native trees and shrubs cleared comprise no more than 1% of the total number of individual trees and shrubs cleared and;
  - c) the clearing of groundcover is to the minimum extent necessary; and;
  - d) the clearing is specific to individual plants of invasive native species.
- 22) If clearing by method of clearing of plants at a paddock scale with nil to minimal disturbance to soil and groundcover:
  - a) disturbance to soil surface is to the minimum extent necessary; and
  - b) non-invasive trees and shrubs comprise less than 10% of the total number of individual trees and shrubs cleared; and
  - c) the clearing of groundcover is to the minimum extent necessary.
- 23) If clearing by method of clearing plants at a paddock scale with temporary groundcover and soil disturbance:
  - a) non-invasive trees and shrubs comprise less than 10% of the total number of individual trees and shrubs cleared; and
  - b) the clearing of groundcover is to the minimum extent necessary; and
  - c) disturbance to soil surface is limited to the minimum extent necessary to control the invasive native species; and
  - d) the introduction of non-persistent non-native perennial vegetation listed in Table 7.2 (the species listed in Table 7.2 must also in the judgement of the Catchment Management Authority, be non-persistent in the area where the species is proposed to be introduced) and annual non-native vegetation, is limited to the clearing activity; and
  - e) any non-native vegetation introduced is not harvested.
- 24) If clearing by method of clearing of plants at paddock scale with longer-term disturbance to soil and groundcover:
  - a) the non-invasive trees and shrubs comprise less than 20% of the total number of individual trees and shrubs cleared; and
  - b) the clearing of groundcover is to the minimum extent necessary to control the invasive native species; and

c) the preparation and sowing of land with annual non-native vegetation and/ or non-persistent non-native perennial vegetation listed in Table 7.2 (the species listed in Table 7.2 must also, in the judgement of the Catchment Management Authority, be non-persistent in the area where the species is proposed to be introduced) is limited to three occasions in 15 years from the date of granting of consent or approval of the Property Vegetation Plan.

## Key

#### In Table 7.1:

"n/a" means not applicable.

In the column headed "Clearing type permitted" and Note (1), the letters "a" to "f" correspond with the clearing types, that is:

- a: burning;
- b: clearing of individual plants with no disturbance to groundcover (for example, chemical spot treatment or ringbarking);
- c: clearing of individual plants with minimal disturbance to groundcover (for example, grubbing);
- d: clearing of plants at paddock scale with nil to minimal disturbance to soil and groundcover (for example, chaining, slashing or roping);
- e: clearing of plants at paddock scale with temporary disturbance to soil and groundcover (for example, bladeploughing); and
- f: clearing of plants at paddock scale with longer-term disturbance to soil and groundcover (for example, short-term cropping).

# Table 7.1. Invasive Native Scrub Species Database

The species listed are consistent with the following criteria:

- (a) the species invades plant communities where it has not been known to occur previously, or the species regenerates densely following natural or artificial disturbance, and
- (b) the invasion and/ or dense regeneration of the species results in change of structure and/ or composition of a vegetation community,

the species is within its natural geographic range.

		Retention requirements	irements		
Invasive Native Species Num hecta	E #	Number of plants per chectare to be retained t	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	INS type of clearing permitted
Callitris endlicheri (Black 20 (T Cypress)	L	20 (Total under 20cm dbh)	No	20cm	All
Callitris glaucophylla (White 20 (T Cypress)		20 (Total under 20cm dbh)	No	20cm	All
Cassinia arcuata (Sifton none Bush)	$\simeq$	none prescribed	No	n/a	All
Eremophila mitchellii (Budda,   none False Sandalwood)	9	none prescribed	No	n/a	All
Olearia elliptica (Sticky Daisy none Bush, Peach Bush)	၅	none prescribed	No	n/a	All
Cassinia laevis None	Je	None prescribed	No	n/a	All
Cassinia quinquefaria None	Je	None prescribed	No	n/a	All
Dodonea viscosa subsp.  angustissima (Narrowleaf Hopbush)	Č	None prescribed	No	n/a	All
Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	č	None prescribed	No	n/a	All
Vachellia farnesiana (Mimosa)	$\subseteq$	None prescribed	No	n/a	All

Catchment		Retention requirements	uirements		JO Carry SINI
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
Border Rivers/Gwydir DRP	Acacia stenophylla (River Cooba, Black Wattle)	None prescribed	No	n/a	All
Border Rivers/Gwydir DRP	Acacia salicina (Cooba)	None prescribed	No	n/a	All
Border Rivers/Gwydir DRP	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
Border Rivers/Gwydir DRP	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
Border Rivers/Gwydir DRP	Eremophila bignoniiflora (Eurah)	none prescribed	No	n/a	All
Border Rivers/Gwydir DRP	Eremophila maculata (Spotted Fuschia)	none prescribed	No	n/a	All
Border Rivers/Gwydir DRP	Eremophila longifolia (Emu Bush)	none prescribed	No	n/a	All
Border Rivers/Gwydir DRP	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
Border Rivers/Gwydir DRP	Eucalyptus camaldulensis (River Red Gum)	20 (Total under 20cm dbh)	Yes	20cm	All
Border Rivers/Gwydir DRP	Eucalyptus coolabah (Coolibah)	20 (Total under 20cm dbh)	Yes	20cm	All
Border Rivers/Gwydir DRP	Eucalyptus largiflorens (Black Box)	20 (Total under 20cm dbh)	Yes	20cm	All
Border Rivers/ Gwydir DRP	Dodonea viscosa subsp. angustissima (Narrowleaf Hopbush)	None prescribed	No	n/a	All
Border Rivers/ Gwydir DRP	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	None prescribed	No	n/a	All
Border Rivers/Gwydir DRP	Vachellia farnesiana (Mimosa)	None prescribed	No	n/a	All
Border Rivers/Gwydir NAN	Acacia deanei (Deane's Wattle)	none prescribed	No	n/a	All

Catchment		Retention requirements	quirements		INC type of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
Border Rivers/Gwydir NAN	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	ON	20cm	All
Border Rivers/Gwydir NAN	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
Border Rivers/Gwydir NAN	Cassinia arcuata (Sifton Bush)	none prescribed	No	n/a	All
Border Rivers/Gwydir NAN	Leptospermum brevipes (Grey Teatree, Teatree)	none prescribed	ON	n/a	All
Border Rivers/Gwydir NAN	Olearia elliptica (Sticky Daisy Bush, Peach Bush)	none prescribed	No	n/a	All
Border Rivers/ Gwydir NAN	Cassinia quinquefaria	None prescribed	No	n/a	All
Border Rivers/ Gwydir NAN	Cassinia laevis	None prescribed	No	n/a	All
Border Rivers/ Gwydir NAN	Dodonea viscosa subsp. angustissima (Narrowleaf Hopbush)	None prescribed	No	n/a	All
Border Rivers/ Gwydir NAN	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	None prescribed	No	n/a	All
Border Rivers/Gwydir NAN	Vachellia farnesiana (Mimosa)	None prescribed	No	n/a	All
Border Rivers/Gwydir NET	Leptospermum brevipes (Grey Teatree, Teatree)	none prescribed	No	n/a	All
Border Rivers/ Gwydir NET	Cassinia laevis	None prescribed	No	n/a	All
Border Rivers/ Gwydir NET	Cassinia quinquefaria	None prescribed	No	n/a	All
Central WestAll	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
Central WestAll	Acacia deanei (Deane's Wattle)	none prescribed	ON	n/a	All

Catchment		Retention requirements	uirements		INC two of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing
Central WestAll	Acacia stenophylla (Black Wattle)	none prescribed	No	n/a	All
Central WestAll	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
Central WestAll	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
Central WestAll	Cassinia arcuata (Sifton Bush)	none prescribed	No	n/a	All
Central WestAll	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	none prescribed	No	n/a	All
Central WestAll	Dodonea viscosa subsp. angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
Central WestAll	Eremophila bignoniiflora (Eurah)	none prescribed	No	n/a	All
Central WestAll	Eremophila longifolia (Emu Bush)	none prescribed	No	n/a	All
Central WestAll	Eremophila mitchellii (Budda, False sandalwood)	none prescribed	No	n/a	All
Central WestAll	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
Central WestAll	Eucalyptus coolabah (Coolibah)	20 (Total under 20cm dbh)	Yes	20cm	All
Central WestAll	Eucalyptus largiflorens (Black Box)	20 (Total under 20cm dbh)	Yes	20cm	All
Central WestAll	Eucalyptus populnea (Bimble box, Poplar Box)	20 (Total under 20cm dbh)	Yes	20cm	All
Central WestAll	Maireana microphylla (Eastern Cotton Bush)	none prescribed	No	n/a	All
Central WestAll	Nitraria billardierei (Dillon Bush)	none prescribed	No	n/a	All

Catchment		Retention requirements	quirements		INC touch Old
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
Central WestAll	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	ON	n/a	All
Central WestAll	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
Central WestAll	Sclerolaena birchii (Galvanised Burr)	none prescribed	ON	n/a	All
Central WestAll	Sclerolaena muricata (Black Rolypoly)	none prescribed	No	n/a	All
Central WestAll	Acacia homalophylla (Yarran)	none precribed	No	n/a	All
Central WestAll	Geijera parviflora (Wilga)	20 (Total under 20cm dbh)	No	n/a	All
Central WestAll	Acacia salicina (Cooba or Native Willow)	None prescribed	Yes	20cm	а-е
Central WestAll	Eucalyptus camaldulensis (River Red Gum)	20 (Total under 20cm dbh)	Yes	20cm	а-с
Central WestAll	Vachellia farnesiana (Mimosa)	none prescribed	No	n/a	All
Hawkesbury/Nepean All	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
Hawkesbury/Nepean All	Cassinia arcuata (Sifton Bush)	none prescribed	No	20cm	All
Hawkesbury/Nepean All	Kunzea ericoides (Burgan)	none prescribed	No	n/a	All
Hawkesbury/Nepean All	Kunzea parvifolia (Violet Kunzea)	none prescribed	oN	n/a	All
Hunter and Central RiversAll	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
LachlanAll	Acacia deanei (Deane's Wattle)	None prescribed	No	n/a	All
LachlanAll	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All

Catchment		Retention requirements	uirements		to onyt SMI
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
LachlanAll	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
LachlanAll	Cassinia arcuata (Sifton Bush)	none prescribed	No	n/a	All
LachlanAll	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
LachlanAll	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	none prescribed	No	n/a	All
LachlanAll	Eremophila bowmanii subsp. bowmanii (Silver Turkey Bush)	none prescribed	No	n/a	All
LachlanAll	Eremophila longifolia (Emu Bush)	none prescribed	No	n/a	All
LachlanAll	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
LachlanAll	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
LachlanAll	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	No	n/a	All
LachlanAll	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
Lachlan	Sclerolaena birchii (Galvanised Burr)	None prescribed	No	n/a	All
Lachlan	Sclerolaena muricata (Black Rolypoly)	None prescribed	No	n/a	All
Lower Murray /Darling All	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All

Catchment		Retention requirements	uirements		Jo oak SINI
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
Lower Murray /Darling All	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	none prescribed	No	n/a	All
Lower Murray /Darling All	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
Lower Murray /Darling All	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
Lower Murray /Darling All	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	No	n/a	All
Lower Murray /Darling All	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
MurrayAll	Acacia paradoxa (Kangaroo Thorn)	none prescribed	No	n/a	All
MurrayAll	Eucalyptus camaldulensis (River Red Gum)	20 (Total under 20cm dbh)	Yes	20cm	All
MurrayAll	Eucalyptus largiflorens (Black Box)	20 (Total under 20cm dbh)	Yes	20cm	All
MurrayAll	Sclerolaena muricata (Black Rolypoly)	none prescribed	No	n/a	All
MurrayAll	Nitraria billardierei (Dillon Bush)	none prescribed	No	n/a	All
MurrumbidgeeAll	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
MurrumbidgeeAll	Acacia stenophylla (River Cooba, Black Wattle)	none prescribed	No	n/a	All
MurrumbidgeeAll	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
MurrumbidgeeAll	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
MurrumbidgeeAll	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	none prescribed	No	n/a	All

Catchment		Retention requirements	uirements		INC type of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
MurrumbidgeeAll	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
MurrumbidgeeAll	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
MurrumbidgeeAll	Eucalyptus camaldulensis (River Red Gum)	20 (Total under 20cm dbh)	Yes	20cm	All
MurrumbidgeeAll	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	No	n/a	All
MurrumbidgeeAll	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
Murrumbidgee	Sclerolaena birchii (Galvanised Burr)	None prescribed	No	n/a	All
NamoiAll	Acacia deanei (Deane's Wattle)	none prescribed	No	n/a	All
NamoiAll	Bursaria spinosa (Blackthorn)	none prescribed	No	n/a	All
NamoiAll	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
NamoiAll	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
NamoiAll	Cassinia arcuata (Sifton Bush)	none prescribed	No	n/a	All
NamoiAll	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
NamoiAll	Eucalyptus coolabah (Coolibah)	20 (Total under 20cm dbh)	Yes	20cm	All
NamoiAll	Eucalyptus largiflorens (Black Box)	20 (Total under 20cm dbh)	Yes	20cm	All
NamoiAll	Olearia elliptica (Sticky Daisy Bush, Peach Bush)	none prescribed	No	n/a	All

Catchment		Retention requirements	quirements		Jo Carry SINI
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
NamoiAll	Leptospermum brevipes (Grey Teatree, Teatree)	none prescribed	No	n/a	All
NamoiAll	Acacia stenophylla (Black Wattle or River Cooba)	20 (Total under 20cm dbh)	Yes	20cm	All
NamoiAll	Cassinia laevis (Cough Bush)	None prescribed	No	n/a	All
NamoiAll	Cassinia quinquefaria	None prescribed	No	n/a	All
NamoiAll	Casuarina cristata (Belah)	20 (Total under 20cm dbh)	Yes	20cm	a-c
NamoiAll	Dodonea viscosa subsp. angustissima (Narrowleaf Hopbush)	None prescribed	No	n/a	All
NamoiAll	Dodonea viscosa subsp. mucronata	None prescribed	No	n/a	All
NamoiAll	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	None prescribed	No	n/a	All
NamoiAll	Eremophila bignoniiflora (Eurah)	None prescribed	No	n/a	All
NamoiAll	Eremophila longifolia (Emu Bush)	None prescribed	No	n/a	All
NamoiAll	Eremophila mitchellii (Budda, False Sandalwood)	None prescribed	No	n/a	All
NamoiAll	Sclerolaena birchii (Galvanised Burr)	None prescribed	No	n/a	All
NamoiAll	Sclerolaena muricata (Black Rolypoly)	None prescribed	No	n/a	All
NamoiAll	Vachellia farnesiana (Mimosa)	none prescribed	No	n/a	All
Southern RiversAll	Kunzea ericoides (Burgan)	none prescribed	No	n/a	All
Southern RiversAll	Kunzea parvifolia (Violet Kunzea)	none prescribed	No	n/a	All

Catchment		Retention requirements	quirements		INC two of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
Southern RiversAll	Acacia mearnsii (Black Wattle)	none prescribed	No	n/a	All
Southern RiversAll	Bursaria spinosa (Blackthorn)	none prescribed	No	n/a	AII
Southern RiversAll	Cassinia arcuata	none prescribed	No	n/a	All
WesternBBS	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternBBS	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternBBS	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	AII
WesternBBS	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
WesternBBS	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	none prescribed	No	n/a	All
WesternBBS	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
WesternBBS	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
WesternBBS	Eucalyptus coolabah (Coolibah)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternBBS	Eucalyptus largiflorens (Black Box)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternBBS	Eucalyptus populnea (Bimble Box, Poplar Box)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternBBS	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	No	n/a	All
WesternBBS	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
WesternBBS	Casuarina cristata (Belah)	20 (Total under 20cm dbh)	Yes	20cm	a-c

Catchment		Retention requirements	luirements		INS type of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
WesternBBS	Eremophila bignoniiflora (Eurah)	None prescribed	No	n/a	All
WesternBBS	Geijera parviflora (Wilga)	20 (Total under 20cm dbh)	n/a	20cm	a-c
WesternBBS	Vachellia farnesiana (Mimosa)	none prescribed	OZ	n/a	All
WesternBHC	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternBHC	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
WesternBHC	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
WesternBHC	Senna form taxon 'artemisioides' (Silver Cassia)	none prescribed	No	n/a	All
WesternBHC	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
WesternBHC	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	None prescribed	No	n/a	All
WesternBHC	Eremophila mitchellii (Budda)	None prescribed	No	n/a	All
WesternDRP	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternDRP	Acacia stenophylla (Black Wattle)	none prescribed	No	n/a	All
WesternDRP	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternDRP	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternDRP	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	ON	n/a	Ψ

Catchment		Retention requirements	uirements		INC type of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
WesternDRP	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	none prescribed	No	n/a	All
WesternDRP	Eremophila longifolia (Emu Bush)	none prescribed	No	n/a	All
WesternDRP	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
WesternDRP	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
WesternDRP	Eucalyptus coolabah (Coolibah)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternDRP	Eucalyptus largiflorens (Black Box)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternDRP	Eucalyptus populnea (Bimble Box, Poplar Box)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternDRP	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	No	n/a	All
WesternDRP	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
WesternDRP	Casuarina cristata (Belah)	20 (Total under 20cm dbh)	Yes	20cm	a-c
WesternDRP	Eremophila bignoniiflora (Eurah)	None prescribed	No	n/a	All
WesternDRP	Muehlenbeckia cunninghammi (Lignum)**	None prescribed	No	n/a	B
WesternDRP	Sclerolaena birchii (Galvanised Burr)	None prescribed	No	n/a	All
WesternDRP	Sclerolaena muricata (Black Rolypoly)	None prescribed	No	n/a	All
WesternDRP	Vachellia farnesiana (Mimosa)	none prescribed	No	n/a	All

Catchment		Retention requirements	uirements		INC type of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
WesternCC	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
WesternCC	Eremophila duttonii (Harlequin Fuchsia Bush)	none prescribed	No	n/a	All
WesternCC	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
WesternCC	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
WesternCC	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
WesternCP	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternCP	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternCP	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternCP	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
WesternCP	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	none prescribed	No	n/a	All
WesternCP	Eremophila longifolia (Emu Bush)	none prescribed	No	n/a	All
WesternCP	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
WesternCP	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
WesternCP	Eucalyptus populnea (Bimble Box, Poplar Box)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternCP	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	No	n/a	All

Catchment		Retention requirements	luirements		INC type of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
WesternCP	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	ON	n/a	All
WesternCP	Acacia homalophylla (Yarran)	none prescribed	No	n/a	All
WesternCP	Geijera parviflora (Wilga)	20 (Total under 20cm dbh)	No	20cm	All
WesternCP	Eucalyptus intertexta (Red Box)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternCP	Sclerolaena birchii (Galvanised Burr)	None prescribed	٥N	n/a	All
WesternML	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternML	Acacia stenophylla (Black Wattle)	None prescribed	No	n/a	All
WesternML	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternML	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternML	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
WesternML	Eremophila duttonii (Harlequin Fuchsia Bush)	none prescribed	No	n/a	All
WesternML	Eremophila gilesii (Green Turkey-bush)	none prescribed	No	n/a	All
WesternML	Eremophila longifolia (Emu Bush)	none prescribed	No	n/a	All
WesternML	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
WesternML	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
WesternML	Eucalyptus populnea (Bimble Box, Poplar Box)	20 (Total under 20cm dbh)	Yes	20cm	All

Catchment		Retention requirements	uirements		JO Carry SINI
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
WesternML	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	No	n/a	All
WesternML	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
WesternML	Acacia homalophylla (Yarran)	none prescribed	No	n/a	All
WesternML	Geijera parviflora (Wilga)	20 (Total under 20cm dbh)	No	20cm	All
WesternML	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	None prescribed	No	n/a	All
WesternML	Eremophila bowmanii subsp. bowmanii (Silver Turkey Bush)	None prescribed	No	n/a	All
WesternML	Muehlenbeckia florulenta (Lignum)**	None prescribed	No	n/a	B
WesternMDD	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternMDD	Callitris glaucophylla (White Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternMDD	Callitris endlicheri (Black Cypress)	20 (Total under 20cm dbh)	No	20cm	All
WesternMDD	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
WesternMDD	Eremophila mitchellii (Budda, False Sandalwood)	none prescribed	No	n/a	All
WesternMDD	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
WesternMDD	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
WesternMDD	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	None prescribed	No	n/a	All

Catchment		Retention requirements	uirements		NS type of
Management Authority – IBRA region	Invasive Native Species	Number of plants per hectare to be retained	Retention required by criterion 18A (clearing types d-f only)	Maximum dbh allowed to be cleared	clearing permitted
WesternMDD	Senna form taxon 'artemisoides'(Silver Cassia)	None prescribed	No	n/a	All
WesternSSD	Acacia aneura (Mulga)	20 (Total under 20cm dbh)	Yes	20cm	All
WesternSSD	Dodonea viscosa subsp angustissima (Narrowleaf Hopbush)	none prescribed	No	n/a	All
WesternSSD	Eremophila sturtii (Turpentine)	none prescribed	No	n/a	All
WesternSSD	Senna form taxon 'artemisoides' (Silver Cassia)	none prescribed	No	n/a	All
WesternSSD	Senna form taxon 'filifolia' (Punty Bush)	none prescribed	No	n/a	All
WesternSSD	Dodonea viscosa subsp. spatulata (Broadleaf Hopbush)	None prescribed	No	n/a	All

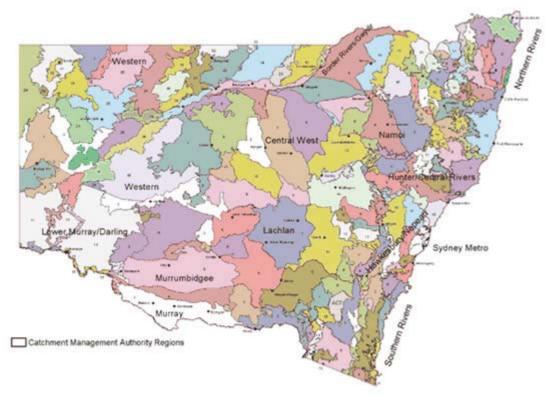
For all other clearing types, no maximum dbh is applicable. For clearing types (d), (e) and (f), 20cm. Note (1):

Table 7.2. Non-persistent and Non-native Perennial Species Database

Non-persistent non-native perennial vegetation species *Medicago sativa* (Lucerne)

# **APPENDICES**

# Appendix A. Sub-regions of NSW Catchment Management Authority Areas



Sub-reg	ions of NSW Catchment Management Authority Areas
Key to r	nap
Border F	Rivers/Gwydir
1	Beardy River Hills
2	Binghi Plateau
3	Bundarra Downs
4	Castlereagh-Barwon
5	Deepwater Downs
6	Eastern Nandewars
7	Glenn Innes-Guyra Basalts
8	Inverell Basalts
9	Kaputar
10	Moredun Volcanics
11	Nandewar, Northern Complex
12	Northeast Forest Lands
13	Northern Basalts
14	Northern Outwash
15	Peel
16	Severn River Volcanics

17	Tenterfield Plateau
18	Tingha Plateau
19	Yarrowyck-Kentucky Downs
Central W	Vest
1	Bathurst
2	Bogan-Macquarie
3	Canbelego Downs
4	Capertee
5	Castlereagh-Barwon
6	Hill End
7	Kerrabee
8	Liverpool Range
9	Lower Slopes
10	Nymagee-Rankins Springs
11	Oberon
12	Orange
13	Pilliga
14	Pilliga Outwash
15	Talbragar Valley
16	Upper Slopes
17	Wollemi
Hawkesb	ury/Nepean
1	Bathurst
2	Bungonia
3	Burragorang
4	Capertee
5	Crookwell
6	Cumberland
7	Kanangra
8	Monaro
9	Moss Vale
10	Oberon
11	Pittwater
12	Sydney Cataract
13	Wollemi
14	Yengo

Hunter/Ce	ntral Rivers
1	Barrington
2	Comboyne Plateau
3	Ellerston
4	Hunter
5	Karuah Manning
6	Kerrabee
7	Liverpool Range
8	Macleay Hastings
9	
	Mummel Escarpment
10	Pilliga
11	Tomalla
12	Upper Hunter
13	Walcha Plateau
14	Wollemi
15	Wyong
16	Yengo
Lachlan	
1	Barnato Downs
2	Crookwell
3	Darling Depression
4	Kanangra
5	Lachlan
6	Lachlan Plains
7	Lower Slopes
8	Murrumbateman
9	Nymagee-Rankins Springs
10	Oberon
11	Orange
12	South Olary Plain, Murray Basin Sands
13	Upper Slopes
Lower Mu	rray/ Darling
1	Barrier Range
2	Barrier Range Outwash, Fans and Plains
3	Darling Depression
4	Great Darling Anabranch
5	Lachlan
6	Menindee

7	Murray Scroll Belt
9	Pooncarie-Darling
10	Robinvale Plains
11	South Olary Plain, Murray Basin Sands
Murray	
1	Bondo
2	Lower Slopes
3	Murray Fans
4	Murrumbidgee
5	New South Wales Alps
6	South Olary Plain, Murray Basin Sands
7	Upper Slopes
Murrumb	idgee
1	Bondo
2	Darling Depression
3	Kybeyan - Gourock
4	Lachlan
5	Lachlan Plains
6	Lower Slopes
7	Monaro
8	Murrumbateman
9	Murrumbidgee
10	New South Wales Alps
11	South Olary Plain, Murray Basin Sands
12	Upper Slopes
Namoi	
1	Castlereagh-Barwon
2	Eastern Nandewars
3	Kaputar
4	Liverpool Plains
5	Liverpool Range
6	Northern Basalts
7	Peel
8	Pilliga
9	Pilliga Outwash
10	Walcha Plateau

Northern F	Rivers			
1	Armidale Plateau			
2	Carrai Plateau			
3	Cataract			
4	Chaelundi			
5	Clarence Lowlands			
6	Clarence Sandstones			
7	Coffs Coast & Escarpment			
8	Comboyne Plateau			
9	Dalmorton			
10	Ebor Basalts			
11	Glenn Innes-Guyra Basalts			
12	Guy Fawkes			
13	Macleay Gorges			
14	Macleay Hastings			
15	Murwillumbah (Qld - Southeast Hills and Ranges)			
16	Nightcap			
17	Northeast Forest Lands			
18	Richmond - Tweed (Qld - Scenic Rim)			
19	Rocky River Gorge			
20	Round Mountain			
21	Stanthorpe Plateau			
22	Upper Manning			
23	Walcha Plateau			
24	Washpool			
25	Wongwibinda Plateau			
26	Woodenbong			
27	Yuraygir			
Southern	Rivers			
1	Bateman			
2	Bungonia			
3	Burragorang			
4	East Gippsland Lowlands (EGL)			
5	Ettrema			
6	Illawarra			
7	Jervis			
8	Kybeyan - Gourock			
9	Monaro			
10	Moss Vale			

11 New South Wales Alps 12 South East Coastal Ranges 13 South East Coastal Plains  Western 1 Barnato Downs 2 Barrier Range 3 Barrier Range Outwash, Fans and Plains 4 Bogan-Macquarie 5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow 8 Canbelego Downs
13 South East Coastal Plains  Western  1 Barnato Downs 2 Barrier Range 3 Barrier Range Outwash, Fans and Plains 4 Bogan-Macquarie 5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow
Western  1 Barnato Downs 2 Barrier Range 3 Barrier Range Outwash, Fans and Plains 4 Bogan-Macquarie 5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow
1 Barnato Downs 2 Barrier Range 3 Barrier Range Outwash, Fans and Plains 4 Bogan-Macquarie 5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow
2 Barrier Range 3 Barrier Range Outwash, Fans and Plains 4 Bogan-Macquarie 5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow
3 Barrier Range Outwash, Fans and Plains 4 Bogan-Macquarie 5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow
4 Bogan-Macquarie 5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow
4 Bogan-Macquarie 5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow
5 Boorindal Plains 6 Bulloo Dunefields 7 Bulloo Overflow
7 Bulloo Overflow
8 Canhologo Downs
8 Canbelego Downs
9 Castlereagh-Barwon
10 Central Depression
11 Central Downs - Fringing Tablelands and Downs
12 Core Ranges
13 Core Ranges
14 Culgoa-Bokhara
15 Darling Depression
16 Kerribree Basin
17 Louth Plains
18 Menindee
19 Moonie - Barwon Interfluve, Collarenebri Interfluve
20 Mootwingee Downs
21 Narrandool
22 Nebine Plains, Block Range
23 Nymagee-Rankins Springs
24 Paroo Overflow
25 Paroo Sand Sheets, Cuttaburra-Paroo
26 Paroo-Darling Sands
27 Scopes Range
28 South Olary Plain, Murray Basin Sands
29 Strzelecki Desert, Western Dunefields
30 Urisino Sandplains
31 Warrambool-Moonie
32 Warrego Plains
33 Warrego Sands
34 West Warrego - Tablelands and Downs
35 White Cliffs Plateau
36 Wilcannia Plains

# Appendix B. Management Actions Specified by the Clearing Module of the LSC Tool for Assessed Land Degradation Hazards to Pass the Improve or Maintain Test.

Hazard	Class	Management Action
Salinity	3	Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	3	Run the Salt Mobilisation Tool to ensure no net disbenefit
Salinity	4	Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	4	Run the Salt Mobilisation Tool to ensure no net disbenefit
Salinity	5	Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	5	Run the Salt Mobilisation Tool to ensure no net disbenefit
Salinity	6	Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	6	Run the Salt Mobilisation Tool to ensure no net disbenefit
Water Erosion	3	Use conservation farming practices &/or erosion control earthworks
Water Erosion	3	<u> </u>
Water Erosion	3	If cropping: no burning of stubble, use controlled traffic, minimal cultivation, adequate fertiliser, direct seeding
Water Erosion	3	If cropping very long slopes in the Border Rivers / Gwydir, Namoi or Central West CMAs: use strip cropping
Water Erosion	3	If grazing: use suitable pasture rotations & manage grazing to maintain groundcover and pasture composition
Water Erosion	3	If cropping or grazing: use soil ameliorants where required (gypsum, lime)
Water Erosion	4	If cropping: use conservation farming practices
Water Erosion	4	If cropping: no burning of stubble, use controlled traffic, minimal cultivation, adequate fertiliser, direct seeding
Water Erosion	4	If grazing: use suitable pasture rotations & adequate fertiliser & manage grazing to maintain groundcover and pasture composition
Water Erosion	4	If cropping or grazing: use soil ameliorants where required (gypsum, lime)
Water Erosion	5	No cultivation or cropping
Water Erosion	5	If grazing: use suitable pasture rotations & adequate fertiliser & manage grazing to maintain groundcover and pasture composition
Water Erosion	5	Use earthworks to control erosion and intercept sediment
Water Erosion	6	No cultivation or cropping
Water Erosion	6	If clearing or thinning in the Coastal Tablelands and Slopes: no soil disturbance and no removal of cut or fallen timber
Water Erosion	6	If grazing: use controlled grazing, suitable pasture rotations, adequate fertiliser & maintain groundcover
Wind Erosion	3	Use conservation farming practices
Wind Erosion	3	If cropping: no burning of stubble, maintain 50% groundcover, minimal cultivation with reduced speed of implements, adequate fertiliser, direct seeding

Hazard	Class	Management Action
Wind Erosion	3	If grazing: use controlled grazing, minimal cultivation to establish pasture and suitable pasture rotations
Wind Erosion	3	If cropping or grazing: install wind breaks
Wind Erosion	4	Use conservation farming practices
Wind Erosion	4	If cropping: limited to 3 years in 10
Wind Erosion	4	If cropping: no burning of stubble, maintain 50% groundcover, minimal cultivation with reduced speed of implements, adequate fertiliser, direct seeding
Wind Erosion	4	If grazing: use controlled grazing, minimal cultivation to establish pasture and suitable pasture rotations
Wind Erosion	4	If cropping or grazing: install wind breaks
Wind Erosion	5	No cultivation or cropping
Wind Erosion	5	If grazing: manage pasture to maintain groundcover, including use of adequate fertiliser
Wind Erosion	6	No cultivation or cropping
Wind Erosion	6	If grazing: manage to maintain groundcover, including use of adequate fertiliser
Soil Structure Decline	3	Use conservation farming practices
Soil Structure Decline	3	If cropping: no stubble burning (retain and incorporate stubble), and use controlled traffic, minimal cultivation, direct seeding, adequate fertiliser, adequate soil ameliorant (lime), & recommended rotation and length of pasture phases
Soil Structure Decline	3	If grazing: use controlled grazing, manage pasture to maintain groundcover and biomass to protect soil structure, adequate soil ameliorant (lime)
Soil Structure Decline	4	Use conservation farming practices
Soil Structure Decline	4	If cropping: limited to 3 years in 10
Soil Structure Decline	4	If cropping: no stubble burning (maintain 50% groundcover), controlled traffic, reduced speed of cultivation, minimal cultivation, direct seeding, adequate fertiliser, adequate soil ameliorant (lime)
Soil Structure Decline	4	If grazing: use controlled grazing, suitable pasture rotations, manage pasture to maintain groundcover and biomass to protect soil structure, use adequate fertiliser & soil ameliorant (lime)
Soil Structure Decline	5	No cultivation or cropping
Soil Structure Decline	5	If grazing: manage pasture to maintain groundcover and biomass to protect soil structure, use adequate fertiliser & soil ameliorant (lime)
Soil Structure Decline	6	No cultivation or cropping
Soil Structure Decline	6	If grazing: manage pasture to maintain groundcover and biomass to protect soil structure, use adequate fertiliser & soil ameliorant (lime)

Hazard	Class	Management Action
Shallow & Rocky Soils	4	No cropping
Shallow & Rocky Soils	4	If grazing: manage pasture to maintain ground cover, including use of adequate fertiliser
Shallow & Rocky Soils	5	No cultivation or cropping
Shallow & Rocky Soils	5	If grazing: manage pasture to maintain ground cover, including use of adequate fertiliser
Shallow & Rocky Soils	6	No cultivation or cropping
Shallow & Rocky Soils	6	If grazing: manage pasture to maintain ground cover, including use of adequate fertiliser
Acid Sulfate Soils	3	No soil disturbance or drainage deeper than 3 metres
Acid Sulfate Soils	4	No soil disturbance or drainage deeper than 1 metre
Acid Sulfate Soils	5	No soil disturbance or drainage deeper than 0.5 metre
Earth Mass Movement	3	No concentration of surface or subsurface water flow
Earth Mass Movement	3	No excavation batters >2.5 metres without geotechnical design & batter angles <3:1
Earth Mass Movement	3	Maintain groundcover to maximise water use & bind soil
Earth Mass Movement	6	No concentration of surface or subsurface water flow
Earth Mass Movement	6	No excavation batters >1.5 metres without geotechnical design & batter angles <3:1
Earth Mass Movement	6	Subsurface drainage required
Earth Mass Movement	6	Maintain groundcover, especially deep-rooted plants, to maximise water use & bind soil

# Appendix C. Management Actions Specified by the Offsets Module of the LSC Tool for Assessed Land Degradation Hazards to Pass the Improve or Maintain Test.

Hazard	Class	Management Action
Water Erosion	4	If establishing perennial pastures, use only direct seeding with minimal soil disturbance
Water Erosion	4	If planting trees for native vegetation regeneration, all cultivation or deep ripping must follow the contour
Water Erosion	5	If establishing perennial pastures, use only broadcast seeding without cultivation or soil disturbance
Water Erosion	5	If planting individual trees or broadcast seeding for native vegetation regeneration, deep ripping or extensive soil disturbance should not be used
Water Erosion	6	If establishing perennial pastures, use only broadcast seeding without cultivation or soil disturbance
Water Erosion	6	If planting individual trees or broadcast seeding for native vegetation regeneration, deep ripping or extensive soil disturbance should not be used
Water Erosion	7	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
Water Erosion	8	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
Wind Erosion	4	If establishing perennial pastures, use only direct seeding with minimal soil disturbance
Wind Erosion	4	If planting trees for native vegetation regeneration, all cultivation or deep ripping must follow the contour
Wind Erosion	5	If establishing perennial pastures, use only broadcast seeding without cultivation or soil disturbance
Wind Erosion	5	If planting individual trees or broadcast seeding for native vegetation regeneration, deep ripping or extensive soil disturbance should not be used
Wind Erosion	6	If establishing perennial pastures, use only broadcast seeding without cultivation or soil disturbance
Wind Erosion	6	If planting individual trees or broadcast seeding for native vegetation regeneration, deep ripping or extensive soil disturbance should not be used
Wind Erosion	7	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
Wind Erosion	8	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
Soil Structure	4	If establishing perennial pastures, use only direct seeding with minimal soil disturbance
Soil Structure	4	If planting trees for native vegetation regeneration, all cultivation or deep ripping must follow the contour
Soil Structure	7	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding

Hazard	Class	Management Action
Soil Structure	8	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
Rockiness & Shallow Soils	4	If establishing perennial pastures, use only direct seeding with minimal soil disturbance
Rockiness & Shallow Soils	4	If planting trees for native vegetation regeneration, all cultivation or deep ripping must follow the contour
Rockiness & Shallow Soils	5	If establishing perennial pastures, use only broadcast seeding without cultivation or soil disturbance
Rockiness & Shallow Soils	5	If planting individual trees or broadcast seeding for native vegetation regeneration, deep ripping or extensive soil disturbance should not be used
Rockiness & Shallow Soils	6	If establishing perennial pastures, use only broadcast seeding without cultivation or soil disturbance
Rockiness & Shallow Soils	6	If planting individual trees or broadcast seeding for native vegetation regeneration, deep ripping or extensive soil disturbance should not be used
Rockiness & Shallow Soils	7	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
Rockiness & Shallow Soils	8	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
-		
Acid Sulfate Soils	4	If establishing perennial pastures, use only direct seeding with minimal soil disturbance
Acid Sulfate Soils	4	If planting trees for native vegetation regeneration, all cultivation or deep ripping must follow the contour
Acid Sulfate Soils	5	If establishing perennial pastures, use only broadcast seeding without cultivation or soil disturbance
Acid Sulfate Soils	5	If planting individual trees or broadcast seeding for native vegetation regeneration, deep ripping or extensive soil disturbance should not be used
Acid Sulfate Soils	7	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
Acid Sulfate Soils	8	Regeneration of native vegetation only to be undertaken by fencing and natural regeneration or broadcast seeding
Calinity	3	Pun the Salinity Reposite Index Tool to angure as not disharesit
Salinity		Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	4	Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	5	Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	6	Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	7	Run the Salinity Benefits Index Tool to ensure no net disbenefit
Salinity	8	Run the Salinity Benefits Index Tool to ensure no net disbenefit

#### **PUBLIC LOTTERIES ACT 1996**

KENO - Approval of Rules

I, The Honourable KEVIN GREENE, M.P., Minister for Gaming and Racing, the Minister for the time being administering the Public Lotteries Act 1996, pursuant to section 23 (1) of the Act DO HEREBY APPROVE the Rules annexed to this instrument for the conduct of Games of Keno by the joint licensees Jupiters Gaming (NSW) Pty Limited and ClubKENO Holdings Pty Limited.

Dated this 29th day of September 2010.

KEVIN GREENE, M.P., Minister for Gaming and Racing, Minister for Major Events and Minister for Sport and Recreation

### **KENO RULES**

#### 1. General

These Rules govern the playing of Keno and are effective on and from 8 October 2010.

Subject to the Act and these Rules, the Game of Keno is the exclusive responsibility of the Licensees and the Venues.

#### 2. Definitions

- (a) In these Rules unless inconsistent with the context:
  - (i) "Act" means the Public Lotteries Act 1996, as that Act may be amended from time to time, and any regulations made thereunder;
  - (ii) "Approved" means approved in writing by the Minister and "Approval" has a corresponding meaning;
  - (iii) **"Backup Site"** means the site at which the computer system which acts as a backup to the Central Site Computer is located;
  - (iv) "Bonus Prize" means an Approved prize offered to Subscribers to a Game of Keno over and above those prizes indicated on any Schedule of Prizes;
  - (v) "Box" or "Boxed" means an option on the "Quinella Place", "Quinella", "Exact Quinella", "Trio", "Trifecta", "Quartet", "Five Up" and "Superfecta" bet types in a game of Keno Racing that allows a Subscriber to forecast the result of the game by combining their selected Rows into all possible combinations on one Entry. A Subscription is payable in respect of each combination;
  - (vi) "Casino Licensee" means a holder of a licence granted under Section 18 of the Casino Control Act 1992;
  - (vii) "Cash Game" means a game in which an approved Bonus Prize is offered.
  - (viii) "Category", and references to a game being of a particular "Category", means a Category listed in a table in the licence held by the Licensees, which governs the apportionment of each Subscription for each game, including the Commission and the Keno Prize Fund Contribution. Each type of game is allocated a Category under these Rules;
  - (ix) "Central Site" means the site at which the Central Site Computer is operative and in direct control of the computing of the Game of Keno;
  - (x) "Central Site Computer" means the computer system that is used to process, store and display the Game of Keno;
  - (xi) "Chip" means a chip issued by a Casino Licensee under the Casino Control Act 1992;
  - (xii) "Club" means a club holding a certificate of registration under the Registered Clubs Act 1976.
  - (xiii) "Column" or "Columns" means the 8 numbers in 1 column of the Keno Grid whereby: Column 1 means the numbers: 1, 11, 21, 31, 41, 51, 61 and 71,

Column 2 means the numbers: 2, 12, 22, 32, 42, 52, 62 and 72,

Column 3 means the numbers: 3, 13, 23, 33, 43, 53, 63 and 73,

Column 4 means the numbers: 4, 14, 24, 34, 44, 54, 64 and 74,

Column 5 means the numbers: 5, 15, 25, 35, 45, 55, 65 and 75,

Column 6 means the numbers: 6, 16, 26, 36, 46, 56, 66 and 76,

Column 7 means the numbers: 7, 17, 27, 37, 47, 57, 67 and 77,

Column 8 means the numbers: 8, 18, 28, 38, 48, 58, 68 and 78,

Column 9 means the numbers: 9, 19, 29, 39, 49, 59, 69 and 79, and

Column 10 means the numbers: 10, 20, 30, 40, 50, 60, 70 and 80;

- (xiv) "Combination" means a combination of 1 to 10, 15, 20 and 40 Spots selected by the Subscriber from the 80 available numbers, where each Combination is taken to be a separate Game played by the Subscriber;
- (xv) "Combination Bet" means an advanced form of Entry whereby a Subscriber may play 2 or more different Combinations in the same game on the same Entry.

The Subscriber (or in the case of a Standard Superplay, the Central Site Computer) selects the Spots and creates non-intersecting groups of those Spots ("Groups") on the one Entry. A Group may comprise of a minimum one Spot only. A Spot may not form (and will not be counted as forming) part of more than one Group. All Spots forming part of a particular Group will be identified on the Receipt Ticket by the same alpha or alpha numeric character, which character will be different from the characters allocated to the Spots comprising other Groups.

The Combinations are formed by combining all the Spots in a Group or by combining all the Spots in a Group with all the Spots in another Group or Groups. The Subscriber must nominate the types of Combinations (except in the case of a Superplay, in which case the types of Combinations are pre-programmed), the amount to be wagered for each Combination and the number of games to be played. A Subscriber may (but need not) nominate all types of Combinations capable of being formed using the Groups selected ("All Combinations Bet"). For each type of Combination, the Subscriber must play the maximum number of Combinations which can be played using the Groups selected. This maximum number is as calculated by the Central Site Computer and specified on the Receipt Ticket;

- (xvi) "Combo Bet" has the same meaning as Combination Bet;
- (xvii) "Commission" means an amount paid to a Venue by Subscribers, in the Venue's own right (and not as agent of the Licensees), and which:
  - (A) the Venue is entitled to deduct and retain from the Gross Subscription which the Venue receives from the Subscriber and deals with as agent of the Subscriber, pursuant to Rule 7(f); or
  - (B) the Operating Company is directed by the Subscriber to pay to the Venue, on behalf of the Subscriber, from the face value of a Prepaid Voucher, in accordance with the terms of the Prepaid Voucher and Rule 9B(a); or
  - (C) the Venue is entitled to deduct and retain from the amount received from a Subscriber for the purchase of a Gift Voucher, in accordance with Rule 9A(b).
- (xviii) "Corner" or "Corners" means a square of 4 adjacent numbers in the Keno Grid;
- (xix) **"Crossed Cheque"** means a cheque crossed as referred to in section 53 of the Cheques Act 1986 of the Commonwealth;

- (xx) "Customer Session" means the period of time when a Subscriber either:
  - (i) makes an Entry in a Game of Keno; or
  - (ii) checks a Receipt Ticket; or
  - (iii) cancels an Entry in a Game of Keno

to that time when the End Customer Terminal key is activated;

- (xxi) "Customised Superplay" means a form of Combination Bet where the types of Combinations, the Groups and the Spots forming part of each Group applicable to that Combination Bet have been previously programmed for a particular Venue to accommodate particular Subscribers at that Venue and made available by that Venue from time to time;
- (xxii) **"Delayed Start Entry"** means an Entry for a game which is not open at the time the Receipt Ticket for that Entry is issued;
- (xxiii) "Delayed Start Game" means an Approved game in which Delayed Start Entries are permitted;
- (xxiv) "Drawing", "Draw" or "Drawn" means the random selection by a Draw Device of 20 winning numbers;
- (xxv) **"Draw Device"** means a device Approved for conducting a Draw being an electronically operated device which selects at random and one at a time, from a set of one to eighty numbers, the 20 winning numbers, in each Game of Keno;
- (xxvi) **"Entry"** means an entry referred to in Rule 7;
- (xxvii) **"Entry Form"** means an Approved form that may be completed by a person wishing to enter a Game of Keno;
- "Game of Keno" means the competition styled "Club Keno" or "Star Keno" conducted under the Act and "Keno", "Keno game" and "game" shall have the same meaning;
- (xxix) "Game Results Inquiry" means a request from a Subscriber to display on a Terminal or to display on and print from a Terminal the results of a game or games;
- (xxx) "Gift Voucher" means an Approved document issued by a Venue which is the acknowledgment of the payment of money by a Subscriber and which entitles the holder (whether the initial Subscriber or another) to enter a particular type of Game of Keno;
- (xxxi) "Group" has the meaning given in Rule 2(a)(xiv);
- "Gross Subscription" means (subject to Rule 11 regarding cancellation of Entries) the amount prescribed by the Minister to be paid by a Subscriber for entry to a Game of Keno, and includes the amount of Commission received and retained by a Venue pursuant to Rule 7(f), and also includes the face value of Gift Vouchers, Prepaid Vouchers and Subscription Chips which have been used as Subscriptions for Games of Keno, and the applicable amount of the face value of SST Receipts that is used as Subscriptions for Games of Keno;
- (xxxiii) "Heads or Tails?" means the form of the Game of Keno, being a Category Q game, which may be played separately to other forms of the Game of Keno, the object of which is to forecast the distribution of the Drawn numbers. In this form of game, a Subscriber attempts to forecast the result of a single Game of Keno as being one of "Heads", "Tails" or "Evens" as described following:
  - (a) The result of a game is "Heads" when 11 or more of the 20 numbers Drawn in that Game of Keno are numbers in the range 1 to 40 inclusive;

- (b) The result of a game is "Tails" when 11 or more of the 20 numbers Drawn in that Game of Keno are numbers in the range 41 to 80 inclusive;
- (c) The result of a game is "Evens" when ten (10) of the 20 numbers Drawn in that Game of Keno are numbers in the range 1 to 40 inclusive and ten (10) of the 20 numbers Drawn in the same Game of Keno are numbers in the range 41 to 80 inclusive;

If the Subscriber correctly forecasts the result of that game, then, subject to these Rules, a prize will be payable calculated in accordance with Rule 18(c);

- (xxxiv) "Hotel" means the holder of an hotelier's licence under the *Liquor Act 1982* (NSW) or an Hotel Licence under the *Liquor Act 2007* but not being a general bar licence;
- (xxxv) **"Inspector"** means a person appointed by the Minister as an inspector under Section 69 of the Act to undertake functions associated with the conduct of the Game of Keno;
- (xxxvi) "Jackpot" means the Regular Keno Jackpot and Keno Racing Jackpot;
- (xxxvii) "Jackpot Fill" means the sum described as the Jackpot Fill (if any) in Rule 18;
- (xxxviii) "Jackpot Growth" means (as the case may be):
  - (a) for the Regular Keno Jackpot, the amount accrued at any given time in respect of the relevant Game of Keno as provided for in Rule 10(b); and
  - (b) for the Keno Racing Jackpot, the amount accrued at any given time in respect of the relevant Game of Keno as provided for in Rule 10(c);
- (xxxix) **"Keno Bonus"** means the form of the Game of Keno, being a Category I game, which may only be played in conjunction with certain other forms of the Game of Keno as determined by the Operating Company (except Keno Racing), by which:
  - (a) the Subscription for the Game of Keno it is played in conjunction with is multiplied by the Multiplier for the sole purpose of determining the prize payable on that Game of Keno in accordance with the Schedule of Prizes; and
  - (b) where Keno Bonus is played in conjunction with a Regular Keno Jackpot, the Keno Bonus Jackpot Prize is payable on winning a Regular Keno Jackpot game;
  - (xl) **"Keno Bonus Jackpot Prize"** means the prize offered in respect of a Keno Bonus game played by a Subscriber in conjunction with Regular Keno Jackpot where a Regular Keno Jackpot Prize is payable and the Multiplier is either 2, 3, 4, 5 or 10.;
  - (xli) **"Keno Day"** means the period between the start of Keno trading and the close of Keno trading, identified by the calendar day on which that period commenced;
  - (xlii) **"Keno Grid"** means the standard layout of the range of the numbers 1 to 80 on a Standard Game Entry Form;
  - (xliii) **"Keno Prize Fund"** means the account established for payment of prizes that receives from Net Subscriptions an amount equal to the Keno Prize Fund Contributions;
  - (xliv) "Keno Prize Fund Contribution" means:
    - (a) for Heads or Tails? being a Category Q game an amount equal to 80% of Subscriptions; and
    - (b) for Regular Keno, Keno Roulette, Keno Racing, Lucky Last and Keno Bonus, all being Category I games an amount equal to 75% of Subscriptions;

- (xlv) "**Keno to Go**" means a Multi-Game Entry for not less than 50 games;
- (xlvi) "Keno Racing" means the form of the Game of Keno, being a Category I game, which may be played separately to other forms of the Game of Keno, the object of which is to forecast the distribution of the Drawn numbers across the Rows of the Keno Grid in each game. In this form of the Game of Keno, a Subscriber attempts to forecast which Row shall be "First", "Second", "Third", "Fourth", "Fifth" or "Sixth" as described following:
  - (a) "First" is the Row that has the most amount of Drawn numbers at the end of the Game of Keno:
  - (b) "Second" is the Row that has the second most amount of Drawn numbers at the end of the Game of Keno;
  - (c) "Third" is the Row that has the third most amount of Drawn numbers at the end of the Game of Keno:
  - (d) "Fourth" is the Row that has the fourth most amount of Drawn numbers at the end of the Game of Keno;
  - (e) "Fifth" is the Row that has the fifth most amount of Drawn numbers at the end of the Game of Keno;
  - (f) "Sixth" is the Row that has the sixth most amount of Drawn numbers at the end of the Game of Keno:

Where two or more Rows have the same amount of Drawn numbers at the end of the Game of Keno, the Row that achieved that amount of Drawn numbers earliest in time in the Game of Keno shall be placed ahead of the other Row or Rows and so on until an order is achieved. (In the event that two or more Rows each have no Drawn numbers at the end of the Game of Keno, each of these Rows shall be deemed to finish equal in the next available place in that Game).

In this form of Game of Keno, a Subscriber may select one or more bet types in attempting to forecast the order of the Rows. These bet types are described as follows:

- (a) "Win", where a Subscriber attempts to forecast which Row shall be "First";
- (b) "Place", where a Subscriber attempts to forecast that a selected Row shall be either "First", "Second" or "Third":
- (c) "Quinella Place", where a Subscriber attempts to forecast any two Rows that shall be "First", "Second" or "Third" irrespective of their order;
- (d) "Quinella", where a Subscriber attempts to forecast which two Rows shall be "First" and "Second" irrespective of their order;
- (e) An "Exact Quinella", where a Subscriber attempts to forecast which two Rows shall be "First" and "Second" in the correct order;
- (f) A "Trio", where a Subscriber attempts to forecast which three Rows shall be "First", "Second" and "Third" irrespective of their order;
- (g) A "Trifecta", where a Subscriber attempts to forecast which three Rows shall be "First", "Second" and "Third" in the correct order;
- (h) A "Quartet", where a Subscriber attempts to forecast which four Rows shall be "First", "Second", "Third" and "Fourth" in the correct order;
- (i) A "Five Up", where a Subscriber attempts to forecast which five Rows shall be "First", "Second", "Third", "Fourth" and "Fifth" in the correct order; and

(j) A "Superfecta", where a Subscriber attempts to forecast which six Rows shall be "First", "Second", "Third", "Fourth", "Fifth" and "Sixth" in the correct order.

If the Subscriber correctly forecasts the result of that game, then, subject to these Rules, a prize shall be payable calculated in accordance with Rule 18(d);

- (xlvii) "Keno Racing Jackpot" means the form of the Game of Keno Racing, the object of which is to correctly forecast either the first four Rows in the correct order ("Quartet"), the first five Rows in the correct order ("Superfecta");
- (xlviii) "Keno Racing Jackpot Prize" means the prize offered in respect of an Entry in a Keno Racing Jackpot which correctly forecasts either the first four rows in the correct order ("Quartet"), the first five rows in the correct order ("Five Up") or the first six rows in the correct order ("Superfecta");
- (xlix) **"Keno Roulette"** means the form of the Game of Keno, being a Category I game, which may be played separately to other forms of the Game of Keno, the object of which is to forecast the first number Drawn in each game. In this form of the game, a Subscriber may select one or more bet types in attempting to forecast the result of a single game. These bet types are described as follows:
  - (a) "Straight Up" means a type of bet where a Subscriber attempts to forecast that the first number Drawn in a Game of Keno shall be a single selected number in the range 1 to 80 in the Keno Grid:
  - (b) "Pairs" means a type of bet where a Subscriber attempts to forecast that the first number Drawn in a Game of Keno shall be one of a selected Pair of numbers in the Keno Grid;
  - (c) "Corners" means a type of bet where a Subscriber attempts to forecast that the first number Drawn in a Game of Keno shall be one of a selected Corner of numbers in the Keno Grid;
  - (d) "Columns" means a type of bet where a Subscriber attempts to forecast that the first number Drawn in a Game of Keno shall be one of a selected single Column of numbers in the Keno Grid;
  - (e) "Rows" means a type of bet where a Subscriber attempts to forecast that the first number Drawn in a Game of Keno shall be one of a single selected Row of numbers in the Keno Grid;
  - (f) "Quarters" means a type of bet where a Subscriber attempts to forecast that the first ball Drawn in a Game of Keno shall be 1 of a single selected Quarter of numbers in the Keno Grid;

If the Subscriber correctly forecasts the result of that game, then, subject to these Rules, a prize will be payable calculated in accordance with Rule 18(e);

- (l) **"Keno Runner"** means a person authorised by a Venue to collect Subscriptions directly from the Subscriber;
- (li) "Key Employee" has the meaning assigned to "key employee" by Section 4 of the Act;
- (lii) "Kwikpik" means the form of entry whereby:
  - (a) a Subscriber nominates the Subscription for each game, the number of Spots and the number of games and the Terminal selects the Spots; or
  - (b) in Keno Racing, a Subscriber nominates the bet type, the Subscription and, where applicable, whether the bet shall be Boxed and the Terminal selects the Rows; or
  - (c) in Keno Roulette, a Subscriber nominates the bet type, the number of selections to be made, the Subscription and the Terminal selects the Straight Ups, Pairs, Corners, Columns, Rows or Quarters as applicable; or

(d) in Heads or Tails? Prepick and Let it Run, a Subscriber nominates the bet type, the number of games, the Subscription and the Terminal selects the Heads, Tails or Evens selection for each game.

More than one Kwikpik (a Multipik) can be played on a single ticket.

- (liii) "Let it Run" means the form of Prepick in which, subject to Rule 9(c) and 9(l), if the Subscriber correctly forecasts the result of the first game in a chosen series, the amount of the prize as specified in Rule 18(c) on that game is carried over as the Subscription for the next game in the series and in which this procedure continues until such time as the series of games is complete or the Subscriber incorrectly forecasts one of the game results in the series or the Subscriber cancels the ticket;
- (liv) "Licensees" means Clubkeno Holdings Pty Limited ABN 51 002 821 570 and Jupiters Gaming (NSW) Pty Limited ABN 16 003 992 327;
- (lv) "Lucky Last" means the form of the Game of Keno, being a Category I game, which may only be played in conjunction with certain other forms of the Game of Keno as determined by the Licensees (except Heads or Tails?, Keno Racing and Keno Roulette), the object of which is to match a selected number against the last number Drawn in that game;
- (lvi) **"Major Prize"** means a prize of more than \$1,000 won in a Game of Keno but does not include that part of the prize comprising the Jackpot Fill, Jackpot Growth or Keno Bonus Jackpot Prize (if any);
- (lvii) **"Minister"** means the Minister for the time being administering the Act or the Minister's duly appointed representative, delegate or replacement;
- (lviii) "Multi Game" means the form of Entry whereby a Subscriber enters a number of games;
- (lix) "Multipik" means when more than one Kwikpik is played on a single ticket
- (lx) "Multiplier" means the multiplier that applies to the cumulative total of the twenty numbers Drawn from numbers between 1 and 80 where:
  - (a) the multiplier of 1x is assigned to the cumulative totals set out in Part A of the schedule;
  - (b) the multiplier of 2x is assigned to the cumulative totals set out in Part B of the schedule;
  - (c) the multiplier of 3x is assigned to the cumulative totals set out in Part C of the schedule;
  - (d) the multiplier of 4x is assigned to the cumulative totals set out in Part D of the schedule;
  - (e) the multiplier of 5x is assigned to the cumulative totals set out in Part E of the schedule; and
  - (f) the multiplier of 10x is assigned to the cumulative totals set out in Part F of the schedule;
- (lxi) "Net Subscription" means the amount which the Venues hold and deal with as agent of the Licensees in accordance with Rule 7(h), being the Gross Subscription less the Commission including that part of the face value of a Gift Voucher, Prepaid Voucher or a Subscription Chip or an SST Receipt which has been used as a Subscription, remaining after payment of the Venue's Commission in accordance with Rule 9A(b), Rule 9B(a) or Rule 9C(c), as the case may be;
- (lxii) "Operating Company" means Jupiters Gaming (NSW) Pty Limited ABN 16 003 992 327;
- (lxiii) "Pair" or "Pairs" means a range of 2 vertically or horizontally adjacent numbers in the Keno Grid;
- (lxiv) **"Parlay"** means the form of Entry whereby a Subscriber, subject to Rule 15(d), chooses to subscribe all or part of the Total Prize Money instead of collecting the Total Prize Money;

- (lxv) **"Premises"** means the premises owned or occupied by a Venue, at which a Venue is permitted to accept Entries and Subscriptions for Games of Keno pursuant to these Rules, and in respect of a Casino Licensee means the area or areas defined or redefined as the boundaries of the casino pursuant to section 19 of the Casino Control Act 1992;
- (lxvi) **"Prepaid Voucher"** means an Approved document issued by the Operating Company or a Venue, which is an acknowledgment of the payment of money (whether by the Operating Company or a Venue) and which operates as a direction to the Operating Company to pay an amount on behalf of the holder, and entitles the holder to enter a particular type of Game of Keno;
- (lxvii) **"Prepick"** means the form of Heads or Tails? in which a Subscriber can vary a selection of Heads, Tails or Evens over a series of up to five (5) consecutive games of Heads or Tails? in a single Entry;
- (lxviii) **"Print Pay Ticket"** means a ticket issued by a Terminal detailing all games entered and all prizes won by an Entry;
- (lxix) **"Pro-rating"** means the proportional reduction in value of all Major Prizes, Bonus Prizes and additional Approved prizes, in a Game of Keno so that the aggregate value of those prizes equals \$3,000,000;
- (lxx) "Quarter" or "Quarters" means the 20 numbers in a quarter of the Keno Grid whereby:

Quarter 1 means the 20 numbers: 1 to 5 inclusive, 11 to 15 inclusive, 21 to 25 inclusive and 31 to 35 inclusive.

Quarter 2 means the 20 numbers: 6 to 10 inclusive, 16 to 20 inclusive, 26 to 30 inclusive and 36 to 40 inclusive.

Quarter 3 means the 20 numbers: 41 to 45 inclusive, 51 to 55 inclusive, 61 to 65 inclusive and 71 to 75 inclusive, and

Quarter 4 means the 20 numbers: 46 to 50 inclusive, 56 to 60 inclusive, 66 to 70 inclusive and 76 to 80 inclusive:

- (lxxi) "Quick Pick" has the same meaning as Kwikpik;
- (lxxii) "Receipt Ticket" means the serial numbered ticket issued by a Terminal on which is recorded the particulars of an Entry;
- (lxxiii) "Regular Keno" means the form of Game of Keno, being a Category I game, in which a person selects 1 to 10, 15, 20 or 40 numbers, from the set: 1 to 80, the object being to match (or in some cases not to match) those numbers against the 20 winning numbers Drawn in each game;
- (lxxiv) "Regular Keno Jackpot" means the form of the Game of Keno the object of which is to match all seven (7), eight (8), nine (9) or ten (10) spots selected, as the case may be, against the winning numbers Drawn in that game;
- (lxxv) "Regular Keno Jackpot Prize" means the prize offered in respect of a Regular Keno Jackpot game played by a Subscriber which matches all Spots selected against the 20 winning numbers Drawn in that game.
- (lxxvi) "Replay" means the form of Entry whereby a Subscriber submits a Receipt Ticket and issues verbal instructions for any particular of the Entry which varies from the particulars recorded on the Receipt Ticket;
- (lxxvii) "Row" or "Rows" means a range of 10 numbers in 1 row of the Keno Grid whereby:

Row 1 means the range 1 to 10 inclusive,

Row 2 means the range 11 to 20 inclusive,

Row 3 means the range 21 to 30 inclusive,

Row 4 means the range 31 to 40 inclusive,

Row 5 means the range 41 to 50 inclusive,

Row 6 means the range 51 to 60 inclusive,

Row 7 means the range 61 to 70 inclusive,

Row 8 means the range 71 to 80 inclusive;

- (lxxviii) "Self Service Terminal" or "SST" means a Subscriber operated Terminal, that provides Subscribers the option of purchasing Entries, checking and redeeming Receipt Tickets and issuing and using SST Receipts.
- (lxxix) "Schedule of Prizes" means the lists of prizes specified in Rule 18;
- (lxxx) **"Senior Writer"** means the person authorised by a Venue to be in control of the operation of Keno at the Premises of that Venue;
- (lxxxi) "Set Bet" has the same meaning as Superplay;
- (lxxxii) "Spot" means an integer selected from the range of 1 to 80;
- (lxxxiii) "SST Receipt" means a ticket issued by a Terminal which is an acknowledgement in place of cash to make an Entry, give change from an Entry or pay out winnings that a Subscriber may redeem up to the face value of cash and/or tender for payment of a Subscription for a Game of Keno.
- (lxxxiv) "Standard Game Entry Form" means the Approved form that may be completed by a person wishing to play Regular Keno;
- (lxxxv) "Standard Superplay" means a form of Combination Bet where the number of Groups, the size of each Group and the types of Combinations applicable to that Combination Bet have been preprogrammed into the Central Site Computer by the Operating Company and made available to Subscribers generally from time to time, the details for which are set out in the officially sanctioned brochures displayed or available for inspection at any Venue. The Central Site Computer selects the Spots forming part of each Combination;
- "Standout" means an option on the "Quinella Place", "Quinella", "Exact Quinella", "Trio", "Trifecta", "Quartet", "Five Up" and "Superfecta" bet types in a game of Keno Racing that allows a Subscriber to nominate a particular Row or Rows that will finish "First" or "Second", in the case of a "Quinella" or "Exact Quinella"; "First", "Second" or "Third" in the case of a "Quinella Place"; "Trio" or "Trifecta"; "First", "Second", "Third" or "Fourth" in the case of a "Quartet"; "First, "Second", "Third", "Fourth" or "Fifth in the case of a "Five Up"; "First", "Second", "Third", "Fourth", "Fifth" or "Sixth" in the case of a "Superfecta" and to forecast the results of the game by combining these selections with other selected Rows to fill the other placing(s). A Subscription is payable in respect of each combination;

#### (lxxxvii) "Subscriber" means:

- (i) a person who subscribes to the Game of Keno by way of Entry; and
- (ii) where the context permits in, and for the purposes of, Rules 9A, 9B and 9D a person who purchases a Gift Voucher, a person who receives a Prepaid Voucher or a person who receives a SST Receipt; and
- (iii) where, in its absolute discretion, the Operating Company thinks it appropriate, includes a person who bears or submits a Receipt Ticket; and

- (iv) where any person defined in sub paragraph (i), (ii) or (iii) is under a legal incapacity or has died, includes the legal personal representative of such person;
- (lxxxviii) "Subscription" means a Gross Subscription unless otherwise stated in these Rules;
  - (lxxxix) **"Subscription Chip"** means a Chip used by a Subscriber either for entry to a Game of Keno or for the purchase of a Gift Voucher;
    - (xc) "Superplay" means the form of Entry whereby a Subscriber nominates:
      - (a) a Standard Superplay; or
      - (b) a Customised Superplay.

In both cases the Subscriber nominates the amount to be wagered for each Combination and the number of games;

- (xci) **"Supervisor"** means a person appointed by the Operating Company to supervise the operation of Keno games;
- (xcii) "**Terminal**" means an Approved device for either:
  - (i) the processing of Entries, the issuing of Receipt Tickets or SST Receipts and the processing of claims; or
  - (ii) the processing of Entries and the issuing of Receipt Tickets or SST Receipts;
- (xciii) "Total Prize Money" means the total amount of money payable to a person, as a result of the person winning money in respect of a Customer Session in a Game of Keno (whether or not that Customer Session relates to one, or more than one, game or Entry in the Game of Keno);
- (xciv) "Unclaimed Prize Claim Form" means the document to be completed by a Subscriber in the event that:
  - (i) a Receipt Ticket or SST Receipt is lost or mutilated; or
  - (ii) a Receipt Ticket's or SST Receipt's record is no longer resident on magnetic media on the Central Site Computer;
- (xcv) "Venue" means a Club, a Casino Licensee or a Hotel, appointed by the Licensees with Approval to accept Subscriptions for games of keno, and refers to the Venue acting in its own right, or as agent of the Licensees or of the Subscriber, as the context requires.
- (xcvi) "Verbal Entry" means the form of Entry which may be effected by the issue of verbal instructions by a person wishing to enter a Game of Keno and the issue of a Receipt Ticket;
- "With the Field" means an option on the "Quinella Place", "Quinella", "Exact Quinella", "Trio", "Trifecta", "Quartet", "Five Up" and "Superfecta" bet types in a game of Keno Racing that allows a Subscriber to combine their selected Rows with all the remaining Rows in the Keno Grid. A Subscription is payable in respect of each combination;
- (xcviii) "Writer" means a person authorised by a Venue to operate a Terminal at the Premises of that Venue.
- (b) In these Rules unless inconsistent with the context:
  - (i) a reference to the singular shall include the plural, and vice versa;
  - (ii) a reference to a person shall include an organisation of persons whether incorporated or unincorporated;

- (iii) except in relation to a Delayed Start Entry a reference to a number of games shall be taken to mean a number of consecutive games commencing with the game which is open at the time the Receipt Ticket for that Entry is issued;
- (iv) headings are for convenient reference only and have no effect in limiting or extending the language of the provisions to which they refer;
- (v) all references to sums of money are references to Australian dollars.

#### 3. Application of these Rules

- (a) These Rules are to be read subject to the Act and shall apply to every Game of Keno. If there is any inconsistency between the Act and these Rules, the Act will prevail to the extent of any inconsistency.
- (b) These Rules shall be binding on all Subscribers and by making an Entry in a Game of Keno, purchasing a Gift Voucher or accepting a Prepaid Voucher, Subscribers agree to be bound by these Rules.

#### 4. Object

The object of the Game of Keno, known as Regular Keno, is to select from 1 to 10, 15, 20 or 40 numbers, from the set: 1 to 80 and to match (or in some games not to match) those numbers against the 20 winning numbers Drawn in each game. A number of other forms of the Game of Keno also exist. These may be varied or discontinued and other forms of the Game of Keno may be introduced by the Operating Company from time to time.

# 5. Eligibility for Inclusion in a Game of Keno.

In order to be eligible for inclusion in a Game of Keno, a Receipt Ticket, the details of which must be recorded and be resident on magnetic media at the Central Site, must be issued to the Subscriber.

# 5A. Ineligibility of Certain Persons to Enter a Game of Keno

- (a) A Key Employee, an Inspector or an employee of the Licensees must not enter a Game of Keno.
- (b) An employee of a Venue during such time as that employee is in any way engaged in the operation of a Game of Keno must not enter a Game of Keno.
- (c) No person under the age of 18 years shall be permitted to enter a Game of Keno, whether personally, through another person, by mail, by using a Self Service Terminal, by electronic means or otherwise.
- (d) No person may make an Entry on behalf of a person under the age of 18 years.

#### 6. Key Staff

#### (a) Operating Company

A Supervisor must be present at all times while the game is in progress at the Central Site or at the Backup Site where a Draw Device is operative and the Supervisor is responsible for ensuring that the game is conducted in accordance with these Rules.

#### (b) Venue

A Senior Writer must be present at the Premises at all times while the game is in progress at those Premises and the Senior Writer is responsible for ensuring that the game is conducted in accordance with these Rules.

#### **6A.** Responsibility of Venue

- (a) A Venue that is a Club must at all times ensure that Games of Keno conducted on its Premises are conducted in accordance with the Registered Clubs Act 1976 and regulations made under that Act, the Public Lotteries Act 1996 and these Rules.
- (b) A Venue that is a Casino Licensee must at all times ensure that Games of Keno conducted on its Premises are conducted in accordance with the Casino Control Act 1992 and regulations made under that Act, the Public Lotteries Act 1996 and these Rules.
- (c) A Venue that is a Hotel must at all times ensure that Games of Keno conducted on its Premises are conducted in a manner that does not contravene the Liquor Act 1982 and regulations made under that Act, the *Liquor Act 2007* and regulations made under that Act, the Public Lotteries Act 1996 and these Rules.

# 7. Entry and Entry Forms

- (a) Entry in a Game of Keno may only be made through a Venue in accordance with these Rules.
- (b) Entry in a Game of Keno, not being a Delayed Start Game, may only be made:
  - (i) either:
    - (a) by way of an Entry Form;
    - (b) by way of Self Service Terminal;
    - (c) by Replay; or
    - (d) in relation to:
      - (i) Lucky Last;
      - (ii) Heads or Tails?;
      - (iii) Keno Racing;
      - (iv) Keno Roulette;
      - (v) Parlay;
      - (vi) Kwikpik;
      - (vii) Superplay; or
      - (viii) Keno Bonus,

by Verbal Entry; and

- (ii) by payment of the appropriate Subscription.
- (c) A Subscriber to a game of Heads or Tails? may only make one selection (ie. "Heads" or "Tails" or "Evens") per Game per Entry.
- (d) A Subscriber to a game of Keno Racing or Keno Roulette may make more than 1 selection per Entry.
- (e) Subject to Rule 9A relating to Gift Vouchers, Rule 9B relating to Prepaid Vouchers, Rule 9C relating to Subscription Chips, and Rule 9D relating to SST Receipts, each Gross Subscription must be paid by a Subscriber to a Venue (or to a Keno Runner on behalf of a Venue) and the Venue will hold the Gross Subscription as agent of the Subscriber until the Entry is completed.

(f) Subject to Rule 9A relating to Gift Vouchers, Rule 9B relating to Prepaid Vouchers and Rule 9D relating to SST Receipts, a Subscriber must pay a Commission to the Venue in consideration for the Venue acting as agent of the Subscriber, and for that purpose authorises the Venue to retain from the Gross Subscription received from the Subscriber an amount calculated as:

[Gross Subscription - Keno Prize Fund Contribution] x 44%,

by way of Commission, after the Entry is completed.

- (g) After a Subscriber has completed an Entry Form, a Replay or a Verbal Entry and the Gross Subscription has been received by the Venue, the Venue, on behalf of the Licensees, will deliver a Receipt Ticket to the Subscriber. A separate Receipt Ticket will be issued in respect of a Delayed Start Entry. The Entry is completed by the delivery of the Receipt Ticket and the Venue is taken to have discharged its duty as agent to the Subscriber by the delivery of the Receipt Ticket in accordance with this Rule.
- (h) Subject to Rule 9A relating to Gift Vouchers, Rule 9B relating to Prepaid Vouchers, Rule 9C relating to Subscription Chips and Rule 9D relating to SST Receipts, once the Entry is completed the Venue will be entitled to apply the Commission to its own account and will hold the Net Subscription as agent for and on behalf of the Licensees.
- (i) All marks appearing on an Entry Form shall be taken to have been made exclusively by the Subscriber and it is the responsibility of the Subscriber to ensure that the particulars recorded on a Receipt Ticket are identical to either those on the Entry Form submitted, or the Verbal Entry made, by the Subscriber.
- (j) If the particulars recorded on a Receipt Ticket are inconsistent with the particulars resident on magnetic media at the Central Site, the latter shall prevail to the exclusion of the former and shall determine what prize, if any, a Subscriber is entitled to claim.
- (k) Except in relation to a Delayed Start Game, an Entry will be for the game which is open at the time the Receipt Ticket for that Entry is issued. A Delayed Start Entry will be for the next Delayed Start Game.
- (1) Instructions printed on an Entry Form are to be read and construed as part of these Rules except that, in the event of any inconsistency, the latter shall prevail to the exclusion of the former.
- (m) An Entry Form shall be returned to the Subscriber on request.
- (n) Where a Subscriber enters a Game of Keno as the trustee, representative or nominee of another person, the Licensees, the Venue and every other person shall be taken not to have knowledge or to be on notice, whether actual or constructive, of any such arrangement and the transaction will be taken to have been conducted solely with the Subscriber.
- (o) Upon presentation of a Receipt Ticket a Subscriber may on the Keno Day on which that Receipt Ticket was issued but after the payment of any prize won by the Entry of which that Receipt Ticket is evidence request a Print Pay Ticket. A Subscriber shall be taken to have requested in accordance with this Rule a Print Pay Ticket in respect of each Entry effected by a Keno Runner on that Subscriber's behalf.
- (p) Upon presentation of a SST Receipt a Subscriber may on the Keno Day on which that SST Receipt was issued but after the payment of any payout of the SST Receipt, request a Print Pay Ticket.
- (q) No person may promote or take part in the formation of a syndicate for fee or reward for the purpose of making an Entry in a Game of Keno, except a Venue as authorised by the Operating Company.
- (r) No person may advertise by any means that he or she or some other person will accept money for a share in an Entry in a Game of Keno, except as provided by Rule 7(q).

#### 8. Keno Runners

- (a) A Keno Runner may operate from anywhere within the Premises of the Venue which has authorised the Keno Runner.
- (b) The Keno Runner must return to the Subscriber all original Receipt Tickets, Entry Forms and Print Pay Tickets.
- (c) Any dispute between a Keno Runner and a Subscriber shall be brought to the attention of the Senior Writer
- (d) A Keno Runner will not be responsible for the placement of Entries in any particular Game of Keno but will use best endeavours to place the Entry in the next available game. Acceptance of Subscriptions does not constitute an official Entry until such time as a Receipt Ticket has been issued.

# 9. Subscriptions

- (a) Acceptable forms of payment of a Subscription include:
  - (i) the tender of cash;
  - (ii) the tender of a Gift Voucher or Prepaid Voucher, in accordance with its terms;
  - (iii) the tender of a Subscription Chip, but only to a Casino Licensee;
  - (iv) the tender of a SST Receipt;
  - (v) Parlay;
  - (vi) any combination of the above.
- (b) No form of credit betting will be allowed.
- (c) Except as provided in Rule 9(d) (k) inclusive the minimum Subscription for a game shall be \$1 and Subscriptions may increment in multiples of \$1 per game up to a maximum of \$9,999 for each Entry, except for an Entry by means of a Self Service Terminal, the maximum Subscription for which shall be \$250.
- (d) The aggregate of the Subscriptions payable for games comprising a Keno to Go Entry and Keno Bonus, played in conjunction with all Games of Keno on a Keno to Go Entry shall be discounted by an amount equivalent to the Subscription payable in respect of 1 game played by a Subscriber for every 50 games played by a Subscriber to be played in respect of that Entry. Where a Keno to Go Entry is cancelled in accordance with Rule 11, the amount of any refund shall be reduced by an amount equal to the total amount by which the aggregate of the Subscriptions paid in respect of that Entry was discounted pursuant to this Rule 9(d).
- (e) The minimum Subscription payable in respect of a Combination Bet Entry (excluding a Jackpot Entry) shall be:
  - (i) Where not less than 4 and not more than 19 Combinations are played \$0.50 per Combination;
  - (ii) Where not less than 20 and not more than 49 Combinations are played \$0.20 per Combination;
  - (iii) Where not less than 50 Combinations are played \$0.10 per Combination.
- (f) Subscriptions in respect of Combination Bet Entries where not less than 4 Combinations are played may increment in multiples of \$0.10 per Combination.

- (g) A Subscription tendered in respect of a Delayed Start Entry must be for the same amount as the Subscription tendered in respect of Entry in the game which is open at the time the Delayed Start Entry is effected.
- (h) The minimum Subscription for a game of Heads or Tails? played by a Subscriber (including Prepick and Let it Run) shall be \$1. Subscriptions may increment in multiples of \$1 per game played by a Subscriber (provided that all games played by a Subscriber on an Entry must increment by the same amount) up to a maximum of \$500 per game played by a Subscriber (excluding Let it Run where the maximum allowable Subscription for the first game played by a Subscriber which is the subject of the Entry shall be \$500 per Entry). In relation to the second and subsequent Games which are the subject of a Let it Run Entry, the maximum allowable Subscription specified in Rule 9(c) shall not apply but eligibility for entry in the next Game of Keno shall be subject to the aggregate Subscription limits set out in Rule 9(j).
- (i) The minimum Subscription in respect of a game of Keno Racing shall be \$0.50 per each bet made subject to a minimum aggregate Subscription per game of Keno Racing of \$1.
- (j) Notwithstanding any Rule to the contrary, the aggregate of the Subscriptions that may be bet on one of the results of a game of Heads or Tails? in any one Game of Keno between the opening and closure of that game shall not exceed:
  - (i) for all Subscriptions placed on the result of Heads, \$500,000;
  - (ii) for all Subscriptions placed on the result of Tails, \$500,000;
  - (iii) for all Subscriptions placed on the result of Evens, \$170,000.

In the event that the prize in respect of any Let it Run game played by a Subscriber would, but for this Rule, result in the total Subscriptions for the next game exceeding the above limits, the Entry on the next game played by that Subscriber will not be accepted and the prize in respect of the previous game will be paid to that Subscriber.

- (k) The Subscription paid for Keno Bonus must be equivalent to the Subscription paid for the game it is played in conjunction with.
- (1) In circumstances where Keno Bonus is being played in conjunction with Let it Run, the amount of the prize that is carried over as the Subscription for the next game in the series shall be applied as follows:
  - (i) 50% of the prize as Subscription for Keno Bonus; and
  - (ii) 50% of the prize as Subscription for the game Keno Bonus is being played in conjunction with.
- (m) If the number of games of Keno Bonus being played on an Entry is less than the number of other Games of Keno being played on the Entry, Keno Bonus will be played in conjunction with the first and following games of Keno.
- (n) Subject to Rule 9A relating to Gift Vouchers, Rule 9B relating to Prepaid Vouchers, Rule 9C relating to Subscription Chips and Rule 9D relating to SST Receipts, Subscriptions will be received by a Venue as follows:
  - (i) until the Entry is completed the Venue will hold the Gross Subscription as agent of the Subscriber pursuant to Rule 7(e);
  - (ii) once the Entry is completed, the Venue will:
    - (a) retain and hold that part of the Gross Subscription which constitutes the Commission in its own right (and not as agent of the Licensees); and
    - (b) hold the Net Subscriptions, being the balance of the Gross Subscription on behalf and as agent of the Licensees,

in accordance with Rule 7(h).

#### 9A. Gift Vouchers

- (a) A Subscriber must pay to a Venue, for the issue of a Gift Voucher, an amount equal to the face value of the Gift Voucher or present to a Casino Licensee a Subscription Chip with the face value equal to the face value of a Gift Voucher.
- (b) A Subscriber must pay a Commission to the Venue in respect of the issue of the Gift Voucher, and for that purpose, the Subscriber authorises the Venue to retain a proportion of the face value of the Gift Voucher received from the Subscriber calculated as:

[Face Value of the Gift Voucher - Keno Prize Fund Contribution for the Category of game able to be played with that Gift Voucher] x 44%,

by way of Commission.

- (c) A Gift Voucher must be presented by way of Subscription in a Game of Keno within 12 months of the date of purchase, or such shorter period as may be notified at the time of purchase.
- (d) Where payment of a Subscription for a Game of Keno is made by the tender of a Gift Voucher in accordance with Rule 9(a)(ii), the Venue will hold the Gift Voucher, as agent of the Subscriber until the Entry is completed.
- (e) Once the Entry is completed and the Receipt Ticket delivered to the Subscriber, the Venue will have discharged its duty as agent to the Subscriber.
- (f) Notwithstanding Rule 7(f), the Venue is not entitled to charge the Subscriber any Commission for acting as agent of the Subscriber in accordance with Rule 9A(d).

## 9B. Prepaid Vouchers

(a) A Venue is entitled to charge a Commission for the issue of a Prepaid Voucher or for the delivery (by the Venue) of a Prepaid Voucher issued by the Operating Company, and for that purpose, under the terms of the Prepaid Voucher, the Subscriber will be taken to direct the Operating Company to apply a proportion of the face value of the Prepaid Voucher calculated as:

[Face Value of Prepaid Voucher - Keno Prize Fund Contribution for the Category of game able to be played with that Prepaid Voucher] x 44%,

in payment to the Venue, on behalf of the Subscriber, of the Commission charged by the Venue for the issue or delivery of the Prepaid Voucher.

- (b) A Prepaid Voucher must be presented by way of Subscription in a Game of Keno within 7 days of the date of issue, or such shorter period as may be notified at the time of issue or delivery to the Subscriber.
- (c) Where payment of a Subscription for a Game of Keno is made by the tender of a Prepaid Voucher in accordance with Rule 9(a)(ii), the Venue will hold the Prepaid Voucher, as agent of the Subscriber until the Entry is completed.
- (d) Once the Entry is completed and the Receipt Ticket delivered to the Subscriber, the Venue will have discharged its duty as agent to the Subscriber.
- (e) Notwithstanding Rule 7(f), the Venue is not entitled to charge the Subscriber any Commission for acting as agent of the Subscriber in accordance with Rule 9B(c).

# 9C. Subscription Chips

The provisions of this Rule 9C apply to a Casino Licensee only:

- (a) A Subscriber must pay to a Casino Licensee, for the issue of a Subscription Chip, an amount equal to the face value of the Subscription Chip.
- (b) Where payment of a Subscription for a Game of Keno is made by the tender of a Subscription Chip in accordance with Rule 9(a)(iii), a Casino Licensee will hold the Subscription Chip as agent of the Subscriber until the Entry is completed.
- (c) Once the Entry is completed and the Receipt Ticket delivered to the Subscriber, a Casino Licensee will have discharged its duty as agent of the Subscriber and will be entitled to retain from the face value of the Subscription Chip an amount equal to the Commission which a Casino Licensee is entitled to charge under Rule 7(f), and will hold the amount representing the balance of the face value of the Subscription Chip as a Net Subscription on behalf and as agent of the Licensees.

# 9D. SST Receipts

- (a) A SST Receipts must be redeemed in full either for cash or tendered by way of Subscription in a Game of Keno within 12 months of the date of issue, and thereafter becomes an Unclaimed Prize.
- (b) Where payment of a Subscription for a Game of Keno is made by the tender of a SST Receipt in accordance with Rule 9(a)(iv), the Venue will hold the SST Receipt, as agent of the Subscriber until the Entry is completed.
- (c) Once the Entry is completed and the Receipt Ticket delivered to the Subscriber, the Venue will have discharged its duty as agent to the Subscriber and will be entitled to retain from the face value of the SST Receipt an amount equal to the Commission which a Venue is entitled to charge under Rule 7(f), and will hold the amount representing the balance of the face value of the SST Receipt as a Net Subscription on behalf and as agent of the Licensees.
- (d) Notwithstanding Rule 7(f), the Venue is not entitled to charge the Subscriber any Commission for acting as agent of the Subscriber in accordance with Rule 9D(b).

# 10. Jackpot

- (a) No Regular Keno Jackpot Prize, Keno Bonus Jackpot Prize or Keno Racing Jackpot Prize greater than or equal to \$10,000 will be paid until verified by the Inspector and the Supervisor.
- (b) An amount equivalent to 10% of Gross Subscriptions in a Regular Keno Jackpot will be allocated from Net Subscriptions on that Regular Keno Jackpot to the Regular Keno Jackpot Prize available for that Regular Keno Jackpot.
- (c) The following amounts will be allocated from Net Subscriptions on the Keno Racing Jackpot to the Keno Racing Jackpot Prize available for that Keno Racing Jackpot:
  - (i) in respect of a "Quartet" Keno Racing Jackpot, an amount equivalent to 10% of Gross Subscriptions;
  - (ii) in respect of the "Five Up" Keno Racing Jackpot, an amount equivalent to 10% of Gross Subscriptions; and
  - (iii) in respect of the "Superfecta" Keno Racing Jackpot, an amount equivalent to 4% of Gross Subscriptions.

- (d) The Jackpot Fill and Jackpot Growth component of the Regular Keno Jackpot Prize, Keno Bonus Jackpot Prize and Keno Racing Jackpot Prize is fixed and payable in respect of the first \$1.00 of the Subscription paid for a game played by a Subscriber to which that prize relates irrespective of the amount actually subscribed and does not increase proportionately to the amount of the Subscription.
- (e) The amount of the Regular Keno Jackpot Prize and Keno Racing Jackpot Prize will be the sum of:
  - (i) the Subscription paid in respect of the game multiplied by the prize (with respect to a Quartet Keno Racing Jackpot Prize as defined in Rule 18(d)) or Major Prize (as the case may be);
  - (ii) the Jackpot Fill (if any); and
  - (iii) the Jackpot Growth for the relevant game.

## 10A. Bonus Prizes

- (a) The Operating Company may allocate Approved sums from the Prize Fund to be used for Bonus Prizes at Approved times of the day and Approved days of the week. Games in which Bonus Prizes are available are or may be referred to as 'Cash Games'.
- (b) Subject to Rule 10A(c) a Bonus Prize shall be won by the game played by a Subscriber or Entry (as the case may be) which first meets Approved requirements for that Bonus Prize.
- (c) Where in the Game of Keno in which the Approved requirements for a Bonus Prize are first met, and more than one game played by a Subscriber or Entry (as the case may be) meets those requirements the Bonus Prize shall be shared among those games or Entries (as the case may be) in accordance with Rule 19(f).
- (d) The word "Bonus" may be printed on Receipt Tickets. The presence of the word "Bonus" on a Receipt Ticket does not necessarily indicate that an Entry is eligible to win a Bonus Prize. The absence of the word "Bonus" from a Receipt Ticket does not necessarily indicate that the Entry is ineligible to win a Bonus Prize.
- (e) Combination Bet Entries, Superplay Entries, Lucky Last Entries, Heads or Tails? (including Prepick and Let it Run) Entries, Keno Racing Entries and Keno Roulette Entries are ineligible to win a Bonus Prize.

## 11. Cancellations

- (a) An Entry may be cancelled only:
  - (i) at the Premises of the Venue at which the Entry was accepted;
  - (ii) on the Keno Day on which the Entry was accepted; and
  - (iii) during the displayed trading hours of those Premises.
- (b) Subject to Rule 11(a) and Rule 11(c), an Entry may be cancelled at any time prior to the closure of the game to which that Entry relates or prior to the Drawing of the first number in the game to which that Entry relates, whichever occurs first.
- (c) A Multi-Game Entry may not be cancelled in respect of those games in which a number has been Drawn. A Multi-Game Entry of more than 200 games may not be cancelled after the first number in the 201st game has been Drawn.
- (d) Subject to Rule 11(e), if an Entry is cancelled in accordance with these Rules, the Venue will refund to the Subscriber in cash (or, in the case of a Casino Licensee only, cash and/or Chips to an equivalent value) the Commission which relates to that Entry and, on behalf of the Licensees, the Net Subscription in

- relation to that Entry, and the Gross Subscription in respect of the cancelled Entry will be reduced by the refunded amount for the purposes of these Rules.
- (e) If an Entry is cancelled in accordance with these Rules and a Gift Voucher or Prepaid Voucher was tendered for the Subscription for the Entry, the Venue will return the Gift Voucher or Prepaid Voucher to the Subscriber, or, if some Games of Keno have been Drawn, return to the Subscriber a replacement Gift Voucher or Prepaid Voucher with a face value equal to the Subscription payable for the cancelled Games of Keno. The Venue is not entitled to receive any Commission in respect of the issue of a replacement Gift Voucher or Prepaid Voucher. The Gross Subscription in respect of the cancelled Entry will be reduced by the value of the replacement Gift Voucher or Prepaid Voucher for the purposes of these Rules.

#### 12. The Draw

- (a) The drawing of the winning numbers must:
  - (i) take place:
    - (a) by means of a Draw Device;
    - (b) at the Central Site, the Premises of a Venue, the Backup Site or other Approved site;
    - (c) if the Draw takes place at the Premises of a Venue in an area open at that time to those persons who would normally have access to those Premises;
    - (d) if the Draw takes place at any other Approved site in an area open to the public during Approved hours; and
    - (e) in a manner which enables it to be witnessed by an Inspector; and
    - (ii) be captured on an Approved medium.
- (b) The Operating Company will determine when a game opens and closes.
- (c) The Draw will be carried out as soon as practicable after the close of the game. Each Game of Keno will be identified during the Keno Day on which it is played by a number from 0 to 999 and thereafter by the relevant Keno Day and that number.
- (d) If an incorrect number is displayed as having been Drawn the final number will flash until the incorrect number has been removed and the correct number displayed.
- (e) If a Draw Device malfunctions, the Draw will continue in accordance with Approved procedures.

## 13. Display of Winning Numbers

Subject to these Rules the winning numbers of the most recently completed Game of Keno and the Multiplier will be displayed at the Premises of a Venue during the Venue's displayed trading hours. The winning numbers and the Multiplier will also be available by a Game Results Inquiry.

## 14. Winning Entries

- (a) Notwithstanding any other Rule, a winning game played by a Subscriber will be one where the number(s) selected for that game match the number(s) Drawn and resident on magnetic media at the Central Site as the winning number(s) for that Game of Keno in such a way as to entitle the Subscriber to a prize in accordance with the applicable Schedule of Prizes, to a Bonus Prize or to an additional Approved prize.
- (b) Subject to Rule 17 a prize may only be claimed by submitting a Receipt Ticket.

- (c) A prize will only be payable where the particulars recorded on the Receipt Ticket submitted indicate that the game played by a Subscriber is a winning game and those particulars correspond with the particulars resident on magnetic media at the Central Site.
- (d) A Receipt Ticket submitted in respect of a successful claim or a SST Receipt redeemed for cash or a Subscription will not be returned to the Subscriber.
- (e) A Game of Keno may include an additional Approved prize or prizes.

# 15. Payouts

#### **Payment of Prizes**

- (a) Regardless of the amount of a Subscription, the maximum liability in respect of:
  - (i) a Regular Keno Jackpot Prize, and Keno Racing Jackpot Prize will be the amount showing as the Regular Keno Jackpot Prize, and Keno Racing Jackpot Prize at that time resident on magnetic media at the Central Site, reduced (if required) in accordance with Rule 19 and increased (if required) in relation to the prize (with respect to a Quartet Keno Racing Jackpot Prize as defined in Rule 18(d)) or Major Prize (as the case may be) having regard to the amount of the Subscription and the Multiplier (if relevant).
- (b) Subject to Rule 15(f), where a win requires the issue of a cheque drawn on the Prize Fund or a cheque drawn on a Venue, the details of the payee must be provided by the Subscriber.
- (c) Public personal anonymity will be at Subscriber request, made to an employee of the Operating Company or Venue at the time the win is confirmed. The Subscriber acknowledges that the Licensees may publish, or cause to be published the name of the Venue, and/or geographic location at which the Subscription was accepted, and the amount of the prize. A Subscriber may at any time revoke a request for anonymity.
- (d) Subject to Rules 16, 17 and 20, a claim for the payment of a prize may be made at the Premises of any Venue up to twelve months after the Keno Day on which the game in respect of which the prize is claimed was Drawn.
  - (i) For payouts under \$10,000, the first \$2,000 of the Total Prize Money, subject to the limit specified by that Venue, may be paid in cash or by way of a SST Receipt (or, in the case of a Casino Licensee, cash and/or Chips). Amounts over \$2,000 of the Total Prize Money will be paid by means of a Crossed Cheque payable to the claimant or if the claimant requests, by means of electronic funds transfer to an account nominated by the claimant.
  - (ii) Prizes of \$10,000 and over will be paid by means of a Crossed Cheque payable to the claimant drawn on the Prize Fund. Subject to the limit specified by that Venue, the first \$2,000 of the Total Prize Money may be paid in cash (or, in the case of a Casino Licensee, cash and/or chips).
- (e) Payouts resulting from an Unclaimed Prize Claim Form will be paid by cheque drawn on the Prize Fund.
- (f) Any cheques issued in payment or part payment of a payout will be crossed and marked "Not Negotiable" and payable to "Account Payee Only" and will be drawn in favour of the Subscriber.
- (g) Payouts to Subscribers known to be under legal incapacity or disability or to those Subscribers who are known to have died before receiving any or all of a particular payout shall be made in accordance with the laws of New South Wales.
- (h) Prizes won in a Delayed Start Game will be paid no sooner than the Keno Day following the Keno Day on which that Delayed Start Game was Drawn.

(i) Where a payout is calculated to be an amount which is an exact multiple of \$0.10 that prize will be payable. Where a prize is calculated to be an amount which is not an exact multiple of \$0.10 the prize payable will be the nearest amount below the calculated prize which is an exact multiple of \$0.10.

# 16. Unclaimed SST Receipts or Prizes

- (a) Details of prizes, including SST Receipts, will remain accessible from magnetic media on the Central Site Computer for up to 12 calendar months after the Keno Day to which they relate. After this period payouts may be made only after submission of an Unclaimed Prize Claim Form forwarded by the Subscriber to the Operating Company.
- (b) All correspondence to a Subscriber relevant to an unclaimed prize or unclaimed SST Receipts shall bear the signature of a representative of the Operating Company and following review by the Inspector will issue to the Subscriber. In the event of a dispute, the decision of the Inspector will be final.

# 17. Lost or Mutilated Receipt Tickets, SST Receipts and Vouchers

- (a) If a Receipt Ticket or SST Receipt, submitted by a Subscriber for processing, is unable to be read by a Terminal or the Writer, or the Receipt Ticket has been lost, a claim for payment may be made by the submission of an Unclaimed Prize Claim Form.
- (b) If the details given by the Subscriber satisfy the Operating Company and Inspector that a win has occurred, the prize will be paid in accordance with Rule 15.
- (c) If a Gift Voucher or Prepaid Voucher, submitted by a person for processing, including a Gift Voucher presented for refund in accordance with Rule 17(d), is unable to be validated by a Terminal or a Writer, or has expired or been lost, a claim for a refund of the face value of the Gift Voucher or Prepaid Voucher may not be made.
- (d) If, having purchased a Gift Voucher, a Subscriber does not agree to the conditions of purchase described in Rule 17(c), a refund of the face value of the Gift Voucher can be made. This refund can only be made by returning the Gift Voucher to the same Venue from which the Gift Voucher was purchased and on the same day as the Gift Voucher was purchased.

#### 18. Schedules of Prizes

(a) The following Approved Schedule of Prizes applies to all Games of Keno other than Lucky Last, Heads or Tails?, Keno Racing and Keno Roulette and Keno Bonus where it is played in conjunction with Lucky Last, Heads or Tails?, Keno Racing or Keno Roulette. Prizes are based on a Subscription of \$1 and are expressed in multiples of \$1:

Number of	Number of Spots Selected												
Spots Matched	1	2	3	4	5								
0													
1	3												
2		12	1	1									
3			44	4	2								
4				120	14								
5					640								

Number of		Num	ber of Spots Sel	ected	
Spots Matched	6	7	8	9	10
0					
3	1	1			
4	5	3	2	1	1
5	80	12	7	5	2
6	1,800	125	60	20	6
7		\$5,000 plus Keno Bonus Jackpot Prize of \$7,000 (if payable) plus Jackpot Growth	675	210	50
8			\$25,000 plus Keno Bonus Jackpot Prize of \$38,000 (if payable) plus Jackpot Growth	2,500	580
9				\$100,000 plus Keno Bonus Jackpot Prize of \$180,000 (if payable) plus Jackpot Growth	10,000
10					\$250,000 plus Jackpot Fill of \$750,000 plus Keno Bonus Jackpot Prize of \$2,900,000 (if payable) plus Jackpot Growth

Number of	N	umber of Spots selec	ted
Spots Matched	15	20	40
0		100	250,000
1		10	25,000
2		2	2,200
3			200
4			35
5	1		7
6	2		2
7	4		1
8	20	2	
9	50	7	
10	250	20	
11	2,000	100	
12	12,000	450	
13	50,000	1,200	1
14	100,000	5,000	2
15	250,000	10,000	7
16		15,000	35
17		25,000	200
18		50,000	2,200
19		100,000	25,000
20		250,000	250,000

(b) The following Approved Schedule of Prizes applies only to games of Lucky Last and Keno Bonus where it is played in conjunction with a game of Lucky Last. Prizes are based on a Subscription of \$1 and are expressed in multiples of \$1:

Number of Spots selected	Lucky Last Prize
1	60
2	30
3	20
4	15
5	12
6	10
7	8.50
8	7.50
9	6.50
10	6
15	4
20	3
40	1.5

(c) The following Approved Schedule of Prizes applies only to games of Heads or Tails? and Keno Bonus where it is played in conjunction with a game of Heads or Tails?. Prizes are based on a Subscription of \$1 and are expressed in multiples of \$1:

Selections	Result	Heads or Tails? Prize					
Heads	Heads	2					
Tails	Tails	2					
Evens	Evens	4					

(d) The following Approved Schedule of Prizes applies only to games of Keno Racing. Prizes are based on a Subscription of \$1 and are expressed in multiples of \$1:

Bet Type	Keno Racing Prize
Win	6
Place	2
Quinella Place	7
Quinella	21
Exact Quinella	42
Trio	42
Trifecta	252
Quartet	
First correct	1
First 2 correct	3
First 3 correct	10
All 4 correct	800 plus Jackpot Growth
Five Up	
First correct	1
First 2 correct	3
First 3 correct	10
First 4 correct	60
All 5 correct	3,000 plus Jackpot Growth
Superfecta	
First correct	1
First 2 correct	3
First 3 correct	10
First 4 correct	60
First 5 correct	100
All 6 correct	10,000 plus Jackpot Growth

(e) The following Approved Schedule of Prizes applies only to games of Keno Roulette and Keno Bonus where it is played in conjunction with a game of Keno Roulette. Prizes are based on a Subscription of \$1 and are expressed in multiples of \$1:

Bet Type	Keno Roulette Prize
Straight Up	60
Pair	30
Corner	15
Column	7.50
Row	6
Quarter	3

# 19. Pro-rating and Sharing of Prizes

- (a) The maximum aggregate liability for all Major Prizes in any one Game of Keno, excluding Bonus Prizes and additional Approved prizes, shall be \$3,000,000. Where except for this Rule 19(a) the total amount of such Major Prizes would exceed \$3,000,000 Pro-rating shall apply.
- (b) Subject to Rule 19(c) where Pro-rating applies the amount payable in respect of each Major Prize affected shall be as follows:

Amount payable =  $X \div Y \times \$3,000,000$ 

where

X = the amount which except for this Rule would have been payable in respect of the game played by a Subscriber.

Y = the total prize amount which, except for this Rule, would have been payable in respect of all Major Prizes for a Game of Keno.

- (c) Notwithstanding the application of Pro-rating no Major Prize will be reduced to a value less than \$1,000.
- (d) Where there is more than one Regular Keno Jackpot, or Keno Racing Jackpot winner, the Jackpot Growth and Jackpot Fill will be shared among those Regular Keno Jackpot or Keno Racing Jackpot winners in the same proportion that the amount of the Subscription (disregarding Keno Bonus) paid by each winner on the winning combination of Spots bears to the total amount of the Subscriptions (disregarding Keno Bonus) paid by all winners on the winning combination of Spots.
- (e) Where there is more than one Keno Bonus Jackpot Prize winner, the Keno Bonus Jackpot Prize will be shared amongst those Keno Bonus Jackpot Prize winners in the same proportion that the amount of the Subscriptions (disregarding Keno Bonus) paid by each winner on the winning combination of Spots bears to the total amount of the Subscription (disregarding Keno Bonus) paid by all winner on the winning combination of Spots.
- (f) Where there is more than one Bonus Prize winner, the Bonus Prize will be shared among those Bonus Prize winners in proportion to the amount of the Subscription paid by each winner on the winning combination of Spots.

# 20. Limitation of Liability

- (a) Without limitation to the following provisions of this Rule 20, the Licensees shall have no responsibility or liability to a Subscriber until an Entry is validly made and a Receipt Ticket is delivered to that Subscriber.
- (b) The Licensees shall have no responsibility or liability to a Subscriber or to any other person by reason of the loss or destruction for any reason or from any cause of a Receipt Ticket beyond the amount of the Net Subscription paid in respect of the Receipt Ticket unless, at the discretion of the Licensees, the criteria as set out in Rules 16 and 17 are met.
- (c) The Licensees shall have no responsibility or liability to pay a Subscriber who claims a prize and is unable to submit a Receipt Ticket. The Licensees shall have discharged all liability in relation to payment of a prize by making payment to a person who has submitted a prize winning Receipt Ticket. The official record of payment shall be the image resident on magnetic media at the Central Site.
- (d) The Licensees and each of their employees shall have no liability or responsibility to a Subscriber beyond the Net Subscription paid in respect of a Receipt Ticket, or any other person, in respect of:
  - (i) any negligence, omission, delay or failure whatsoever on the part of any person in the carrying out or performance of any duty, function or discretion conferred or contemplated by the Rules in or about the conduct of the Game of Keno; and
  - (ii) without prejudice to the generality of Rule 20(d)(i) hereof, any negligence, omission, delay or failure in relation to:
    - (i) the payment of prizes;
    - the processing and issue of a Receipt Ticket following acceptance of an Entry Form, Replay or Verbal Entry instructions;
    - (iii) the processing of a prize winning Receipt Ticket or the redeeming of a SST Receipt;
    - (iv) the inclusion of an Entry in a particular Game of Keno received by way of an Entry Form or Verbal Entry instructions.
- (e) Each and every Venue shall have no responsibility or liability to a Subscriber or to any other person by reason of the loss or destruction for any reason or from any cause of a SST Receipt, or a Receipt Ticket beyond the amount of the Commission paid in respect of the Receipt Ticket or a SST Receipt.
- (f) Each and every Venue and every employee of a Venue shall have no liability or responsibility to a Subscriber beyond the Commission paid by the Subscriber in respect of the relevant game or any person for or in respect of:
  - (i) any negligence, omission, delay or failure whatsoever on the part of any person in the carrying out or performance of any duty, function or discretion conferred or contemplated by the Rules in or about the conduct of any Game of Keno; and
  - (ii) without prejudice to the generality of Rule 20(f)(i) hereof, any negligence, omission, delay or failure in relation to:
    - (i) the payment of payouts;
    - (ii) the processing and issue of a Receipt Ticket following acceptance of an Entry Form, Replay or Verbal Entry instructions, or Entry by way of Self Service Terminal;
    - (iii) the processing of a prize winning Receipt Ticket or the redeeming of a SST Receipt;

- (iv) the inclusion of an Entry in any particular Game of Keno received by way of an Entry Form or Verbal Entry instructions.
- (g) The Licensees and every Venue, and each employee of the Licensees or a Venue, shall have no liability or responsibility to a Subscriber or any person for or in respect of any failure, disruption or malfunction of equipment used in the conduct of Games of Keno whether at the Central Site or at the Premises of a Venue or any other location, electrical power, telecommunications links or magnetic media at the Central Site.
- (h) The Licensees and every Venue, and each employee of the Licensees or a Venue, shall have no liability or responsibility for any consequence of interference with or interruption to any Game of Keno due to fire, storm, flood, riot, civil commotion, strike, failure or disruption of electrical power supply or telecommunications or other cause not within the reasonable control of such person.
- (i) The State of New South Wales, the Crown in right of that State, the Government of that State, the Minister, an Inspector, their successors and the employees and agents and every one of them shall have as ample protection from liability in respect of their acts and omissions (whether arising from, or contributed to, by negligence or otherwise) and the acts, omissions and contingencies the subject of Rules 20(a) to 20(i) inclusive as those protected by the said Rules.

# 21. Disqualifications

- (a) Notwithstanding that a Receipt Ticket or SST Receipt may have been issued, Entry in the Game of Keno may be disqualified and no claim shall be entered in respect of it if the Licensees are of the opinion that it should be disqualified.
- (b) The reasons for disqualification by the Licensees may include but are not limited to:
  - (i) tender of insufficient Subscription or if the form of Subscription is not acceptable;
  - (ii) the Subscriber has defaulted in payment of any previous fee;
  - (iii) reasonable suspicion of fraud or attempted fraud (whether computer related or otherwise);
  - (iv) a Receipt Ticket or SST Receipt failing any security tests run at the Central Site;
  - (v) reasonable suspicion of unauthorised use of a Terminal;
  - (vi) reasonable suspicion that the Subscriber is ineligible to enter a game under Rule 5A or Rule 7(a); or
  - (vii) any other breach of the Rules which in the opinion of the Licensees justifies disqualification.
- (c) An Entry which has been disqualified in accordance with this Rule 21 may, in the absolute discretion of the Licensees, and with Approval, be reinstated.
- (d) Without limiting the operation of Rule 20, the liability of the Licensees to a Subscriber who has an Entry disqualified and reinstated under this Rule 21 will be limited to the amount of any prize won by that reinstated Entry.

#### 22. Amendment

(a) These Rules may only be amended, added to or repealed, in whole or in part, at any time by the Licensees with Approval.

- (b) Any amendment, addition or repeal will be effective on the date on which it is published in the New South Wales Government Gazette, or such later date as is specified in the New South Wales Government Gazette.
- (c) The Licensees shall have no responsibility to a Subscriber or any person for or in respect of any change to the Rules.

#### **SCHEDULE**

## Part A – 1 x Multiplier

211	212	213	214	216	219	222	223	225	226	228	229	231	233	235	237	239	241	242	244
245	247	249	251	252	254	255	258	260	261	263	264	266	269	271	273	276	278	280	281
283	285	287	288	290	291	293	295	296	298	300	301	303	304	307	308	311	313	315	316
318	321	322	324	326	328	330	332	334	335	337	338	342	344	345	348	350	352	353	355
356	358	359	367	370	373	375	378	380	382	385	389	390	393	395	397	407	411	412	416
422	424	426	428	430	433	434	437	440	442	444	445	447	450	452	454	456	458	462	464
467	469	471	472	474	477	479	481	482	483	484	486	488	489	490	491	494	496	498	499
501	503	505	507	511	516	519	521	523	525	528	530	532	534	536	537	538	540	541	543
545	546	547	549	552	554	555	556	557	559	561	562	564	566	568	570	573	575	577	579
581	583	584	587	589	591	593	595	598	600	607	609	611	613	615	616	618	620	623	626
628	630	632	633	635	640	642	643	645	647	649	651	653	655	656	657	658	664	666	669
671	673	674	676	677	678	681	682	686	691	692	693	694	695	697	698	706	708	709	710
711	712	713	715	717	718	719	721	722	723	725	727	728	730	732	733	736	737	741	743
746	747	751	759	762	765	767	768	773	778	783	785	786	788	789	792	793	797	800	802
805	807	808	812	813	815	818	820	823	827	828	831	832	834	835	837	842	847	852	853
855	858	861	869	873	874	877	879	883	884	887	888	890	892	893	895	897	898	899	901
902	903	905	907	908	909	910	911	912	914	922	923	925	926	927	928	929	934	938	939
942	943	944	946	947	949	951	954	956	962	963	964	965	967	969	971	973	975	977	978
980	985	987	988	990	992	994	997	1000	1002	1004	1005	1007	1009	1011	1013	1020	1022	1025	1027
1029	1031	1033	1036	1037	1039	1041	1043	1045	1047	1050	1052	1054	1056	1058	1059	1061	1063	1064	1065
1066	1068	1071	1073	1074	1075	1077	1079	1080	1082	1083	1084	1086	1088	1090	1092	1095	1097	1099	1101
1143	1146	1148	1149	1151	1153	1156	1158	1162	1164	1166	1168	1170	1173	1175	1176	1178	1180	1183	1186
1187	1190	1192	1194	1196	1198	1204	1208	1209	1213	1223	1225	1227	1230	1231	1235	1238	1240	1242	1245
1247	1250	1253	1261	1262	1264	1265	1267	1268	1270	1272	1275	1276	1278	1282	1283	1285	1286	1288	1290
1292	1294	1296	1298	1299	1302	1304	1305	1307	1309	1312	1313	1316	1317	1319	1320	1322	1324	1325	1327
1329	1330	1332	1333	1335	1337	1339	1340	1342	1344	1347	1349	1351	1354	1356	1357	1359	1360	1362	1365
1366	1368	1369	1371	1373	1375	1376	1378	1379	1381	1383	1385	1387	1389	1391	1392	1394	1395	1397	1398
1401	1404	1406	1407	1408	1409														

## Part B – 2 x Multiplier

215	218	221	230	234	248	270	277	317	320	327	333	360	362	365	372	374	377	379	381
383	386	388	392	398	404	406	414	420	425	427	429	436	443	449	453	461	466	473	487
492	508	510	513	527	531	542	558	567	571	580	585	588	596	601	604	610	634	641	644
659	660	661	663	668	672	680	683	685	687	690	696	701	703	714	724	731	735	738	742
749	752	755	756	760	764	766	771	775	776	777	780	781	784	795	798	801	803	806	810
814	817	819	822	825	836	839	840	843	844	845	849	854	856	860	864	865	868	871	878
882	885	889	896	906	917	919	924	930	933	935	937	940	948	952	957	959	960	961	976
976	979	986	1010	1016	1019	1024	1032	1035	1040	1049	1053	1062	1078	1089	1093	1107	1110	1112	1128
1133	1147	1154	1159	1167	1171	1177	1184	1191	1193	1195	1200	1206	1214	1216	1222	1228	1232	1234	1237
1241	1243	1246	1248	1255	1258	1260	1287	1293	1300	1303	1343	1350	1372	1386	1390	1399	1402	1405	

Part $C - 3$	Multiplier
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217	227	232	238	243	250	253	256	259	262	267	272	275	279	282	284	286	289	292	294
297	299	302	305	306	309	310	312	314	319	323	329	336	339	341	346	347	351	357	361
363	364	368	369	371	384	391	396	402	408	409	410	417	421	432	435	438	439	441	446
448	451	455	459	463	465	468	470	475	476	478	480	485	493	495	497	500	502	504	506
509	512	515	517	518	520	522	524	526	529	533	535	539	544	548	550	551	553	560	563
565	569	572	574	576	578	582	586	590	592	594	597	602	605	606	608	612	614	617	619
624	625	627	629	631	637	638	639	646	648	650	652	654	662	665	667	670	675	679	689
700	702	704	707	716	720	726	729	734	739	740	744	745	748	750	753	757	761	763	770
774	779	787	791	794	796	799	804	809	811	816	821	824	826	829	833	841	846	850	857
859	863	867	870	872	875	876	880	881	886	891	894	900	904	913	916	918	920	931	941
945	950	953	955	958	966	968	970	972	974	981	982	983	989	991	993	995	996	1001	1003
1006	1008	1012	1014	1015	1018	1023	1026	1028	1030	1034	1038	1042	1044	1046	1048	1051	1055	1057	1060
1067	1069	1070	1072	1076	1081	1085	1087	1091	1094	1096	1098	1100	1102	1103	1105	1108	1111	1114	1116
1118	1120	1123	1125	1127	1135	1140	1142	1144	1145	1150	1152	1155	1157	1161	1165	1169	1172	1174	1179
1181	1182	1185	1188	1199	1203	1210	1211	1212	1218	1224	1229	1236	1249	1251	1252	1256	1257	1259	1263
1269	1273	1274	1279	1281	1284	1291	1297	1301	1306	1308	1310	1311	1314	1315	1318	1321	1323	1326	1328
1331	1334	1336	1338	1341	1345	1348	1353	1358	1361	1364	1367	1370	1377	1382	1388	1393	1403		

## Part D – 4 x Multiplier

1021 1197 1220 1244 1266 1380 1410

## Part E - 5 x Multiplier

1160 1163 1189 1215 1217 1355 1363 1384 

## Part F – 10 x Multiplier

224 246 268 331 415 603 684 936 1017 1205 1289 1352 1374 1396

# PRIVATE ADVERTISEMENTS

# **COUNCIL NOTICES**

#### LITHGOW CITY COUNCIL

Roads Act 1993, Section 162

Naming of Public Roads

NOTICE is hereby given that in accordance with section 162 (1) and (2) of the Roads Act 1993, Council has named the following roads as described below:

Location Name

Road at South Bowenfels sharing entrance with Daintree Close, off the Great Western Highway and looping back to the Great Western Highway. Forty Bends Road

R. BAILEY, General Manager, Lithgow City Council, PO Box 19, Lithgow NSW 2790. [5502]

#### **GREATER TAREE CITY COUNCIL**

Roads Act 1993, Roads (General) Regulation 2008 Section 162 – Naming of Public Roads

NOTICE is hereby given that Greater Taree City Council, in pursuance of the above act and regulations, has named the following road:

• Stirling Place, Taree.

GERARD JOSE, General Manager, Greater Taree City Council, PO Box 482, Taree NSW 2430. [5503]

#### THE HILLS SHIRE COUNCIL

Roads Act 1993, Section 10

NOTICE is hereby given that The Hills Shire Council dedicates the land described in the Schedule below as Public Road under section 10 of the Roads Act 1993. General Manager, The Hills Shire Council, 129 Showground Road, Castle Hill NSW 2154.

#### **SCHEDULE**

All that piece or parcel of land known as Lot 122 in DP 1151475 at Maraylya in The Hills Shire Council, Parish of Nelson, County of Cumberland. [5504]

#### TWEED SHIRE COUNCIL

Roads Act 1993

Naming of Public Road

NOTICE is hereby given that the Tweed Shire Council, in pursuance of section 162 of the Roads Act 1993, has named the road that runs off Wommin Bay Road to the Cudgen Leagues Club at Chinderah as:

Bradshaw Place

Authorised by resolution of the Council on 21 September 2010, General Manager, Tweed Shire Council, Civic Centre, Tumbulgum Road, Murwillumbah NSW 2484. [5505]

#### WEDDIN SHIRE COUNCIL

Roads Act 1993, Section 10

Dedication of Public Road

NOTICE is hereby given that the Weddin Shire Council, by resolution of Council dated 18 March 2010, has resolved to dedicate the land described hereunder as public road pursuant to section 10 of the Roads Act 1993. TREVOR LOBB, General Manager, Weddin Shire Council, PO Box 125, Grenfell NSW 2810. File: R2.1.3

#### **SCHEDULE**

Lots 2 and 3 in DP 1132801

[5506]

#### **COMPANY NOTICES**

NOTICE of final meeting of members. – In the matter of the Corporations Act 2001 and in the matter of ATITOWN PTY LTD (in liquidation), ACN 076 806 490. – Notice is hereby given pursuance to section 509 of the Corporations Act 2001, that the final meeting of the members of the abovenamed company will be held on 4 November 2010, at 9:00 a.m., at the office of Crosbie Warren Sinclair, cnr Pacific Highway and Warabrook Boulevarde, Warabrook NSW 2304, for the purpose of having an account laid before them showing the manner in which the winding up has been conducted and the property of the company disposed of and hearing any explanation that may be given by the liquidator. Dated 30 September 2010. BRENT ANTONY PERKINS, Liquidator, c.o. Crosbie Warren Sinclair, Box 29, Hunter Region Mail Centre NSW 2310, tel.: (02) 4923 4000.

NOTICE of voluntary liquidation. – The Corporations Law and in the matter of UNIVERSAL SALES PTY LIMITED, ACN 000 068 879. – Notice is hereby given that at an extraordinary general meeting of the members of the company duly convened and held on 30 September 2010, the following resolutions were passed: That the company be wound up voluntarily and that Ms Flora MacDonald be appointed liquidator for the purpose of such winding up. Creditors of the company are required to prove their debts or claims within one month from the date of publication of this notice. Failing which they will be excluded from any distribution made and from objecting to any such distribution. Formal Proof of Debt forms are available on application to the liquidator. Dated 1 October 2010. F. MACDONALD, Liquidator, 2/131 Clarence Street, Sydney NSW 2000, tel.: (02) 9299 6521.

#### **OTHER NOTICES**

Form 2

# CHURCHES OF CHRIST IN NEW SOUTH WALES INCORPORATION ACT 1947

Registration Certificate No. 156

IN accordance with the provisions of Part V of the above Act the Church of Christ at Berkeley Vale having complied with the requirements of the said Act and made application for registration under the said Act and such application having been duly approved by the Churches of Christ Property Trust it is hereby certified that the said Church of Christ has been registered under the above Act as a church entitled to the benefits of the said Act. Dated at Marrickville this 22nd day of September 2010. JOHN A. HOPPITT, Registrar. [5509]

Form 4

# CHURCHES OF CHRIST IN NEW SOUTH WALES INCORPORATION ACT 1947

Registration of Trustees. Certificate No. 175

IN accordance with the provisions of Part V of the above Act the Church of Christ at BERKELEY VALE having made application for the registration of the Churches of Christ Property Trust as Church Trustee under section 27 of the said Act and having done all things necessary for such registration it is hereby certified that the Church Trustee of the said Church of Christ as from the date of this certificate is the Churches of Christ Property Trust. Dated at Marrickville this 22nd day of September 2010. JOHN A. HOPPITT, Registrar.

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