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OF THE STATE OF

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### GOVERNMENT GAZETTE DEADLINES

#### Close of business every Wednesday

Except when a holiday falls on a Friday, deadlines will be altered as per advice given on this page.

#### Freedom of Information Act 1989

*Summary of Affairs* for 29 December 2006  
deadline 5.00 pm, 15 December 2006  
Government Advertising and Information  
Level 9, McKell Building  
2-24 Rawson Place, Sydney NSW 2000

#### Christmas deadlines

There are no changes to *deadlines for inclusion in the Government Gazette* this Christmas and New Year:

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# *Government Gazette*

OF THE STATE OF  
NEW SOUTH WALES

**Number 136**

**Friday, 10 November 2006**

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## **SPECIAL SUPPLEMENT**

### **MOTOR VEHICLE INSURANCE AND REPAIR INDUSTRY**

#### **CODE OF CONDUCT**

##### **Erratum**

IN the notification appearing in the Government Gazette of 27 October 2006 Folio 127 under the heading "Motor Vehicle Insurance and Repair Industry Code of Conduct", the reference in clause 11.3(c) of the code to "clause 11.3(e)" should read "clause 11.3(d)".

**L BAKER,**  
Commissioner for Fair Trading

Dated 8 November 2006.

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# *Government Gazette*

OF THE STATE OF  
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**Number 137**

**Friday, 10 November 2006**

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## **SPECIAL SUPPLEMENT**

### **WATER MANAGEMENT ACT 2000**

Order under section 60 (2)

#### **SEVERE WATER SHORTAGE**

New South Wales Murray and Lower Darling  
Regulated Rivers

PURSUANT to section 60 (2) of the Water Management Act 2000, I, IAN MACDONALD, M.L.C., Minister for Natural Resources, on being satisfied that there exists a severe water shortage in the New South Wales Murray and Lower Darling Regulated Rivers as defined in the Water Sharing Plan for the New South Wales Murray and Lower Darling Regulated Rivers Water Sources 2003 do, by this Order, suspend the operation of the rules of distribution in section 60 (1) of that Act so that instead the rules of distribution in section 60 (3) apply in relation to the water sources.

This Order takes effect on date of publication in the Gazette.

Dated at Sydney this 10th day of November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

---

### **WATER MANAGEMENT ACT 2000**

Order under section 60 (2)

#### **SEVERE WATER SHORTAGE**

Murrumbidgee Regulated River

PURSUANT to section 60 (2) of the Water Management Act 2000, I, IAN MACDONALD, M.L.C., Minister for Natural Resources, on being satisfied that there exists a severe water shortage in the Murrumbidgee Regulated River as defined in the Water Sharing Plan for the Murrumbidgee Regulated River Water Source 2003 do, by this Order, suspend the operation of the rules of distribution in section 60 (1) of that Act so that instead the rules of distribution in section 60 (3) apply in relation to the water source.

This Order takes effect on date of publication in the Gazette.

Dated at Sydney this 10th day of November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

**WATER MANAGEMENT ACT 2000**

Order under section 323

**TEMPORARY WATER RESTRICTION ORDER**NSW Murray Regulated River Water Source  
NSW Lower Darling Regulated River Water Source

PURSUANT to section 323 of the Water Management Act 2000, I, IAN MACDONALD, M.L.C., Minister for Natural Resources, on being satisfied that it is necessary in the public interest to do so because of water shortage in the Murray Regulated River Water Source and the Lower Darling Regulated River Water Source (as defined in the Water Sharing Plan for the NSW Murray and Lower Darling Regulated Rivers Water Sources 2003), do, by this Order direct that the taking of water from those water sources is restricted as set out in the Schedule.

This order repeals the orders dated 18 October 2006 and 25 October 2006.

This Order takes effect on the date of first broadcasting and will continue until it is repealed by a further Order.

Dated at Sydney this 10th day of November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

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**SCHEDULE**

1. Each regulated river (high security) access licence is restricted to 68% of the volume of water in the water allocation account as at 10 November 2006, inclusive of any water credited by an assignment dealing from any other source.
2. Each regulated river (general security) access licence is restricted to 68% of the volume of water in the water allocation account as at 10 November 2006, inclusive of any water carried over or credited by an assignment dealing from any other source.
3. Any water credited to a water allocation account on or after 10 November 2006 by a dealing is not included in the restriction.

---

**WATER MANAGEMENT ACT 2000**

Order under section 323

**TEMPORARY WATER RESTRICTION ORDER**

NSW Murrumbidgee Regulated River Water Source

PURSUANT to section 323 of the Water Management Act 2000, I, IAN MACDONALD, M.L.C., Minister for Natural Resources, on being satisfied that it is necessary in the public interest to do so because of water shortage in the Murrumbidgee Regulated River Water Source (as defined in the Water Sharing Plan for the Murrumbidgee Regulated River Water Source 2003), do, by this Order direct that the taking of water from that water source is restricted as set out in the Schedule.

This Order takes effect on the date of first broadcasting and will continue until it is repealed by a further Order.

Dated at Sydney this 10th day of November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

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**SCHEDULE**

1. Each regulated river (high security) access licence is restricted to 89% of the volume of water in the water allocation account as at 1 July 2006, inclusive of any water credited by an assignment dealing from any other source.
2. Each regulated river (general security) access licence is restricted to 66% of the volume of water in the water allocation account as at 1 July 2006, inclusive of any water carried over or credited by an assignment dealing from any other source.
3. Any water credited to a water allocation account on or after 10 November 2006 by a dealing is not included in the restriction.
4. Where a volume in excess of this restricted amount has already been debited from the water allocation account since 1 July 2006, this Order does not have the effect of causing the access licence holder to have committed any offence.

**WATER MANAGEMENT ACT 2000**

Order under section 71Z

**ACCESS LICENCE DEALING PRINCIPLES ORDER**

Murrumbidgee Regulated Rivers

PURSUANT to section 71Z of the Water Management Act 2000, I, IAN MACDONALD, M.L.C., Minister for Natural Resources, do by this Order suspend the types of dealings set out in the Schedule to this Order which would otherwise be permitted under Access Licence Dealing Principles or Access Licence Dealing Rules.

This order repeals the orders pursuant to section 71Z dated 18 October 2006 and 3 November 2006.

This Order takes effect on gazettal and is repealed on the repeal of the Section 323 Order.

In this Order a reference to the “Section 323 Order” means the Order under section 323 of the Water Management Act 2000 in relation to the Murrumbidgee Regulated River Water Source, dated 10 November 2006.

Dated at Sydney this 10th day of November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

---

**SCHEDULE**

1. Any assignment dealing from a licence to which the Section 323 order applies except where the taking of the water by the assignor would be permitted pursuant to the Section 323 Order.
2. Any dealing under section 71T that would result in the assignment of a water allocation from the water allocation account of a licence in the Murrumbidgee Regulated River Water Source (as defined in the Water Sharing Plan for the Murrumbidgee Regulated River Water Source 2003) to an access licence that permits the taking of water from the New South Wales Murray Regulated River Water Source (as defined in the Water Sharing Plan for the New South Wales Murray and Lower Darling Regulated Rivers Water Sources 2003) upstream of the Junction of the Murrumbidgee River and the Murray River.
3. Any assignment of a water allocation from a local water utility access licence.

---

**WATER MANAGEMENT ACT 2000**

Order under section 71Z

**ACCESS LICENCE DEALING PRINCIPLES ORDER**

New South Wales Murray and Lower Darling Regulated Rivers

PURSUANT to section 71Z of the Water Management Act 2000, I, IAN MACDONALD, M.L.C., Minister for Natural Resources, do by this Order suspend the types of dealings set out in the Schedule to this Order which would otherwise be permitted under Access Licence Dealing Principles or Access Licence Dealing Rules.

This Order takes effect on gazettal and is repealed on the repeal of the Section 323 Order.

In this Order a reference to the “Section 323 Order” means the Order under section 323 of the Water Management Act 2000 in relation to the NSW Murray Regulated River Water Source and the Lower Darling Regulated River Water Source, dated 10 November 2006.

Dated at Sydney this 10th day of November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

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**SCHEDULE**

1. Any assignment dealing from a licence to which the section 323 order applies except where the taking of the water by the assignor would be permitted pursuant to the section 323 Order.
2. Any assignment of a water allocation from a local water utility access licence.

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# *Government Gazette*

OF THE STATE OF  
NEW SOUTH WALES

**Number 138**

**Wednesday, 15 November 2006**

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## **SPECIAL SUPPLEMENT**



New South Wales

# **Sutherland Shire Local Environmental Plan 2006**

under the

**Environmental Planning and Assessment Act 1979**

I, the Minister for Planning, make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (S00/01690/PC)

FRANK SARTOR, M.P.,  
Minister for Planning

Sutherland Shire Local Environmental Plan 2006

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Sutherland Shire Local Environmental Plan 2006

Clause 1

Preliminary

Part 1

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## Sutherland Shire Local Environmental Plan 2006

under the

Environmental Planning and Assessment Act 1979

### Part 1 Preliminary

#### 1 Name of plan

This plan is *Sutherland Shire Local Environmental Plan 2006*.

#### 2 Commencement

This plan commences on the day occurring 14 days after the date of its publication in the Gazette.

#### 3 Aims of plan

The aims of this plan are as follows:

- (a) to enable the achievement of the community's vision for Sutherland Shire through the proper management, development and conservation of the Shire's environmental resources,
- (b) to describe the intended environmental outcomes that will result from the effective implementation of this plan,
- (c) to promote an appropriate balance of development and management of the environment that will be ecologically sustainable, socially equitable and economically viable,
- (d) to provide for appropriate land use controls that protect critical requirements relating to the use of Commonwealth land for defence purposes,
- (e) to establish a broad planning framework for controlling development in Sutherland Shire,
- (f) to conserve items of environmental heritage,
- (g) to preserve and enhance the quality of native vegetation and fauna,
- (h) to protect environmentally sensitive areas,
- (i) to conserve natural, indigenous and built heritage sites throughout Sutherland Shire,

Clause 4 Sutherland Shire Local Environmental Plan 2006

Part 1 Preliminary

- 
- (j) to encourage development that is energy efficient and supports access by public transport, walking and cycling,
  - (k) to provide opportunities for business interests to respond to the demands of the community for shopping and the provision of services,
  - (l) to provide employment opportunities in Sutherland Shire,
  - (m) to put in place a framework of controls to address current and future housing needs,
  - (n) to allow for provision of community facilities and land for public purposes,
  - (o) to preserve or enhance the quality of life of the local community,
  - (p) to allow for improvements and appropriate additions to the recreational assets of Sutherland Shire.

#### 4 Land to which plan applies

This plan applies to all land in Sutherland Shire, except for the following land:

- (a) land to which *Sydney Regional Environmental Plan No 17—Kurnell Peninsula (1989)* applies,
- (b) land identified on the map as “deferred matter”, being land that is excluded from this plan under section 68 (5) or 70 (4) of the Act,
- (c) land identified on the map as “Excluded”.

**Note.** The land identified on the map as “Excluded” comprises the following land:

- (a) certain land at West Menai,
- (b) the land shown edged heavy black on the map marked “Map 26: Woronora Emergency Access Road, between Bundanoon Road, and the Crescent” in Schedule 7 to the former *Sutherland Shire Local Environmental Plan 2000*,
- (c) the land shown with heavy edging on the map marked “Map 32 Cronulla Sutherland Leagues Club, Captain Cook Drive” in Schedule 7 to the former *Sutherland Shire Local Environmental Plan 2000*.

#### 5 Definitions, notes and maps

- (1) The Dictionary at the end of this plan defines words and expressions for the purposes of this plan.
- (2) Notes in this plan are provided for guidance and do not form part of this plan.

Sutherland Shire Local Environmental Plan 2006

Clause 6

Preliminary

Part 1

- 
- (3) A reference in this plan to a map is a reference to a map deposited in the office of the Council, except as otherwise stated.

**Note about references to publications.** This plan also contains references to various publications, including Australian Standards. See section 69 of the *Interpretation Act 1987* in relation to references to publications.

## 6 Consent authority

The consent authority for the purposes of this plan is (subject to the Act) the Council.

## 7 Repeal of other local environmental plans

- (1) *Sutherland Local Environmental Plan—Menai Town Centre 1992* and *Sutherland Shire Local Environmental Plan 2000* are repealed.
- (2) Despite subclause (1):
- (a) *Sutherland Local Environmental Plan—Menai Town Centre 1992* and *Sutherland Shire Local Environmental Plan 2000*, as in force immediately before the commencement of this plan, continue to apply to land referred to in clause 4 (b) and (c) to the extent to which they applied to that land immediately before that commencement, and
- (b) any development application lodged before the commencement of this plan, but not finally determined before its commencement, is to be determined as if this plan had been exhibited under section 66 of the Act but had not been made.

## 8 Application of SEPPs and REPs

**Note about application of this plan to seniors housing.** This plan does not apply to development in Sutherland Shire for the purposes of seniors housing to which *State Environmental Planning Policy (Seniors Living) 2004* applies. See clause 4 of that Policy.

- (1) This plan is subject to the provisions of any State environmental planning policy and any regional environmental plan that prevail over this plan as provided by section 36 of the Act.
- Note.** Section 36 of the Act generally provides that SEPPs prevail over REPs and LEPs and that REPs prevail over LEPs. However, a LEP may (by an additional provision included in the plan) displace or amend a SEPP or REP to deal specifically with the relationship between this plan and the SEPP or REP.
- (2) *State Environmental Planning Policy No 1—Development Standards (SEPP 1)* does not apply to any provisions of this plan other than the provisions referred to in subclause (3).
- (3) SEPP 1 applies to the following provisions of this plan in the same way as SEPP 1 applies to development standards:

Clause 9 Sutherland Shire Local Environmental Plan 2006

Part 1 Preliminary

- 
- (a) clause 33 (4), (6)–(9) and (11)–(16) (relating to the height of buildings),
  - (b) clause 34 (3)–(6) (relating to the height of seniors housing on land in certain zones),
  - (c) clause 35 (5)–(13) (relating to building density),
  - (d) clause 36 (3)–(9) (relating to the area of landscaping in connection with development for the purpose of buildings),
  - (e) clause 39 (1) (relating to lot sizes for dwelling houses),
  - (f) clause 40 (4) and (5) (relating to lot sizes for dual occupancies, including the subdivision of land on which there is a dual occupancy),
  - (g) clause 41 (4) and (5) (relating to lot sizes for villa houses, townhouses and residential flat buildings),
  - (h) clause 42 (1) (relating to lot sizes for seniors housing).
- (4) *State Environmental Planning Policy No 9—Group Homes* does not apply to land to which this plan applies.
  - (5) The environmental planning instruments specified in Schedule 1 are amended as specified in that Schedule.

## **9 Suspension of covenants and agreements**

- (1) For the purpose of enabling development to be carried out in accordance with this plan or in accordance with a development consent, any agreement, covenant or other similar instrument, to the extent necessary to serve that purpose, does not apply to the development.
- (2) This clause does not apply to land in the following zones under this plan:
  - (a) Zone 1—Environmental Housing (Environmentally Sensitive Land),
  - (b) Zone 2—Environmental Housing (Scenic Quality),
  - (c) Zone 3—Environmental Housing (Bushland),
  - (d) Zone 4—Local Housing,
  - (e) Zone 5—Multiple Dwelling A,
  - (f) Zone 6—Multiple Dwelling B.
- (3) This clause does not apply to:
  - (a) a covenant imposed by the Council or that the Council requires to be imposed, or
  - (b) any prescribed instrument within the meaning of section 183A of the *Crown Lands Act 1989*, or

Sutherland Shire Local Environmental Plan 2006

Clause 9

Preliminary

Part 1

- 
- (c) any conservation agreement within the meaning of the *National Parks and Wildlife Act 1974*, or
  - (d) any Trust agreement within the meaning of the *Nature Conservation Trust Act 2001*, or
  - (e) a covenant imposed in respect of land at Alford's Point, Barden Ridge, Bangor, Bonnet Bay, Illawong, Lucas Heights, Menai, Woronora Heights or Sylvania Waters to the extent that the covenant restricts the erection of front fences on the land, or
  - (f) a covenant imposed in respect of land facing the waterway at Sylvania Waters to the extent that the covenant restricts the erection of fences between the rear of any dwelling on the land and the waterway.
- (4) This clause does not affect the rights or interests of any public authority under any agreement, covenant or other similar instrument.
  - (5) In accordance with section 28 of the Act, the Governor approved of subclause (1) before this plan was made.

Clause 10 Sutherland Shire Local Environmental Plan 2006

Part 2 General provisions

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## Part 2 General provisions

### 10 Zones in this plan

- (1) The zones under this plan are as follows:
  - (a) Zone 1—Environmental Housing (Environmentally Sensitive Land),
  - (b) Zone 2—Environmental Housing (Scenic Quality),
  - (c) Zone 3—Environmental Housing (Bushland),
  - (d) Zone 4—Local Housing,
  - (e) Zone 5—Multiple Dwelling A,
  - (f) Zone 6—Multiple Dwelling B,
  - (g) Zone 7—Mixed Use—Kirrawee,
  - (h) Zone 8—Urban Centre,
  - (i) Zone 9—Local Centre,
  - (j) Zone 10—Neighbourhood Centre,
  - (k) Zone 11—Employment,
  - (l) Zone 12—Special Uses,
  - (m) Zone 13—Public Open Space,
  - (n) Zone 14—Public Open Space (Bushland),
  - (o) Zone 15—Private Recreation,
  - (p) Zone 16—Environmental Protection (Waterways),
  - (q) Zone 17—Environmental Protection (Low Impact Rural),
  - (r) Zone 18—Environmental Protection (Water Catchment),
  - (s) Zone 19—Aquatic Reserves,
  - (t) Zone 20—National Parks, Nature Reserves and State Conservation Areas,
  - (u) Zone 21—Railway,
  - (v) Zone 22—Arterial Road,
  - (w) Zone 23—Road,
  - (x) Zone 24—Transport Reservation.
- (2) For the purposes of this plan, land is in a zone if it is shown on the map as being in that zone.

Sutherland Shire Local Environmental Plan 2006

Clause 11

General provisions

Part 2

---

## **11 Zoning Table**

The Table to this clause specifies the following for each zone:

- (a) the objectives of the zone,
- (b) development that may be carried out without consent,
- (c) development that may be carried out only with consent,
- (d) development that is prohibited.

### **Table**

#### **Zone 1—Environmental Housing (Environmentally Sensitive Land)**

##### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to allow development of a scale and nature that:
  - (i) complements the natural landscape setting of the zone, and
  - (ii) protects and conserves existing vegetation and other natural features of the zone,
- (b) to limit development in the vicinity of the waterfront so that the environment's natural qualities can dominate,
- (c) to minimise the risk to life, property and the environment by restricting the type, or level and intensity, of development on land that is subject to either natural or man-made hazards,
- (d) to minimise the impacts of development in the vicinity of heritage items,
- (e) to allow the subdivision of land only where the size of the resulting lots makes them capable of development that will not compromise the sensitive nature of the environment,
- (f) to ensure sharing of waterfront views between occupiers and users of new and existing buildings.

##### **2 Development allowed without consent**

Development for the purpose of:

bush fire hazard reduction work, bushland regeneration.

Exempt development.

Clause 11 Sutherland Shire Local Environmental Plan 2006

Part 2 General provisions

---

### **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

boatsheds, childcare centres, community facilities, drainage, dual occupancies, dwelling houses, extended family units, places of public worship, recreation areas, residential medical practices, roads, utility installations (except gas holders or generating works).

Demolition not included in item 2.

### **4 Prohibited development**

Any development not included in item 2 or 3.

## **Zone 2—Environmental Housing (Scenic Quality)**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to allow development that complements the predominantly urban landscape setting of the zone, characterised by dwelling houses on single lots of land,
- (b) to ensure the character of the zone, as one comprised predominantly of dwelling houses, is not diminished by the cumulative impacts of development,
- (c) to allow development that is of a scale and nature that is consistent with the urban surroundings of the zone, while retaining or restoring natural features,
- (d) to protect existing vegetation and other natural features of the zone and encourage appropriate bushland restoration,
- (e) to minimise the risk to life, property and the environment by restricting the type, or level and intensity, of development on land that is subject to either natural or man-made hazards,
- (f) to minimise the impacts of development in the vicinity of heritage items,
- (g) to allow the subdivision of land only where the size of the resulting lots makes them capable of development that retains or restores natural features, while allowing a sufficient area for building footprints,
- (h) to ensure sharing of waterfront views between occupiers and users of new and existing buildings.

Sutherland Shire Local Environmental Plan 2006

Clause 11

General provisions

Part 2

---

## **2 Development allowed without consent**

Development for the purpose of:  
bush fire hazard reduction work, bushland regeneration.  
Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:  
boatsheds, childcare centres, community facilities, drainage, dual occupancies, dwelling houses, extended family units, places of public worship, recreation areas, residential medical practices, roads, tennis courts (private), utility installations (except gas holders or generating works).  
Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

### **Zone 3—Environmental Housing (Bushland)**

#### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to minimise the risk to life, property and the environment from bush fire,
- (b) to allow development that is of a scale and nature that complements the natural surroundings of the zone,
- (c) to protect or restore existing bushland and other natural features,
- (d) to ensure the character of the zone, as one comprised predominantly of dwelling houses, is not diminished by the cumulative impacts of development,
- (e) to minimise the impacts of development in the vicinity of heritage items,
- (f) to allow the subdivision of land only where the size of the resulting lots makes them capable of development that retains or restores natural features, while allowing a sufficient area for building footprints and bush fire protection measures.

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## **2 Development allowed without consent**

Development for the purpose of:  
bush fire hazard reduction work, bushland regeneration.  
Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:  
drainage, dual occupancies, dwelling houses, extended family units, places of public worship, recreation areas, residential medical practices, roads, tennis courts (private), utility installations (except gas holders or generating works).  
Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

### **Zone 4—Local Housing**

#### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to allow low density residential buildings that complement the predominantly urban landscape setting of the zone, characterised by dwelling houses on single lots of land,
- (b) to ensure the character of the zone, as one comprised predominantly of dwelling houses, is not diminished by the cumulative impacts of development,
- (c) to allow development that is of a scale and nature that preserves the streetscape and neighbourhood character of the zone,
- (d) to allow residential buildings that provide a variety of housing choices for the needs of the local community,
- (e) to allow non-residential buildings that provide necessary services to the local community without adversely affecting the residential amenity of the zone.

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## **2 Development allowed without consent**

Development for the purpose of:  
bush fire hazard reduction work, drainage.  
Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

boarding houses, childcare centres, community facilities, dual occupancies, dwelling houses, educational establishments, extended family units, medical facilities (but only on land identified on the map for such a purpose), places of public worship, recreation areas, residential medical practices, roads, seniors housing, tennis courts (private), townhouses (except on internal lots), utility installations (except gas holders or generating works), villa houses (except on internal lots).

Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

## **Zone 5—Multiple Dwelling A**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to allow multiple dwellings that complement the predominantly urban landscape setting of the zone,
- (b) to allow development that is of a scale and nature that provides a transition from Zone 4—Local Housing,
- (c) to permit development on land at a density that is appropriate in terms of the land's proximity to services, facilities, employment opportunities and public transport,
- (d) to provide a range of housing choices in accessible locations.

### **2 Development allowed without consent**

Development for the purpose of drainage.  
Exempt development.

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### **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

backpackers' accommodation, boarding houses, childcare centres, community facilities, dual occupancies, dwelling houses, extended family units, places of public worship, recreation areas, residential medical practices, roads, seniors housing, tennis courts (private), townhouses, utility installations (except for gas holders or generating works), villa houses.

Demolition not included in item 2.

### **4 Prohibited development**

Any development not included in item 2 or 3.

## **Zone 6—Multiple Dwelling B**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to allow residential flat buildings in a form that complements the predominantly urban landscape setting of the zone,
- (b) to allow development that is of a scale and nature that reflects its position as part of an urban centre,
- (c) to permit development on land at a density that is appropriate in terms of the land's proximity to the retail/commercial centre, public transport, services and employment opportunities,
- (d) to provide a range of housing choices in accessible locations.

### **2 Development allowed without consent**

Development for the purpose of drainage.

Exempt development.

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**3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

backpackers' accommodation, boarding houses, childcare centres, community facilities, dwelling houses, places of public worship, recreation areas, residential flat buildings, residential medical practices, roads, seniors housing, tennis courts (private), townhouses, utility installations (except for gas holders or generating works), villa houses.

Demolition not included in item 2.

**4 Prohibited development**

Any development not included in item 2 or 3.

**Zone 7—Mixed Use—Kirrawee****1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to take advantage of the zone's access and profile from the Princes Highway,
- (b) to create development that mixes employment activities within a liveable urban environment,
- (c) to encourage high employment-generating development that encompasses high technology industries, commercial display centres and light industries compatible with the existing locality and adjoining residential buildings,
- (d) to allow the zone to support a live-and-work culture that provides for local employment and acts as a transition between employment activity and strict residential uses in the surrounding neighbourhood,
- (e) to encourage industrial uses that are compatible with the desired future residential amenity of the zone,
- (f) to ensure the design of all residential buildings is of a high architectural quality and all residential buildings have an attractive streetscape setting,
- (g) to ensure development is carried out in a way that addresses the street concerned (achieving an attractive and vibrant streetscape) and reinforces surveillance of the public domain,

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- (h) to make provision for a prestigious gateway development capable of employing a substantial workforce,
  - (i) to provide a substantial area of public open space for employees, residents and the local community,
  - (j) to facilitate the re-vitalisation of the Kirrawee Town Centre and the Kirrawee railway station precinct.

## **2 Development allowed without consent**

Development for the purpose of drainage.

Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

advertisements, arts and crafts centres, awnings, backpackers' accommodation, boarding houses, building identification signs, business premises, car parks, childcare centres, community facilities, convenience stores, educational establishments, entertainment facilities, food shops, high technology industries, hotels, medical facilities, mixed use premises, motels, places of assembly, places of public worship, recreation areas, recreation facilities, registered clubs, residential flat buildings, restaurants, roads, seniors housing, service support industries, shop-top housing, shops, tourist facilities, utility installations (except for gas holders or generating works), warehouses.

Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

## **Zone 8—Urban Centre**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to identify appropriate land for the provision of a wide range of retail, business and professional activities,
- (b) to promote viable businesses through increased economic and employment activity,
- (c) to provide for an integrated mix of commercial, office, retail and residential buildings,

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- (d) to create attractive, vibrant and safe establishments and facilities as a focus for community spirit.

**2 Development allowed without consent**

Development for the purpose of drainage.

Exempt development.

**3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

advertisements, arts and crafts centres, awnings, backpackers' accommodation, boarding houses, bulky goods premises, business identification signs, business premises, car parks, childcare centres, community facilities, convenience stores, educational establishments, entertainment facilities, food shops, hotels, medical facilities, mixed use premises, motels, motor showrooms, nightclubs, passenger transport facilities, places of assembly, places of public worship, railways, recreation areas, recreation facilities, registered clubs, residential flat buildings (but only on land identified on the map for such a purpose), restaurants, roads, seniors housing, service stations, service support industries, sex shops, shop-top housing, shops, tourist facilities, tourist information centres, utility installations (except for gas holders or generating works), vehicle rental centres, veterinary hospitals.

Demolition not included in item 2.

**4 Prohibited development**

Any development not included in item 2 or 3.

**Zone 9—Local Centre**

**1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to identify appropriate land for the provision of a wide range of retail, business and professional activities,
- (b) to promote viable, small, local and specialty shops to support the needs of the local community and provide local employment,
- (c) to provide for a mix of commercial, office, retail and residential buildings,

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- (d) to create attractive, vibrant and safe establishments and facilities as a focus for community spirit.

## **2 Development allowed without consent**

Development for the purpose of drainage.

Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

advertisements, arts and crafts centres, awnings, backpackers' accommodation, boarding houses, business identification signs, business premises, car parks, childcare centres, community facilities, convenience stores, educational establishments, entertainment facilities, food shops, hotels, medical facilities, mixed use premises, motels, motor showrooms, nightclubs, passenger transport facilities, places of assembly, places of public worship, railways, recreation areas, recreation facilities, registered clubs, residential flat buildings, restaurants, roads, seniors housing, service stations, service support industries, sex shops, shop-top housing, shops, tourist facilities, tourist information centres, utility installations (except for gas holders or generating works), vehicle rental centres.

Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

### **Zone 10—Neighbourhood Centre**

#### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to promote small-scale retail and business activities to serve the day-to-day needs of the surrounding local community,
- (b) to provide for pedestrian-friendly and safe shopping designed to cater particularly for the needs of all ages and disabilities,
- (c) to encourage shop-top housing in association with small business uses.

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**2 Development allowed without consent**

Development for the purpose of drainage.

Exempt development.

**3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

advertisements, arts and crafts centres, awnings, backpackers' accommodation, boarding houses, business identification signs, business premises, car parks, childcare centres, community facilities, convenience stores, food shops, medical facilities, mixed use premises, places of public worship, recreation areas, recreation facilities, registered clubs, residential medical practices, restaurants, roads, seniors housing, service stations, service support industries, shop-top housing, shops, tourist facilities, utility installations (except for gas holders or generating works), vehicle rental centres.

Demolition not included in item 2.

**4 Prohibited development**

Any development not included in item 2 or 3.

**Zone 11—Employment****1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to ensure development supports the role and functioning of employment areas,
- (b) to promote appropriate development that will contribute to employment generation and the economic growth of Sutherland Shire,
- (c) to provide for a range of related land uses to provide direct services to employees,
- (d) to provide for development for the purposes of shops and businesses ancillary to other development carried out on the land concerned,
- (e) to provide for bulky goods premises only on selected sites.

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## **2 Development allowed without consent**

Development for the purpose of:  
bush fire hazard reduction work, drainage.  
Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

advertisements, animal boarding or training establishments (not including a riding school), arts and crafts centres, awnings, brothels, bulky goods premises (but only on land identified on the map for such a purpose), bus depots, business identification signs, car parks, childcare centres, community facilities, convenience stores, dwelling houses ancillary to other permissible uses, food shops, generating works, high technology industries, junk yards, liquid fuel depots, maritime activities, motor showrooms, nightclubs, passenger transport facilities, places of public worship, recreation areas, recreation facilities, registered clubs, repair centres, road transport terminals, roads, service stations, service support industries, sex shops, utility installations, vehicle and mechanical repair premises, vehicle rental centres, veterinary hospitals, warehouses, waste recycling and management centres.

Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

## **Zone 12—Special Uses**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to provide for a range of community facilities and services to meet the needs of the community,
- (b) to allow for development by public authorities,
- (c) to provide for a variety of development in accordance with local educational, religious or similar community demand,
- (d) to ensure the scale and nature of new development is compatible with the surrounding urban form and natural setting of the zone,

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- (e) to recognise critical requirements, as identified by the Commonwealth, relating to the use of Commonwealth land for defence purposes.

## **2 Development allowed without consent**

Development for the purpose of:  
bush fire hazard reduction work, drainage.  
Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

the particular use indicated in respect of land by lettering on the map, advertisements, car parks, childcare centres, community facilities, educational establishments, public hospitals, recreation areas, roads, utility installations (except for gas holders or generating works), waste recycling and management centres.

Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

### **Zone 13—Public Open Space**

#### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to enable development of land for open space and recreation purposes,
- (b) to provide active and passive open space, allowing for a range of recreational activities and facilities that meet the needs of all ages in the community,
- (c) to enable development ancillary to the primary legal use of land that will encourage the enjoyment of land in the zone,
- (d) to preserve public open space that enhances the scenic and environmental quality of Sutherland Shire.

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## **2 Development allowed without consent**

Development for the purpose of:

bush fire hazard reduction work, bushland regeneration, drainage.

Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

beach and foreshore protection works (if carried out by a public authority and authorised by a plan of management under the *Local Government Act 1993*), buildings used in association with landscaping or gardening (including vehicular access to those buildings), cycle access, pedestrian access, recreation areas, recreation facilities, roads, scientific research associated with native habitats, utility installations (except for gas holders or generating works).

Demolition not included in item 2.

Development (if authorised by a plan of management under the *Local Government Act 1993*), other than development included in item 2, for the purpose of:

arts and crafts centres, community facilities, food shops, passenger transport facilities, places of assembly, restaurants, tourist facilities, tourist information centres.

## **4 Prohibited development**

Any development not included in item 2 or 3.

### **Zone 14—Public Open Space (Bushland)**

#### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to enable development that facilitates recreation and preserves natural bushland areas located on publicly owned land,
- (b) to allow development that does not adversely affect natural bushland or wildlife corridors,
- (c) to protect public open space that is of environmental significance,

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- (d) to ensure that flora and fauna habitats are protected and preserved for their aesthetic, educational and scientific value.

## **2 Development allowed without consent**

Development for the purpose of:

bush fire hazard reduction work, bushland regeneration.

Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

beach and foreshore protection works (if carried out by a public authority and authorised by a plan of management under the *Local Government Act 1993*), buildings used in association with landscaping or gardening (including vehicular access to those buildings), drainage, recreation areas, scientific research associated with native habitats, utility installations (except for gas holders or generating works).

Demolition not included in item 2.

Development (if authorised by a plan of management under the *Local Government Act 1993*), other than development included in item 2, for the purpose of:

cycle access, educational facilities (including signage), pedestrian access, roads.

## **4 Prohibited development**

Any development not included in item 2 or 3.

## **Zone 15—Private Recreation**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to identify areas of privately owned land for recreational purposes to meet local and regional community needs, such as bowling clubs, golf courses and tennis courts,
- (b) to allow development that is of a scale and density that reflects the nature of the recreational use of the zone,
- (c) to allow buildings to be erected that are of a height, scale, density and nature compatible with the surrounding urban form and natural setting of the zone.

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## **2 Development allowed without consent**

Development for the purpose of:  
bush fire hazard reduction work, drainage.  
Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

animal boarding or training establishments, buildings used in association with landscaping or gardening (including vehicular access to those buildings), maintenance dredging, marinas, passenger transport facilities, places of assembly, recreation areas, recreation facilities, registered clubs, restaurants, roads, tourist facilities, utility installations (except for gas holders or generating works), watercraft facilities.

Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

# **Zone 16—Environmental Protection (Waterways)**

## **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to recognise the importance of the waterways of Sutherland Shire as an environmental and recreational asset,
- (b) to ensure development is carried out in a way that protects the ecology, scenic value or navigability of the waterways,
- (c) to ensure aquatic environments are not adversely affected by the recreational use of the waterways,
- (d) to allow private development only where it does not reduce or hinder the use of public beaches, intertidal areas or the waterways,
- (e) to provide for viable aquaculture in the waterways.

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## **2 Development allowed without consent**

Development for the purpose of:

beach and foreshore protection works by or on behalf of the Council (if authorised by a plan of management under the *Local Government Act 1993*), moorings.

Development by or on behalf of (or authorised by) the Maritime Authority of NSW for the purpose of:

maintenance dredging of navigation channels or access channels that provide water access to a lawful commercial, recreational or public facility, navigation aids.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

aquaculture, beach and foreshore protection works (if carried out by a public authority and authorised by a plan of management under the *Local Government Act 1993*), berthing areas, ferry operations, marinas, passenger transport facilities, public pedestrian access to facilitate recreational use of the waterway, scientific research associated with native habitats, utility installations (except for gas holders or generating works), watercraft facilities, wildlife refuges.

Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

### **Zone 17—Environmental Protection (Low Impact Rural)**

#### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to preserve valuable bushland that is not suitable for urban development,
- (b) to allow low impact rural and agricultural development that does not have an adverse impact on the natural environment,
- (c) to protect native flora and fauna and wildlife corridors,
- (d) to preserve the scenic value of the zone,
- (e) to maintain the ecological integrity of land in the zone,
- (f) to limit encroaching non-native vegetation,

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- (g) to allow development for the purpose of agriculture that is compatible with the natural qualities of the area,
- (h) to ensure habitats are protected for their aesthetic, educational and scientific value as part of Sutherland Shire's natural heritage.

## **2 Development allowed without consent**

Development for the purpose of:

bush fire hazard reduction work (including allowing vehicular access for emergency services vehicles and other vehicles requiring emergency access), bushland regeneration, drainage.

Exempt development.

## **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

apiculture, dwelling houses ancillary to another permissible use, pedestrian access to facilitate the recreational use of the land concerned, roads, scientific research associated with native habitats, utility installations (except for gas holders or generating works), wildlife refuges.

Demolition not included in item 2.

## **4 Prohibited development**

Any development not included in item 2 or 3.

# **Zone 18—Environmental Protection (Water Catchment)**

## **1 Objective of the zone**

To ensure development in the Woronora Water Catchment is restricted to prevent contamination of the water supply from within the Catchment.

## **2 Development allowed without consent**

Development for the purpose of:

drainage, roads.

Development for any purpose authorised by or under the *Sydney Water Catchment Management Act 1998*.

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### **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

utility installations (except for gas holders or generating works).

### **4 Prohibited development**

Any development not included in item 2 or 3.

## **Zone 19—Aquatic Reserves**

**Note.** Under section 197C of the *Fisheries Management Act 1994*, a consent authority must take into account matters specified in that section when determining a development application for development in an aquatic reserve. In addition, the consent authority may consent to such development only with the concurrence of the Minister administering that Act.

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to conserve marine areas of natural, ecological, scenic, educational, scientific, cultural or historical importance,
- (b) to identify land in Sutherland Shire that is an aquatic reserve under the *Fisheries Management Act 1994*.

### **2 Development allowed without consent**

Development for the purpose of beach and foreshore protection works by or on behalf of the Council (if authorised by a plan of management under the *Local Government Act 1993*).

Development by or on behalf of the Maritime Authority of NSW for the purpose of:

maintenance dredging of navigation channels or access channels that provide water access, navigation aids.

### **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

scientific research associated with native habitats, utility installations (except for gas holders or generating works), wildlife refuges.

Demolition not included in item 2.

### **4 Prohibited development**

Any development not included in item 2 or 3.

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## **Zone 20—National Parks, Nature Reserves and State Conservation Areas**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to conserve areas of natural, ecological, scenic, educational, scientific, cultural or historical importance to the State,
- (b) to identify land in Sutherland Shire that is or is to be reserved under the *National Parks and Wildlife Act 1974*.

### **2 Development allowed without consent**

Any development authorised by or under the *National Parks and Wildlife Act 1974*.

### **3 Development allowed only with consent**

Nil.

### **4 Prohibited development**

Any development not included in item 2.

## **Zone 21—Railway**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to provide land for railway purposes to meet current and future public transport needs,
- (b) to provide for the upgrade, expansion and improvement of rail infrastructure.

### **2 Development allowed without consent**

Development for the purpose of:

bush fire hazard reduction work, cycle access, drainage, pedestrian access, railways.

Exempt development.

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### **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

community facilities, passenger transport facilities, recreation areas, roads, utility installations (except for gas holders or generating works).

Demolition not included in item 2.

### **4 Prohibited development**

Any development not included in item 2 or 3.

## **Zone 22—Arterial Road**

### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to provide for an arterial road network to serve Sutherland Shire and the Sydney region,
- (b) to provide for sustainable transport modes.

### **2 Development allowed without consent**

Development for the purpose of:

bush fire hazard reduction work, cycle access, drainage, pedestrian access, roads.

Exempt development.

### **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

awnings, car parks, passenger transport facilities, recreation areas, utility installations (except for gas holders or generating works).

Demolition not included in item 2.

### **4 Prohibited development**

Any development not included in item 2 or 3.

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### **Zone 23—Road**

#### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to provide a road network to serve the local and regional needs of the community,
- (b) to provide facilities to serve the needs of cyclists, pedestrians, buses and motor vehicles,
- (c) to provide for sustainable transport modes.

#### **2 Development allowed without consent**

Development for the purpose of:

bush fire hazard reduction work, cycle access, drainage, pedestrian access, roads.

Exempt development.

#### **3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

awnings, passenger transport facilities, recreation areas, utility installations (except for gas holders or generating works).

Demolition not included in item 2.

#### **4 Prohibited development**

Any development not included in item 2 or 3.

### **Zone 24—Transport Reservation**

#### **1 Objectives of zone**

The objectives of this zone are as follows:

- (a) to identify land for the provision of transportation networks and facilities,
- (b) to reserve land identified for transport corridors,
- (c) to encourage the provision of multi-modal transportation and the retention of natural bushland.

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**2 Development allowed without consent**

Development for the purpose of:

bush fire hazard reduction work, cycle access, drainage, pedestrian access, roads.

Exempt development.

**3 Development allowed only with consent**

Development (other than development included in item 2) for the purpose of:

car parks, passenger transport facilities, recreation areas, utility installations (except for gas holders or generating works).

Demolition not included in item 2.

**4 Prohibited development**

Any development not included in item 2 or 3.

**12 Exempt development**

**Note.** Under section 76 of the Act, exempt development may be carried out without the need for development consent under Part 4 of the Act or for assessment under Part 5 of the Act. That section states that exempt development:

- (a) must be of minimal environmental impact, and
- (b) cannot be carried out in critical habitat of an endangered species, population or ecological community (identified under the *Threatened Species Conservation Act 1995* or the *Fisheries Management Act 1994*), and
- (c) cannot be carried out in a wilderness area (identified under the *Wilderness Act 1987*).

Development of minimal environmental impact that is specified in Schedule 2 is exempt development if:

- (a) the development complies with the standards for the development and any other applicable requirements contained in Schedule 2, and
- (b) the development is carried out on land in a zone in relation to which clause 11 provides that exempt development may be carried out, and
- (c) the development is not carried out on any of the following land:
  - (i) land that contains or is (or adjoins land that is) a heritage item,
  - (ii) land that contains or is (or adjoins land that is) an item listed on the State Heritage Register kept under the *Heritage Act 1977*,

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- (iii) land that is subject to an interim heritage order under the *Heritage Act 1977*,
  - (iv) land that is declared to be an Aboriginal place under the *National Parks and Wildlife Act 1974*,
  - (v) land that is habitat for an endangered ecological community or vulnerable ecological community,
  - (vi) land that is between a foreshore building line and any waterway or waterfront reserve in respect of which the building line is fixed,
  - (vii) land that is, or is part of, a wetland,
  - (viii) land that is bush fire prone land,
  - (ix) land shown on the Flood Liable Land Map as being subject to the risk of flooding, and
- (d) the development is ancillary to an existing legal use of the land concerned and is carried out wholly within that land, and
  - (e) the development does not contravene any condition of a development consent applying to the land, and
  - (f) the development meets any relevant deemed-to-satisfy provisions of the *Building Code of Australia*, and
  - (g) any installation involved in carrying out the development is carried out to the specifications and requirements of the manufacturer (if any), and
  - (h) the development does not result in a greater gross floor area or floor space ratio than is provided for in clause 35 or a lesser landscaped area than is provided for in clause 36, and
  - (i) the development does not reduce the number of car spaces on the site of the development to below the minimum specified in *Sutherland Shire Development Control Plan 2006*, as adopted by the Council on 15 May 2006, and
  - (j) the development does not involve excavation beyond:
    - (i) if Schedule 2 expressly restricts excavation to a specified depth below ground level in relation to the development—the specified depth, or
    - (ii) in any other case—0.6 metres below ground level, and
  - (k) the development does not restrict any vehicular or pedestrian access to or from the site, and
  - (l) the development does not result in the redirection of surface storm water or run-off onto adjoining land (other than any road or public open space, including land within Zone 13—Public Open Space or Zone 14—Public Open Space (Bushland)), and

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- (m) the development does not:
    - (i) involve handling, storing or using hazardous chemicals or materials otherwise than on a domestic scale (except on farms and at a distance of more than 25 metres from any habitable building), or
    - (ii) release any hazardous chemicals or materials or any pollutants into the environment, and
  - (n) the development does not cause interference with the amenity of the neighbourhood because of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil or otherwise.

### 13 Complying development

**Note.** See also any relevant requirements prescribed by regulations made under the Act.

- (1) Development that is specified in Schedule 3 is complying development if:
  - (a) the development complies with the applicable development standards listed in Schedule 3 and complies with the requirements of section 76A (6) of the Act, and
  - (b) the development is not carried out on any of the following land:
    - (i) land that is in Zone 7—Mixed Use—Kirrawee, Zone 13—Public Open Space (other than land that is held by a public authority for the purpose of public open space), Zone 14—Public Open Space (Bushland), Zone 16—Environmental Protection (Waterways), Zone 17—Environmental Protection (Low Impact Rural), Zone 18—Environmental Protection (Water Catchment), Zone 19—Aquatic Reserves, Zone 20—National Parks, Nature Reserves and State Conservation Areas, Zone 22—Arterial Road, Zone 23—Road or Zone 24—Transport Reservation,
    - (ii) land that is adjacent to Zone 22—Arterial Road if the development involves a new vehicular accessway, or alters an existing accessway, to an arterial road in that zone,
    - (iii) land that contains or is (or adjoins land that is) a heritage item,
    - (iv) land that contains or is (or adjoins land that is) an item listed on the State Heritage Register kept under the *Heritage Act 1977*,
    - (v) land that is subject to an interim heritage order under the *Heritage Act 1977*,

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- (vi) land that is declared to be an Aboriginal place under the *National Parks and Wildlife Act 1974*,
  - (vii) land that is habitat for an endangered ecological community or vulnerable ecological community,
  - (viii) land that is between a foreshore building line and any waterway or waterfront reserve in respect of which the building line is fixed,
  - (ix) land that is, or is part of, a wetland,
  - (x) land that is within a bush fire interface area unless the development comprises the installation of a swimming pool or the erection of a safety fence associated with a swimming pool (including any related gate),
  - (xi) land shown on the Flood Liable Land Map as being subject to the risk of flooding,
  - (xii) land that is being, or has been, used for the purpose of a service station, mining, extractive industry, waste storage, waste treatment, intensive agriculture or the manufacture of chemicals, asbestos or asbestos products unless (in a case where the use of land for that purpose has ceased) a notice of completion of remediation work has been given to the Council in accordance with *State Environmental Planning Policy No 55—Remediation of Land*, and
  - (c) the development does not involve a building or a site in or on which an existing use (within the meaning of section 106 of the Act) is being carried out, and
  - (d) the development does not contravene any development consent applying to the land, and
  - (e) the development meets any relevant deemed-to-satisfy provisions of the *Building Code of Australia*, and
  - (f) the development is consistent with any plan of management approved under *State Environmental Planning Policy No 44—Koala Habitat Protection*, and with any recovery plan or threat abatement plan in force under the *Threatened Species Conservation Act 1995*, that may apply to the land, and
  - (g) the development does not result in a greater gross floor area or floor space ratio than is provided for in clause 35 or a lesser landscaped area than is provided for in clause 36, and
  - (h) the development does not involve the carrying out of works described in the Table to clause 23 (2) on land specified in the Table in relation to those works, and

**Note.** Clause 23 deals with development on land identified as having, or potentially having, acid sulfate soils.

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- (i) the development does not reduce the number of car spaces on the site of the development to below the minimum specified in *Sutherland Shire Development Control Plan 2006*, as adopted by the Council on 15 May 2006, and
  - (j) the development does not restrict any vehicular or pedestrian access to or from the site, and
  - (k) the development does not result in the redirection of surface storm water or run-off onto adjoining land (other than any road or public open space, including land within Zone 13—Public Open Space or Zone 14—Public Open Space (Bushland)), and
  - (l) in the case of any development comprising the erection of a building or demolition, the development is carried out only at the following times:
    - (i) any time between 7:00am and 6:00pm on Monday, Tuesday, Wednesday, Thursday or Friday,
    - (ii) any time between 8.00am and 5.00pm on Saturday, and

**Note.** See an exception to this requirement in subclause (2).
  - (m) in the case of any development comprising the erection of a building or demolition, any LAeq level, measured over a 15 minute period at adjoining premises, during the erection of the building or demolition does not exceed the background level by more than:
    - (i) if the development takes place, or is proposed to take place, over a period of 4 weeks or less—20dB(A), or
    - (ii) if the development takes place, or is proposed to take place, over a period of more than 4 weeks and less than 26 weeks—10dB(A), or
    - (iii) if the development takes place, or is proposed to take place, over a period of 26 weeks or more—5dB(A), and
  - (n) any trees or bushland on the site of the development, or within any road reserve adjoining the site, are protected during construction or demolition in accordance with the requirements set out in the *Sutherland Shire Environmental Specification—Landscaping 2004*.
- (2) Subclause (1) (l) does not apply in relation to the carrying out of internal alterations within a shopping arcade or centre unless the carrying out of the alterations is audible within residential premises.

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Part 3 Special provisions

## Part 3 Special provisions

### Division 1 Provisions that apply to particular land

#### 14 Exceptions to Zoning Table—specified development on specified land

- (1) Despite clause 11, consent may be granted to development specified in Column 2 of the Table to this subclause on corresponding land specified in Column 1 of the Table, subject to any corresponding requirements specified in Column 3 of the Table.

Column 1 Land	Column 2 Development for the purpose of the following	Column 3 Requirements
50 Pacific Crescent, Maianbar	General store or residential flat building (with no more than 3 dwellings)	
5–21 Waratah Street, Kirrawee	Motor showroom	
101–107 Princes Highway, Sylvania	Motor showroom	
108–119 Princes Highway, Sylvania	Motor showroom (not including car parking)	
67 Warrangarree Drive, Woronora Heights (Lot 448, DP 814427)	Townhouses	
64 Anzac Avenue, Engadine (Lot 2, DP 536426)	Car parking	
220–234 The Boulevard, 1–3 Kiora Road and 1–5 Kumbardang Avenue, Miranda	Motor showroom with an area set aside exclusively for customer parking	The development must not involve the provision of pedestrian or vehicular access to or from Kumbardang Avenue. There are to be acceleration lanes and deceleration lanes to and from all entry and exit points to The Boulevard.
154 Flora Street, Sutherland	Business premises	

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Column 1	Column 2	Column 3
Land	Development for the purpose of the following	Requirements
34 Shell Road, Burraneer, comprising permissive occupancy 1966/196 under the <i>Crown Lands (Continued Tenures) Act 1989</i>	Sailing club	
Zone 22—Arterial Road	Outdoor eating areas ancillary to a restaurant Advertisements or fixed awnings	The development may only be carried out within the constructed footpath area of the relevant public road and must be ancillary to a lawful use on land adjoining the zone.
104 The Esplanade, Sylvania and the adjoining nature strip of the public road	Inclinorator	The development must not obstruct pedestrian or vehicular access on the road or create a hazard to road users. The development must be ancillary to the lawful use of the land on which the residence is located.

(2) **Marine travel lift, or floating pontoon and jetty, on certain land at Taren Point**

Despite clauses 11 and 17, development for the purpose of a marine travel lift, or a floating pontoon and jetty, may be carried out with consent on any of the following land:

- (a) 2–14 Atkinson Road, Taren Point,
- (b) 13–21 (including 15A) Mangrove Lane, Taren Point.

**Note.** Clause 17 deals with buildings or works on land traversed by a foreshore building line.

*Sydney Regional Environmental Plan No 17—Kurnell Peninsula (1989)* (rather than this plan) will apply to the extent that the development is carried out on land referred to in Schedule 1 to that Regional Environmental Plan.

(3) **Helicopter take-offs and landings**

Despite clause 11, the following land may be used for helicopter landings and take-offs:

- (a) Sutherland Oval, The Grand Parade, Sutherland,
- (b) Waratah Park, Sutherland,
- (c) Heathcote Oval, East Heathcote,

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- (d) the old tip site, Illawarra Road, Menai,  
but only if the consent authority is satisfied that the land will be used for no more than 10 landings or take-offs for non-emergency situations in any 12 month period.
- (4) Nothing in this plan restricts helicopter landings or take-offs in emergency situations.
- (5) **Advertisements and outdoor eating areas connected to restaurants in Zone 13—Public Open Space**  
Despite clause 11, development for the purpose of advertisements that is ancillary to the use of the land as a restaurant may be carried out with consent on land in Zone 13—Public Open Space, but only if:
- (a) consent has been granted to the use of the land as a restaurant, and
  - (b) the sign on which the advertisement is displayed:
    - (i) is attached flush with the part of the building in which the restaurant is located, and
    - (ii) does not exceed 0.6 metre in height or 1.5 metres in width, and
    - (iii) only displays the name of the restaurant.
- (6) **Outdoor eating areas in Zone 13—Public Open Space**  
Despite clause 11, the use of land for an outdoor eating area in conjunction with a restaurant may be carried out with consent on land in Zone 13—Public Open Space, but only if:
- (a) consent has been granted to the use of the land as a restaurant, and
  - (b) the outdoor eating area immediately adjoins the part of the building in which the restaurant is located.

## 15 Development in Zone 10—Neighbourhood Centre

Despite clause 11, the consent authority may consent to development of land in Zone 10—Neighbourhood Centre (*the subject land*) that is not otherwise allowed on land in that zone, but is allowed on land in a zone that is adjacent to or adjoins Zone 10—Neighbourhood Centre (an *adjoining zone*), if the consent authority is satisfied that:

- (a) the subject land is surplus to the current and future needs of the community, or development that is otherwise allowed in the Zone 10—Neighbourhood Centre is not economically viable on the subject land, and
- (b) the proposed development will not prejudice the current and future needs of the community, and

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- (c) the proposed development will not adversely affect land in the adjoining zone or the surrounding area of the proposed development or, and
  - (d) the proposed development is consistent with the objectives of the adjoining zone.

**16 Development in Zone 17—Environmental Protection (Low Impact Rural)**

- (1) This clause applies to land in Zone 17—Environmental Protection (Low Impact Rural).
- (2) Despite clause 11, the consent authority may consent to development on land to which this clause applies if:
  - (a) the development is for the purpose of a dwelling house on a lot of land, being a lot that was in existence on 15 December 2000, and, in a case where part of the lot is also zoned for residential purposes, the dwelling is proposed to be located on that part, or
  - (b) the development comprises the collection of native vegetation for plant propagation (including seed stock), floristry or the production of oils or fragrances, or
  - (c) in the opinion of the consent authority, the proposed development would not involve the clearing of land or alteration of any water course or otherwise have an adverse impact on the natural habitat, scenic quality or bushland character of land in the zone.

**17 Buildings or works on land traversed by foreshore building line**

**(1) Application of clause**

This clause applies to land that is traversed by a foreshore building line.

**(2) Objectives**

The objectives of this clause are as follows:

- (a) to avoid adverse ecological effects on waterways,
- (b) to protect and enhance significant natural features and vegetation on riparian land,
- (c) to retain endemic vegetation along foreshore areas,
- (d) to restore and revegetate foreshore areas to improve estuarine flora and fauna habitat,
- (e) to minimise any adverse impact from development on water quality and, so far as is practicable, to improve the quality of urban run-off entering waterways,

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- (f) to minimise any adverse visual impact of development when viewed from adjacent land and waterways by using a design and materials that complement the natural landscape of the land to which this clause applies,
  - (g) to minimise any adverse impact of development on the natural landform of foreshore areas and waterways by integrating structures into the site with minimal change to the natural topography of the land to which this clause applies,
  - (h) to achieve an appropriate balance between private development and the public use of waterways,
  - (i) to maintain and improve public access to the intertidal area of waterfronts where there will be minimal environmental impact,
  - (j) to conserve and enhance structures on waterfronts that are of heritage significance,
  - (k) to minimise the obstruction of water views from public land,
  - (l) to ensure that there is no development below any foreshore building line, except as provided by this clause.

(3) **Meaning of “foreshore building line”—generally**

In this plan:

**foreshore building line**, in relation to land (other than land referred to in subclause (4) or (5)), means:

- (a) if a foreshore building line is shown on the map in relation to the land:
  - (i) in the case of land that has a deemed mean high water mark—a line across the land that is parallel to, and the distance specified on the map from, that deemed mean high water mark, or
  - (ii) in the case of land that does not have a deemed mean high water mark—a line across the land that is parallel to, and the distance specified on the map from, any boundary of the land that adjoins a waterway or waterfront reserve, or
- (b) if a foreshore building line is not shown on the map in relation to the land:
  - (i) in the case of land that has a deemed mean high water mark—a line across the land that is parallel to, and 7.5 metres from, the deemed mean high water mark, or
  - (ii) in the case of land that does not have a deemed mean high water mark—a line across the land that is parallel to, and 7.5 metres from, any boundary of the land that adjoins a waterway or waterfront reserve.

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(4) **Meaning of “foreshore building line”—Sandy Point**

In this plan:

**foreshore building line**, in relation to land at Sandy Point, means:

- (a) the 1 percent annual exceedance probability flood line, or
  - (b) a line across the land that is parallel to, and 7.5 metres from, the deemed mean high water mark,
- whichever is further inland.

(5) **Meaning of “foreshore building line”—Illawong or Oyster Bay**

In this plan:

**foreshore building line**, in relation to specified land at Illawong or Oyster Bay, means:

- (a) in the case of land that has a deemed mean high water mark—a line across the land that is parallel to, and the distance specified on the map from, that deemed mean high water mark, or
- (b) in the case of land that does not have a deemed mean high water mark—a line across the land that is parallel to, and the distance specified on the map from, the nearest waterway to the land.

(6) In subclauses (3)–(5):

**deemed mean high water mark**, in relation to land, means the mean high water mark, or high water mark, as shown on any plan relating to that land that was registered with the Registrar-General on or before 24 April 1980, being a plan that was current at that date.

**Note.** The deemed mean high water mark is not affected by any reclamation of land or other changes that may have occurred since registration of the plan concerned.

**specified land at Illawong or Oyster Bay** means any of the following land:

- (a) 183–187, 189–193, 199A, 203, 207, 207A and 215 Fowler Road, Illawong,
- (b) 5–7 and 9–11 Griffin Parade, Illawong,
- (c) 47, 51, 83–85, 87–89, 91, 95–97, 103A, 109–111, Caravan Head Road, Oyster Bay,
- (d) 85B and 85C Carina Road, Oyster Bay,
- (e) 20, 22, 24, 28 and 30 Farrer Place, Oyster Bay,
- (f) 15 Shipwright Place, Oyster Bay.

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(7) **Controls**

A building must not be erected, and a work must not be carried out, on land between a foreshore building line and any waterway or waterfront reserve in respect of which the line is fixed.

(8) Nothing in subclause (7) or clause 11 prevents consent being granted to:

- (a) any alteration (not being an addition) to an existing dwelling that is forward of the foreshore building line, or
- (b) the erection, carrying out of, or an alteration or addition to, an excluded building or work.

(9) Nothing in subclause (7) or clause 11 prevents consent being granted to the erection of a dwelling, or any addition to an existing dwelling, on land between a foreshore building line and any waterway or waterfront reserve in respect of which the line is fixed if:

- (a) the consent authority has considered the objectives of this clause, and
- (b) the consent authority is satisfied that:
  - (i) the new dwelling or addition will not be erected any further forward of the foreshore building line than any existing dwelling on the land, and
  - (ii) the new dwelling will not dominate the locality in which it is erected as a result of its height, bulk, design, colour or detailing, and
  - (iii) the natural qualities of the foreshore are retained or restored as far as practicable through the retention or reinstatement of natural levels and endemic vegetation, and
  - (iv) in the case of the erection of a dwelling—there is no reasonable alternative that would allow a new dwelling to be located behind the foreshore building line.

(10) In this clause:

***excluded building or work*** means any of the following:

- (a) a boat shed,
- (b) a watercraft facility,
- (c) an in-ground swimming pool that is no higher than 300 millimetres above ground level at any point,
- (d) a work to enable pedestrian access,
- (e) landscaping,
- (f) a barbecue,

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(g) a utility installation (except for a gas holder or generating works).

***riparian land*** means:

- (a) submerged land, or
- (b) land that adjoins, directly influences or is directly influenced by a body of water, and the body of water itself.

## **18 Development in or adjacent to waterways**

- (1) This clause applies to any of the following land:
  - (a) land in Zone 16—Environmental Protection (Waterways),
  - (b) land traversed by a foreshore building line,
  - (c) land below the mean high water mark.

**Note.** The mean high water mark referred to here is the mean high water mark as it currently exists.
- (2) The objectives of this clause are as follows:
  - (a) to ensure that any development does not result in the obstruction or interference with navigation in waterways,
  - (b) to ensure restoration of land below any foreshore building line, to a natural state (so far as is practicable), with a minimum intrusion of man-made structures,
  - (c) to reduce the number of structures below any foreshore building line, particularly following the redevelopment of a site,
  - (d) to promote the public use of intertidal areas below the mean high water mark or high water mark, where appropriate.
- (3) The consent authority must not consent to development on land to which this clause applies unless the consent authority is satisfied that the following building or work will be removed before, or within a reasonable time after, the development is carried out:
  - (a) any building or work, other than an excluded building or work, that is:
    - (i) on the lot concerned or an adjoining lot owned by the person carrying out the development, and
    - (ii) between a foreshore building line and any waterway or waterfront reserve in respect of which the line is fixed,
  - (b) any building or work (other than a watercraft facility) that is:
    - (i) on the lot concerned or on an adjoining lot that is owned by a person carrying out the development, and
    - (ii) below the mean high water mark.

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- (4) Subclause (3) does not require the removal of any building or work if:
- (a) the proposed development is the erection or installation of any of the following:
    - (i) a fence or retaining wall between a dwelling and the street on which the dwelling is located,
    - (ii) a garage or carport adjacent to a dwelling or located between a dwelling and the street on which the dwelling is located,
    - (iii) a deck or verandah,
    - (iv) an awning or canopy, or
  - (b) the consent authority is satisfied that the use of the building or work is lawful, or
  - (c) the consent authority is satisfied that the removal of the building or work:
    - (i) would be inconsistent with, or is not necessary to achieve, any of the objectives of this clause, or
    - (ii) is unreasonable or unnecessary in the circumstances of the case.
- (5) In this clause:  
*excluded building or work* has the same meaning as it has in clause 17.

## 19 Biodiversity—wetlands

The consent authority must not consent to development on wetlands unless it has considered the following matters that are of relevance to the development:

- (a) any potential that the proposed development has to fragment, pollute, disturb or diminish the values of wetlands,
- (b) the extent to which the proposed development will restore, protect or maintain ecological processes, natural systems and biodiversity within wetlands,
- (c) the extent to which the proposed development will incorporate best practice environmental design measures to maintain or improve the sustainability of wetlands,
- (d) the extent to which the proposed development will restore existing degraded wetlands or water sources to compensate for the loss or degradation of those wetlands or water sources,
- (e) in the case of land that is also bush fire prone land—the extent to which fire management regimes will be in place, and bush fire hazard reduction techniques will be used, that are appropriate in terms of their impact on wetlands.

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**20 Environmental risk—flood risk**

- (1) This clause applies to land shown on the Flood Liable Land Map as being subject to the risk of flooding.
- (2) The consent authority must not consent to development on land to which this clause applies unless it has considered the following matters that are of relevance to the development:
  - (a) the extent to which the proposed development will achieve an appropriate balance between the conservation of the natural environment and the provision of appropriate flood protection measures,
  - (b) the need to limit the extent of development to minimise any risk of flooding to life or property,
  - (c) the extent to which any proposed buildings will be constructed using appropriate techniques and materials to:
    - (i) preserve the structural performance of those buildings during and after flooding,
    - (ii) limit the deterioration of those buildings after flooding,
    - (iii) minimise repair costs after flooding,
  - (d) whether adequate measures will be in place to enable the safe evacuation of people from the land, and enable access to that land by emergency services, during flooding,
  - (e) the intensity of the existing and proposed use of the land,
  - (f) the need to restrict vulnerable development on the land.

**21 Environmental risk—bush fire**

The consent authority must not consent to development on bush fire prone land unless it has considered the following matters that are of relevance to the development:

- (a) the extent to which the proposed development will achieve an appropriate balance between the conservation of the natural environment and the provision of appropriate bush fire protection measures,
- (b) the risk of bush fire to life, property or the environment,
- (c) the extent to which any proposed buildings will be constructed using techniques and materials to maximise their resistance to bush fire,
- (d) whether adequate measures will be in place to enable the safe evacuation of people from the land, and enable access to that land by emergency services, during a bush fire,
- (e) the intensity of the existing and proposed use of the land,

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(f) the need to restrict vulnerable development on the land.

**Note.** Section 79BA of the Act and the Rural Fires Act 1997 also make provision for the carrying out of development on bush fire prone land.

## **22 Environmental risk—contaminated land management**

- (1) This clause applies to land that is, or in the opinion of the consent authority is likely to be, contaminated land (within the meaning of Part 7A of the Act).
- (2) The consent authority must not consent to development on land to which this clause applies unless the consent authority is satisfied that the development will be carried out in a manner that minimises, manages or eliminates risk to human health and the environment.

## **23 Environmental risk—acid sulfate soils**

- (1) The objectives of this clause are as follows:
  - (a) to manage any disturbance to acid sulfate soils so as to minimise impacts on natural waterbodies, wetlands, native vegetation, agriculture, fishing, aquaculture and urban and infrastructure activities,
  - (b) to require development consent for works that would disturb soils or groundwater levels on land identified as having, or potentially having, acid sulfate soils,
  - (c) to require special assessment of certain development on land identified as being subject to risks associated with the disturbance of acid sulfate soils.
- (2) Development consent is required for the carrying out of works described in the Table to this subclause on land of the class specified for those works, except as provided by this clause.

<b>Class of land as shown on Acid Sulfate Soils Map</b>	<b>Works</b>
1	Any works.
2	Works below the natural ground surface. Works by which the watertable is likely to be lowered.
3	Works beyond 1 metre below the natural ground surface. Works by which the watertable is likely to be lowered beyond 1 metre below the natural ground surface.

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<b>Class of land as shown on Acid Sulfate Soils Map</b>	<b>Works</b>
4	Works beyond 2 metres below the natural ground surface. Works by which the watertable is likely to be lowered beyond 2 metres below the natural ground surface.
5	Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that are likely to lower the watertable below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

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- (3) Consent must not to be granted under this clause unless:
- (a) an acid sulfate soils management plan has been prepared for the proposed works in accordance with the Acid Sulfate Soils Guidelines and has been provided to the consent authority, and
  - (b) a copy of the plan and a copy of the development application have been provided to the Department of Natural Resources and the consent authority has considered any comments of the Director-General of that Department made within 40 days after those copies were provided to that Department, and
  - (c) the consent authority has considered the likelihood of the proposed works resulting in the discharge of acid water, and
  - (d) the consent authority is satisfied that any disturbance of acid sulfate soils resulting from the proposed works will be managed so as to minimise impacts on natural waterbodies, wetlands, native vegetation, agriculture, fishing, aquaculture and urban and infrastructure activities.
- (4) Consent is not required under this clause for the carrying out of works if:
- (a) a preliminary assessment of the proposed works prepared in accordance with the Acid Sulfate Soils Guidelines indicates that an acid sulfate soils management plan need not be carried out for the works, and
  - (b) the preliminary assessment has been provided to the consent authority and the consent authority has confirmed the assessment by notice in writing to the person proposing to carry out the works.

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- (5) This clause does not require consent to carry out any works unless:
- (a) the works involve the disturbance of more than 1 tonne of soil, such as occurs in carrying out agriculture, the construction or maintenance of drains, extractive industries, dredging, the construction of artificial waterbodies (including swimming pools) or foundations, or flood mitigation works, or
  - (b) the works are likely to lower the water table.

**24 Environmental risk—high flux research nuclear reactor at Lucas Heights Science and Technology Centre**

- (1) This clause applies to land identified on the map as being within a 1.6 kilometre radius of the high flux research nuclear reactor at Lucas Heights Science and Technology Centre.
- (2) The consent authority must not consent to development on land to which this clause applies unless it has considered the following matters that are of relevance to the development:
  - (a) any risk of radiation to life or property on the site of the proposed development,
  - (b) the extent to which residential densities on the site and on the land as a whole should be limited to minimise the risk to life or property,
  - (c) whether adequate measures will be in place to enable the safe evacuation of people from the land, and enable access to that land by emergency services, during an emergency,
  - (d) the intensity of the existing and proposed use of the land,
  - (e) the need to restrict vulnerable development on the land,
  - (f) any recommendations of the Australian Radiation Protection and Nuclear Safety Agency or Australian Nuclear Science and Technology Organisation relating to development on the land.

**25 Classification and reclassification of public land**

- (1) The objective of this clause is to enable the Council, by means of this plan, to classify or reclassify public land as “operational land” or “community land” in accordance with Part 2 of Chapter 6 of the *Local Government Act 1993*.

**Note.** Under the *Local Government Act 1993*, “public land” is generally land vested in or under the control of a council (other than roads, Crown reserves and commons). The classification or reclassification of public land may also be made by a resolution of the Council under section 31, 32 or 33 of the *Local Government Act 1993*. Section 30 of that Act enables this plan to discharge trusts on which public reserves are held if the land is reclassified under this plan as operational land.

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- (2) The public land described in Part 1 or Part 2 of Schedule 4 is classified, or reclassified, as operational land for the purposes of the *Local Government Act 1993*.
  - (3) The public land described in Part 3 of Schedule 4 is classified, or reclassified, as community land for the purposes of the *Local Government Act 1993*.
  - (4) The public land described in Part 1 of Schedule 4:
    - (a) does not cease to be a public reserve to the extent (if any) that it is a public reserve, and
    - (b) continues to be affected by any trusts, estates, interests, dedications, conditions, restrictions or covenants that affected the land before its classification, or reclassification, as operational land.
  - (5) The public land described in Part 2 of Schedule 4, to the extent (if any) that it is a public reserve, ceases to be a public reserve on the commencement of the relevant classification plan and, by the operation of that plan, is discharged from all trusts, estates, interests, dedications, conditions, restrictions and covenants affecting the land or any part of the land, except:
    - (a) those (if any) specified for the land in Column 3 of Part 2 of Schedule 4, and
    - (b) any reservations that except land out of the Crown grant relating to the land, and
    - (c) reservations of minerals (within the meaning of the *Crown Lands Act 1989*).
  - (6) In this clause, the ***relevant classification plan***, in relation to land described in Part 2 of Schedule 4, means this plan or, if the description of the land is inserted into that Part by another environmental planning instrument, that instrument.
  - (7) Before the relevant classification plan inserted a description of land into Part 2 of Schedule 4, the Governor approved of subclause (5) applying to the land.

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## 26 Acquisition of land

- (1) The objective of this clause is to identify, for the purposes of section 27 of the Act, the authority of the State that will be the relevant authority to acquire land reserved for certain public purposes if the land is required to be acquired under Division 3 of Part 2 of the *Land Acquisition (Just Terms Compensation) Act 1991* (**the owner-initiated acquisition provisions**).

**Note.** If the landholder will suffer hardship if there is any delay in the land being acquired by the relevant authority, section 23 of the *Land Acquisition (Just Terms Compensation) Act 1991* requires the authority to acquire the land.

- (2) The authority of the State that will be the relevant authority to acquire land, if the land is required to be acquired under the owner-initiated acquisition provisions, is the authority of the State indicated in Column 2 of the Table to this clause in relation to the land specified in Column 1 of the Table (or, if an authority of the State is not specified in relation to land required to be so acquired, the authority designated or determined under those provisions).
- (3) A reference to vacant land in the Table to this clause is a reference to land on which there are no buildings, except for aviaries, barns, conservatories, cycle sheds, fences, fowl houses, fuel sheds, garages, greenhouses, hay sheds, milking bails, pig sties, private boat houses, stables, summer houses, tool houses or similar buildings.

Column 1	Column 2
Land	Authority of the State
Zone 12—Special Uses and lettered “Community Facility” on the map	The Council
Zone 12—Special Uses and lettered “Parking” on the map	The Council
Zone 13—Public Open Space (except for land specified in Schedule 5)	The Council
Zone 14—Public Open Space (Bushland) (except for land specified in Schedule 5)	The Council
Land specified in Schedule 5 that is in Zone 13—Public Open Space or Zone 14—Public Open Space (Bushland)	The corporation
Zone 21—Railway	Rail Corporation New South Wales
Zone 22—Arterial Road or Zone 24—Transport Reservation:	

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Column 1	Column 2
Land	Authority of the State
(a) vacant land and not on the 5 year works program of the Roads and Traffic Authority, or	The corporation
(b) in any other case	Roads and Traffic Authority
Zone 23—Road	The Council

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**27 Development on land referred to in clause 26 before acquired or used for purpose for which reserved**

- (1) This clause applies to land referred to in Column 1 of the Table to clause 26 that has not been acquired by the relevant authority of the State under the *Land Acquisition (Just Terms Compensation) Act 1991*.
- (2) Consent for development on land to which this clause applies may be granted only if:
  - (a) the development is carried out with the concurrence of the authority of the State that is indicated in Column 2 of the Table to clause 26 in relation to the land, and
  - (b) the development is of a kind, or is compatible with development of a kind, that may be carried out on land in an adjoining zone, and
  - (c) the development concerned is not designated development, and
  - (d) any use of the land that is authorised if development consent is granted will cease no later than 5 years after consent is granted.
- (3) In determining whether to grant concurrence to proposed development under this clause, the authority of the State must take the following matters into consideration:
  - (a) the need to carry out development on the land for the purpose for which it is reserved,
  - (b) the imminence of acquisition by the authority of the State,
  - (c) the likely additional cost to the authority of the State resulting from the carrying out of the proposed development.
- (4) Before granting consent to proposed development on land to which this clause applies, the consent authority must take the following matters into consideration:
  - (a) any impact of the proposed development on traffic movements and parking,

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- (b) any impact of the proposed development on existing pedestrian movements,
  - (c) any visual impact of the proposed development (including any proposed installation of advertisements).
- (5) Development on land acquired by an authority of the State under clause 26 may, before it is used for the purpose for which it is reserved, be carried out, with consent, for any purpose.

## **Division 2 Provisions that apply to particular kinds of development**

### **28 Subdivision—consent requirements**

- (1) Despite clause 11, land to which this plan applies may be subdivided, but only with consent.
- (2) Consent must not be granted to the subdivision of land in a zone unless the consent authority has considered the relevant objectives of the zone specified in clause 11.
- (3) Nothing in this clause requires consent for subdivision that is exempt development.

### **29 Crown development and public utilities**

- (1) Nothing in this plan (except for clause 23) is to be construed as restricting or prohibiting or enabling the consent authority to restrict or prohibit:
  - (a) the carrying out of development of any description specified in subclauses (2)–(12), or
  - (b) the use of existing buildings of the Crown by the Crown.

**Note.** Clause 23 deals with development on land identified as having, or potentially having, acid sulfate soils.

- (2) **Railway undertakings**

The carrying out by persons carrying on railway undertakings, on land comprised in their undertakings, of:

- (a) any development required in connection with the movement of traffic by rail, including the construction, reconstruction, alteration, maintenance and repair of ways, works and plant, and
- (b) the erection within the limits of a railway station of buildings for any purpose,

but excluding:

- (c) the construction of new railways, railway stations and bridges over roads, and

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- (d) the erection, reconstruction and alteration of buildings for purposes other than railway undertaking purposes outside the limits of a railway station and the reconstruction or alteration, so as materially to affect their design, of railway stations or bridges, and
  - (e) the formation or alteration of any means of access to a road, and
  - (f) the erection, reconstruction and alteration of buildings for purposes other than railway purposes where such buildings have direct access to a public place.

(3) **Water, sewerage, drainage, electricity or gas undertakings**

The carrying out by persons carrying on public utility undertakings, being water, sewerage, drainage, electricity or gas undertakings, of any of the following development, being development required for the purpose of their undertakings:

- (a) development of any description at or below the surface of the ground,
- (b) the installation of any plant inside a building or the installation or erection within the premises of a generating station or substation established before the commencement of this plan of any plant or other structures or erections required in connection with the station or substation,
- (c) the installation or erection of any plant or other structures or erections by way of addition to or replacement or extension of plant or structures or erections already installed or erected, including the installation in an electrical transmission line of substations, feeder-pillars or transformer housing, but not including the erection of overhead lines for the supply of electricity or pipes above the surface of the ground for the supply of water, or the installation of substations, feeder-pillars or transformer housing of stone, concrete or brickworks,
- (d) the provision of overhead service lines in pursuance of any statutory power to provide a supply of electricity,
- (e) the erection of service reservoirs on land acquired or in the process of being acquired for the purpose before the commencement of this plan, provided reasonable notice of the proposed erection is given to the consent authority,
- (f) any other development, except:
  - (i) the erection of buildings, the installation or erection of plant or other structures or erections and the reconstruction or alteration of buildings so as materially to affect their design or external appearance, or

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- (ii) the formation or alteration of any means of access to a road.

**(4) Water transport undertakings**

The carrying out by persons carrying on public utility undertakings, being water transport undertakings, on land comprised in their undertakings, of any development required in connection with the movement of traffic by water, including the construction, reconstruction, alteration, maintenance and repair of ways, buildings, wharves, works and plant required for that purpose, except:

- (a) the erection of buildings and the reconstruction or alteration of buildings so as materially to affect their design or external appearance, or
- (b) the formation or alteration of any means of access to a road.

**(5) Wharf or river undertakings**

The carrying out by persons carrying on public utility undertakings, being wharf or river undertakings, on land comprised in their undertakings, of any development required for the purposes of shipping or in connection with the embarking, loading, discharging or transport of passengers, livestock or goods at a wharf or the movement of traffic by a railway forming part of the undertaking, including the construction, reconstruction, alteration, maintenance and repair of ways, buildings, works and plant for those purposes, except:

- (a) the construction of bridges, the erection of any other buildings, and the reconstruction or alteration of bridges or of buildings so as materially to affect their design or external appearance, or
- (b) the formation or alteration of any means of access to a road.

**(6) Air transport undertakings**

The carrying out by persons carrying on public utility undertakings, being air transport undertakings, on land comprised in their undertakings within the boundaries of any aerodrome, of any development required in connection with the movement of traffic by air, including the construction, reconstruction, alteration, maintenance and repair of ways, buildings, wharves, works and plant required for that purpose, except:

- (a) the erection of buildings and the reconstruction or alteration of buildings so as materially to affect their design or external appearance, or
- (b) the formation or alteration of any means of access to a road.

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(7) **Road transport undertakings**

The carrying out by persons carrying on public utility undertakings, being road transport undertakings, on land comprised in their undertakings, of any development required in connection with the movement of traffic by road, including the construction, reconstruction, alteration, maintenance and repair of buildings, works and plant required for that purpose, except:

- (a) the erection of buildings and the reconstruction or alteration of buildings so as materially to affect their design or external appearance, or
- (b) the formation or alteration of any means of access to a road.

(8) **Mining**

The carrying out by the owner or lessee of a mine (other than a mineral sands mine), on the mine, of any development required for the purposes of a mine, except:

- (a) the erection of buildings (not being plant or other structures or erections required for the mining, working, treatment or disposal of minerals) and the reconstruction, alteration or extension of buildings, so as materially to affect their design or external appearance, or
- (b) the formation or alteration of any means of access to a road.

(9) **Roads**

The carrying out of any development required in connection with the construction, reconstruction, improvement, maintenance or repair of any road, except the widening, realignment or relocation of such road.

(10) **Forestry**

The carrying out of any forestry work by the Forestry Commission or Community Forest Authorities empowered under relevant Acts to undertake afforestation, the construction of roads, protection, cutting and marketing of timber, and other forestry purposes under such Acts or upon any Crown land temporarily reserved from sale as a timber reserve under the *Forestry Act 1916*.

(11) **Development carried out by a rural lands protection board**

The carrying out by a rural lands protection board of any development required for the improvement and maintenance of travelling stock and water reserves, except:

- (a) the erection of buildings and the reconstruction or alteration of buildings so as materially to affect their design or purposes, and

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- (b) any development designed to change the use or purpose of any such reserve.

(12) **Soil conservation, irrigation, afforestation, reafforestation, flood mitigation, water conservation or river improvement**

The carrying out or causing to be carried out by the consent authority, where engaged in flood mitigation works, or by the Department of Natural Resources, of any work for the purposes of soil conservation, irrigation, afforestation, reafforestation, flood mitigation, water conservation or river improvement in pursuance of the provisions of the *Water Act 1912*, the *Water Management Act 2000*, the *Farm Water Supplies Act 1946* or the *Rivers and Foreshores Improvement Act 1948*, except:

- (a) the erection of buildings, and installation or erection of plant or other structures or erections and the reconstruction or alteration of buildings so as materially to affect their design or external appearance, and
- (b) the formation or alteration of any means of access to a road.

**30 Maintenance dredging of tidal waterways**

Despite clause 11, maintenance dredging, by or on behalf of a public authority (including the Council), within tidal waterways may be carried out without consent.

**31 Development for group homes**

- (1) If development for the purpose of a dwelling house or a dwelling in a residential flat building may lawfully be carried out in accordance with this plan, development for the purpose of a group home may, subject to this clause, be carried out with consent.
- (2) The consent authority must not consent to development for the purpose of a group home unless it has considered the community need for the group home concerned.
- (3) Consent is not required under this clause to carry out development for the purpose of a permanent group home that contains 5 or less bedrooms and that will be occupied by not more residents (including any resident staff) than the number calculated by multiplying the number of bedrooms in that dwelling by 2.
- (4) Consent may not be refused under this clause unless an assessment has been made of the need for the group home concerned.

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- (5) Nothing in this clause requires consent to be obtained by the Department of Housing (or a person acting jointly with the Department of Housing) to carry out development for the purpose of a transitional group home.

### **32 Seniors housing in Zone 8 or 9**

Despite clause 11, development for the purpose of seniors housing may be carried out on land in Zone 8—Urban Centre or Zone 9—Local Centre only if:

- (a) it is proposed that any building in which seniors housing is to be located is also to be used for a purpose, other than seniors housing, permitted under this plan, and
- (b) the consent authority is satisfied that the development is consistent with the objectives of the zone in which it is proposed to be carried out.

### **33 Building height**

#### **(1) Clause does not apply to seniors housing in Zone 4, 5 or 6**

This clause does not apply to seniors housing on land in Zone 4—Local Housing, Zone 5—Multiple Dwelling A or Zone 6—Multiple Dwelling B.

#### **(2) Objectives**

The objectives of this clause are as follows:

- (a) to ensure the scale of buildings:
  - (i) is consistent with the desired scale and character of the street and locality in which the buildings are located, and
  - (ii) complements any natural landscape setting of the buildings,
- (b) to allow reasonable daylight access to all buildings and the public domain,
- (c) to minimise the impacts of new buildings on adjoining or nearby properties from loss of views, loss of privacy, overshadowing or visual intrusion,
- (d) to ensure that the visual impact of buildings is minimised when viewed from adjoining properties, the street, waterways and public reserves,
- (e) to ensure, where possible, that the height of non-residential buildings in residential zones is compatible with the scale of residential buildings on land in those zones.

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- (3) The consent authority must not consent to development for the purpose of a building unless it has considered the objectives of this clause.
- (4) **Height of building generally—default position**  
A building must comply with each of the following:
- (a) the building must not comprise more than 2 storeys,
  - (b) the building must not exceed the following:
    - (i) a height of 7.2 metres, as measured from ground level to any point on the uppermost ceiling in the building,
    - (ii) a height of 9 metres, as measured from ground level to the highest point of the roof of the building.
- (5) Subclause (4) does not apply to a building referred to elsewhere in this clause (other than a building referred to in subclause (2) or (3)).
- (6) **Buildings in Zone 7**  
A building on land in Zone 7—Mixed Use—Kirrawee must not comprise more than the maximum number of storeys specified on the Height and Density Controls Map in relation to that land.
- (7) A building on land in Zone 7—Mixed Use—Kirrawee must not exceed any maximum height (as measured from ground level to the highest point of the roof of the building) specified on the Height and Density Controls Map in relation to that land.
- (8) **Buildings in Zone 8, 9 or 10**  
A building on land in Zone 8—Urban Centre, Zone 9—Local Centre or Zone 10—Neighbourhood Centre must not comprise more than:
- (a) the maximum number of storeys specified on the Height and Density Controls Map in relation to the land concerned, or
  - (b) if that map does not specify a maximum number of storeys in relation to the land concerned:
    - (i) 2 storeys in the case of a building located on land in Zone 10—Neighbourhood Centre, or
    - (ii) 3 storeys in any other case.
- (9) A building on land in Zone 8—Urban Centre, Zone 9—Local Centre or Zone 10—Neighbourhood Centre must not exceed any maximum height specified on the Height and Density Controls Map in relation to the land concerned.

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(10) **Maximum number of storeys and height on certain land in Miranda**

Despite subclause (8) or (9), a building on land in Zone 8—Urban Centre or Zone 12—Special Uses that is shown hatched on the Height and Density Controls Map may:

- (a) comprise 8 storeys, or
- (b) have a height that exceeds 28 metres, but does not exceed 32 metres (as measured from ground level to the highest point of the roof of the building),

but only if the consent authority is satisfied that:

- (c) any overshadowing of land caused by the building is no greater than the overshadowing that would be caused if the building comprised the maximum number of storeys and had the maximum height that would otherwise apply to the building under subclause (8) or (9), and
- (d) the design of the building significantly benefits urban design and the public domain in the location.

**Note.** The maximum number of storeys and height applying to the above land, as shown on the Height and Density Controls Map, is 7 storeys and 28 metres respectively.

(11) **Buildings in Zone 11**

A building on land in Zone 11—Employment must not exceed a height of 12 metres, as measured from ground level to the highest point of the roof.

- (12) Despite subclause (11), a building on land in Zone 11—Employment that adjoins land in Zone 3—Environmental Housing (Bushland) or Zone 4—Local Housing must not exceed a height of 9 metres, as measured from ground level to the highest point of the roof.

- (13) Despite subclauses (5) and (11), a dwelling house on land in Zone 11—Employment must comply with subclause (4).

(14) **Residential flat buildings**

Despite anything to the contrary in this clause, a residential flat building must not comprise more than:

- (a) the maximum number of storeys specified on the Height and Density Controls Map in relation to the land concerned, or
- (b) if that map does not specify a maximum number of storeys in relation to the land concerned—3 storeys.

- (15) Despite anything to the contrary in this clause, a residential flat building must not exceed any maximum height (as measured from ground level

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to the highest point of the roof of the building) specified on the Height and Density Controls Map in relation to the land concerned.

(16) **Villa houses**

Despite anything to the contrary in this clause, a villa house must not exceed the following:

- (a) a height of 3.6 metres, as measured from ground level to any point on the uppermost ceiling,
- (b) a height of 5.4 metres, as measured from ground level to the highest point on the roof.

**34 Building height—seniors housing in Zone 4, 5 or 6**

(1) **Objectives**

The objectives of this clause, in relation to seniors housing on land in Zone 4—Local Housing, Zone 5—Multiple Dwelling A or Zone 6—Multiple Dwelling B, are as follows:

- (a) to ensure that seniors housing is of a height that is compatible with:
  - (i) the scale of other residential buildings in the zone in which it is located, and
  - (ii) the desired scale and character of the street and locality in which the seniors housing is located, and
  - (iii) complements any natural landscape setting of the seniors housing,
- (b) to allow reasonable daylight access to all buildings and the public domain,
- (c) to minimise the impacts of new seniors housing on adjoining or nearby properties from loss of views, loss of privacy, overshadowing or visual intrusion,
- (d) to ensure that the visual impact of seniors housing is minimised when viewed from adjoining properties, the street, waterways and public reserves.

(2) **Controls**

The consent authority must not consent to development for the purpose of seniors housing on land in Zone 4—Local Housing, Zone 5—Multiple Dwelling A or Zone 6—Multiple Dwelling B unless it has considered the objectives of this clause.

- (3) Seniors housing on land in Zone 4—Local Housing or Zone 5—Multiple Dwelling A must not exceed 2 storeys.

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- (4) Seniors housing on land in Zone 6—Multiple Dwelling B must not comprise more than:
    - (a) the maximum number of storeys specified on the Height and Density Controls Map in relation to the land concerned, or
    - (b) if that map does not specify a maximum number of storeys in relation to the land concerned—3 storeys.
  - (5) Seniors housing on land in Zone 6—Multiple Dwelling B must not exceed any maximum height (as measured from ground level to the highest point of the roof of the building) specified on the Height and Density Controls Map in relation to the land concerned.
  - (6) If seniors housing on land in Zone 4—Local Housing, Zone 5—Multiple Dwelling A or Zone 6—Multiple Dwelling B includes a townhouse or villa house, the two-storey building in which the townhouse is located or the villa house must not exceed the maximum height specified in clause 33 (4) (b) or (16), respectively, for that kind of building.

### 35 Building density

#### (1) Application of clause

This clause does not apply to development for the purpose of a building that does not result in the creation of floor space.

#### (2) Objectives

The objectives of this clause are as follows:

- (a) to ensure that development is in keeping with the characteristics of the site and the local area,
- (b) to provide a degree of consistency in the bulk and scale of new buildings that relates to the context and environmental qualities of the locality,
- (c) to minimise the impact of buildings on the amenity of adjoining residential properties,
- (d) to ensure, where possible, that non-residential buildings in residential zones are compatible with the scale and character of residential buildings on land in those zones.

#### (3) Definition of “floor space ratio”

For the purposes of this plan:

***floor space ratio*** means the ratio of the gross floor area of all buildings on a site to the area of the site.

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(4) **Site**

The following is taken to be excluded from the site of proposed development for the purposes of this clause:

- (a) land on which the proposed development is prohibited under this plan (other than land on which the proposed development is prohibited solely because of the application of clause 17),
- (b) in the case of an internal lot:
  - (i) any access corridor to or from the lot (if the lot is a hatchet-shaped lot), and
  - (ii) any right of way that traverses another lot.

**Note.** Among other things, clause 17 imposes certain restrictions on the erection of buildings on land traversed by a foreshore building line.

(5) **Maximum gross floor area in Zone 1 or 2**

The maximum gross floor area of all buildings on a site in Zone 1—Environmental Housing (Environmentally Sensitive Land) and Zone 2—Environmental Housing (Scenic Quality) is to be as indicated in the following table:

Area of site (m <sup>2</sup> )	Maximum gross floor area (m <sup>2</sup> )
Less than 850	$AS \times 0.4$
850–less than 1,200	$(AS - 850) \times 0.3 + 340$
1,200–less than 1,800	$(AS - 1,200) \times 0.25 + 445$
1,800 or more	$(AS - 1,800) \times 0.2 + 595$

where *AS* is the area of the site in square metres.

(6) **Maximum floor space ratios**

The maximum floor space ratio applying to development for the purpose of a building on a site in Zone 3—Environmental Housing (Bushland) is 0.45:1.

(7) The maximum floor space ratio applying to development for the purpose of a building on a site in Zone 4—Local Housing is as follows:

- (a) in the case of a hostel—0.75:1,
- (b) in any other case—0.45:1.

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- (8) The maximum floor space ratio applying to development for the purpose of a building on a site in Zone 5—Multiple Dwelling A is as follows:
- (a) in the case of a dual occupancy, dwelling house or extended family unit—0.45:1,
  - (b) in the case of a hostel—0.75:1,
  - (c) in any other case—0.7:1.
- (9) The maximum floor space ratio applying to development for the purpose of a building on a site in Zone 6—Multiple Dwelling B is as follows:
- (a) in the case of a dwelling house—0.45:1,
  - (b) in the case of a residential flat building:
    - (i) if the area of the site is 1,200 square metres or less—0.7:1, or
    - (ii) if the area of the site is more than 1,200 square metres and less than 1,800 square metres—the ratio calculated as follows:  
 $((\text{area of site in square metres} \times 0.0005) + 0.1):1$ ,
  - (c) in the case of a townhouse or a villa house—0.7:1,
  - (d) in any other case:
    - (i) if a floor space ratio is specified on the Height and Density Controls Map in relation to the site concerned—the floor space ratio specified on that map, or
    - (ii) if a floor space ratio is not specified on that map in relation to the site concerned—1:1.
- (10) The maximum floor space ratio applying to development for the purpose of a building on a site in Zone 7—Mixed Use—Kirrawee is as specified on the Height and Density Controls Map in relation to the site concerned.
- (11) The maximum floor space ratio applying to development for the purpose of a building on a site in Zone 8—Urban Centre or Zone 9—Local Centre is:
- (a) if a floor space ratio is specified on the Height and Density Controls Map in relation to the site concerned—the floor space ratio specified on that map, or
  - (b) if a floor space ratio is not specified on that map in relation to the site concerned—2:1.
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- (12) The maximum floor space ratio applying to development for the purpose of a building on a site in Zone 10—Neighbourhood Centre is:
- (a) if a floor space ratio is specified on the Height and Density Controls Map in relation to the site concerned—the floor space ratio specified on that map, or
  - (b) if a floor space ratio is not specified on that map in relation to the site concerned—1.1.
- (13) The maximum floor space ratio applying to development for the purpose of a building on a site in Zone 11—Employment is 1:1.

### **36 Landscaped area**

#### **(1) Objectives**

The objectives of this clause are as follows:

- (a) to ensure adequate opportunities for the retention or provision of vegetation that contributes to biodiversity,
- (b) to ensure adequate opportunities for tree retention and tree planting so as to preserve and enhance the tree canopy of Sutherland Shire,
- (c) to minimise urban run-off by maximising pervious areas on the sites of development,
- (d) to ensure that the visual impact of development is minimised by appropriate landscaping and that the landscaping is maintained,
- (e) to facilitate the provision of private open space for each dwelling, being private space that is useable and provides a reasonable level of privacy and access to sunlight,
- (f) to ensure that landscaping carried out in connection with development on land in Zone 11—Employment is sufficient to complement the scale of buildings, provide shade, screen parking areas and enhance workforce amenities.

#### **(2) Site**

The following is taken to be excluded from the site of proposed development for the purposes of this clause:

- (a) land on which the proposed development is prohibited under this plan (other than land on which the proposed development is prohibited solely because of the application of clause 17),
- (b) in the case of an internal lot:
  - (i) any access corridor to or from the lot (if the lot is a hatchet-shaped lot), and

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- (ii) any right of way that traverses another lot.

**Note.** Among other things, clause 17 imposes certain restrictions on the erection of buildings on land traversed by a foreshore building line.

(3) **Controls**

The minimum landscaped area of the site of any development for the purpose of a building on any land in Zone 1—Environmental Housing (Environmentally Sensitive Land) or Zone 2—Environmental Housing (Scenic Quality) is indicated in the Table below:

Area of site (m <sup>2</sup> )	Minimum landscaped area (m <sup>2</sup> )
Less than 850	$AS \times 0.45$
850–less than 1,200	$(AS - 850) \times 0.55 + 383$
1,200– less than 1,800	$(AS - 1,200) \times 0.65 + 576$
1,800 or more	$(AS - 1,800) \times 0.7 + 966$

where *AS* is the area of the site in square metres.

- (4) The minimum landscaped area of the site of any development for the purpose of a building on any land in Zone 3—Environmental Housing (Bushland) is 45 percent of the area of the site.
- (5) The minimum landscaped area of the site of any development for the purpose of a building (other than a villa house) on any land in Zone 4—Local Housing or Zone 5—Multiple Dwelling A is 45 percent of the area of the site.
- (6) The minimum landscaped area of the site of any development for the purpose of a villa house on any land in Zone 4—Local Housing, Zone 5—Multiple Dwelling A and Zone 6—Multiple Dwelling B is 40 percent of the area of the site.
- (7) The minimum landscaped area of the site of any development for the purpose of a building (other than a villa house or townhouse) on any land in Zone 6—Multiple Dwelling B is 60 percent of the area of the site.
- (8) The minimum landscaped area of the site of any development for the purpose of a townhouse on any land in Zone 6—Multiple Dwelling B is 45 percent of the area of the site.
- (9) The minimum landscaped area of the site of any development for the purpose of a building on any land in Zone 11—Employment is 15 percent of the area of the site.

Clause 37 Sutherland Shire Local Environmental Plan 2006

Part 3 Special provisions

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### 37 Objectives of clauses 39–42

The objectives of clauses 39–42 are as follows:

- (a) to ensure that a new lot created for the purpose of a dwelling house has a sufficient area available for:
  - (i) a dwelling house and ancillary facilities, and
  - (ii) an outdoor recreation and service space, and
  - (iii) vehicular access to and from the site,
- (b) to ensure that a sufficient area is available for building setbacks to reduce the effect of radiated heat from bush fire on bush fire prone land,
- (c) to ensure that newly created lots provide adequate building area to accommodate the type of dwellings that are proposed to be built on such lots,
- (d) to ensure that the area and width of lots are sufficient for their intended purpose and provide sufficient space for negative externalities to be resolved on site,
- (e) to ensure that a sufficient area of land is available, in connection with development, for landscaping, drainage and parking so as to achieve a satisfactory residential amenity,
- (f) to ensure new development complements the established scale and character of the streetscape where the development is carried out, and does not dominate the natural qualities of its setting.

### 38 References to area, width and depth of lot in clauses 39–42

- (1) For the purposes of applying clauses 39–42 to proposed development, the following is to be excluded in calculating the area of a lot of land:
  - (a) land on which the proposed development is prohibited under this plan (other than land on which the proposed development is prohibited solely because of the application of clause 17),
  - (b) any access corridor to or from the lot if the lot is a hatchet-shaped lot.

**Note.** Among other things, clause 17 imposes certain restrictions on the erection of buildings on land traversed by a foreshore building line.
- (2) For the purposes of clauses 39–42, the points on the boundaries of a lot of land between which the width or depth of the lot is to be measured are to be as determined by the consent authority having regard to the objectives set out in clause 37.

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Clause 39

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**39 Minimum size of lot for dwelling houses**

**Note.** Clauses 37 and 38 contain provisions that are relevant to the application of this clause.

- (1) This clause applies to a lot of land in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality), Zone 3—Environmental Housing (Bushland), Zone 4—Local Housing or Zone 5—Multiple Dwelling A that is created on or after the date on which this plan commences.
- (2) The area, width and depth of a lot of land to which this clause applies on which it is proposed to erect a dwelling house are not to be less than the minimum area, width and depth specified in the following Table:

Zone	Minimum area (except for internal lots) (m <sup>2</sup> )	Minimum area for internal lots (m <sup>2</sup> )	Minimum lot width (m)	Minimum lot depth (m)
Zone 1—Environmental Housing (Environmentally Sensitive Land)	850	1,000	18	27
Zone 2—Environmental Housing (Scenic Quality)	700	850	18	27
Zone 3—Environmental Housing (Bushland)	550	700	15	27
Zone 4—Local Housing	550	700	15	27
Zone 5—Multiple Dwelling A	550	700	15	27

Clause 40 Sutherland Shire Local Environmental Plan 2006

Part 3 Special provisions

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#### 40 Dual occupancies—internal lots and lot sizes

**Note.** Clauses 37 and 38 contain provisions that are relevant to the application of this clause.

(1) **Application of clause**

This clause applies to land in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality), Zone 3—Environmental Housing (Bushland), Zone 4—Local Housing or Zone 5—Multiple Dwelling A.

(2) **Controls**

Despite any other provision of this plan, the following are prohibited on land to which this clause applies:

- (a) the subdivision of land for the purpose of a dual occupancy if the lot on which the dual occupancy is proposed to be located is an internal lot,
  - (b) the subdivision of land that results in 2 separate lots for each of the 2 dwellings comprising a dual occupancy if 1 of the resulting lots would be an internal lot,
  - (c) the erection of 1 or 2 dwellings as, or as part of, a dual occupancy on an internal lot.
- (3) Despite any other provision of this plan, the subdivision of land that creates 2 separate lots for each of the 2 dwellings comprising a dual occupancy is prohibited on land in Zone 1—Environmental Housing (Environmentally Sensitive Land) or Zone 2—Environmental Housing (Scenic Quality).
- (4) The minimum area and minimum width of a lot of land in Zone 3—Environmental Housing (Bushland), Zone 4—Local Housing or Zone 5—Multiple Dwelling A is 800 square metres and 18 metres respectively if:
- (a) there is a dual occupancy on the lot, and
  - (b) it is proposed to subdivide the lot to create 2 separate lots for each of the 2 dwellings comprising the dual occupancy.
- (5) Subclause (4) does not apply in relation to subdivision creating a lot within the meaning of the *Strata Schemes (Freehold Development) Act 1973* or the *Strata Schemes (Leasehold Development) Act 1986*.
- (6) The minimum area of a lot of land to which this clause applies on which it is proposed to erect 1 or 2 dwellings as, or as part of, a dual occupancy is 600 square metres.

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Clause 41

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**41 Villa houses, townhouses and residential flat buildings—internal lots and lot sizes**

**Note.** Clauses 37 and 38 contain provisions that are relevant to the application of this clause.

**(1) Application of clause**

This clause applies to land in Zone 4—Local Housing, Zone 5—Multiple Dwelling A or Zone 6—Multiple Dwelling B.

**(2) This clause does not apply in relation to seniors housing.****(3) Villa houses and townhouses**

The erection of a villa house or a townhouse on an internal lot of land to which this clause applies is prohibited.

**(4) The minimum area of a lot of land to which this clause applies on which it is proposed to erect a townhouse or a villa house is 1,200 square metres and the minimum width of any such lot is 25 metres.****(5) Residential flat buildings**

The minimum area of a lot of land in Zone 6—Multiple Dwelling B on which it is proposed to erect a residential flat building is 1,800 square metres and the minimum width of any such lot is 30 metres.

**(6) Despite subclause (5), a lot of land in Zone 6—Multiple Dwelling B on which it is proposed to erect a residential flat building may be less than 1,800 square metres, or have a minimum width of less than 30 metres, if the consent authority is satisfied that:**

- (a) the amalgamation of the lot with an adjoining lot is not reasonably feasible, or
- (b) the orderly and economic use and development of the lot and the adjoining lot can be achieved if amalgamation is not feasible.

**42 Seniors housing—minimum lot size**

**Note.** Clauses 37 and 38 contain provisions that are relevant to the application of this clause.

The minimum area of a lot on which it is proposed to erect seniors housing is 1,200 square metres and the minimum width of any such lot is 25 metres.

**43 Extended family units—maximum floor space**

The maximum floor space of an extended family unit is 65 square metres.

**44 Convenience stores—maximum floor space**

The maximum floor space of a convenience store is 100 square metres.

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**45 Childcare centres—maximum number of children in Zone 1, 2, 4, 5 or 6**

The maximum number of children that may be supervised or cared for in a childcare centre is 45 if the childcare centre is located on land in any of the following zones:

- (a) Zone 1—Environmental Housing (Environmentally Sensitive Land),
- (b) Zone 2—Environmental Housing (Scenic Quality),
- (c) Zone 4—Local Housing,
- (d) Zone 5—Multiple Dwelling A,
- (e) Zone 6—Multiple Dwelling B.

**46 Telecommunication facilities and electromagnetic radiation emitting facilities and structures**

- (1) In this clause:

*relevant facility or structure* means any of the following:

- (a) a telecommunications facility,
- (b) a radio communications facility,
- (c) any other facility or structure that emits electromagnetic radiation in the radiofrequency of the electromagnetic spectrum.

- (2) The consent authority must not consent to development for the purpose of a relevant facility or structure unless it has considered the following matters that are of relevance to the development:

- (a) the extent to which reasonable access to telecommunications and other communications technology that have no adverse impact on human health or the natural environment has been encouraged, or will be encouraged by the proposed development,
- (b) the extent to which the precautionary principle has been applied in choosing the site of the relevant facility or structure,
- (c) the extent to which any proposed relevant facility or structure will be visually compatible with the character of the surrounding area and visually integrated into any building or structure on which it is located.

**Division 3 Miscellaneous**

**47 Temporary use of land**

- (1) Despite any other provision of this plan, consent may be granted to the use of any land or building for a purpose that would otherwise be prohibited by this plan, but only for a period of not more than 28 days.

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- (2) However, consent must not be granted under this clause to any use of the same land or building (whether or not the same use) for more than 28 days (whether consecutive or not) in any 12-month period.
  - (3) The consent authority must not consent to the use of any land or building under this clause unless it is satisfied that:
    - (a) suitable arrangements have been or will be made for the removal of any structures erected or works carried out in connection with the use, and for the reinstatement of the land to its former state after the cessation of the use, and
    - (b) the use is reasonable having regard to the nature of the use and the desirability of enabling the economic use of land before any further development in accordance with other provisions of this plan, and
    - (c) the use would not be likely to adversely affect the residential amenity of the locality concerned, and
    - (d) the use would not be likely to adversely affect the viability of any commercial centre in the locality, and
    - (e) the use would not be likely to adversely affect the environmental quality of the locality.
  - (4) This clause does not apply to a use of any land or building that is designated development.

**48 Urban design—general**

The consent authority must not consent to development unless it has considered the following matters that are of relevance to the development:

- (a) the extent to which high quality design and development outcomes for the urban environment of Sutherland Shire have been attained, or will be attained by the proposed development,
- (b) the extent to which any proposed buildings are designed and will be constructed to:
  - (i) strengthen, enhance or integrate into the existing character of distinctive locations, neighbourhoods and streetscapes, and
  - (ii) contribute to the desired future character of the locality concerned,
- (c) the extent to which recognition has been given to the public domain in the design of the proposed development and the extent to which that design will facilitate improvements to the public domain,

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- (d) the extent to which the natural environment will be retained or enhanced by the proposed development,
  - (e) the extent to which the proposed development will respond to the natural landform of the site of the development,
  - (f) the extent to which the proposed development will preserve, enhance or reinforce specific areas of high visual quality, ridgelines and landmark locations, including gateways, nodes, views and vistas,
  - (g) the principles for minimising crime risk set out in Part B of the Crime Prevention Guidelines and the extent to which the design of the proposed development applies those principles.

#### **49 Urban design—residential buildings**

The consent authority must not consent to development for the purpose of residential buildings unless it has considered the following matters that are of relevance to the development:

- (a) the extent to which recognition has been given in the design of the development to the needs of the diverse and changing population of Sutherland Shire,
- (b) the extent to which any adverse impacts of the proposed development on adjoining land and open space in terms of overshadowing, overlooking, views, privacy and visual intrusion will be minimised,
- (c) the extent to which the quality of the streetscape concerned will be improved by the development,
- (d) the extent to which there will be private open space of a sufficient area and dimensions to enable proposed and required activities,
- (e) the extent to which any adverse impacts of the proposed development on adjoining land in terms of size, bulk, height, scale and siting will be minimised,
- (f) the extent to which the residential building concerned integrates with a well-designed landscaped setting,
- (g) any opportunities for the provision of affordable housing.

#### **50 Urban design—non-residential development in residential areas**

- (1) This clause applies to development, other than residential development, on land in the following zones:
  - (a) Zone 1—Environmental Housing (Environmentally Sensitive Land),
  - (b) Zone 2—Environmental Housing (Scenic Quality),

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- (c) Zone 3—Environmental Housing (Bushland),
  - (d) Zone 4—Local Housing,
  - (e) Zone 5—Multiple Dwelling A,
  - (f) Zone 6—Multiple Dwelling B.
- (2) The consent authority must not consent to development to which this clause applies unless it has considered the following matters that are of relevance to the development:
- (a) the extent to which any proposed non-residential buildings and their design will integrate into the locality concerned,
  - (b) the extent to which any such buildings will respond to the local character, and relate to the scale, streetscape, setbacks and use of materials of residential buildings,
  - (c) the extent to which the residential amenity of the locality concerned will be protected from detrimental traffic-related impacts and noise associated with the development.

#### **51 Ecologically sustainable development**

The consent authority must not consent to development unless it has considered the following matters that are of relevance to the development:

- (a) the principles of ecologically sustainable development,
- (b) the extent to which the proposed development will meet the needs of the present without compromising the ability of future generations to meet their needs,
- (c) the extent to which the proposed development will improve the quality of life, both now and into the future, in a way that maintains the ecological processes on which life depends,
- (d) the extent to which the proposed development will contribute to the achievement of high quality ecologically sustainable development outcomes for the urban environment of Sutherland Shire,
- (e) to extent to which the proposed development will retain and enhance the natural environment.

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**52    Energy efficiency and sustainable building techniques**

The consent authority must not consent to development for the purpose of buildings unless it has considered the following matters that are of relevance to the development:

- (a) the extent to which potential energy consumption may be reduced during the construction, occupation, utilisation and lifecycle of proposed buildings,
- (b) the extent to which sustainable natural resources, such as the sun and wind, will be used in proposed buildings to create naturally comfortable living and working environments,
- (c) the extent to which proposed building materials and construction techniques are ecologically sustainable and will:
  - (i) minimise the expenditure of energy (including, in the case of building materials, any expenditure of energy involved in their manufacture), and
  - (ii) maximise the useful lifecycle of proposed buildings.

**53    Transport accessibility, traffic impacts and car parking**

The consent authority must not consent to development unless it has considered the following matters that are of relevance to the development:

- (a) the extent to which the proposed development maximises opportunities, through design integration, to provide:
  - (i) efficient links to identified transport nodes and corridors, such as railway stations, bus routes, pedestrian and cycle paths, and
  - (ii) facilities to cater for bicycle users,
- (b) the extent to which the demand for car parking, where there is good access to public transport nodes, will be managed,
- (c) the extent to which appropriate levels of car parking will be provided in connection with the development,
- (d) the extent to which walking, cycling and the use of public transport have been or will be encouraged,
- (e) the design of proposed car parking areas and access to them.

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**54 Heritage****(1) Objectives**

The objectives of this clause are as follows:

- (a) to conserve the environmental heritage of Sutherland Shire,
- (b) to conserve the heritage significance of heritage items, including associated fabric, settings and views,
- (c) to conserve archaeological sites,
- (d) to conserve places of Aboriginal heritage significance,
- (e) to protect and recognise locally significant trees and natural landforms as part of Sutherland Shire's environmental heritage,
- (f) to provide flexibility in the application of standards for development or permitted uses of land to enable appropriate conservation of heritage items,
- (g) to ensure timely consultation with State agencies, the relevant local Aboriginal land council and local communities to ensure that measures to conserve items are appropriate,
- (h) to limit inappropriate and unsympathetic development in the vicinity of cultural heritage items.

**(2) Requirement for consent**

Development consent is required for any of the following:

- (a) demolishing or moving a heritage item,
- (b) altering a heritage item, including (in the case of a building) making changes to the detail, fabric, finish or appearance of its exterior,
- (c) altering a heritage item that is a building, by making structural changes to its interior,
- (d) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,
- (e) disturbing or excavating a place of Aboriginal heritage significance,
- (f) erecting a building on, or subdividing, land on which a heritage item is located.

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(3) **When consent not required**

However, consent under this clause is not required if:

- (a) the applicant has notified the consent authority in writing of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development:
  - (i) is of a minor nature or consists of maintenance of the heritage item, archaeological site or place of Aboriginal heritage significance, and
  - (ii) would not adversely affect the significance of the heritage item, archaeological site or place of Aboriginal heritage significance, or
- (b) the development is in a cemetery or burial ground and the proposed development:
  - (i) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and
  - (ii) would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to a place of Aboriginal heritage significance, or
- (c) the development is limited to the removal of a tree or other vegetation that the Council is satisfied is a risk to human life or property.

(4) **Advertised development**

The demolition of a heritage item is advertised development.

(5) **Demolition of item of State significance**

The consent authority must, before granting consent for the demolition of a heritage item identified in Schedule 6 as being of State heritage significance (other than an item listed on the State Heritage Register or to which an interim heritage order under the *Heritage Act 1977* applies):

- (a) notify the Heritage Council about the application, and
- (b) take into consideration any response received within 28 days after the notice is sent.

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(6) **Archaeological sites of non-Aboriginal heritage significance**

The consent authority must, before granting consent under this clause to development on an archaeological site (including development referred to in subclause (2) (d)):

- (a) consider the effect of the proposed development on the heritage significance of the site and any relic known or reasonably likely to be located at the place, and
- (b) notify the Heritage Council about the application and take into consideration any response received within 28 days after the notice is sent.

(7) Subclause (6) does not apply to:

- (a) any development that, in the opinion of the consent authority, does not involve:
  - (i) any disturbance of below-ground relics, or
  - (ii) any adverse impact on the heritage significance of above-ground relics, or
- (b) any site or relic that is listed on the State Heritage Register.

(8) **Places of Aboriginal heritage significance**

The consent authority must, before granting consent under this clause to carrying out development in a place of Aboriginal heritage significance (including development referred to in subclause (2) (e)):

- (a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place, and
- (b) notify the local Aboriginal communities (in such way as it thinks appropriate) about the application and take into consideration any response received within 28 days after the notice is sent.

(9) **Heritage impact assessment**

The consent authority may, before granting consent to any development on land on which a heritage item is situated, require a heritage impact statement to be prepared.

- (10) For the purposes of considering the matters referred to in subclause (6) (a) or (8) (a), the consent authority must require a heritage impact statement to be prepared.

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- (11) A heritage impact statement prepared for the purposes of considering the matters referred to in subclause (8) (a), must be prepared in consultation with a person who, in the opinion of the consent authority, is a suitably qualified Aboriginal archaeologist.
- (12) However, a heritage impact statement is not required to be prepared for the purposes of considering the matters referred to in subclause (8) (a) if:
- (a) the proposed development involves the erection or use of a building and is to be carried out wholly within an existing or previous building footprint, or
  - (b) the proposed development is located away from sandstone rock features, shell deposits or other sites that, in the opinion of the consent authority, are, or have the potential to be, of Aboriginal heritage significance.
- (13) **Certain development permissible if retention of heritage item is dependent on consent**
- Despite any other provision of this plan, the consent authority may grant consent to the use of land on which a building that is a heritage item is located (including the use of the building) for any purpose if:
- (a) it is satisfied that the retention of the heritage item depends on the granting of consent, and
  - (b) the proposed use is in accordance with a heritage conservation management plan that has been approved by the consent authority, and
  - (c) the granting of consent to the proposed use would ensure that all necessary conservation work identified in the conservation management plan is carried out, and
  - (d) the proposed use would not adversely affect the heritage significance of the heritage item, and
  - (e) the proposed use would not have a significant adverse effect on the amenity of the surrounding area.

## **55 Significant trees or natural landforms**

- (1) This clause applies to land on which a significant tree or significant landform is located.
- (2) The consent authority must not consent to development on land to which this clause applies unless it is satisfied that:
  - (a) the development will be carried out in a manner that ensures the continued good health of the tree or the continued structural integrity and visual quality of the landforms, and

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- (b) in the case of development involving the erection of a building:
    - (i) the building will be set back from the drip-line of any significant tree, and
    - (ii) the building will not encroach on, or adversely affect, any significant landform, and
  - (c) development carried out in the immediate vicinity of significant trees will not result in the alteration of any significant landform or of any contour lines or drainage patterns.

**56 Preservation of trees or vegetation**

- (1) The objective of this clause is to ensure the protection of trees and bushland vegetation that are fundamental to the conservation of biodiversity in Sutherland Shire.
- (2) This clause applies to species or kinds of trees or other vegetation that are prescribed for the purposes of this clause by a development control plan made by the Council.

**Note.** A development control plan may prescribe the trees or other vegetation to which this clause applies by reference to species, size, location or other manner.
- (3) A person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by:
  - (a) a development consent, or
  - (b) a permit granted by the Council.
- (4) The refusal by the Council to grant a permit to a person who has duly applied for the grant of the permit is taken for the purposes of the Act to be a refusal by the Council to grant consent for the carrying out of the activity for which a permit was sought.
- (5) This clause does not apply to a tree or other vegetation that the Council is satisfied is dying or dead and is not required as the habitat of native fauna.
- (6) This clause does not apply to a tree or other vegetation that the Council is satisfied is a risk to human life or property.

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- (7) A permit under this clause cannot allow any ringbarking, cutting down, topping, lopping, removal, injuring or destruction of a tree or other vegetation that is or forms part of a heritage item.

**Note.** As a consequence of this subclause, the activities concerned will require development consent. Clauses 54 and 55 will be applicable to any such consent.

- (8) This clause does not apply to or in respect of:
- (a) trees or other vegetation within a State forest, or land reserved from sale as a timber or forest reserve under the *Forestry Act 1916*, or
  - (b) action required or authorised to be done by or under the *Electricity Supply Act 1995*, the *Roads Act 1993* or the *Surveying Act 2002*, or
  - (c) plants declared to be noxious weeds under the *Noxious Weeds Act 1993*.

#### 57 Removal of certain vegetation permissible without consent

Despite any other provision of this plan, any development comprised in the removal of any of the vegetation listed in the Table to this clause may be carried out without consent unless the vegetation is or forms part of a heritage item.

##### Trees

Botanical name	Common name
<i>Acacia saligna</i>	Golden wreath wattle
<i>Acer negundo</i>	Box elder
<i>Araucaria bidwillii</i>	Bunya bunya pine
<i>Chamaecyparis pisifera</i> spp	Conifer
<i>Cupressus macrocarpa</i> "Brunniana"	
<i>Cupressus sempervirens</i>	
<i>Cinnamomum camphora</i>	Camphor laurel
<i>Erythrina X sykesii</i>	Coral tree
<i>Ficus benjamina</i>	Weeping fig
<i>Ficus elastica</i>	Rubber tree
<i>Grevillea robusta</i>	Silky oak
<i>Ligustrum lucidum</i>	Large leaf privet
<i>Ligustrum sinense</i>	Small leaf privet
<i>Liquidamber styraciflua</i>	Liquidamber

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**Botanical name****Common name***Lophostemon confertus*

Brush box

*Pinus radiata*

Radiata pine

*Populus nigra* "Italica"

Lombardy poplar

*Robinia pseudoacacia* "Frisia"

Golden robinia

*Schefflera actinophylla*

Umbrella tree

*Syagrus romanzoffiana*

Cocos palm

**Weeds****Botanical name****Common name***Acetosa sagittatus*

Turkey rhubarb

*Ageratina adenophora*

Crofton weed

*Ageratina riparia*

Mist flower

*Anredera cordifolia*

Madiera vine

*Araujia hortorum*

Moth vine

*Arundo donax*

Giant reed

*Bambusa* spp

Bamboo

*Cardiospermum grandiflorum*

Balloon vine

*Chamaecytis palmensis*

Tree lucerne

*Coreopsis lanceolata*

Coreopsis

*Cotoneaster* spp

Cotoneaster

*Cytisus scoparius*

Scotch broom

*Delairia odorata*

Cape ivy

*Dipogon lignosus*

Dolichos pea

*Ehrharta erecta*

Veldt grass

*Eragrostis curvula*

African love grass

*Erigeron karvinskianus*

Erigeron daisy

*Genista monspessulana*

Montpellier broom

*Hedera helix*

English ivy

*Hedychium gardnerianum*

Wild ginger

*Hydrocotyle bonariensis*

Kurnell curse

*Ipomoea cairica*

Coastal morning glory

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Botanical name	Common name
<i>Ipomoea indica</i>	Morning glory
<i>Ligustrum lucidum</i>	Large leaf privet
<i>Ligustrum sinense</i>	Small leaf privet
<i>Lonicera japonica</i>	Japanese honeysuckle
<i>Myrsiphyllum asparagoides</i>	Bridal creeper
<i>Nephrolepis cordifolia</i>	Fish bone fern
<i>Ochna serrulata</i>	Ochna
<i>Paraserianthes lophantha</i>	Crested wattle
<i>Persicaria capitata</i>	Japanese knot weed
<i>Polygala myrtifolia</i>	Polygala
<i>Protasparagus aethiopicus</i>	Asparagus fern
<i>Protasparagus plumosus</i>	Climbing asparagus
<i>Psoralea pinnata</i>	African scurf pea
<i>Senecio angulatus</i>	Climbing groundsel
<i>Senna pendula</i> var <i>glabrata</i>	Cassia
<i>Sollya heterophylla</i>	Bluebell creeper
<i>Thunbergia alata</i>	Black-eyed Susan
<i>Tradescantia albiflora</i>	Wandering Jew
<i>Vinca major</i>	Blue periwinkle

#### Noxious weeds

Botanical name	Common name
<i>Alternanthera philoxeroides</i>	Alligator weed
<i>Cestrum parqui</i>	Green cestrum
<i>Chrysanthemoides monilifera</i>	Bitou bush
<i>Cortaderia selloana</i>	Pampas grass
<i>Eichorina crassipes</i>	Water hyacinth
<i>Gymnocoronis spianthoides</i>	Sengal tea plant
<i>Hypericum perforatum</i>	St John's wort
<i>Lantana camara</i>	Lantana red and pink flower
<i>Ludwigia peruviana</i>	Ludwigia

Sutherland Shire Local Environmental Plan 2006

Clause 57

Special provisions

Part 3

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Botanical name	Common name
<i>Oputia</i> spp	Prickly pear
<i>Parietaria judaica</i>	Asthma weed
<i>Ricinus communis</i>	Castor oil plant
<i>Salvinia molesta</i>	Salvina
<i>Toxicodendron succedaneum</i>	Rhus tree

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Sutherland Shire Local Environmental Plan 2006

Schedule 1 Amendment of other environmental planning instruments

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## Schedule 1 Amendment of other environmental planning instruments

(Clause 8)

### 1.1 State Environmental Planning Policy No 4—Development Without Consent and Miscellaneous Exempt and Complying Development

#### Schedule 2 Land excepted from clauses 6–10

Omit “*Sutherland Shire Local Environmental Plan 2000*”.

Insert instead “*Sutherland Shire Local Environmental Plan 2006* (including any land excluded from that plan under section 68 (5) or 70 (4) of the Act)”.

### 1.2 State Environmental Planning Policy (Seniors Living) 2004

#### [1] Clause 4 Land to which Policy applies

Omit clause 4 (3). Insert instead:

##### (3) Application of Policy to land in Sutherland Shire

This Policy does not apply to land in Sutherland Shire, except in relation to:

- (a) land in Alexander Avenue, Taren Point, being Lot 2, DP 1026203, or
- (b) land that is shown with heavy edging on the map marked “Map 32 Cronulla Sutherland Leagues Club, Captain Cook Drive” deposited in the Office of Sutherland Shire Council, but only to the extent provided by *Sutherland Shire Local Environmental Plan 2000*, or

**Note.** The above land is excluded from the application of *Sutherland Shire Local Environmental Plan 2006*.

- (c) an application to carry out development for the purposes of a residential care facility on land in any of the following zones under *Sutherland Shire Local Environmental Plan 2006*:
  - (i) Zone 4—Local Housing,
  - (ii) Zone 5—Multiple Dwelling A,
  - (iii) Zone 6—Multiple Dwelling B,
  - (iv) Zone 7—Mixed Use—Kirrawee,
  - (v) Zone 8—Urban Centre,
  - (vi) Zone 9—Local Centre,

Sutherland Shire Local Environmental Plan 2006

Amendment of other environmental planning instruments

Schedule 1

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- (vii) Zone 10—Neighbourhood Centre, or
  - (d) in relation to land in Zone 12—Special Uses under *Sutherland Shire Local Environmental Plan 2006*, or
  - (e) in relation to land in the 5 (a) Special Uses zone under *Sutherland Shire Local Environmental Plan 2000* that is excluded from *Sutherland Shire Local Environmental Plan 2006* under section 68 (5) or 70 (4) of the Act, or
  - (f) an application to carry out development made by or on behalf of:
    - (i) the Director-General of the Department of Housing, or
    - (ii) a local government or community housing provider.
  - (4) This Policy applies to land referred to in subclause (3) (a)–(c) despite subclause (2).
  - (5) A reference in this clause to *Sutherland Shire Local Environmental Plan 2000* is a reference to that plan as in force immediately before the commencement of *Sutherland Shire Local Environmental Plan 2006*.

**[2] Schedule 3 Special provisions relating to certain land**

Omit clause 2 of the Schedule.

**1.3 Sydney Regional Environmental Plan No 9—Extractive Industry (No 2—1995)**

**Schedule 1**

Omit clause 3 of Division 5 of the Schedule. Insert instead:

- 3** The land in Port Hacking within Zone 16—Environmental Protection (Waterways) under *Sutherland Shire Local Environmental Plan 2006*.

**1.4 Sydney Regional Environmental Plan No 17—Kurnell Peninsula (1989)**

**Clause 3 Land to which plan applies**

Omit “*Sutherland Shire Local Environmental Plan 2000*” from clause 3 (2).

Insert instead “*Sutherland Shire Local Environmental Plan 2006*”.

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

**Schedule 2 Exempt development**

(Clause 12)

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Access ramps for the disabled</b> —installation of access ramps for disabled persons	<ul style="list-style-type: none"> <li>(a) Height must not exceed 1m above ground level.</li> <li>(b) Must not have a grade greater than 1:14.</li> <li>(c) Must be set back at least 1.5m from boundaries of the relevant land.</li> </ul>
<b>Advertisements, advertising structures or signs</b> —installation or erection of advertisements, advertising structures or signs	
General requirements	<ul style="list-style-type: none"> <li>(a) Must not flash or be displayed on, or erected above, the parapet or eaves of a building.</li> <li>(b) Must not cover mechanical ventilation inlets or outlets.</li> <li>(c) Structures erected on or above any part of a public road not used for the driving or riding of motor vehicles (such as any footpath)—must be set back at least 0.6m from the edge of the part of the road that is used for the driving or riding of motor vehicles.</li> </ul>
A-frame advertising boards, or structures displaying goods for advertising purposes, outside a shop	<ul style="list-style-type: none"> <li>(a) Must comply with any applicable development standards and other requirements in the document entitled <i>Sutherland Shire Environmental Specification—Advertising 2004</i>.</li> <li>(b) Must not be installed on land vested in, or under the control of, the Council without authorisation from the Council.</li> </ul>
Advertisements on bus shelters or seats	Must comply with any applicable development standards and other requirements in the document entitled <i>Sutherland Shire Environmental Specification—Advertising 2004</i> .

## Sutherland Shire Local Environmental Plan 2006

## Exempt development

## Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
Advertisements on industrial premises or directory signs for multiple occupancy industrial premises	<ul style="list-style-type: none"> <li>(a) Must be no more than 1 advertisement installed on the premises and it must relate to the use of the premises.</li> <li>(b) Must not exceed 5m<sup>2</sup> in area.</li> <li>(c) Must not be located more than 4.5m above ground level.</li> <li>(d) Must be fixed flush to the front elevation of a building on the premises.</li> <li>(e) Must not project above the parapet of the building or the eaves line if the building has a pitched roof.</li> </ul>
Advertisements or signs on roll down blind or awning	<ul style="list-style-type: none"> <li>(a) Advertisement or sign must not cover more than 20% of the area of the blind or awning.</li> <li>(b) Advertisement or sign must relate to the use of premises on which it is installed.</li> </ul>
Awning fascia signs	Must relate to the use of the premises to which the fascia sign is attached.
Banners or flags advertising special events	<ul style="list-style-type: none"> <li>(a) Must only be displayed on the land where the special event is to be held.</li> <li>(b) Must be constructed of lightweight, banner type material.</li> <li>(c) Must not be installed more than 21 days before, and must be removed no later than 2 days after, the special event.</li> </ul>
Banners or flags used for promotional purposes (other than banners or flags solely advertising special events)	<ul style="list-style-type: none"> <li>(a) A banner or flag used for promotional purposes (whether the same or a different banner or flag) must not be displayed on the land concerned: <ul style="list-style-type: none"> <li>(i) for more than 14 consecutive days, or</li> <li>(ii) on more than 4 occasions, or</li> <li>(iii) for a total of more than 28 days, in any 12-month period.</li> </ul> </li> <li>(b) Must be removed no later than 2 days after the relevant promotion finishes.</li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
Business identification signs or building identification signs	<p>(a) Must not have an area greater than the following:</p> <ul style="list-style-type: none"> <li>(i) in the case of a business identification sign that relates to a home occupation—<math>0.5\text{m}^2</math>,</li> <li>(ii) in any other case—<math>2.5\text{m}^2</math>.</li> </ul> <p>(b) If located over a public road, must be located 2.6m or more above the road.</p> <p>(c) Must not protrude more than 0.3m from the wall of any building on which the sign is installed.</p> <p>(d) Business identification signs that relate to home occupations must be affixed:</p> <ul style="list-style-type: none"> <li>(i) to the building concerned, and</li> <li>(ii) no higher than 3m above ground or pavement level and below the eaves line of the building.</li> </ul> <p>(e) Must be no more than 1 business identification sign relating to any home occupation carried out in the dwelling concerned.</p>
Community advertisements or notices	<p>(a) In the case of a community advertisement or notice intended to be temporary (other than an advertisement or notice referred to in paragraph (c) or (d)):</p> <ul style="list-style-type: none"> <li>(i) must not be installed on the land concerned for more than 21 consecutive days, or for a total of more than 28 days, in any 12-month period, and</li> <li>(ii) must not exceed <math>2.5\text{m}^2</math> in area, and</li> <li>(iii) sponsorship details must take up no more than 30% of the advertisement or notice.</li> </ul>

Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
Inflatable signs used for promotional purposes	<p>(b) In the case of a community advertisement or notice intended to be permanent (other than an advertisement or notice referred to in paragraph (c) or (d)):</p> <ul style="list-style-type: none"> <li>(i) must not exceed 3.5m in height from ground level and 5m<sup>2</sup> in area, and</li> <li>(ii) sponsorship details must take up no more than 30% of the advertisement or notice, and</li> <li>(iii) if the sign relates to a building, it must be attached to the building.</li> </ul>
	<p>(c) In the case of a surf or beach information or safety notice:</p> <ul style="list-style-type: none"> <li>(i) must only be displayed at entrances to beaches fronting Bate Bay and on surf lifesaving towers, and</li> <li>(ii) sponsorship details must take up no more than 10% of the notice.</li> </ul>
	<p>(d) In the case of a community advertisement or notice on a motor vehicle or boat, the vehicle or boat must principally be used for the conveyance of goods or passengers.</p>
	<ul style="list-style-type: none"> <li>(a) Must only be displayed on the land where the promotion is to be held.</li> <li>(b) An inflatable sign used for promotional purposes (whether the same or a different sign) must not be displayed on the land concerned: <ul style="list-style-type: none"> <li>(i) for more than 14 consecutive days, or</li> <li>(ii) on more than 4 occasions, or</li> <li>(iii) for a total of more than 28 days, in any 12-month period.</li> </ul> </li> <li>(c) Must be removed no later than 2 days after the relevant promotion finishes.</li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
Real estate signs advertising premises for sale or lease	<ul style="list-style-type: none"> <li>(a) Must only be displayed on the premises to which it relates.</li> <li>(b) Must be no more than 1 real estate sign on premises.</li> <li>(c) Must not exceed 2.5m<sup>2</sup> in area.</li> <li>(d) Must be removed no later than 14 days after the completion of the sale or the granting of the lease to which the sign relates.</li> </ul>
Street or traffic signs installed by or on behalf of a roads authority (within the meaning of the <i>Roads Act 1993</i> )	
Suspended under awning signs	<ul style="list-style-type: none"> <li>(a) Must be no more than 1 suspended under awning sign for each premises to which the sign relates.</li> <li>(b) Must not exceed 1.5m<sup>2</sup> in area.</li> <li>(c) If located over a public road, must be located 2.6m or more above the road.</li> <li>(d) Must relate to the use of premises on which the sign is installed.</li> </ul>

Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
<p><b>Aerial subscriber connections to telecommunications distribution lines</b>—aerial subscriber connections comprising:</p> <p>(a) the connection from a subscriber's premises to a telecommunications distribution line by means of a cable that is wholly or partly an aerial cable, or</p> <p>(b) the erection of any structure:</p> <p>(i) that is necessary to enable such a connection to be made, or</p> <p>(ii) ancillary to the making of such a connection,</p> <p>being a structure that is located between the point of connection of the cable to the subscriber's premises and a telecommunications distribution line.</p>	<p>Any cable erected must be consistent with the document entitled <i>Telecommunications in Road Reserves—Operational Guidelines for Installations</i> (as published by Austroads on 1 May 2002).</p>
<p><b>Aerials or satellite dishes</b>—erection of aerials or satellite dishes</p>	<p>(a) In the case of an aerial:</p> <p>(i) height must not exceed 3m above roof ridge, and</p> <p>(ii) must not have a surface area that is visible from outside the premises to which the aerial relates of greater than 0.3m<sup>2</sup>, and</p> <p>(iii) no more than 1 aerial per residential building.</p>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Air conditioning units—</b> installation of air conditioning units	(b) In the case of a satellite dish: <ul style="list-style-type: none"> <li>(i) must not be higher than the roof ridge, and</li> <li>(ii) diameter of the dish must not exceed 0.75m, and</li> <li>(iii) must not be installed forward of the building line or on roof areas visible from any public road, and</li> <li>(iv) must not be visible from any public place, including roads, public open space, public recreation areas and waterways, and</li> <li>(v) the dish and any supporting structure must be finished in a non-reflective colour that blends in with the surrounding environment.</li> </ul>
	(a) External air conditioning unit: <ul style="list-style-type: none"> <li>(i) must be set back at least 0.5m from any side or rear boundary, and</li> <li>(ii) if ground mounted—must not be installed within the front building setback, and</li> <li>(iii) must not be attached to the street front elevation of any building facing the street, and</li> <li>(iv) must not be attached above the second storey on residential buildings unless located on a balcony where the unit is not clearly visible from street level, and</li> <li>(v) must not be mounted on the roof of premises that are not industrial premises.</li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Exempt development

## Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
	<ul style="list-style-type: none"> <li>(b) Must not include a cooling tower as part of the air conditioning system.</li> <li>(c) Installation must not reduce the structural integrity of the building.</li> <li>(d) Any opening created by the installation must be adequately weatherproofed.</li> <li>(e) Air conditioning units must not: <ul style="list-style-type: none"> <li>(i) emit noise exceeding an LAeq of 5 dB(A) above background noise level when measured at the property boundary, or</li> <li>(ii) be audible in any residential room on adjoining property, or</li> <li>(iii) emit any tonal, impulsive or intermittent sounds.</li> </ul> </li> <li>(f) Must be installed and maintained in accordance with the following Australian and New Zealand Standards: <ul style="list-style-type: none"> <li>(i) AS/NZS 1668.1:1998, <i>The use of ventilation and airconditioning in buildings, Part 1: Fire and smoke control in multi-compartment buildings</i>,</li> <li>(ii) AS/NZS 1668.2:2002 <i>The use of ventilation and airconditioning in buildings, Part 2: Ventilation design for indoor air contaminant control</i>,</li> <li>(iii) AS/NZS 3666.1:2002, <i>Air-handling and water systems of buildings—Microbial control, Part 1: Design, installation and commissioning</i>,</li> <li>(iv) AS/NZS 3666.2:2002, <i>Air-handling and water systems of buildings—Microbial control, Part 2: Operation and maintenance</i>,</li> <li>(v) AS/NZS 3666.3:2002, <i>Air-handling and water systems of buildings—Microbial control, Part 3: Performance-based maintenance of cooling water systems</i>.</li> </ul> </li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Awnings, canopies, security blinds, storm blinds or shutters</b> —installation of awnings, canopies, security blinds, storm blinds or shutters	<ul style="list-style-type: none"> <li>(a) Must be retractable.</li> <li>(b) Must not be installed above the second storey of any building.</li> <li>(c) A security blind or shutter must not be installed on the street front elevation of any buildings that are business premises or on shopfront awnings.</li> </ul>
<b>Barbecues</b> —installation of barbecues	<ul style="list-style-type: none"> <li>(a) Height must not exceed 2.7m above ground level.</li> <li>(b) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> </li> <li>(c) Must be set back at least 0.5m from side and rear boundaries of the relevant land, but may be installed closer to a side or rear boundary if a heat shield is incorporated in the barbecue or the barbecue adjoins a non-combustible fence.</li> <li>(d) Must be located so that the risk of the spread of fire from the barbecue to any other structure is minimised.</li> <li>(e) Must be located so that the barbecue does not cause a nuisance while being used.</li> </ul>
<b>Bird aviaries or shelters for pet animals</b> —erection of bird aviaries or shelters for pet animals	<ul style="list-style-type: none"> <li>(a) Must not occupy an area greater than 10m<sup>2</sup>.</li> <li>(b) Height must not exceed 2.7m above ground level.</li> <li>(c) Must only be located in rear or side yards.</li> <li>(d) Must be set back at least 0.5m from all boundaries of the relevant land.</li> <li>(e) Must be no more than 1 bird aviary per property.</li> <li>(f) Must be no more than 20 fowls and no more than 5 of any other poultry.</li> </ul>

Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
	<p>(g) Must not be located within 4.5m of a dwelling, public hall or school, or premises used for the manufacture, preparation, sale or storage of food.</p> <p>(h) Any poultry must be kept in accordance with any relevant standards relating to the keeping of poultry under the <i>Local Government Act 1993</i> (being standards that are enforceable by the making of Order No 18 under section 124 of that Act).</p>
<b>Building alterations (external)—</b> other than alterations to:	
(a) residential flat buildings, or	
(b) the street frontage of buildings on land in Zone 8—Urban Centre, Zone 9—Local Centre, Zone 10—Neighbourhood Centre or Zone 11—Employment.	
General requirements	<p>(a) Must be non-structural.</p> <p>(b) Must not change the existing footprint of the building concerned unless the alterations concerned comprise the installation of bay windows that do not extend more than 0.3m beyond that footprint.</p> <p>(c) Must not increase the floor space of the building concerned.</p> <p>(d) Must not change the use of rooms in residential buildings whether by removal of existing walls or partitions or by other means.</p> <p>(e) Must not involve repositioning or enlarging of windows above ground level.</p> <p>(f) Must not involve enclosure of open areas or reduce the area of any windows or doorways.</p> <p>(g) Any alterations involving lead paint removal must not cause lead contamination of the air or ground water.</p>

## Sutherland Shire Local Environmental Plan 2006

Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
Installation of glassed areas, including windows and external doors with glass	<p>(a) Materials and installation must comply with:</p> <p>(i) the Australian Standard entitled AS 1288—2006, <i>Glass in buildings—Selection and installation</i>, and</p> <p>(ii) the Australian and New Zealand Standard entitled AS/NZS 2208:1996, <i>Safety glazing materials in buildings</i>.</p> <p>(b) In the case of windows—materials and installation must also comply with the Australian Standard entitled AS 2047—1999, <i>Windows in buildings—Selection and installation</i>.</p> <p>(c) Opaque or other obscuring glazing must be replaced with similar opaque or obscuring glazing so as not to impact on the privacy of neighbouring properties.</p>
Installation of skylight roof windows (including solartube or similar type installations and roof ventilators)	<p>(a) Must not reduce the structural integrity of the building concerned.</p> <p>(b) Any opening created by the installation must be adequately weatherproofed.</p>
Recladding of roofs or walls	<p>(a) Replacement of existing materials must be with similar materials that do not increase the reflectivity of the roof or wall.</p> <p>(b) Must not involve any change to roof shape or roof pitch, or brick veneering.</p>

Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Building alterations (internal)</b>	
Alterations to business or industrial premises (other than alterations to premises for, or to any part of the premises that is used for, the preparation or storage of food for sale to the public)	<ul style="list-style-type: none"> <li>(a) Must be non-structural.</li> <li>(b) Must not compromise fire safety or affect accessibility to fire exits.</li> <li>(c) Must not increase existing floor area of premises.</li> </ul>
Alterations to residential buildings, other than the following:	<ul style="list-style-type: none"> <li>(a) Must be non-structural.</li> <li>(b) Any replacement of internal doors, walls, windows, ceiling or floor linings or deteriorated frame members must be done with: <ul style="list-style-type: none"> <li>(i) equivalent materials, or</li> <li>(ii) materials of improved quality.</li> </ul> </li> <li>(c) Must not change the footprint, external size or envelope of the residential building.</li> <li>(d) Must not be carried out for the purpose of changing the use of rooms whether by removal of existing walls or partitions or by other means.</li> <li>(e) Must not involve enclosure of open areas or reduce the area of any windows or doorways.</li> </ul>
(a) alterations to the building for, or to any part of the building that is used for, the preparation or storage of food for sale to the public,	
(b) the installation of oil or solid fuel heating appliances.	
<b>Cabanas or gazebos</b> —erection of cabanas or gazebos	<ul style="list-style-type: none"> <li>(a) Each cabana or gazebo must not occupy an area greater than 10m<sup>2</sup> and the total combined floor space of all cabanas and gazebos erected on the land concerned must not exceed 40m<sup>2</sup>.</li> <li>(b) Floor must be located at or near ground level.</li> <li>(c) Height must not exceed 4m above ground level.</li> <li>(d) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> </li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
	(e) Must be set back as follows from side and rear boundaries of the relevant land:
	(i) at least 1.5m if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland),
	(ii) at least 0.5m in any other case.
<b>Changes of use</b> —different use of land as:	(a) Hours of operation must comply with the following:
(a) business premises, resulting from a change from one kind of business premises to another or a change from a shop, a restaurant or a food shop, or	(i) in the case of premises used for industry—must not be used for this purpose on public holidays or at any time other than between 6am and 7pm, Monday to Saturday,
(b) a shop, resulting from a change from one kind of shop to another or a change from business premises, a restaurant or a food shop, or	(ii) in any other case—must only be carried out between 6am and 9pm on any day.
(c) a food shop, resulting from a change from one kind of food shop to another, or	(b) Must be no change to the area of any floor space or to parking, landscaping or waste facilities the subject of consent by the consent authority and in existence before the use is changed.
(d) a restaurant, resulting from a change from one kind of restaurant to another, or	
(e) a warehouse, resulting from a change from one kind of warehouse to another.	
<b>Clothes hoists or lines</b> —installation of clothes hoists or lines	(a) Must be installed at ground level.
	(b) Must only be installed behind the building concerned, or in the side or rear yard.
	(c) Must not be installed on balconies or elevated decks.

Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Decks or patios</b> —installation of decks or patios	<ul style="list-style-type: none"> <li>(a) Finished surface level must not be more than 1m above ground level.</li> <li>(b) Must not occupy an area greater than 20m<sup>2</sup>.</li> <li>(c) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining property.</li> </ul> </li> <li>(d) Must be set back at least 1.5m from side and rear boundaries of the relevant land in the following cases: <ul style="list-style-type: none"> <li>(i) if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland),</li> <li>(ii) a deck or patio that has a height of more than 0.5m above ground level,</li> <li>(iii) a deck to a swimming pool if the pool or the deck stands higher than 0.5m above ground level.</li> </ul> </li> <li>(e) Must be set back at least 0.9m from side and rear boundaries of the relevant land in any case other than a case referred to in paragraph (d).</li> <li>(f) Must be sufficiently stepped down from any associated dwelling so as to prevent the entry of water to the dwelling.</li> </ul>
<b>Demolition of buildings whose erection would be exempt development (except for retaining walls)</b>	<ul style="list-style-type: none"> <li>(a) Must be carried out in accordance with the Australian Standard entitled AS 2601—2001, <i>Demolition of structures</i>.</li> <li>(b) Must not be carried out in connection with the decontamination, rehabilitation or remediation of contaminated land (within the meaning of Part 7A of the Act).</li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
<p><b>Driveways or pathways</b>—installation of driveways or pathways, other than driveways or pathways on any public land (within the meaning of the <i>Local Government Act 1993</i>) unless installed by the Council on land vested in or under the control of the Council</p>	<p>(a) Must not be elevated or suspended above ground level.</p> <p>(b) Driveway or access gradients must comply with the access gradient requirements of the Australian and New Zealand Standard entitled AS/NZS 2890.1:2004, <i>Parking facilities, Part 1: Off-street car parking</i>.</p> <p>(c) Must be graded and drained so that drainage does not cause a nuisance to users of adjoining land or footpaths.</p> <p><b>Note.</b> The relevant roads authority (usually the Council) should be contacted about any requirements relating to connection of any driveway to the relevant road.</p>
<p><b>Electrical works</b>—any development carried out by Energy Australia comprising the provision of public lighting requested by the Council</p> <p><b>Note.</b> See also clause 29 of this plan (Crown development and public utilities).</p>	
<p><b>Fences or gates</b>—installation of fences or gates (including replacement of existing fences or gates), other than the following:</p> <p>(a) fences required by the <i>Swimming Pools Act 1992</i>,</p> <p>(b) fences on street frontages of land occupied by dual occupancies, townhouses or villa houses,</p> <p>(c) fences for residential flat buildings,</p>	

## Sutherland Shire Local Environmental Plan 2006

## Exempt development

## Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
(d) front fences erected on land at Alfords Point, Barden Ridge, Bangor, Bonnet Bay, Illawong, Lucas Heights, Menai, Woronora Heights or Sylvania Waters if covenants applying to the land restrict the erection of such fences,	
(e) fences erected between the rear of dwellings and the waterway at Sylvania Waters if covenants applying to the land restrict the erection of such fences.	
General requirements	Fences must be constructed so as not to cause a drainage nuisance.
Front fences or gates (including side fences or gates between the building line and the street or any other public place), other than fences or gates on commercial premises	<p>(a) Height must not exceed:</p> <p>(i) in the case of an open form fence on industrial premises—2.5m above ground level, or</p> <p>(ii) in any other case—1m above ground level.</p> <p>(b) An open form front fence erected on industrial premises must be set behind any landscaping required by, or carried out under, a development consent.</p> <p>(c) Gates must not open beyond the property boundaries.</p>
Side fences or gates, or rear fences or gates behind the building line	<p>Height must not exceed:</p> <p>(a) in the case of an open form fence on industrial premises—2.5m above ground level, or</p> <p>(b) in the case of a fence that is constructed of timber, metal or lightweight materials and not an open form fence—1.8m above ground level, or</p> <p>(c) in any other case—1m above ground level.</p>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Filming</b> —carrying out of a filming project within the meaning of the <i>Local Government Act 1993</i>	<ul style="list-style-type: none"> <li>(a) Must only be on private land.</li> <li>(b) Must not create significant interference with the neighbourhood.</li> <li>(c) A filming management plan must be prepared and lodged with Council at least 5 days before filming that: <ul style="list-style-type: none"> <li>(i) specifies the name, address and phone number of the person or company filming (including a contact person), and</li> <li>(ii) describes the nature of the proposed filming, and</li> <li>(iii) specifies the dates, times, location and proposed daily duration of the proposed filming, and</li> <li>(iv) specifies the number of persons who will be involved in the filming while it is being carried out, and</li> <li>(v) specifies the types of cameras proposed to be used, and</li> <li>(vi) gives details of any structures proposed to be installed, and</li> <li>(vii) describes any proposed parking arrangements, and</li> <li>(viii) describes any anticipated disruption to persons in the neighbourhood, and</li> <li>(ix) specifies what approvals, if any, are required from any public authorities and whether these have been obtained, and</li> <li>(x) is accompanied by evidence of public liability insurance of an amount not less than \$10 million.</li> </ul> </li> </ul>

## Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
	(d) Owners or occupiers of land within a 50m radius of proposed filming must be provided with the following, by letterbox drop, at least 5 days before filming: <ul style="list-style-type: none"> <li>(i) the name, address and telephone number of the person or company carrying out the filming (including a contact person),</li> <li>(ii) a description of the nature of the proposed filming and any anticipated disruption to persons in the neighbourhood.</li> </ul>
<b>Flagpoles</b> —installation of flagpoles	(a) Height must not exceed 6m above ground level. (b) Must not project beyond property boundaries. (c) Must be no more than 1 flagpole per property. (d) Must not be used to display a flag that exceeds 1m <sup>2</sup> in area. (e) Must not be used to display flags that are advertisements.
<b>Greenhouses, garden sheds, studios, cubby houses or playground equipment</b> —erection of greenhouses, garden sheds, studios, cubby houses or playground equipment	(a) Except where the land concerned is in Zone 12—Special Uses: <ul style="list-style-type: none"> <li>(i) each greenhouse, garden shed, studio, cubby house or item of playground equipment must not occupy an area greater than 10m<sup>2</sup>, and</li> <li>(ii) the total combined floor space of any greenhouse, garden shed, studio, cubby house and item of playground equipment on the land concerned must not exceed 40m<sup>2</sup>, and</li> <li>(iii) height must not exceed 4m above ground level.</li> </ul> (b) The floor must be located at or near ground level.

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
	<p>(c) Must be set back from the front boundary of the relevant land no further forward than either of the following:</p> <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> <p>(d) Must be set back from the side and rear boundaries of the relevant land:</p> <ul style="list-style-type: none"> <li>(i) at least 1.5m, if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland), or</li> <li>(ii) at least 0.5m, in any other case.</li> </ul>
<b>Home occupations</b> —carrying out of home occupations	<p>(a) If there is any sound producing machinery, equipment or fittings associated with or forming part of a mechanical ventilation system or refrigeration system that is used in carrying out the home occupation, the machinery, equipment or fittings:</p> <ul style="list-style-type: none"> <li>(i) must be sound insulated or isolated so that the noise emitted does not exceed LAeq of 5 dB(A) above the background level in any octave band from 63 Hz centre frequencies inclusive, as measured at the property boundary in accordance with the Australian Standard entitled AS 1055.1—1997, <i>Acoustics—Description and measurement of environmental noise, Part 1: General procedures</i>, and</li> <li>(ii) must not emit any tonal, impulsive or intermittent sounds, and</li> <li>(iii) must not be audible in any residential room on adjoining property.</li> </ul> <p>(b) Must only be carried out between 8am and 6pm, Monday to Saturday.</p>

Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Horses</b> —keeping of horses	<ul style="list-style-type: none"> <li>(a) Must not be kept on a wetland.</li> <li>(b) Must be no more than 1 horse per lot.</li> <li>(c) Must not be kept, and any part of any stable, corral, exercise yard or the like must not be located, closer than 9m from: <ul style="list-style-type: none"> <li>(i) any dwelling, school, shop, office, factory, workshop, church, public hall, or</li> <li>(ii) any premises used for the manufacture, preparation or storage of food.</li> </ul> </li> <li>(d) The horse must be provided with a yard having an area of at least 30m<sup>2</sup> and a width of at least 3m.</li> <li>(e) Bushland within horse yards (paddocks) is to be fenced off to protect the vegetation from damage.</li> <li>(f) Horse yards or paddocks that contain or are adjacent to drainage lines, or are adjacent to bushland, must have a 0.3m fenced off buffer from the drainage line or bushland.</li> </ul>
<b>Letterboxes</b> —installation of letterboxes	Must not be installed at a height greater than 1.2m above ground level.
<b>Outdoor eating areas</b> —use of land as an outdoor eating area in conjunction with a restaurant	<ul style="list-style-type: none"> <li>(a) Must comply with <i>Sutherland Shire Environmental Specification—Outdoor Eating Areas 2004</i>.</li> <li>(b) If the land is public land (within the meaning of the <i>Local Government Act 1993</i>), a licence must be obtained from the Council before any outdoor eating activities are undertaken.</li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Pergolas, awnings, shade structures or sunshades</b> —installation of:	
(a) pergolas, or	(a) Except where the land concerned is in Zone 12—Special Uses, each pergola, awning or shade structure or sunshade must not occupy an area greater than 20m <sup>2</sup> .
(b) fixed awnings (other than shop front awnings), shade structures or sunshades at ground floor level or over an existing first floor deck.	(b) Except where the land concerned is in Zone 12—Special Uses, height must not exceed 2.7m above: <ul style="list-style-type: none"> <li>(i) ground level if proposed to be erected at ground floor level, or</li> <li>(ii) the deck if proposed to be erected over an existing first floor deck.</li> </ul>
	(c) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul>
	(d) Must be set back from the side and rear boundaries of the relevant land: <ul style="list-style-type: none"> <li>(i) at least 1.5m, if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland), or</li> <li>(ii) at least 0.5m, in any other case.</li> </ul>
<b>Portable classrooms</b> —erection of portable classrooms	(a) Must be erected on land on which a government school or a non-government school (within the meaning of the <i>Education Act 1990</i> ) is located.
	(b) Height must not exceed 1 storey.
	(c) Must not be used for more than 5 years after the date of its erection.

Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Public facilities and amenities</b> — carrying out of any of the following by or on behalf of the Council or (if on Crown Land) with authorisation under the <i>Crown Lands Act 1989</i> :	(a) Must be carried out on land vested in or under the control of the Council.
(a) installation of any of the following:	(b) The following must be authorised by a plan of management under the <i>Local Government Act  1993</i> :
(i) playground equipment,	(i) installation of park and street furniture,
(ii) park and street furniture (such as seats, bins, picnic tables and barbecues),	(ii) installation of public toilet facilities,
(iii) public toilets,	(iii) installation of lighting to enable night time sport,
(iv) steps or staircases,	(iv) markets, concerts, fetes and the like,
(v) sporting facilities, including lighting to enable night time sport, security equipment or devices, goal posts, sight screens and the like,	(v) beach and foreshore protection works.
(vi) public transport facilities,	
(b) use of land for the purpose of recreational, sporting, entertainment or cultural activities and the erection of any ancillary structures,	
(c) landscaping, gardening or beach and foreshore protection works.	

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Rainwater tanks</b> —installation of rainwater tanks other than on a lot within the meaning of the <i>Strata Schemes (Freehold Development) Act 1973</i> or the <i>Strata Schemes (Leasehold Development) Act 1986</i>	<ul style="list-style-type: none"> <li>(a) Must be designed to capture and store roof water from gutters or downpipes on a building only.</li> <li>(b) Drainage connections must comply with AS/NZS 3500.1:2003, <i>Plumbing and drainage, Part 1: Water services</i>.</li> <li>(c) Overflows must be connected to an approved stormwater system.</li> <li>(d) Height must not exceed 2.4m above ground level (including any stand).</li> <li>(e) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> </li> <li>(f) Must be set back at least 0.45m from side and rear boundaries of the relevant land.</li> <li>(g) Capacity must not exceed 10,000 litres.</li> <li>(h) Must be installed and maintained in accordance with any requirements of an applicable public authority.</li> <li>(i) Must be prefabricated, or constructed from prefabricated elements that were designed and manufactured for the purpose of the construction of a rainwater tank.</li> <li>(j) Must not involve the excavation beyond 1m below ground level, or the filling of more than 1m above ground level.</li> <li>(k) Must be enclosed and any inlet screened.</li> <li>(l) Any lid must be designed to prevent entry by children (whether or not by accidentally entering, climbing or falling into the tank).</li> <li>(m) Must contain a first flush system to prevent the entry of animals and contaminants.</li> <li>(n) Suitable proofing for the prevention of mosquito breeding must be provided.</li> <li>(o) Must not include pumps except where a recycling and reuse system is employed.</li> </ul>

Sutherland Shire Local Environmental Plan 2006

Exempt development

Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Retaining walls</b> —erection of retaining walls	(p) Any motorised pump must not:
	(i) emit any noise exceeding LAeq of 5 dB(A) above the background level in any octave band from 63 Hz centre frequencies inclusive, as measured at the property boundary in accordance with the Australian Standard entitled AS 1055.1—1997, <i>Acoustics—Description and measurement of environmental noise, Part 1: General procedures</i> , or
	(ii) emit any tonal, impulsive or intermittent sounds, or
	(iii) be audible in any residential room on adjoining property.
	(q) A sign must be affixed to the tank clearly stating that the water in the tank is “Rainwater—not for human consumption”.
	(a) Site must not be filled, or raised, more than 0.3m within 1.5m of side or rear boundaries of the relevant land.
	(b) Height must not exceed 0.6m above ground level.
	(c) Must be no longer than 20m.
	(d) Must not result in there being more than 2 successive rows of retaining walls on the land being supported.
	(e) Must be constructed so as not to cause a drainage nuisance.
	(f) Masonry walls must comply with the following:
	(i) the Australian Standards entitled AS 3700—2001, <i>Masonry structures</i> , AS 3600—2001, <i>Concrete structures</i> and AS 1170.4—1993, <i>Minimum design loads on structures (known as the SAA Loading Code)</i> , Part 4: <i>Earthquake loads</i> ,

## Sutherland Shire Local Environmental Plan 2006

Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
	<ul style="list-style-type: none"> <li>(ii) the Australian and New Zealand Standards entitled AS/NZS 1170.0:2002, <i>Structural design actions—General principles</i>, AS/NZS 1170.1:2002, <i>Structural design actions, Part 1: Permanent, imposed and other actions</i> and AS/NZS 1170.2:2002, <i>Structural design actions, Part 2: Wind actions</i>.</li> <li>(g) Timber walls must comply with the following: <ul style="list-style-type: none"> <li>(i) the Australian Standards entitled AS 1720.1—1997, <i>Timber structures, Part 1: Design methods</i>, AS 1720.2—2006, <i>Timber structures, Part 2: Timber properties</i>, AS 1720.4—1990, <i>Timber structures, Part 4: Fire-resistance of structural timber members</i> and AS 1170.4—1993, <i>Minimum design loads on structures (known as the SAA Loading Code)</i>, Part 4: <i>Earthquake loads</i>,</li> <li>(ii) the Australian and New Zealand Standards entitled AS/NZS 1170.0:2002, <i>Structural design actions—General principles</i>, AS/NZS 1170.1:2002, <i>Structural design actions, Part 1: Permanent, imposed and other actions</i> and AS/NZS 1170.2:2002, <i>Structural design actions, Part 2: Wind actions</i>.</li> </ul> </li> </ul>

**Subdivision**—subdivision for the purpose of creating a lot of land to be acquired by, or dedicated to, the Council or the corporation for the purpose of public open space

**Traffic management facilities (including traffic signal devices)**—installation of traffic management facilities (including traffic signal devices) by a roads authority within the meaning of the *Roads Act 1993*

## Sutherland Shire Local Environmental Plan 2006

## Exempt development

## Schedule 2

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Water heaters</b> —installation of water heaters (including the replacement of existing heat pump hot water heaters and solar water heaters)	<ul style="list-style-type: none"> <li>(a) Height must not exceed the highest point of a pitched roof, or 1m above the highest point of a flat roof, of the building it will serve.</li> <li>(b) Must be flush with roof alignment.</li> <li>(c) Must complement colour of roofing materials.</li> <li>(d) Must not be visible from any: <ul style="list-style-type: none"> <li>(i) street, or</li> <li>(ii) foreshore, or</li> <li>(iii) public place (including any waterway or reserves), or</li> <li>(iv) windows of habitable rooms of adjoining properties.</li> </ul> </li> <li>(e) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> </li> <li>(f) Must not reduce the structural integrity of the building or involve structural alterations.</li> <li>(g) The water heater must not: <ul style="list-style-type: none"> <li>(i) emit any noise exceeding LAeq of 5 dB(A) above the background level in any octave band from 63 Hz centre frequencies inclusive, as measured at the property boundary in accordance with the Australian Standard entitled AS 1055.1—1997, <i>Acoustics—Description and measurement of environmental noise, Part 1: General procedures</i>, or</li> <li>(ii) emit any tonal, impulsive or intermittent sounds, or</li> <li>(iii) in the case of a domestic water heater—be audible in any residential room on adjoining property between 8pm and 7am on Monday, Tuesday, Wednesday, Thursday or Friday or between 10pm and 8am on weekends or public holidays.</li> </ul> </li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 2 Exempt development

Column 1	Column 2
Type of development	Development standards and other requirements
	(h) Must not involve the lopping of trees (for example, in order to achieve solar access for solar water heaters).
<p><b>Water undertakings</b>—any development carried out by or on behalf of Sydney Water Corporation Limited comprising:</p> <p>(a) emergency work that involves the repair or replacement of any part of Sydney Water Corporation Limited's works:</p> <p>(i) because it has been (or is being) damaged by a natural disaster, an accident, an act of vandalism or a similar occurrence, or</p> <p>(ii) because it has suddenly ceased to function or suddenly ceased to function adequately (including work reasonably necessary to prevent or limit any further damage or malfunction), or</p> <p>(b) routine maintenance involving periodic repair and replacement of works (other than routine maintenance of works that would result in an increase in the designed capacity of any part of those works).</p> <p><b>Note.</b> See also clause 29 of this plan (Crown development and public utilities).</p>	

Sutherland Shire Local Environmental Plan 2006

Complying development

Schedule 3

## Schedule 3 Complying development

(Clause 13)

### 1 Complying development in Zone 1, 2, 3, 4, 12, 13 or 15

The Table to this clause applies only to land in any of the following zones:

- (a) Zone 1—Environmental Housing (Environmentally Sensitive Land),
- (b) Zone 2—Environmental Housing (Scenic Quality),
- (c) Zone 3—Environmental Housing (Bushland),
- (d) Zone 4—Local Housing,
- (e) Zone 12—Special Uses,
- (f) Zone 13—Public Open Space,
- (g) Zone 15—Private Recreation.

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Bed and breakfast accommodation</b> —use of a dwelling for bed and breakfast accommodation, other than a dwelling that is part of a dual occupancy, townhouse, villa house or residential flat building	<ul style="list-style-type: none"> <li>(a) Must be no more than 1 sign advertising the accommodation on the site and any such advertising sign must: <ul style="list-style-type: none"> <li>(i) have been provided by the Sutherland Shire Tourism Association, and</li> <li>(ii) be located behind the building alignment, and</li> <li>(iii) not have an area of more than 1.5m<sup>2</sup>.</li> </ul> </li> <li>(b) At least 1 off-street car parking space must be provided for guests in addition to any residential parking.</li> <li>(c) Car parking spaces must be located so as to minimise disturbance to, and preserve the privacy of, other residences.</li> <li>(d) Locks must be fitted to guest rooms and external doors, and must be capable of being opened from the inside by a single handed action without the need for a key.</li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 3 Complying development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Building alterations (internal)</b> other than the following: <ul style="list-style-type: none"> <li>(a) alterations to incomplete buildings,</li> <li>(b) the installation of oil or solid fuel heating appliances,</li> <li>(c) the installation of any commercial mechanical exhaust ventilation system.</li> </ul>	<p>Alterations to any part of residential premises used for the purpose of preparation or storage of food for sale to the public as part of a home occupation must comply with the following:</p> <ul style="list-style-type: none"> <li>(a) the Council's <i>Code for Food Premises</i>,</li> <li>(b) the Council's <i>Code for Commercial Home Catering</i>.</li> </ul>
<b>Cabanas or gazebos</b> —erection of cabanas or gazebos	<ul style="list-style-type: none"> <li>(a) Must not occupy an area greater than 40m<sup>2</sup>.</li> <li>(b) Height must not exceed 4m above ground level.</li> <li>(c) Finished floor level must not be greater than 1m above ground level.</li> <li>(d) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> </li> <li>(e) Must be set back from the side and rear boundaries of the relevant land: <ul style="list-style-type: none"> <li>(i) at least 1.5m, if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland), or</li> <li>(ii) at least 0.5m, in any other case.</li> </ul> </li> </ul>
<b>Decks or patios</b> —installation of decks or patios	<ul style="list-style-type: none"> <li>(a) Finished surface level must not be greater than 1m above ground level.</li> <li>(b) Must not occupy an area greater than 40m<sup>2</sup>.</li> <li>(c) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining property.</li> </ul> </li> </ul>

Sutherland Shire Local Environmental Plan 2006

Complying development

Schedule 3

Column 1	Column 2
Type of development	Development standards and other requirements
	<p>(d) Must be set back at least 1.5m from side and rear boundaries of the relevant land in the following cases:</p> <ul style="list-style-type: none"> <li>(i) if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland),</li> <li>(ii) a deck or patio that has a height of more than 0.5m above ground level,</li> <li>(iii) a deck to a swimming pool if the pool or the deck stands higher than 0.5m above ground level.</li> </ul> <p>(e) Must be set back at least 0.9m from side and rear boundaries of the relevant land in any case other than a case referred to in paragraph (d).</p> <p>(f) Must be sufficiently stepped down from any associated dwelling so as to prevent the entry of water to the dwelling.</p>
<b>Demolition of buildings</b>	<p>(a) Must be carried out in accordance with the Australian Standard entitled AS 2601—2001, <i>Demolition of structures</i>.</p> <p>(b) Must not be carried out in connection with the decontamination, rehabilitation or remediation of contaminated land (within the meaning of Part 7A of the Act).</p> <p>(c) Water run-off and site erosion controls:</p> <ul style="list-style-type: none"> <li>(i) must be installed prior to the commencement of work, and</li> <li>(ii) must be maintained continuously, during the period in which work is carried out, and in accordance with the requirements of Volume 1 of <i>Managing Urban Stormwater: Soils and Construction</i> (published by Landcom, March 2004) and <i>Sutherland Shire Environmental Specification—Landscaping 2004</i>.</li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 3 Complying development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Dwelling houses</b> —erection of, or additions or alterations to, single storey or two-storey dwelling houses, other than:	
(a) the addition of any storey to two-storey dwelling houses, or	
(b) any erection, alterations or additions on land:	
(i) in Zone 1— Environmental Housing (Environmentally Sensitive Land), Zone 2— Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland), or	
(ii) on which the Australian Noise Exposure Forecast (endorsed by Airservices Australia and current on the commencement of this plan) is between 20 and 25.	

Sutherland Shire Local Environmental Plan 2006

Complying development

Schedule 3

Column 1	Column 2
Type of development	Development standards and other requirements
General requirements	<p>(a) Must not involve the installation of any oil or solid fuel heating appliance or any commercial mechanical exhaust ventilation system.</p> <p>(b) Must be set back from the front boundary of the relevant land no further forward than either of the following:</p> <ol style="list-style-type: none"> <li>the building line of the relevant land,</li> <li>the alignment of any dwelling on any adjoining land.</li> </ol> <p>(c) Must be set back at least 4.5m from the rear boundaries of the relevant land.</p> <p>(d) Any cut or fill must not exceed 1m in depth and the area of the site cut or filled must not exceed an area that is equivalent to 60% of the area of the building footprint.</p> <p>(e) Any fill must be retained within the property boundaries.</p> <p>(f) If the relevant land is bush fire prone land, building work is to comply with the construction provisions for buildings located on bush fire prone land of <i>Sutherland Shire Environmental Specification—Bush Fire 2004</i>.</p> <p>(g) In the case of the erection of a new dwelling:</p> <ol style="list-style-type: none"> <li>the dwelling must be entitled to at least a 4 star rating under the National House Energy Rating Scheme (NatHERS), and</li> <li>at least 2 car parking spaces per dwelling must be provided behind the building line.</li> </ol> <p><b>Note.</b> See separate entry under <b>Garages</b> in this Table for relevant requirements relating to the erection of garages as complying development.</p> <p>See also entry under <b>Driveways or pathways</b> in Schedule 2 for relevant requirements relating to the installation of driveways as exempt development.</p>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 3 Complying development

Column 1	Column 2
Type of development	Development standards and other requirements
	<p>(h) In the case of the erection of a new dwelling, or an addition to an existing dwelling—water run-off and site erosion controls:</p> <p>(i) must be installed prior to the commencement of work, and</p> <p>(ii) must be maintained continuously, during the period in which work is carried out, and in accordance with the requirements of Volume 1 of <i>Managing Urban Stormwater: Soils and Construction</i> (published by Landcom, March 2004) and <i>Sutherland Shire Environmental Specification—Landscaping 2004</i>.</p> <p>(i) In the case of the erection of a new dwelling, or an addition to an existing dwelling—stormwater must be discharged:</p> <p>(i) by gravity feed to the street gutter or a drainage structure within an easement to drain water, or</p> <p>(ii) to dispersal pits in accordance with the Council's <i>Stormwater Policy and Guidelines</i>.</p> <p>(j) In the case of the erection of a new dwelling, or an addition to an existing dwelling—connection to any existing domestic stormwater disposal system must not be made unless the system is capable of disposing of any increased stormwater generated by the development.</p> <p>(k) Any new part of residential premises used for the purpose of preparation or storage of food for sale to the public as part of a home occupation must comply with the following:</p> <p>(i) the Council's <i>Code for Food Premises</i>,</p> <p>(ii) the Council's <i>Code for Commercial Home Catering</i>.</p>
<b>Dwelling houses (single storey)</b> —erection of, or additions or alterations to, single storey dwelling houses (other than the addition of another storey)	<p>(a) Height of dwelling on completion must not exceed 5.4m, as measured from ground level to the highest point of the roof.</p> <p>(b) Must be set back at least 0.9m from the side boundaries of the relevant land.</p>

Sutherland Shire Local Environmental Plan 2006

Complying development

Schedule 3

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Dwelling houses (two-storey)</b> —erection of two-storey dwelling houses, addition of a second storey to single storey dwelling houses, alterations or additions (other than the addition of another storey) to a two-storey dwelling house	<p>(a) Must not involve any of the following:</p> <p>(i) the erection of any balconies off the second storey of the dwelling concerned that face the side or rear boundaries of the relevant land,</p> <p>(ii) the erection of a kitchen on the ground floor of the dwelling concerned.</p> <p>(b) Height of dwelling on completion, must be no greater than either of the following:</p> <p>(i) 7.2m, as measured from ground level to the ceiling of the second floor,</p> <p>(ii) 9m, as measured from ground level to the highest point of the roof.</p> <p>(c) Any proposed second storey must be set back from the street to which the dwelling has frontage at least the distance equal to 50% of the depth of the site, as measured at a right angle from the street.</p> <p>(d) Must be set back at least 1.5m from the side boundaries of the relevant land.</p>
<b>Fences, gates or retaining walls</b> —erection of fences, gates or retaining walls, other than the following:	<p>(a) Front fences within the front building line must not exceed 1m in height above ground level.</p> <p>(b) Side or rear fences must not exceed 1.8m in height above ground level.</p> <p>(c) Retaining walls:</p> <p>(i) must be set back at least 0.5m from any boundary, and</p> <p>(ii) must not exceed 1m in height above ground level, and</p> <p>(iii) must not be longer than 20m.</p>
(a) fences erected along the street boundary of land occupied by dual occupancies, townhouses or villa houses,	
(b) front fences erected on land at Alfords Point, Barden Ridge, Bangor, Bonnet Bay, Illawong, Lucas Heights, Menai, Woronora Heights or Sylvania Waters if covenants applying to the land restrict the erection of such fences,	

## Sutherland Shire Local Environmental Plan 2006

## Schedule 3 Complying development

Column 1	Column 2
Type of development	Development standards and other requirements
<p>(c) fences erected between the rear of dwellings and the waterway at Sylvania Waters if covenants applying to the land restrict the erection of such fences.</p> <p><b>Fire alarms</b>—any internal alterations to a building carried out for the purpose of converting fire alarms, including:</p> <p>(a) converting a fire alarm system from connection with the alarm monitoring system of New South Wales Fire Brigades to connection with the alarm monitoring system of a private service provider, or</p> <p>(b) converting a fire alarm system from connection with the alarm monitoring system of a private service provider to connection with the alarm monitoring system of another private service provider, or</p> <p>(c) converting a fire alarm system from connection with the alarm monitoring system of a private service provider to connection with a different alarm monitoring system of the same private service provider.</p>	<p>The mounting of any antenna, and any support structure, on an external wall or roof of a building must not occupy a space of more than 450mm × 100mm × 100mm.</p>

Sutherland Shire Local Environmental Plan 2006

Complying development

Schedule 3

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Garages</b> —erection of garages	<ul style="list-style-type: none"> <li>(a) Must not occupy an area of more than 40m<sup>2</sup>.</li> <li>(b) Height must not exceed 4m above ground level.</li> <li>(c) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> </li> <li>(d) Must be set back as follows from side boundaries of the relevant land: <ul style="list-style-type: none"> <li>(i) at least 1.5m if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland),</li> <li>(ii) at least 0.5m if the garage is detached and to the rear of any dwelling with which it is associated,</li> <li>(iii) at least 0.9m in any other case.</li> </ul> </li> <li>(e) Finished floor level must be no more than 1m above ground level.</li> </ul>
<b>Greenhouses, garden sheds, studios or cubby houses</b> —erection of greenhouses, garden sheds, studios or cubby houses	<ul style="list-style-type: none"> <li>(a) Must only be erected in rear or side yards.</li> <li>(b) Must not occupy an area of more than 40m<sup>2</sup> except on land in Zone 15—Private Recreation.</li> <li>(c) Height must not exceed 4m above ground level.</li> <li>(d) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> </li> </ul>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 3 Complying development

Column 1	Column 2
Type of development	Development standards and other requirements
	<ul style="list-style-type: none"> <li>(e) Must be set back as follows from side boundaries of the relevant land: <ul style="list-style-type: none"> <li>(i) at least 1.5m if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland),</li> <li>(ii) at least 0.5m if the proposed building is detached and to the rear of any dwelling with which it is associated,</li> <li>(iii) at least 0.9m in any other case.</li> </ul> </li> <li>(f) The finished floor level must be no more than 1m above ground level.</li> </ul>
<b>Pergolas, awnings, shade structures, sunshades or carports</b> —erection or installation of pergolas, awnings, shade structures, sunshades or carports	<ul style="list-style-type: none"> <li>(a) Must not occupy an area greater than 40m<sup>2</sup> except on land in Zone 12—Special Uses or Zone 15—Private Recreation.</li> <li>(b) Height must not exceed 4m above ground level.</li> <li>(c) Must be set back from the front boundary of the relevant land no further forward than either of the following: <ul style="list-style-type: none"> <li>(i) the building line of the relevant land,</li> <li>(ii) the alignment of any dwelling on any adjoining land.</li> </ul> </li> <li>(d) Must be set back as follows from side and rear boundaries of the relevant land: <ul style="list-style-type: none"> <li>(i) at least 1.5m if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland),</li> <li>(ii) at least 0.5m in any other case.</li> </ul> </li> <li>(e) The finished floor level must be no more than 1m above ground level.</li> </ul>
<b>Seawalls</b> —reconstruction, replacement or repair of seawalls in Sylvania Waters	

Sutherland Shire Local Environmental Plan 2006

Complying development

Schedule 3

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Subdivision of land for the purpose of any of the following:</b>	
(a) widening of a public road by a roads authority (within the meaning of the <i>Roads Act 1993</i> ),	(a) In the case of subdivision carried out for the purpose of adjusting a boundary between lots—the size and dimensions of resulting lots must not be less than any relevant minimum size and dimensions provided for in clauses 39–42 of this plan.
(b) adjusting a boundary between lots (including correcting an encroachment on a lot),	(b) In the case of subdivision carried out for the purpose of adjusting a boundary between lots—the subdivision must not result in an increased number of lots or the reorientation of lots.
(c) creating a lot within the meaning of the <i>Strata Schemes (Freehold Development) Act 1973</i> or the <i>Strata Schemes (Leasehold Development) Act 1986</i> ,	(c) In the case of subdivision carried out for the purpose of creating a lot within the meaning of strata subdivision of the <i>Strata Schemes (Freehold Development) Act 1973</i> or the <i>Strata Schemes (Leasehold Development) Act 1986</i> : <ul style="list-style-type: none"> <li>(i) the erection of any building comprised in the lot must have been approved and carried out after 1 July 1988, and</li> <li>(ii) any development carried out for the purpose of the building (including the erection of the building) must have been carried out in accordance with any relevant development consent.</li> </ul>
(d) creating a lot for a public reserve.	(d) In the case of subdivision creating a lot for a public reserve—the size and dimension of any residue lot must not be less than any relevant minimum size and dimensions provided for in clauses 39–42.

## Sutherland Shire Local Environmental Plan 2006

## Schedule 3 Complying development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Swimming pools or safety fences associated with swimming pools (including related gates)</b> — installation or erection of swimming pools or safety fencing associated with swimming pools (including related gates)	<p>(a) Must only be installed or erected in rear or side yards.</p> <p>(b) The pool (including any surrounds or decking) and any safety fence must be set back as follows from side and rear boundaries of the relevant land:</p> <ul style="list-style-type: none"> <li>(i) at least 1.5m if the land is in Zone 1—Environmental Housing (Environmentally Sensitive Land), Zone 2—Environmental Housing (Scenic Quality) or Zone 3—Environmental Housing (Bushland),</li> <li>(ii) at least 1.5m if the pool, its surrounds or decking stands higher than 0.5m above ground level,</li> <li>(iii) at least 1m in any other case.</li> </ul> <p>(c) In the case of the installation of a swimming pool:</p> <ul style="list-style-type: none"> <li>(i) the pool (whether or not in-ground) must not exceed a height of 1m above ground level, and</li> <li>(ii) any pool pump and equipment associated with the pump must be sound insulated or isolated so that the noise emitted does not exceed an LAeq of 5 dB(A) above background noise level in any octave band from 63 Hz centre frequencies inclusive, as measured at the property boundary in accordance with the Australian Standard entitled AS 1055.1—1997, <i>Acoustics—Description and measurement of environmental noise, Part 1: General procedures</i>, and</li> <li>(iii) if the pool, its surrounds or decking stands more than 0.5m above ground level—the pool, its surrounds and any decking must be screened by plants.</li> </ul>

Sutherland Shire Local Environmental Plan 2006

Complying development

Schedule 3

Column 1	Column 2
Type of development	Development standards and other requirements
	<p>(d) Safety fencing must comply with the relevant requirements of Australian Standards entitled AS 1926.1—1993, <i>Swimming pool safety, Part 1: Fencing for swimming pool</i> and AS 1926.2—1995, <i>Swimming pool safety, Part 2: Location of fencing for private swimming pools</i>.</p> <p><b>Note.</b> The <i>Swimming Pools Act 1992</i> and regulations contain requirements relating to swimming pools, including child resistant barriers.</p>

## 2 Complying development in Zone 5, 6, 8, 9, 10, 11 or 21

The Table to this clause applies only to land in any of the following zones:

- (a) Zone 5—Multiple Dwelling A,
- (b) Zone 6—Multiple Dwelling B,
- (c) Zone 8—Urban Centre,
- (d) Zone 9—Local Centre,
- (e) Zone 10—Neighbourhood Centre,
- (f) Zone 11—Employment,
- (g) Zone 21—Railway.

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Building alterations (external)</b> other than alterations to incomplete buildings	<p>(a) If the land concerned is community land, within the meaning of the <i>Local Government Act 1993</i>, the alterations must be authorised by a plan of management prepared under that Act.</p> <p>(b) If the alterations involve the erection of a roof over a wash bay area for a business that carries out wet processes (for example, the washing of vehicles)—the wash bay area must be located behind the building line.</p>

## Sutherland Shire Local Environmental Plan 2006

## Schedule 3 Complying development

Column 1	Column 2
Type of development	Development standards and other requirements
<b>Building alterations (internal)</b> other than the following:	(a) Must not increase the gross floor area of premises used for industry unless:
(a) alterations to incomplete buildings,	(i) the increase in area results from the addition of an internal mezzanine floor, and
(b) the installation of any commercial mechanical exhaust ventilation system.	(ii) the internal mezzanine floor is added for the purpose of storage or amenities, and
	(iii) the increase in area does not exceed 50m <sup>2</sup> .
	(b) Must not increase the gross floor area of business premises (including pedestrian arcades).
	(c) Alterations to any part of residential premises used for the purpose of preparation or storage of food for sale to the public as part of a home occupation must comply with the following:
	(i) the Council's <i>Code for Food Premises</i> ,
	(ii) the Council's <i>Code for Commercial Home Catering</i> .
	(d) If the alterations are for the purpose of a food shop or restaurant, the alterations:
	(i) must comply with the Council's <i>Code for Food Premises</i> , and
	(ii) must not involve the erection or installation of an externally mounted or located exhaust duct, fan or refrigeration unit.
	(e) If the alterations are for the purpose of a beauty salon or a hairdresser, they must comply with any relevant standards under the <i>Local Government Act 1993</i> (being standards that are enforceable by the making of Order No 5 under section 124 of that Act).

Sutherland Shire Local Environmental Plan 2006

Complying development

Schedule 3

Column 1	Column 2
Type of development	Development standards and other requirements
	<p>(f) If the alterations are to sound producing machinery, or fittings, associated with or forming part of an existing mechanical ventilation system or refrigeration system, the machinery or fittings as altered:</p> <p>(i) must be sound insulated or isolated so that the noise emitted does not exceed LAeq of 5 dB(A) above the background level in any octave band from 63 Hz centre frequencies inclusive, as measured at the property boundary in accordance with the Australian Standard entitled AS 1055.1—1997, <i>Acoustics—Description and measurement of environmental noise, Part 1: General procedures</i>, and</p> <p>(ii) must not emit any tonal, impulsive or intermittent sounds.</p>
<b>Demolition of any part of a building erected in carrying out an alteration permitted by this Table</b>	<p>(a) Must be carried out in accordance with the Australian Standard entitled AS 2601—2001, <i>Demolition of structures</i>.</p> <p>(b) Must not be carried out in connection with the decontamination, rehabilitation or remediation of contaminated land (within the meaning of Part 7A of the Act).</p>
<b>Subdivision of land for the purpose of any of the following:</b>	<p>(a) In the case of subdivision carried out for the purpose of adjusting a boundary between lots—the size and dimensions of resulting lots must not be less than any relevant minimum size and dimensions provided for in clauses 39–42 of this plan.</p> <p>(b) In the case of subdivision carried out for the purpose of adjusting a boundary between lots—the subdivision must not result in an increased number of lots or the reorientation of lots.</p>
(a) widening of a public road by a public authority,	
(b) adjusting a boundary between lots (including correcting an encroachment on a lot),	
(c) creating a lot within the meaning of the <i>Strata Schemes (Freehold Development) Act 1973</i> or the <i>Strata Schemes (Leasehold Development) Act 1986</i> ,	
(d) creating a lot for a public reserve.	

## Sutherland Shire Local Environmental Plan 2006

Schedule 3      Complying development

Column 1	Column 2
Type of development	Development standards and other requirements
	<p>(c) In the case of subdivision carried out for the purpose of creating a lot within the meaning of strata subdivision of the <i>Strata Schemes (Freehold Development) Act 1973</i> or the <i>Strata Schemes (Leasehold Development) Act 1986</i>:</p> <p>(i) the erection of any building comprised in the lot must have been approved and carried out after 1 July 1988, and</p> <p>(ii) any development carried out for the purpose of the building (including the erection of the building) must have been carried out in accordance with any relevant development consent.</p> <p>(d) In the case of subdivision creating a lot for a public reserve—the size and dimension of any residue lot must not be less than any relevant minimum size and dimensions provided for in clauses 39–42.</p>

Sutherland Shire Local Environmental Plan 2006

Classification and reclassification of public land

Schedule 4

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## **Schedule 4      Classification and reclassification of public land**

(Clause 25)

### **Part 1      Land classified, or reclassified, as operational land—no interests changed**

Column 1	Column 2
Locality	Description

### **Part 2      Land classified, or reclassified, as operational land—interests changed**

Column 1	Column 2	Column 3
Locality	Description	Any trusts etc not discharged

### **Part 3      Land classified, or reclassified, as community land**

Column 1	Column 2
Locality	Description

Sutherland Shire Local Environmental Plan 2006

Schedule 5 Land for which the corporation is an acquiring authority

## Schedule 5 Land for which the corporation is an acquiring authority

(Clause 26)

Column 1	Column 2
Property address	Real property description
<b>Barden Ridge</b>	
531–533 Woronora River Frontages, Barden Ridge	Lot 240A, DP 18174
531–533 Woronora River Frontages, Barden Ridge	Lot 241, DP 8755
637 Woronora River Frontages, Barden Ridge	Lot A, DP 344275
<b>Bundeena</b>	
74–78 Scarborough Street, Bundeena	Lot 5, Section I, DP 1782
<b>Heathcote</b>	
1623 Princes Highway, Heathcote	Lot 1, DP 1030130
1631 Princes Highway, Heathcote	Lot 1, DP 134274
<b>Illawong</b>	
183–187 Fowler Road, Illawong	The part of Lot 1, DP 307232 that is in Zone 14—Public Open Space (Bushland)
189 Fowler Road, Illawong	The part of Lot 2, DP 307232 that is in Zone 14—Public Open Space (Bushland)
199A Fowler Road, Illawong	The part of Lot 302, DP 1008448 that is in Zone 14—Public Open Space (Bushland)
203 Fowler Road, Illawong	The part of Lot 101, DP 598864 that is in Zone 14—Public Open Space (Bushland)
207 Fowler Road, Illawong	The part of Lot 15, DP 1041447 that is in Zone 14—Public Open Space (Bushland)
207A Fowler Road Illawong	Lot 16, DP 1041447
215 Fowler Road, Illawong	The part of Lot 102, DP 880759 that is in Zone 14—Public Open Space (Bushland)
5–7 Griffin Parade, Illawong	The part of Lot B, DP 311660 that is in Zone 14—Public Open Space (Bushland)

Sutherland Shire Local Environmental Plan 2006

Land for which the corporation is an acquiring authority

Schedule 5

Column 1	Column 2
Property address	Real property description
9–11 Griffin Parade, Illawong	The part of Lot A, DP 311424 that is in Zone 14—Public Open Space (Bushland)
<b>Waterfall</b>	
26–34 Mirang Road, Waterfall	Lot 726, DP 752033
<b>Woronora Heights</b>	
356 Woronora River Frontages, Woronora	Lot A, DP 358404
360 Woronora River Frontages, Woronora	Lot 6, DP 18836
362–368 Woronora River Frontages, Woronora	Lot 7, DP 18836
362–368 Woronora River Frontages, Woronora	Lot 8, DP 18836
362–368 Woronora River Frontages, Woronora	Lot 9, DP 18836
362–368 Woronora River Frontages, Woronora	Lot 10, DP 18836
374–380 Woronora River Frontages, Woronora	Lot 13, DP 18836
374–380 Woronora River Frontages, Woronora	Lot 14, DP 18836
374–380 Woronora River Frontages, Woronora	Lot 15, DP 18836
374–380 Woronora River Frontages, Woronora	Lot 16, DP 18836
382 Woronora River Frontages, Woronora	Lot 17, DP 18836

Sutherland Shire Local Environmental Plan 2006

Schedule 6 Heritage items

## Schedule 6 Heritage items

(Clause 54)

### Key to identifiers—corresponding to number given in Sutherland Shire Heritage Inventory

<b>A</b>	= item of non-Aboriginal archaeological significance
<b>Ar</b>	= item comprises an area or precinct that is an archaeological site
<b>B</b>	= item is a building
<b>L</b>	= item is a landscape
<b>Lf</b>	= item is a significant landform
<b>Ot</b>	= item is an item other than any of the above (includes monuments, relics and fences)
<b>R</b>	= item is of regional heritage significance
<b>S</b>	= item is of State heritage significance
<b>T</b>	= item is a significant tree or trees

#### Alfords Point

##### Alfords Point Road

Alfords Point, Georges River State Recreation Area—**L194R**

#### Audley (Royal National Park)

##### Artillery Hill

Stone work on road, 300m from the Visitors Centre, crosses Winifred Falls Track—**A109**

##### Audley Road/Sir Bertram Stevens Drive

Audley Historic Recreational Complex, comprising:

- (a) Junction of Audley Road and Sir Bertram Stevens Drive—Audley group—**A057S**
- (b) House, eastern side of road, on western approach to Audley Weir—**B001**
- (c) Ranger's cottage, corner Lady Carrington Drive—**B002**
- (d) Shelter pavilion, corner Lady Carrington Drive—**B003**

##### Lady Carrington Drive

Lady Carrington Drive, from Audley to Sir Bertram Stevens Drive  
Lady Carrington Drive group, including the roadway, sandstone cobble stone paving, Mullion Brook (unlocated site of former Rangers Cottage)—**A058**

Sutherland Shire Local Environmental Plan 2006

Heritage items

Schedule 6

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## **Bonnet Bay**

### **Washington Drive**

Nos 185–195, Washington Drive, waterfront—sandstone formations—**Lf11**

**Note.** Part of the above item is within land that is deferred matter. (See clause 4 (b) of this plan.)

## **Bundeena (Royal National Park)**

### **Brighton Street**

Site of 1920 Bundeena Wharf, eastern end of Horderns Beach—**A030, L113**

### **Bundeena and Maianbar**

Rock formation on foreshore, described locally as “Pulpit Rock” (minor), to the west of Red Jacks Point, Royal National Park—**Lf24**

Vegetated islands off Maianbar containing some threatened species of vegetation—**T45**

Deeban spit—sand spit extending from Bonnie Vale towards Burraneer Headland—**Lf26**

Sandstone formations in headland at Cabbage Tree Point, including Pulpit Rock (major). (Fronting 1–49 Crammond Avenue.) At base of headland, sandstone rock shelf provides public access—**Lf27**

Thompson Street, median plantings, including *Angophora costata* (smooth bark angophora)—**T46**

Remnant canopy in Bundeena Park, including *Angophora costata* (smooth bark angophora), *Eucalyptus robusta* (coast mahogany), *Banksia integrifolia* (coast banksia)—**T47**

Bundeena Public School grounds, remnant canopy, including *Angophora costata* (smooth bark angophora), *Eucalyptus haemastoma* (scribbly gums), *Corymbia gummifera* (red blood wood)—**T48**

Sandstone cliff formation at Bundeena Reserve. Sandstone platform containing igneous features—**Lf28**

Cliff face and rock platform, fronting Neil Street (1–55 Neil Street)—**Lf29**

### **Bundeena Drive**

Nos 25–31, Bundeena House—**B004**

### **Horderns Beach**

Horderns Beach, between Crammond Avenue and Brighton Street—**L114–R**

### **Loftus Street**

Nos 96–98, Bundeena Park Store, corner of Brighton and Loftus Streets—**B276**

### **Scarborough Street**

Nos 74–78, Bundeena Caravan Park—**L115**

## Sutherland Shire Local Environmental Plan 2006

## Schedule 6      Heritage items

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**Simpsons Road**

Remaining cabins, generally fibro, tin and timber frame—Bonnie Vale cabins—**A060**

End of Simpsons Road, Simpsons Hotel site, sandstone remains, seawall and Norfolk Island pines—**A061**

No 8, house—**B277**

**Burraneer****Bermuda Place**

No 1, boatshed—**B313**

No 7, house—**B265**

**Dunkeld Close**

No 4, house—**B266**

**Eurabalong Road**

Nos 1–9, house—**B212**

**Goobarah Road**

No 4, house—**B267**

**Hazel Place**

Nos 2C, 11 and 15, boatsheds (group)—**B316**

**Loch Lomond Crescent**

No 3, “Loch Lomond”—**B215**

**Portview Place**

No 6, house and grounds—**B269, L030**

**Rutherford Avenue**

No 18, boatshed—**B317**

No 22, “Minnamurra”—**B216**

**Shell Road**

No 14, house—**B217**

**Smarts Crescent**

Nos 6–16, “Mount Vincent”, house—**B218**

Nos 27–31, house—**B270**

**Woolooware Road**

Alignment of first road in Sutherland Shire—Woolooware Road—**A006**

No 224, boatshed—**B318**

No 255A, boatshed/house—**B319**

No 295, boatshed/house—**B320**

No 321, “Attwells Boat Brokerage”, boatshed/house—**B321**

Nos 344–350, garden, including nearby street trees—**L170**

Sutherland Shire Local Environmental Plan 2006

Heritage items

Schedule 6

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### Other

Beach on western side of Gunnamatta Bay, in front of 2–34 Bulls Road—**Lf29**

Sandstone rock platform on foreshore, in front of 1–5 Bell Place and 1–9 Eurabalong Road—**Lf30**

Sandstone cliff formation running along 2–52 Rutherford Avenue and 2–16 Loch Lommond Crescent—**Lf31**

### Caringbah

#### Baliga Avenue

No 39, boatshed—**B332**

#### Bayside Place

No 21, house and boatshed “Elanora”—**B278**

#### Burraneer Bay Road

2 street trees, southern side of Burraneer Bay Road, east from intersection with Port Hacking Road—**T52**

Street trees (possibly remnant canopy) along Burraneer Bay Road, between Gannons Road and Coral Road, consisting of *Eucalyptus racemosa* (ghost gums)—**T53**

Street trees, southern side of Burraneer Bay Road, between Dolans Road and Elm Place, consisting of *Eucalyptus fibrosa* (ironbarks)—**T54**

#### Caringbah Road

Street trees, Caringbah Road, west of Laguna Street and west of Kanoona Street, including *Eucalyptus microcorys* (tallow wood)—**T49**

Street trees (possibly remnant canopy), southern side of Caringbah Road, between Oleander Parade and Gannons Road and returning into Oleander Parade, consisting of *Eucalyptus racemosa* (ghost gums)—**T50**

Street trees, eastern side of Oleander Parade, at intersection with Burraneer Bay Road, consisting of *Eucalyptus racemosa* (ghost gums)—**T51**

#### Fernleigh Road

Nos 44–46, “Fernleigh”—**B005S**

#### Frangipani Place

No 4, “Rellum”, house—**B264**

#### Kingsway

Park, south-western corner Port Hacking Road—**L186–R**

#### Mirral Road

No 41, boatshed—**B235**

#### President Avenue

EC Waterhouse National Camellia Garden (corner Kareena Road)—**L134–R**

#### The Boulevarde

Remnant stand of *Eucalyptus racemosa* (ghost gums), northern side of The Boulevarde, between Aster Avenue and Ingara Avenue—**T42**

Cultural plantings of *Melaleuca quinquenervia* (paperbark) at school frontage, opposite Edward Avenue—**T43**

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**Turriel Bay Road**

No 33, waterfront cottage—**B236**

**Wallami Street**

No 27, house—**B287**

**Water Street**

Nos 28 and 32, including The Terraces and former stables—**B010**

**Willarong Road**

No 359, boatshed—**B279**

No 432, boatshed and stone walls—**B280**

No 509, cottage, boatshed and jetty—**B2**

No 527, waterfront cottage—**B234**

No 541, boatshed/dwelling and swimming enclosure—**B342**

**Como****Bonnet Avenue**

No 39, house—**B281**

**Como Parade**

No 105, corner Warraba Street, house—**B013**

**Cremona Road**

No 2, “Café de Como”, house—**B016**

End of Cremona Road, Como Pleasure Grounds—**L048-R**, **A039**, including pavilion site—**A040**, boatshed—**A041**, sea walls—**A042**, tidal baths—**A043** and Scylla Bay—**A044**

**Railway Bridge**

North of Cremona Road, former Como railway bridge (now cycleway), lattice girder railway bridge—**A009**

North of Cremona Road, Como railway bridge (current railway bridge)—**A020**

Northern end of Cremona Road, Como Railway Bridge—**L197-R**

**Wolger Street**

No 41, corner Burunda Street, house—**B019**

**Cronulla****Arthur Avenue**

No 8, house—**B067** (also No 40 The Esplanade)

**Note.** The property has 2 frontages. Arthur Avenue is the street frontage.

**Burraneer Bay Road**

Nos 20–24 Burraneer Bay Road, Cronulla Public School, main building and grounds—**B021**

**Connells Road**

No 15, house—**B022**

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**Cronulla Street**

Between Tonkin Street and Cronulla Street—Cronulla Railway Station—**A026, B026-S**

Nos 2–6, corner Kingsway, “Cronulla Theatre”—**B027**

Nos 8–12, commercial building—**B028**

No 41, Cronulla Post Office—**B025**

Nos 66–70, Commonwealth Bank—**B029**

No 112, State Bank—**B030**

Nos 146–148, Cronulla Street, Monro Park—**L008-R**

**Darook Park Road**

No 9, boatshed, garage and walls—**B282**

**Elouera Road/Kingsway**

At the eastern end of Kingsway—sea wall (south of Dunningham Park)—**A049**

**Ewos Parade**

Southern end of Oak Park—Oak Park rock pool—**A047**

Southern end of Shelly Park, Shelly Park rock pool—**A048**

No 157, corner Rose Street, house—**B032**

Shelly Beach and Park—**L003**

Street trees (opposite Oak Street)—**L055**

Oak Park—**L058**

**Excelsior Road**

No 6, house and garden trees—**B036, L070**

No 22, house—**B037**

**Franklin Road**

No 54, house—**B038**

**Gerrale Street**

Gerrale Street (opposite Mentone Avenue), Parramatta Street and surrounding streets—brick kerbing—**A051**

Nos 80–82, house—**B042**

Nos 97–99, corner Nicholson Parade, commercial pair—**B041**

South Cronulla Beach and Cronulla Park—**L002-R**

**Giddings Avenue**

“Thornton Hall”, corner Nicholson Parade, part of St Aloysius School—**B043**

**Gowrie Street**

Remains of Salmon Haul ocean wharf, eastern end of Salmon Haul Reserve—**A027**

Bass and Flinders memorial—**A055**

**Grosvenor Crescent**

No 30, garden—**L032**

**Hampshire Street**

No 12, corner Nicholson Parade, house—**B044**

**John Street**

Nos 10–12, “Mimi’s” kindergarten, house and garage—**B045**

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**Kingsway**Nos 43–45, “Masonic Temple”—**B046**Dunningham Park (also fronts Elouera Road)—**L001**Street trees, corner Wilbar Avenue—**L168****Links Avenue**No 17, corner Berry Street—**B048****Lucas Street**No 9, corner Boronia Street, “Eleanor Mackinnon House” and gardens—**B049, L056****McDonald Street**Foreshore between North and South Cronulla Beaches—rock pool—**A050****Nicholson Parade**Southern end of Nicholson Parade, Hungry Point—Fisheries Research Institute—**A036, L061S**On rise, east of Gunnamatta Baths—Gunnamatta Park, including dressing pavilion—**A046, L033****Oak Street**No 8, house—**B052****Parramatta Street**No 50, house—**B055****Prince Street**To the north of Dunningham Park, North Cronulla Surf Club—**B056****Richmount Street**No 12, “Moonbow”, house—**B057**No 14, house—**B058****St Andrews Place**No 1A, St Andrews Church of England, church, rectory and grounds—**B059****Surf Road**Nos 4–8, “School of Arts”—**B063****Taloombi Street**Laneway, between 51 and 53 Taloombi Street, sandstone steps from street to waterfront—**A113**No 47, boatshed—**B283**No 52, “Coombe Grange”—**B064**No 53, boatshed/dwelling—**B284****The Esplanade**To the east of Cronulla Park, Cronulla Surf Club—**B065**Cronulla Sports Complex—**B066**No 40, house (also No 8 Arthur Avenue)—**B067**Walking path on eastern foreshore—**L059**Bass and Flinders Point and Salmon Haul Reserve (at southern point of Cronulla Peninsula)—**L060–R**

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**Tonkin Street**

Tonkin Park—**L068**

**Via Mare**

No 8, house—**B070**

**Waratah Street**

Northern end of Waratah Street, Cronulla Wharf, stone steps—**A114**

Abutting Gunnamatta Park, substation (Electric Light Department)—**B071**

**Wilshire Avenue**

No 14, Uniting Church—**B073**

**Other**

Trees, Captain Cook Drive, frontage to Woolooware High School, for example—*Sarcocornia quinqueflora* (Saltmarsh), *Avicennia marina* (Dwarf Mangrove), *Casuarina glauca* (Casuarina)—**T63**

Street plantings, eastern side of northern end of Franklin Road, consisting of eucalyptus (possibly snappy gums)—**T64**

Main frontages to Woolooware Primary School (Wills Road and Riverview Avenue), consisting of *Eucalyptus paniculata* (ironbark) and some *Eucalyptus pilularis* (blackbutt)—**T65**

Hagger Park at Denman Avenue, Woolooware, with remnant canopy consisting of *Eucalyptus globoidea* (stringybark) and *Eucalyptus paniculata* (ironbark)—**T66**

Street plantings, on Hume Road boundary to golf course, consisting of *Ficus hillii* (Hill's fig)—**T67**

Remnant foreshore vegetation, at head of Gunnamatta Bay, consisting of mixed species shrubs and understorey plants—**T68**

Linear cultural exotic planting of rail embankment, consisting of coral trees—**T69**

Remnant eucalypt canopy in Tonkin Park, adjacent to car park—**T70**

Sandstone platform at head of Gunnamatta Bay, below south-western corner of Tonkin Park—**Lf33**

Sandstone caves and wind eroded formations on foreshore, from Darook Park towards 29 Darook Park Road—**Lf34**

Bass and Flinders Point, South Cronulla, consisting of remnant native *Cupaniopsis anacardioides* (tuckeroo) and endangered Sutherland Shire littoral rainforest—**T71**

Sandstone cliff feature above Esplanade walkway, between Kingsway and Cronulla Park—**Lf35**

**Dolans Bay**

**Parthenia Street**

No 92, house—**B285**

**Port Hacking Road**

No 733, house—**B280**

**Port Hacking Road South**

No 698, house—**B009**

No 742, "Our Lady of Mercy Convent"—**B074**

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**Engadine****Banksia Avenue**No 133, house—**B075****Railway Parade (Princes Highway)**No 43, house—**B077****Waratah Road**

“The Boys Town”—**Ar**, including “Bakery Trade Industry” building and “Meat Trade Industry” building—**A112, B078, B079**, “Memorial Hospital”—**B080** and grounds—**L160**

**Woronora Road**No 277, corner Fairview Avenue, “Homelea”—**B081**

Cooper Street Reserve, stand of *Pinus radiata* (radiata pine) and *Lophostemon confertus* (brush box) on Princes Highway frontage—**T13**

**Grays Point****Grays Point**Sandy beach next to boat ramp—**Lf13**“Swallow Rock” rock formations, east of boat ramp—**Lf14**Mangrove stands, between Swallow Rock and foreshore—**Lf15**Grays Point rocky foreshore to public reserve—**Lf16**Mangrove stands, between Grays Point and Point Danger—**Lf17**

DP 12160, Mansion Bay, sandstone foreshore (between 8–64 Mansion Point Road)—**Lf18**

**North West Arm Road**No 152, house—**B083****Peninsula Road**No 129, house, boatshed and sea wall—**B288****Gundamaian (Royal National Park)****Deer Park Road (Deer Park)**

On foreshore between Dark Bay and Carruthers Bay, access stairs to jetty and boatshed, “Chaldercot”—**A065**

“Chaldercot”—**B084–R****Point Danger**On western side of Gundamaian, site of landscaping and jetty remains—**A062**On western side of Gundamaian, remains of landscape and jetty—**A063****Wants Point**On eastern side of Gundamaian, remains of jetty—**A064**

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### **Warumbul Road (Gogerly's Point)**

Gogerly's Point—**Ar**, including west of "Rathane", "Telford" and landscaping—**A066, B091**, north of "Hilltop", "Rathane" cottage and associated buildings and landscape setting—**A067, B089**, adjacent to "Hilltop", "Gogerly's Cottage"—**A068, B085S**, south of "Rathane", "Hilltop" and landscaping—**A069, B086**, east of "Hilltop", Lamont house site—**A070**, boatsheds—**B087**, Timber cottages—**B088**, within landscape setting for Rathane, rotunda—**B090**, gardens/grounds—**L036–R**

### **Warumbul Road (Warumbul)**

North of Graham's Point, Warumbul—**A071**

Remnant period garden and ancillary foreshore structures in grounds of Warumbul—**L035**

### **Gwawley Bay**

Sandy Beach, between 12 Marra Place and 1 Holts Point Place—**Lf19**

Sandy Beach, between 75–93 Holt Road—**Lf20**

Sandy Beach, between 31–47 Holt Road—**Lf21**

Sandy Beach, between 5–9 Holt Road—**Lf22**

Sandy Beach, between 2–12 Woodlands Road—**Lf23**

### **GyMEA**

#### **Kingsway**

Nos 782–800, corner Talara Road, Hazelhurst garden—**L101**

Street plantings, eucalyptus, mainly southern side, between Talara Road North and Premier Street North—**T31**

Street plantings in GyMEA Bay Road, south, between President Avenue and High Street, consisting mainly of *Eucalyptus pilularis* (blackbutt) and *Eucalyptus globoidia* (stringybark)—**T32**

Eucalyptus species at north-eastern corner of GyMEA Bay Road and Forest Road—**T33**

*Eucalyptus microcorys* (tallow wood) on footpath reserve, outside 67 Coonong Road—**T34**

A single eucalyptus at north-eastern corner of Winkin Avenue and Coonong Road—**T35**

*Eucalyptus racemosa* (ghost gum) at south-western corner of GyMEA Bay Road and Forest Road—**T36**

*Eucalyptus pilularis* (blackbutt) on southern side of Forest Road, opposite Manchester Road—**T37**

*Eucalyptus pilularis* (blackbutt) on southern side of Forest Road, opposite Walker Avenue—**T38**

*Eucalyptus pilularis* (blackbutt) on southern side of Forest Road, immediately east of junction with Alkaringa Road—**T39**

Stands of *Eucalyptus microcorys* (tallow wood) and *Lophostemon confertus* (brush box) in Kiora Road, vegetated/unformed parts of public road, between Forest Road and waterfront to GyMEA Bay—**T40**

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**North West Arm Road**

Natural sandstone arch bridge—**L141**

**Princes Highway**

Stands of *Eucalyptus microcorys* (tallow wood), *Eucalyptus pilularis* (blackbutt), *Eucalyptus racemosa* (ghost gum), *Eucalyptus grandis* (rose gum) and *Eucalyptus globoidea* (white stringybark) along Princes Highway, between Kingsway and The Boulevarde—**T30**

**Note.** Part of the above item is within land that is deferred matter. (See clause 4 (b) of this plan.)

**Gymea Bay**

Gymea Baths, north-western corner of Gymea Bay—**L039**

**Bayhaven Place**

No 9, house—**B291**

**Cooperbrook Avenue**

No 38, boatshed—**B240**

**Ellesmere Road**

No 116, waterfront cottage—**B242**

No 180, house—**B096**

**Maroopna Road**

No 14, “Magnetic” waterfront cottage—**B344**

**Pinaroo Place**

No 24A, house—**B094**

**Heathcote****Bottle Forest Road**

On southern side of laneway leading to Heathcote Sesquicentenary Park, site of former Heathcote Brickworks—**A033**

**Bottle Forest Road (and former brickpit embankment)**

Street trees, blue gums, blackbutt and stringybark—**L153**

**Dillwynnia Grove**

Nos 1–21, corner Tecoma Street, Heathcote Hall and grounds—**B098, L151–S**

No 40, “Kennet Villa”—**B099**

**East Heathcote**

Dillwynnia Grove—cultural street trees, *Lophostemon confertus* (brush box)—**T11**

Forest Road—natural street plantings, including blackbutt, turpentine and angophora species—**T12**

**Princes Highway**

No 1330, former railway cottage—**B100**

**Wilson Parade**

No 1, house—**B101**

No 122, house—**B102**

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## **Illawong**

### **Bignell Street**

At the end of Bignell Street, stone jetty—**A116**

No 4, foreshore house, boatshed and stone wall—**B293**

Nos 7–13, stone boatshed, seawall and basin—**B294**

Nos 20–22, early waterfront housing/boatsheds—**B295**

Nos 60, 64, 66, 68 and 72, houses and boatsheds (group)—**B296**

### **Cranbrook Place**

Nos 9–21, sculptures, pathways and steps, seawall and swimming enclosure—**B343**

Nos 16–20, “Cranbrook”, house and gardens (also Nos 45–53 Fowler Road)—**B103, L022**

### **Fowler Road**

Nos 45–53, “Cranbrook”, house and gardens (also Nos 16–20 Cranbrook Place)—**B103, L022**

No 69, house and boatshed—**B298**

Nos 77–79, seawall—**B299**

No 118, house—**B104**

Nos 119–121, boatshed, house, wharf and stone waterfront—**B297**

### **Griffin Parade**

Nos 9–11, early waterfront house—**B301**

### **Old Ferry Road**

Between Old Illawarra Road and Old Ferry Road junction, Old Illawarra Road—**A004**

Old Punt crossing (Lugarno ferry)—**A007**

Stone wharf—**A117**

200m west of No 1R, waterfront houses (group of 5)—**B302**

## **Jannali**

### **Jannali Avenue**

Stand of *Eucalyptus pilularis* (blackbutt) on Jannali Avenue, between Mitchell Avenue and Louise Street—**T29**

### **Jannali Avenue/Railway Parade**

Jannali Railway Station and immediate surrounds—**A025**

### **Mitchell Avenue**

Cultural plantings on Mitchell Avenue, comprising *Lophostemon confertus* (brush box)—**T28**

## **Kangaroo Point**

### **Ilma Avenue**

No 9, boatshed and house—**B303**

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**Kangaroo Point Road**Nos 6–8, boatshed and wall—**B304**No 10, house—**B109**No 25, house and garden—**B108, L080**Nos 72–74, boatshed—**B305**Nos 105–107, house—**B258**No 162, corner Tara Street, house—**B111****Kirrawee****Acacia Avenue**No 94, “Botany View”, house—**B112****President Avenue**No 455, corner Oak Road, house—**B114****Princes Highway/Oak Road/Flora Street**Site of former brickworks, Sutherland Brick Company claypits—**A034****Lilli Pilli****Bareena Street**No 18, “Waratah” and garden trees—**B118, L006****Beckton Place**Nos 20–24, “Beckton”, house and boatsheds—**B120, B237****Gow Avenue**No 24, waterfront cottage—**B238****Korokan Road**Nos 16–18, “Nuimburra” and adjoining house—**B262****Lilli Pilli Point Road**At the end of Lilli Pilli Point Road, site of Lilli Pilli wharf—**A045****Moombara Crescent**Nos 17–19, “Moombara”—**B123–R****Sand Bar Place**No 1, house—**B124****Shiprock Road**No 34, boatshed—**B286****Wallendbeen Avenue**No 10, “Wallendbeen Lodge”—**B125****Other**Remnant mixed canopy at eastern end of Lilli Pilli Point Reserve—**T44**Shiprock rock feature on foreshore, opposite 2 Shiprock Road, together with the Shiprock Aquatic Reserve, extending from 12 Wallendbeen Avenue to 18 Shiprock Road—**Lf25**

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## **Loftus**

### **Farnell Avenue**

From Farnell Avenue, west to Loftus Ridge, military parade site—**A076**

### **Loftus Avenue**

Loftus Heights, east of Illawarra Railway Line, Old Illawarra Highway—**A107**

### **National Avenue**

No 9, house—**B127**

No 44, house—**B128**

### **Nattai Street (opposite on railway land)**

Loftus Junction Railway Signal Box —**A121-S**

### **Princes Highway (on edge of Royal National Park)**

“Bedford”—**B129**

Former “Gardeners Garage”—**B130**

Avenue of trees, hoop, bunya and radiata pines, extending into Royal National Park from Loftus Junction, Royal National Park entry—**L175**

### **Rawson Avenue**

“National Avenue” street trees—**L108-R**

## **Lucas Heights**

### **Old Illawarra Road**

Western end of Woronora Road, over Sabugal Causeway to Old Illawarra Road, Old Illawarra Road—**A003**

**Note.** Part of the above item is within land that is deferred matter. (See clause 4 (b) of this plan.)

## **Menai**

### **Menai Town Centre**

Between Carter Road and Old Illawarra Road, Moreton Bay fig, Lot 101 DP 1038691—**T6**

### **West Menai**

Between Heathcote Road and Mill Creek, Commonwealth land held for defence purposes, sandstone escarpment, DP 828667—**Lf1**

Commonwealth land held for defence purposes, sandstone escarpment DP 828667—**Lf2**

*Eucalyptus maculata* (spotted gum) POR 456 DP 752034, DP 210890—**T1**

**Note.** Part of the above item is within land to which this plan does not apply because of clause 4 (c) of this plan.

*Angophora costata x bakerii* POR 90 DP 507721—**T2**

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*Eucalyptus fibrosa* (ironbark) POR 249 DP 752034, Lot 22 DP 818821, Lot 25 DP 874608, Pt 2 DP 1032102, Pt 3 DP 1032102, POR 272 DP 752034, POR 274 DP 752034—**T5**

**Note.** The above item is partly within land that is deferred matter (because of clause 4 (b) of this plan) and partly within land to which this plan does not apply (because of clause 4 (c)).

**Miranda****Bellingara Road**

House (part of Frank Vickery Village No 16)—**B134**

**Central Road**

Miranda Centre School War Memorial (northern end of street)—**Ot, L163**

**Kiora Road**

Street trees, alternate planting of brush box and camphor laurels—**L164**

**Matson Crescent**

No 13, house—**B228**

No 32, waterfront house—**B335**

Nos 42, 46, 50–56, 60 and 62, boatsheds and boatshed/dwellings—**B336**

**Oyster Bay****Caravan Head Road**

Nos 141 and 151, waterfront cottages—**B308**

**Carina Road**

No 27, boatshed and cottage—**B307**

**Green Point Road**

Nos 14–20, 22–28 and 40, waterfront cottages (along Green Point Road and Shipwright Place)—**B308**

**Sage Avenue**

No 2, “Desiree”—**B139**

**Ward Crescent**

Nos 20, 24, 28, 30 and 32, waterfront houses/boatsheds (group)—**B309**

Mangrove stands (*Avicennia marina*) fringing Coronation Bay—**Lf12**

**Royal National Park**

(Miscellaneous items and sites not listed elsewhere)

**Cabbage Tree Basin**

At weir on northern end of Cabbage Tree Basin, Bundeena/Maianbar water supply—**A075**

**Costens Point**

On western side of Costens Point, house sites and associated remains—**A072**

Commencing north-west of sites at Costens Point, Old Coast Road—**A073**

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**Florence Parade**

Commencing at Grays Point and terminating at Lady Rawson Parade, Florence Parade—**A080**

**Jibbon Head**

Erected in cliff face at Jibbon Head, plaque—**A110**

On Jibbon Beach south-west of Jibbon Head, shell grit beach mine—**A111**

**McKell Avenue**

Eastern side of Fosters Flat, above creek, 350m north of Couranga Track, Fosters Flat saw pit—**A059**

East of Illawarra railway line and northern end of Wilson Parade, former clay pit associated with railway contractors—**A077**

**Rawson Drive**

Rawson Drive—**Ar**, including site of bridge across tributary of Temptation Creek—**A078**, east of Illawarra railway line, beside fire trail, Old Illawarra Highway remains—**A108**

**Red Jacks Point**

Red Jacks Point, remains of house sites—**A074**

**Sutherland**

**Acacia Road**

No 189, house—**B140**

**Adelong Street**

Nos 3–7, row of 3 houses—**Ar**

No 5, house—**B143**

No 7, house—**B144**

No 10, house—**B145**

**Auburn Street**

No 68, house—**B147**

**Clio Street**

No 52, house—**B152**

**East Parade**

Nos 9–15, house—**B154**

Nos 21–23, former School of Arts—**B157**

No 77, corner Sutherland Street, house—**B159**

Street trees, alternate planting of Port Jackson figs and brush box—**L174**

**Eton Street**

Former “Sutherland Intermediate High School” building (now part of Sutherland Primary School)—**B161**

Sutherland War Memorial (Peace Park)—**Ot, L192**

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**Flora Street**

Sutherland Primary School, corner Eton and Merton Streets, including original building and grounds—**B162**

Corner Merton Street, church—**B163**

No 116, house—**B164**

No 122, corner Glencoe Street, house—**B165**

**Glencoe Street**

No 56, house and fence—**Ot, B172**

**Jannali Avenue**

No 123, rear frontage to Vesta Street, house—**B173**

No 125, corner Moira Street, house—**B174**

No 129, "Lark Ellen Nursing Home"—**B175**

**Linden Street**

Bounded by Linden Street, First Avenue, Sutherland Oval and Prince Edward Park, Woronora Cemetery—**A052**

Between cemetery office and Linden Street, site of mortuary line, Woronora Cemetery—**A053**

No 148, corner Sutherland Street, house—**B177**

"Cooee Tree", *Eucalyptus Racemosa*, 1.8m diameter trunk, Sutherland Park—**L043-S**

Sutherland Park—**L044-R**

Woronora Cemetery—**L045-S**

**Old Princes Highway**

Western side of Old Princes Highway, 50m south of Cronulla Branch line, site foundations for steam tramway (western side)—**A018**

Former steam tramway office (No 753)—**A019**

Sutherland Railway Station—**A024**

South of Cronulla Branch Line junction, electrical substation—**A035**

No 685 (next to overpass), commercial building—**B178**

No 808, (corner Boyle Street), "Boyles Sutherland Hotel"—**B179**

No 816, Commonwealth Bank—**B180**

Eton Street and Old Princes Highway, Forby Sutherland Memorial Gardens and Council grounds, Council chambers—**L017**

Railway Station precinct, bridge, retaining walls and fig trees—**L104**

**Toronto Parade**

No 100, corner Clio Street, "Brinsley's Joinery Works"—**A032, B191**

No 90, house—**B189**

No 94, house—**B190**

No 102, house—**B192**

No 104, "Walton"—**B193**

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**Other**

A *Eucalyptus punctata* (grey gum), opposite 115 The Grande Parade, located in Prince Edward Park Reserve—**T14**

Cultural plantings of *Lophostemon confertus* (brush box), northern and southern boundaries of sports ovals off The Grand Parade—**T15**

Grouping of *Eucalyptus haemastoma* (scribbly gums) and *Eucalyptus racemosa* (snappy gums) in Park Reserve, on western side of Linden Street—**T16**

2 *Tristania laurina* (water gums) in footpath reserve, Linden Street, opposite Adelong Street—**T17**

Stand of *Eucalyptus microcorys* (tallow wood) and *Eucalyptus pilularis* (blackbutt) in Sunbury Street road reserve, between Tudor Road and Hornby Avenue—**T18**

Pair of *Eucalyptus racemosa* (ghost gums), either side of Sumner Street at Sutherland Road junction—**T19**

A single *Eucalyptus microcorys* (tallow wood) in footpath reserve at 160 Sutherland Road—**T20**

A *Ficus rubiginosa* (Port Jackson fig), opposite Oxford Street on eastern side of East Parade—**T21**

A *Ficus rubiginosa* (Port Jackson fig) on East Parade, at the Bus Interchange—**T22**

A *Ficus rubiginosa* (Port Jackson fig) on western side of Eton Street (outside 51 Eton Street)—**T23**

Street plantings of *Eucalyptus scoparia* (willow gum) on western side of Belmont Street, from Morley Street to Cook Street—**T24**

4 *Lophostemon confertus* (brush box) (cultural plantings), Acton Street, in front of Olsens Funeral Chapel—**T25**

Street trees on northern side of Old Princes Highway, fronting 42 Auburn Street, consisting of *Eucalyptus microcorys* (tallow wood), *Eucalyptus pilularis* (blackbutt), *Eucalyptus saligna* (Sydney blue gum)—**T26**

Single *Eucalyptus pilularis*, south-western corner of Waratah Street and Acacia Road intersection—**T27**

**Sylvania****Belgrave Street**

West of 1929 Tom Ugly's Bridge at Horse Rock Point, stone setting at 1929 Tom Ugly's Bridge—**A012**

Street tree outside No 39, Norfolk Island pine—**L161**

**Canberra Road**

No 23, corner Pembroke Street, house—**B194**

**Evelyn Street**

No 5, house—**B197**

**Harrow Street**

No 35, boatshed, jetty and walls—**B310**

**Murrallin Lane**

No 35, "Glen Robin", house, Fairy House, boatshed and jetty—**B198**

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**Princes Highway**

Former St Marks Church (now part of public school)—**B200**

Nos 56–60, corner Endeavour Street, old church—**B201**

Fig tree (on southern approach to Tom Ugly's Bridge)—**L087**

**Sylvania Waters****Belgrave Esplanade**

Within road reservation, between Belgrave Esplanade, Box Road and Gwawley Parade, Gwawley Bay oyster claires—**A001**

**Port Hacking Road**

Gwawley Creek stormwater canal (eastern side of road, 200m south of Box Road)—**L075**

**Sylvania Waters canal development**

Sylvania Waters canal development—**L074–R**

**Taren Point****Old Taren Point Road**

At northern end of Old Taren Point Road, west of Captain Cook Bridge, disused ramp for punt—**A015**

**Taren Point Road**

Spanning Georges River between Taren Point and Rocky Point, Captain Cook Bridge (1965)—**A016**

Captain Cook Bridge (1965) and southern approach—**L072–R**

**Waterfall****McKell Avenue**

Nos 7, 8, 9 and 10, pair of semi-detached houses—**B205**

**Other**

At southern end of railway yards, on eastern side of the railway line—Waterfall Railway turntable—**A022**

Opposite 1899 Princes Highway, Watertank—**A023**

On the eastern side of Waterfall Station, row of 3 railway workers' cottages including "Community Cottage"—**Ar**

On hillside, 1km south-west of Waterfall, off highway (near freeway), "Camp Coutts", Heathcote National Park—**L158–R**

**Woollooware****Caronia Avenue**

No 28, house—**B210**

**Castlewood Avenue**

Nos 26–28, house—**B211**

**Dolans Road**

No 93, "Coolangatta", house—**B275**

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### **Gunnamatta Road**

Southern end of Gunnamatta Road on foreshore—remains of bath walls (at end of street)—**A119**

Wharf, boardwalk and steps (at end of street)—**B315**

### **Kingsway**

No 141 “Woolooware House” and stables building—**A054, B214**

### **Swan Street**

No 2, “Wyndham Flats”—**B219**

### **Woolooware Road**

Alignment of first road in Sutherland Shire—Woolooware Road—**A005**

No 79, corner Castlewood Avenue, house—**B222**

No 89, Castlewood—**B223-R**

Street trees (between Burraneer Bay Road and Wren Place)—**L187**

### **Other**

Single *Angophora costata* (smooth bark angophora), southern end of Dolans Road South, in vegetated unformed part of public road—**T55**

2 *Eucalyptus racemosa* (ghost gums) on eastern side of Dolans Road South, north of Burraneer Bay Road, 129 Burraneer Bay Road and 54 Dolans Road—**T56**

Single *Ulmus parifolia* (Chinese elm), eastern side of Cabramatta Road, at junction with Hyndman Parade—**T57**

2 *Eucalyptus racemosa* (ghost gums) on opposite corners of intersection of Munni Street and Cabramatta Road—**T58**

Single *Angophora costata* (smooth bark angophora) at the south-eastern corner of intersection of Coronias Avenue and Woolooware Road—**T59**

Single *Ficus rubiginosa* (Port Jackson fig) on footpath at 41 The Kingsway—**T60**

Single *Quercus robur* (English oak) located in rear garden of 53 Burraneer Bay Road (private property)—**T61**

Possible remnant canopy, mainly on eastern side of Gunnamatta Road, consisting of *Eucalyptus racemosa* (ghost gums) and *Angophora costata* (smooth bark angophora)—**T62**

### **Woronora**

#### **Liffey Place**

No 67, house—**B323**

#### **Menai Road**

Site of 1912 Bridge across the Woronora River, Menai Road—Woronora Bridge—**A017**

#### **Prince Edward Park Road**

No 87, house—**B325**

No 105, stone boatshed and seawall—**B324**

No 201, stone house, boatshed and carport—**B326**

Woronora RSL War Memorial—**Ot, L110**

#### **River Road**

No 29R, house—**B226**

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**Woronora Valley**

The “Needles”, Lot 7038 DP 1027187, rock formations in river, immediately downstream from the Causeway—**Lf3**

Shackles Beach, Lots A, B and C DP 321089—**Lf4**

Sandstone Steps, Lot 7007 DP 750234, northern boundary to Woronora School—**Lf7**

Sandstone formations on Lot 7008 DP 1027166, riverfront at southern end of Prices Circuit Reserve—**Lf8**

Wishing well in creek bed, Lot 104 DP 875898 (AQC), at The Crescent—**Lf10**

Stand of eucalypts and single fig tree on Prices Circuit Crown Reserve, Lot 7008 DP 1027166—**T7**

*Calodendrum capense* (Cape chestnut), 193 Prices Circuit, Lot 31 DP 11327, planted around 1930 (private property)—**T7A**

Single eucalypt, Lot 7015 DP 1027164, *Eucalyptus racemosa* (snappy gum), western low level bridge approach—**T8**

Single *Eucalypt pilularis* (blackbutt), Lot B DP 379873, rear garden of 4 The Crescent (private property)—**T9**

Single *Eucalyptus camaldulensis* (river red gum), corner of Prince Edward Park Road and River Road—**T10**

**Yowie Bay****Attunga Road**

No 8, house—**B227**

No 135, boatshed—**B328**

No 255, boatshed and house—**B329**

Nos 296–298, boatshed—**B330**

**Binda Road**

No 19, boathouse, boatskid/ramp, saltwater bath remnants—**B350**

**Coolum Place**

Nos 2–4, Boatshed and baths (also No 5 Kalang Lane)—**B334**

**Coora Road**

Eastern end of Coora Road, 3 *Angophora costata* (smooth bark angophoras)—**T40**

No 1C, boatshed—**B338**

**Glen-Ayr Avenue**

No 4, boatshed—**B333**

**Kalang Lane**

No 5, boatshed (also Nos 2–4, Coolum Place)—**B334**

Nos 5 and 6, sandstone seawall—**L026**

**Muneela Place**

No 4, two-storey stone boatshed—**B337**

**Sherwood Avenue**

No 6, boatshed—**B339**

No 8, waterfront cottage—**B339**

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**Wonga Road**

No 1, boatshed—**B230**

No 7, house—**B231**

No 16, “Cliff Haven”, house—**B233**

**Yellambie Street**

No 23A, boatshed and seawall—**B340**

**Miscellaneous items (not listed by location elsewhere)**

Woronora-Penshurst pipeline—**A037**

**Note.** Part of the above item is within land that is deferred matter. (See clause 4 (b) of this plan.)

Royal National Park—**A056**

**Note.** Part of the above item is within land that is deferred matter. (See clause 4 (b) of this plan.)

Heathcote National Park—**A098**

**Note.** Part of the above item is within land that is deferred matter. (See clause 4 (b) of this plan.)

Woronora Dam—**A099-S**

On Woronora River, south of Heathcote Road Bridge, Kolora Weir—**A100**

West of Waterfall township, Lake Toolooma Dam—**A101**

West of Waterfall township, Lake Toolooma Dam pumping station—**A102**

**Port Hacking**

Yennibilli Point, Port Hacking, ballast heap—**A002**

Bounded by Port Hacking River to north, Illawarra rail line to west and Sutherland Shire boundary to south—Royal National Park—**L037-S**

**Note.** Part of the above item is within land that is deferred matter. (See clause 4 (b) of this plan.)

Bounded by Sutherland Shire boundary to south, military area to west, Heathcote Road to the north and Illawarra railway line to the east—Heathcote National Park—**L143-S**

**Note.** Part of the above item is within land that is deferred matter. (See clause 4 (b) of this plan.)

Port Hacking mid channel between Little Turiel Bay and Yenabilli Point, ballast shoal (just north-west of Maianbar)—**L034-R**

## Sutherland Shire Local Environmental Plan 2006

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**Dictionary**

(Clause 5)

**Aboriginal object** means any deposit, object or other material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of Sutherland Shire, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

**access channel** means a channel within tidal waters created by dredging or other mechanical operations.

**acid sulfate soils** means naturally occurring sediments and soils containing iron sulfides (principally pyrite) or their precursors or oxidation products, whose exposure to oxygen leads to the generation of sulfuric acid (for example, by drainage or excavation).

**Acid Sulfate Soils Guidelines** means guidelines by that name approved for the purposes of this definition by the Director-General and made publicly available.

**Acid Sulfate Soils Map** means the map marked “Sutherland Shire Local Environmental Plan 2006—Acid Sulfate Soils”.

**advertisement** has the same meaning as in the Act.

**advertising display area** means the area of an advertisement or advertising structure used for signage, and includes any borders of, or surrounds to, the advertisement or advertising structure, but does not include safety devices, platforms or lighting devices associated with advertisements or advertising structures.

**advertising structure** has the same meaning as in the Act.

**animal boarding or training establishment** means a building or place used for breeding, boarding, training, keeping or caring for animals for commercial purposes, and includes any associated riding school, but does not include a veterinary hospital.

**aquaculture** has the same meaning as in the *Fisheries Management Act 1994*.

**archaeological site** means a site of 1 or more relics, being a site that is:

- (a) specified in the inventory of items, known as the *Sutherland Shire Heritage Inventory*, available at the office of the Council, and
- (b) described in Schedule 6, and identified on the Heritage Map, as an archaeological site.

**artificial waterbody** means an artificial body of water, including any constructed waterway, canal, inlet, bay, channel, dam, pond, lake or artificial wetland, but does not include a dry detention basin or other stormwater management construction that is only intended to hold water intermittently.

**arts and crafts centre** means a building or place providing facilities for the cultural, intellectual, social and educational needs of the community and that may incorporate any of the following:

- (a) an art or craft gallery,

## Sutherland Shire Local Environmental Plan 2006

## Dictionary

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- (b) art or craft workshops and storage areas,
  - (c) exhibition and performance space,
  - (d) a museum,
  - (e) a restaurant or shop,
  - (f) meeting and lecture rooms,
  - (g) administration space,
  - (h) a caretaker's residence.

**backpackers' accommodation** means tourist and visitor accommodation:

- (a) that may have shared facilities, such as a communal bathroom, kitchen or laundry, and
- (b) that will generally provide accommodation on a bed basis (rather than by room).

**beach and foreshore protection works** means works undertaken on land within or abutting a waterway for the purpose of rehabilitation (including the construction or reconstruction of sea walls and works).

**bed and breakfast accommodation** means tourist and visitor accommodation comprising a dwelling (and any ancillary buildings and parking) where the accommodation is provided by the permanent residents of the dwelling for a maximum of 6 guests in a maximum of 2 bedrooms and:

- (a) meals are provided for guests only, and
- (b) cooking facilities for the preparation of meals are not provided within guests' rooms, and
- (c) dormitory-style accommodation is not provided.

**berthing area** means a configuration of piles (typically 4), positioned adjacent to a jetty, ramp or pontoon, designed for the permanent parking of a vessel.

**boarding house** means a building:

- (a) that is wholly or partly let in lodgings, and
- (b) that provides lodgers with a principal place of residence for 3 months or more, and
- (c) that generally has shared facilities, such as a communal bathroom, kitchen or laundry, and
- (d) that has rooms that accommodate 1 or more lodgers.

**boatshed** means a single storey building or structure, associated with a dwelling and used for the storage of small boats and boating equipment, and includes any sliprails used to facilitate access for boats to and from the building or structure to the water.

**brothel** means any building or place used habitually for the purpose of prostitution.

**building** has the same meaning as in the Act.

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**building identification sign** means a sign that identifies or names a building and that may include the name of a building, the street name and number of a building, and a logo or other symbol, but that does not include general advertising of products, goods or services.

**bulky goods premises** means a building or place used primarily for the sale by retail, wholesale or auction of (or for the hire or display of) bulky goods, being goods that are of such size or weight as to require:

- (a) a large area for handling, display or storage, or
- (b) direct vehicular access to the site of the building or place by members of the public, for the purpose of loading and unloading such goods into or from their vehicles after purchase or hire,

but does not include a building or place used for the sale of foodstuffs or clothing unless their sale is ancillary to the sale or hire of bulky goods.

**bus depot** means a building or place used for servicing, repairing and garaging of buses and other vehicles used for the purposes of a bus transport undertaking.

**bush fire hazard reduction work** has the same meaning as in the *Rural Fires Act 1997*.

**bush fire interface area** means land that is within bush fire prone land and is recorded as a bush fire interface area on a bush fire prone land map.

**bush fire prone land** has the same meaning as in the Act.

**bush fire prone land map** has the same meaning as in the Act.

**business identification sign** means a sign:

- (a) that indicates:
  - (i) the name of the person or business, and
  - (ii) the nature of the business carried on by the person at the premises or place at which the sign is displayed, and
- (b) that may include the address of the premises or place and a logo or other symbol that identifies the business,

but that does not include any advertisement relating to a person who does not carry on business at the premises or place.

**business premises** means a building or place used as an office, or for other business or commercial purposes, but does not include:

- (a) a building or place used for any of the following:
  - (i) extractive industry,
  - (ii) industry,
  - (iii) light industry,
  - (iv) a maritime activity,
  - (v) offensive industry,
  - (vi) a radio-communications facility,

## Sutherland Shire Local Environmental Plan 2006

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- (vii) service support industry,
  - (viii) a telecommunications facility, or
  - (b) any other building or place defined elsewhere in this Dictionary and specified in the Table to clause 11 (Zoning Table).

**car park** means a building or place used for parking vehicles, whether or not operated for gain, and (for the purposes of clause 11 (Zoning Table)) does not include a car park that is ancillary to another use.

**childcare centre** means a building or place used for the purpose of supervising or caring for 6 or more under school age children (whether or not those children are related to the owner or operator of the building or place) that:

- (a) may educate the children concerned, and
- (b) may operate for the purpose of financial gain,

but does not include a building or place providing residential care for those children.

**community advertisement or notice** means an advertisement or sign that:

- (a) advertises a community or charity event, including sponsorship of a community or charity event (but not the sale of a product), or
- (b) is a health or safety notice or a like notice, or
- (c) is ancillary to the use of community land (within the meaning of the *Local Government Act 1993*).

**community facility** means a building or place (other than the premises of a registered club) owned or controlled by a public authority, a religious organisation or a body of persons and used for the physical, social, cultural, economic, intellectual or religious development or welfare of the community, including a public library, a rest room, a public health service centre, a recreation facility, a childcare centre, a police station, an ambulance station, a fire station, a rescue or emergency service centre and a community club.

**conservation** includes preservation, protection, maintenance, restoration and adaptation.

**convenience store** means a building or place used for the sale of groceries and other small items that is operated in conjunction with a service station.

**correctional centre** means a correctional centre under the *Crimes (Administration of Sentences) Act 1999* or a detention centre under the *Children (Detention Centres) Act 1987*.

**Council's Aboriginal Cultural Heritage Study** means one of the following documents held by the Council:

- (a) the document entitled *Sutherland Shire Council Aboriginal Cultural Heritage Study* (November 2002),
  - (b) the document entitled *Sutherland Shire Council Aboriginal Cultural Heritage Study—Georges and Woronora Rivers* (January 2004).
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***Crime Prevention Guidelines*** means Part B of the guidelines issued by the Department of Urban Affairs and Planning (as it was then named) in April 2001 entitled *Crime prevention and the assessment of development applications: Guidelines under section 79C of the Environmental Planning and Assessment Act 1979* (ISBN 0 7347 0184 5).

***demolish***, in relation to a heritage item, means wholly or partly destroy, dismantle or deface the heritage item.

***development*** has the same meaning as in the Act.

***development consent*** has the same meaning as in the Act.

***development standards*** has the same meaning as in the Act.

***dual occupancy*** means 2 dwellings (whether attached or detached) on 1 lot of land.

***dwelling*** means a room or suite of rooms occupied or used or so constructed or adapted as to be capable of being occupied or used as a separate domicile.

***dwelling house*** means a building containing only 1 dwelling and does not include a dwelling erected on a lot of land on which more than 1 dwelling is erected.

***ecologically sustainable development*** has the same meaning as in the Act.

***educational establishment*** means a building or place used for education, including a school, tertiary institution (including a university or a TAFE college) that provides formal education and is constituted by or under an Act, an art gallery or museum, but does not include a childcare centre, or a correctional centre, that provides for education.

***entertainment facility*** means a building or place used for the purpose of entertainment (including sport and exhibitions) and includes a place of public entertainment within the meaning of the *Local Government Act 1993*, a sports stadium, a showground and a race course.

***extended family unit*** mean a dwelling that is subordinate to, and attached to or within, another dwelling on the same lot of land and owned by the person who owns that other dwelling.

***extractive industry*** means the winning or removal of extractive materials (otherwise than from a mine) by methods such as excavating, dredging, tunnelling or quarrying, including the storing, stockpiling or processing of extractive materials by methods such as recycling, washing, crushing, sawing or separating, but does not include turf farming.

***extractive material*** means sand, soil, gravel, rock or similar substances that are not minerals within the meaning of the *Mining Act 1992*.

***fence*** means a dividing structure of natural or other materials that extends along, or is setback from, a boundary, whether or not continuously, including components such as posts, panels, masonry, railings and any foundation necessary to support the structure.

***ferry operations*** means a regular, scheduled ferry service for conveying passengers, vehicles or animals across water.

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**Flood Liable Land Map** means the map marked “Sutherland Shire Local Environmental Plan 2006—Potential Flood Liable Land”.

**floor space ratio**—see clause 35.

**food shop** means a building or place having as its principal purpose the preparation and retail of food or refreshments for consumption off the premises and does not involve a drive-through service.

**foreshore building line**—see clause 17.

**gas holder** means a container or vessel built or adapted for use for the storage of gas, but does not include liquified petroleum gas containers or vessels having a capacity of less than 15 kilolitres.

**generating works** means a building or place used for the purpose of making or generating gas, electricity or other forms of energy.

**gross floor area** means the sum of the floor area of each storey of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, excluding:

- (a) the floor area of lift wells on any level and lift towers, motor rooms and stairwells within a basement or above the roof level, and
- (b) so much of the floor area of car parking (including vehicular access to that parking), required to meet any requirements of the consent authority, as does not exceed:
  - (i) a total of 40 square metres in the case of a dwelling house, or
  - (ii) a total of 20 square metres per dwelling in the case of a dual occupancy, or
  - (iii) a total of 20 square metres per parking space in any other case, and
- (c) storage areas needed to meet requirements of the consent authority, and
- (d) plant rooms, garbage areas, switch rooms or the like within a basement.

**ground level** means:

- (a) if the level of the site has been modified by the carrying out of development under a development consent that has been commenced but not completed—the level of the land as it was prior to that modification, or
- (b) in any other case—the existing level of a site.

**group home** means a dwelling that is a permanent group home or a transitional group home.

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***hazardous industry*** means development for the purpose of an industry that, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including, for example, measures to isolate the development from existing or likely future development on other land in the locality), would, in the opinion of the consent authority, pose a significant risk in the locality:

- (a) to human health, life or property, or
- (b) to the biophysical environment.

***health care professional*** means any person registered under an Act for the purpose of providing health care and also includes an acupuncturist, a herbalist, a homoeopath and the like.

***Height and Density Controls Map*** means the map marked “Sutherland Shire Local Environmental Plan 2006—Height and Density Controls”.

***heritage impact statement*** means a document consisting of:

- (a) a statement demonstrating the heritage significance of a heritage item, archaeological site or place of Aboriginal heritage significance, and
- (b) an assessment of the impact that proposed development will have on that significance, and
- (c) proposals for measures to minimise that impact.

***heritage item*** means a building, work, archaeological site, tree, landform, place or Aboriginal object:

- (a) specified in an inventory of heritage items, known as the *Sutherland Shire Heritage Inventory*, that is available at the office of the Council, and
- (b) described in Schedule 6, and
- (c) the site of which is shown on the Heritage Map.

***Heritage Map*** means the map marked “Sutherland Shire Local Environmental Plan 2006—Heritage Items”.

***heritage significance*** means historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value.

***high technology industry*** means the manufacturing, production, assembling, processing, or research and development of, any of the following:

- (a) electronic and microelectronic systems, goods or components,
- (b) information technology, computer software or hardware,
- (c) instrumentation or instruments,
- (d) biological, pharmaceutical, medical or paramedical systems, goods or components,
- (e) other goods, systems or components intended for use in science and technology.

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**home occupation** means an occupation carried on in a dwelling, or in a building ancillary to a dwelling, by 1 or more permanent residents of the dwelling that does not involve:

- (a) the employment of more than 2 persons who are not permanent residents of the dwelling, or
- (b) interference with the amenity of adjoining land or the locality by reason of the the emission of noise, vibration, smell, traffic generation or parking or otherwise,

but does not include bed and breakfast accommodation.

**hostel** has the same meaning as in *State Environmental Planning Policy (Seniors Living) 2004*.

**hotel** means premises that may provide accommodation and are specified in a hotelier's licence granted under the *Liquor Act 1982*.

**industry** means the manufacturing, production, assembling, altering, formulating, repairing, renovating, ornamenting, finishing, cleaning, washing, dismantling, transforming, processing or adapting, or the research and development of any goods, chemical substances, food, agricultural or beverage products, or articles for commercial purposes, but in clause 11 (Zoning Table) does not include extractive industry, hazardous industry, high technology industry, offensive industry or a mine.

**internal lot** means a lot to which there is no practical means of vehicular access or to which the only practical means of vehicular access is by way of:

- (a) an access corridor (in the case of a hatchet-shaped lot), or
- (b) a right of way that traverses another lot.

**junk yard** means an area of land used for:

- (a) the collection, storage, abandonment or sale of scrap metals, waste paper, rags, bottles or other scrap materials or goods, or
- (b) the collecting, dismantling, storage, or salvaging of automobiles or other vehicles or machinery, or for the sale of parts of such items.

**landscaped area**, in relation to a site, means any area of the site that comprises bushland or is otherwise vegetated with gardens, lawns, shrubs or trees and does not include any area that is:

- (a) paved or comprises a driveway, or
- (b) occupied by a garbage storage area, swimming pool or any other building.

**light industry** means an industry, not being an offensive industry or hazardous industry, in which the scale of the activities involved, the processes carried on, the transportation involved or the machinery or materials used do not, in the opinion of the consent authority, interfere unreasonably with the amenity of the neighbourhood.

**liquid fuel depot** means a depot or place used for the bulk storage for wholesale distribution of petrol, oil, petroleum or other inflammable liquid.

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***local government or community housing provider*** means:

- (a) a local government organisation, or a not-for-profit organisation, that is a direct provider of housing to tenants receiving government housing subsidies, or
- (b) an organisation approved by the Minister for Housing as a community housing provider.

***maintenance***, in relation to a heritage item or archaeological site or place of Aboriginal heritage significance, means ongoing protective care. It does not include the removal or disturbance of existing fabric, alterations, such as (in the case of a building) carrying out extensions or additions, or the introduction of new materials or technology.

***maintenance dredging*** means the winning, or removal, and disposal of extractive material from the bed of a tidal waterway or access channel to enable the waterway or access channel:

- (a) to continue to function as a tidal waterway or access channel, or
- (b) to resume its function as a tidal waterway or access channel.

***marina*** means an arrangement of pontoons, jetties or the like, used as a business for providing moorings for boats, together with associated facilities, such as the following:

- (a) slipways,
- (b) facilities for the repair, maintenance or fuelling of, or the provision of accessories and parts for, boats,
- (c) facilities for the storage or provision of food,
- (d) offices.

***maritime activity*** means the use of land for the primary purpose of:

- (a) constructing, maintaining or selling boats and ancillary equipment, or
- (b) any other maritime business,

but does not include the use of land for the purpose of a marina.

***medical facility*** means a building or place used for the medical or surgical treatment of persons, whether public or private, including any of the following:

- (a) any associated shop or dispensary,
- (b) a hospital (other than a psychiatric hospital),
- (c) a sanatorium,
- (d) a health centre,
- (e) a home for infirm persons, incurable persons or convalescent persons,

but does not include any part of a correctional centre used for the medical or surgical treatment of persons.

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***mixed use premises*** means a building that is used both for a land use having a residential purpose and for another non-residential land use that is permissible with or without consent.

***mooring*** means a detached or freestanding apparatus located on or in a waterway and that is capable of securing a vessel.

***motel*** means a building or buildings used for temporary overnight accommodation, whether or not the building or buildings is or are also used in the provision of meals to travellers or the general public.

***motor showroom*** means a building or place used for the display and sale of motor vehicles, caravans or boats (whether or not motor vehicle accessories, caravan accessories or boat accessories are sold or displayed) and may be used for the servicing of motor vehicles, caravans or boats.

***natural waterbody*** means a natural body of water, whether perennial or intermittent, fresh, brackish or saline, the course of which may have been artificially modified or diverted onto a new course, and includes a river, creek, stream, lake, lagoon, natural wetland, estuary, bay, inlet or tidal waters (including the sea).

***navigation aids*** means buoys, signs, poles and lights located on or in a waterway, or on land, in Sutherland Shire that are designed to assist the safe and efficient movement of vessels on the waterway.

***nightclub*** means premises specified in a nightclub licence under the *Liquor Act 1982*.

***offensive industry*** means any development for the purpose of an industry that would, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including, for example, measures to isolate the development from existing or likely future development on other land in the locality) emit a polluting discharge (including, for example, noise) in a manner that, in the opinion of the consent authority, would have a significant adverse impact in the locality or on the existing or likely future development on other land in the locality.

***passenger transport facility*** means a building or place used for the assembly, interchange or dispersal of passengers by any form of transport, including facilities required for parking, manoeuvring, storage or routine servicing of any vehicle that uses the building or place.

***permanent group home*** means a dwelling:

- (a) used to provide a household environment for disabled persons or socially disadvantaged persons, whether those persons are related or not, and
- (b) occupied by the persons referred to in paragraph (a) as a single household, with or without paid or unpaid supervision or care and either with or without payment for board and lodging being required,

but does not include a building to which *State Environmental Planning Policy (Seniors Living) 2004* applies or a transitional group home.

## Sutherland Shire Local Environmental Plan 2006

## Dictionary

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***place of Aboriginal heritage significance*** means an area of land, identified in the Council's Aboriginal Cultural Heritage Study, that is:

- (a) the site of 1 or more Aboriginal objects or a place that has the physical remains of pre-European occupation by, or is of contemporary significance to, the Aboriginal people. It can (but need not) include items and remnants of the occupation of the land by Aboriginal people, such as burial places, engraving sites, rock art, midden deposits, scarred and sacred trees and sharpening grooves, or
- (b) a natural Aboriginal sacred site or other sacred feature. It includes natural features such as creeks or mountains of long-standing cultural significance, as well as initiation, ceremonial or story places or areas of more contemporary cultural significance.

***place of assembly*** means any building or place that comprises (or is of a like character to) any of the following, within the meaning of the *Local Government Act 1993*, whether or not used for the purpose of financial gain:

- (a) a theatre or public hall,
- (b) a drive-in theatre,
- (c) an open-air theatre,

but does not include any building or place comprising or within a correctional centre, an educational establishment or a place of public worship.

***place of public worship*** means a building or place used for the purpose of religious worship by a congregation or religious group, whether or not the building or place is also used for counselling, social events, instruction or religious training.

***public road*** has the same meaning as in the Act.

***public utility undertaking*** means any of the following undertakings carried on or permitted to be carried on by or by authority of any Government Department or under the authority of or in pursuance of any Commonwealth or State Act:

- (a) railway, road transport, water transport, air transport, wharf or river undertakings,
- (b) undertakings for the supply of water, hydraulic power, electricity or gas or the provision of sewerage or drainage services,

and a reference to a person carrying on a public utility undertaking includes a reference to a council, electricity supply authority, Government Department, corporation, firm or authority carrying on the undertaking.

***radio communications facility*** means a base station, radio communications link, satellite-based facility or radio communications transmitter.

***recreation area*** means a place used for indoor or outdoor recreation (other than a racecourse or showground) for members of the public that comprises any of the following (whether or not used for the purposes of financial gain):

- (a) open space for passive recreation activities,

## Sutherland Shire Local Environmental Plan 2006

## Dictionary

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- (b) a children's playground,
  - (c) a place used for sporting activities or that contains sporting facilities,
  - (d) a place that contains facilities for recreational activities that promote the physical, cultural or intellectual development of persons within the community, being facilities provided by the Council, or by persons that are associated, or by a body incorporated, for the purposes of such development of persons.

**recreation facility** means a building or place used for indoor or outdoor recreation that is provided for the purpose of financial gain that comprises or is of a like character to any of the following:

- (a) an amusement centre,
- (b) a billiard saloon,
- (c) a bowling alley,
- (d) a golf driving range,
- (e) a gymnasium,
- (f) a health studio,
- (g) squash courts,
- (h) a swimming pool,
- (i) a table tennis centre,
- (j) tennis courts.

**registered club** means a club in respect of which a certificate of registration under the *Registered Clubs Act 1976* is in force.

**relic** means any deposit, object or other material evidence of human habitation:

- (a) that relates to the settlement of Sutherland Shire, not being Aboriginal settlement, and
- (b) that is more than 50 years old, and
- (c) that is a fixture or is wholly or partly within the ground.

**repair centre** means a building or place used in association with the operation of a waste recycling and management centre or waste depot and at which materials and goods can be retrieved, repaired or refurbished for re-use in the community.

**residential building** means a building (such as a dwelling house, residential flat building or boarding house) that is solely or principally used for residential purposes, and includes any structure (such as a garage or shed) that is ancillary to such a building, but does not include any of the following:

- (a) a building that merely forms part of a complex of buildings (such as a school or recreation centre) that is principally used for non-residential purposes,
- (b) a moveable dwelling,
- (c) a hotel,

## Sutherland Shire Local Environmental Plan 2006

## Dictionary

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(d) a motel.

**residential development** means development for residential purposes, including any of the following:

- (a) the erection or use of a dwelling house, a dual occupancy, an extended family unit, a villa house, a townhouse, a residential flat building, a group home,
- (b) the carrying out of subdivision for residential purposes,
- (c) a combination of the development referred to in paragraphs (a) and (b).

**residential flat building** means a building containing, 3 or more dwellings but does not include seniors housing, a townhouse or a villa house.

**residential medical practice** means 1 or more rooms forming part of, attached to, or within the curtilage of, a dwelling house (whether or not there is residential occupation of the dwelling house):

- (a) that are used by not more than 2 health care professionals, and
- (b) where no more than 2 employees are employed,

but does not include facilities for in-patient care either in the rooms or in the dwelling house.

**restaurant** means a building or place having as its principal purpose the provision and retail of food for consumption on the premises, but does not include a nightclub.

**road** includes any bridge forming part of a road.

**road transport terminal** means a building or place used for the principal purpose of the bulk handling of goods for transport by road, including facilities for the loading and unloading of vehicles used to transport those goods and for the parking, servicing and repair of those vehicles.

**safety fence** means the assembly of components, natural or otherwise that forms the barrier to a swimming pool (exclusive of any gates), such as posts and panels, walls, and sides of buildings, where they form part of the barrier.

**seniors housing** has the same meaning as in *State Environmental Planning Policy (Seniors Living) 2004*.

**Note.** This plan does not apply to development in Sutherland Shire for the purposes of seniors housing to which *State Environmental Planning Policy (Seniors Living) 2004* applies. See clause 4 of that Policy.

**service station** means a building or place used for the sale by retail of fuels and lubricants for motor vehicles, whether or not the building or place is also used for any one or more of the following:

- (a) the ancillary sale by retail of spare parts and accessories for motor vehicles,
- (b) the cleaning of motor vehicles,
- (c) the installation of accessories,
- (d) the inspection, repair or servicing of motor vehicles (other than body building, panel beating, spray painting, or chassis restoration),
- (e) the ancillary retail selling or hiring of general merchandise or services.

## Sutherland Shire Local Environmental Plan 2006

## Dictionary

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**service support industry** means the repair and maintenance of office or household goods for financial gain.

**sex shop** means a building used for the purpose of either of the following:

- (a) the sale, or the showing, exhibiting or displaying for financial gain, of films or publications classified Category 1 restricted or Category 2 restricted under the *Classification (Publications, Films and Computer Games) Act 1995* of the Commonwealth,
- (b) a business to which section 578E of the *Crimes Act 1900* applies.

**shop** means a building or place used for the purpose of display, sale, hire, auction, processing of goods or materials, or like or ancillary activities, but in clause 11 (Zoning Table) does not include bulky goods premises, a convenience store, a food shop, a junk yard, a motor showroom, a service station or a sex shop.

**shop-top housing** means 1 or more dwellings located above the ground floor of a building, being a building in which a non-residential land use that is permissible with or without consent is carried out on the ground floor.

**significant landform** means an area of land that is:

- (a) specified in the inventory of items, known as the *Sutherland Shire Heritage Inventory*, available at the office of the Council, and
- (b) described as a significant landform in Schedule 6.

**significant tree** means a tree that is:

- (a) specified in the inventory of items, known as the *Sutherland Shire Heritage Inventory*, available at the office of the Council, and
- (b) described as a significant tree in Schedule 6.

**storey** means a space within a building situated between one floor level and the floor level above, or the ceiling or roof above, and includes the space within the following:

- (a) foundation areas, garages, workshops, storerooms, basements and the like, whose external walls have a height of more than 1 metre, as measured from the ground level of the lowest point on the site,
- (b) an attic within a residential building, but only if:
  - (i) the roof of the attic is pitched from more than 300mm above the floor of the attic or at an angle of more than 35 degrees, or
  - (ii) the area of the attic exceeds 60 percent of the floor space of the floor level below.

**street or traffic sign** includes a street name plate, a directional sign and an advance traffic warning sign.

**subdivision of land** has the same meaning as in the Act.

**swimming enclosure** means a body of water, not being a swimming pool, that is enclosed by a fence or netting and is used by members of the public for the purpose of swimming, wading, paddling or any other form of human aquatic activity.

**swimming pool** has the same meaning as in the *Swimming Pools Act 1992*.

## Sutherland Shire Local Environmental Plan 2006

## Dictionary

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**telecommunications facility** means:

- (a) any part of the infrastructure of a telecommunications network, or
- (b) any line, equipment, apparatus, tower, mast, antenna, tunnel, duct, hole, pit, pole or other structure or thing used, or to be used, in or in connection with a telecommunications network.

**telecommunications network** means a system, or series of systems, that carries, or is capable of carrying, communications by means of electromagnetic energy.

**tennis court (private)** means a tennis court that is ancillary to a residential building and used solely for the purpose of private recreational enjoyment and not for financial gain.

**the Act** means the *Environmental Planning and Assessment Act 1979*.

**the corporation** means the corporation constituted by section 8 (1) of the Act.

**the Council** means the Council of Sutherland Shire.

**the map** means the series of maps marked "Sutherland Shire Local Environmental Plan 2006", as amended by the maps (or specified sheets of maps) marked as follows:

**tidal waterway** means a channel or passage within a body of water, where the tide ebbs and flows and where there is sufficient width and depth for:

- (a) tidal flow, or
- (b) travel or transport by a safe navigation route.

**tourist facilities** means a building or place intended to be used by tourists or holidaymakers for the purposes of accommodation, sport or recreation, including:

- (a) hotels and motels, and
- (b) shops attached to or within the building or at the place.

**tourist information centre** means a building or place owned or managed by the Council (other than a restaurant) at which tourist-related services, facilities and information to the community are provided, including any of the following:

- (a) leaflets relating to, and booking services for, tourist destinations and accommodation,
- (b) retail sales of souvenirs, gifts and the like,
- (c) toilets or change facilities for tourists.

**townhouse** means a dwelling within a two-storey building, on a lot of land containing 2 or more dwellings, where each dwelling has open space for the exclusive use of the occupants of the dwelling.

**transitional group home** means a dwelling:

- (a) used to provide temporary accommodation, for the purposes of relief or rehabilitation, for disabled persons or socially disadvantaged persons, whether those persons are related or not, and

## Sutherland Shire Local Environmental Plan 2006

## Dictionary

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- (b) occupied by the persons referred to in paragraph (a) as a single household, either with or without paid or unpaid supervision or care and either with or without payment for board and lodging being required,

but does not include a building to which *State Environmental Planning Policy (Seniors Living) 2004* applies.

**tree** includes a sapling or shrub.

**utility installation** means a building, work or place used for a public utility undertaking, but does not include a building used wholly or principally as administrative or business premises or as a showroom, workshop or depot.

**vehicle and mechanical repair premises** means a building or place used for the purpose of carrying out repairs to motor vehicles or machinery, including watercraft, and engines.

**vehicle rental centre** means a building or place used to rent out vehicles and service those vehicles.

**veterinary hospital** means a building or place used for diagnosing or surgically or medically treating animals, whether or not animals are kept on the premises for the purpose of treatment.

**villa house** means a single storey dwelling on a lot of land containing 3 or more dwellings, where each dwelling has an individual entrance and there is open space at ground level for the exclusive use of the occupants of the dwelling.

**vulnerable development** means the erection or use of buildings whose occupants, in the opinion of the consent authority, are likely to need a high level of assistance during a bush fire or flood, including:

- (a) a building used for a special fire protection purpose (within the meaning of section 100B of the *Rural Fires Act 1997*), and
- (b) accommodation for people with health and mobility problems, including aged and disabled housing and medical facilities with short term or long term accommodation.

**warehouse** means a building or place used mainly or exclusively for storing or handling items (whether goods or materials) pending their sale, but from which no retail sales are made.

**waste recycling and management centre** means a building or place used for the recycling of, or recovery of materials (other than sludge-like materials) from, waste materials, where the recycling or recovery involves the following:

- (a) separating and sorting of the waste materials,
- (b) processing of the waste materials (for example, by baling, crushing, shredding or composting),
- (c) transferring or selling recyclable or recovered materials following separation, sorting and processing,

but does not involve remanufacturing, chemical processing or incineration of waste materials.

## Sutherland Shire Local Environmental Plan 2006

## Dictionary

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***watercraft facility*** means a pontoon, suspended ramp (being a ramp that connects a pontoon to a jetty), jetty, wharf or the like that facilitates access to recreational vessels for embarking and disembarking of passengers and the transfer of goods, but does not include a marina.

***waterfront reserve*** means an area of land that adjoins a waterway and is in Zone 13—Public Open Space or Zone 14—Public Open Space (Bushland).

***wetland*** means an area of land identified on the map marked “Sutherland Shire Local Environmental Plan 2006—Wetlands”.

***wildlife refuge*** means a building or place used for preserving, conserving, propagating and studying wildlife, but does not include an animal boarding or training establishment, a veterinary hospital or a zoo.



# Government Gazette

OF THE STATE OF  
NEW SOUTH WALES

**Number 139**

**Friday, 17 November 2006**

Published under authority by Government Advertising

## LEGISLATION

### Regulations



New South Wales

## Public Authorities (Financial Arrangements) Amendment (TransGrid) Regulation 2006

under the

Public Authorities (Financial Arrangements) Act 1987

Her Excellency the Governor, with the advice of the Executive Council, and on the recommendation of the Treasurer, has made the following Regulation under the *Public Authorities (Financial Arrangements) Act 1987*.

MICHAEL COSTA, M.L.C.,  
Treasurer

### Explanatory note

The *Public Authorities (Financial Arrangements) Regulation 2005* provides that an authority referred to in Schedule 3 to that Regulation is declared to have the investment powers described in Part 3 of Schedule 4 to the *Public Authorities (Financial Arrangements) Act 1987* (*the Act*). TransGrid is currently such an authority.

The object of this Regulation is to amend the *Public Authorities (Financial Arrangements) Regulation 2005* to prescribe additional investment powers of TransGrid to the investment powers described in Part 3 of Schedule 4 to the Act as follows:

- (a) investment of \$1 in one share in Energy Industries Superannuation Scheme Pty Limited,
- (b) investment of \$50,000 in 250,000 shares in Geodynamics Limited.

This Regulation is made under the *Public Authorities (Financial Arrangements) Act 1987*, including section 43 (the general regulation-making power) and clause 4 (1) (1) of Schedule 4.

Clause 1      Public Authorities (Financial Arrangements) Amendment (TransGrid)  
Regulation 2006

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## **Public Authorities (Financial Arrangements) Amendment (TransGrid) Regulation 2006**

under the

Public Authorities (Financial Arrangements) Act 1987

### **1    Name of Regulation**

This Regulation is the *Public Authorities (Financial Arrangements) Amendment (TransGrid) Regulation 2006*.

### **2    Amendment of Public Authorities (Financial Arrangements) Regulation 2005**

The *Public Authorities (Financial Arrangements) Regulation 2005* is amended by inserting after clause 17 of Schedule 5 the following clause:

#### **18    TransGrid**

The following additional investments are prescribed in respect of TransGrid:

- (a) investment of \$1 in one share in Energy Industries Superannuation Scheme Pty Limited (ACN 077 947 285),
- (b) investment of \$50,000 in 250,000 shares in Geodynamics Limited (ACN 095 006 090).

# OFFICIAL NOTICES

## Appointments

### APIARIES ACT OF 1985

#### Appointment of Inspector

I, B D BUFFIER, Director-General of the NSW Department of Primary Industries, pursuant to section 5 (1) of the Apiaries Act 1985 ("the Act") appoint the person named hereunder as an Inspector under the Act:

WETHERALL, Christopher James

Dated this 10th day of November 2006.

B. D. BUFFIER,  
Director-General  
NSW Department of Primary Industries

### HISTORIC HOUSES ACT 1980

#### Appointment of Trustees

#### Historic Houses Trust of New South Wales

HER Excellency the Governor, with the advice of the Executive Council, has approved, pursuant to Section 6 of the Historic Houses Act 1980, the following persons being appointed as trustees of the Historic Houses Trust of New South Wales from 1 January 2007 to 31 December 2009:

- (i) Jill WRAN, pursuant to Clause 8(1) of Schedule 1 (re-appointment)
- (ii) Keith COTTIER AM (new appointment)
- (iii) Martyn MITCHELL (re-appointment)

BOB DEBUS, M.P.,  
Minister for the Arts

### ART GALLERY OF NEW SOUTH WALES ACT 1980

#### Appointment of Trustees

#### Art Gallery of New South Wales Trust

HER Excellency the Governor, with the advice of the Executive Council, has approved, pursuant to Section 6 of the Art Gallery of New South Wales Act 1980, the following persons being appointed as trustees of the Art Gallery of New South Wales Trust from 1 January 2007 to 31 December 2009:

- (i) Guido BELGIORNO-NETTIS (new appointment)
- (ii) Professor Janice REID AM (re-appointment)
- (iii) John SCHAEFFER AO (re-appointment)
- (iv) Imants TILLERS, pursuant to Section 6(1) (re-appointment)
- (v) Peter YOUNG (re-appointment)

BOB DEBUS, M.P.,  
Minister for the Arts

### LANDCOM CORPORATION ACT 2001

#### Reappointment of Director on the Board of Landcom

HER Excellency the Governor, with the advice of the Executive Council pursuant to section 8 of the Landcom Corporation Act 2001, has approved the reappointment of Mr Neil BIRD to the Landcom Board for a term of two (2) years, from 1 January 2007 until 31 December 2008.

The Hon. FRANK SARTOR, M.P.,  
Minister for Planning,  
Minister for Redfern Waterloo,  
Minister for Science and Medical Research, and  
Minister Assisting the Minister for Health (Cancer)

### FILM AND TELEVISION OFFICE ACT 1988

#### Appointment of Members

#### Board of the New South Wales Film and Television Office

HER Excellency the Governor, with the advice of the Executive Council, has approved, pursuant to Section 6A of the Film and Television Office Act 1988, the following persons being appointed as members of the Board of the New South Wales Film and Television Office:

- (i) Geoffrey ATHERDEN (new appointment)  
from 1 January 2007 to 31 December 2007
- (ii) Rosemary BLIGHT (new appointment)
- (iii) Libby RHYS-JONES (re-appointment)  
from 1 January 2007 to 31 December 2009

BOB DEBUS, M.P.,  
Minister for the Arts

# Department of Lands

## ARMIDALE OFFICE

108 Faulkner Street (PO Box 199A), Armidale NSW 2350

Phone: (02) 6772 5488 Fax (02) 6771 5348

### 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 in that Column, 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

<i>COLUMN 1</i>	<i>COLUMN 2</i>	<i>COLUMN 3</i>
Tania Louise MOORHEAD (re-appointment) Dudley Stewart GRIMSTON (re-appointment) Roger Francis WHITE (re-appointment) Michael Thomas MULLIGAN (re-appointment) Philip Denis WILLIAMS (re-appointment) Margaret June WALKER (re-appointment) Brian Matcham BADGERY (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Ben Lomond War Memorial Hall Trust	Reserve No. 79468 Public Purpose: War Memorial (Hall Site) Notified: 29 March 1957 File Reference: AE80 R 131

#### SCHEDULE

<i>COLUMN 1</i>	<i>COLUMN 2</i>	<i>COLUMN 3</i>
Julie NEWSOME (new member) Hazel Rae KIEHNE (re-appointment) Alistair Blyth McINTOSH (re-appointment) Mary Helena HOLLINGWORTH (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Deepwater Public Hall Trust	Reserve No. 110017 Public Purpose: Public Hall Notified: 25 March 1988 File Reference: AE85 R 42

### SCHEDULE

<i>COLUMN 1</i>	<i>COLUMN 2</i>	<i>COLUMN 3</i>
Bronwyn WARREN (new member)	Gilgai Public Hall and Recreation Reserves Trust	Reserve No. 89717 Public Purpose: Public Recreation Public Hall Notified: 30 January 1976 Reserve No. 77683 Public Purpose: Public Recreation Notified: 10 June 1955 Reserve No. 37860 Public Purpose: Public Recreation Notified: 25 June 1904 File Reference: AE80 R 84

For a term commencing  
the date of this notice and  
expiring 31 December 2009.

#### SCHEDULE

<i>COLUMN 1</i>	<i>COLUMN 2</i>	<i>COLUMN 3</i>
Michael PARTRIDGE (new member) Ian James DAVIDSON (re-appointment) Graeme John NEWNHAM (re-appointment) Diane Pearl READ (re-appointment) Warren David ROGERS (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Myall Creek Public Hall and Recreation Reserve Trust	Reserve No. 54198 Public Purpose: Public Recreation Notified: 1 October 1920 Reserve No. 55752 Public Purpose: Public Hall Notified: 20 October 1922 File Reference: AE80 R 55

#### SCHEDULE

<i>COLUMN 1</i>	<i>COLUMN 2</i>	<i>COLUMN 3</i>
Celia Margaret STRONG (new member)	Turkey Creek Agricultural Hall Trust	Reserve No. 86546 Public Purpose: Agricultural Hall Notified: 24 November 1967 File Reference: AE82 R 44

For a term commencing  
the date of this notice and  
expiring 31 December 2010.

#### SCHEDULE

<i>COLUMN 1</i>	<i>COLUMN 2</i>	<i>COLUMN 3</i>
Thomas William SKIPPER (new member) Graham Harold WHITE (re-appointment)	Wandsworth Community Centre Trust	Reserve No. 89069 Public Purpose: Public Hall Community Centre Notified: 2 November 1973 File Reference: AE83 R 37

William James  
ATKIN  
(re-appointment)  
Frank Harold  
WHITE  
(re-appointment)  
Katherine McArthur  
TIGHE  
(re-appointment)  
For a term commencing  
1 January 2007 and  
expiring 31 December 2011.

## SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Rodney WILLIAMS (new member)	Armidale Showground Reserve Trust	Dedication No. 510024 Public Purpose: Showground Notified: 30 November 1877 Reserve No. 110029 Public Purpose: Showground Notified: 22 December 1989 File Reference: AE81 R 5

For a term commencing  
the date of this notice and  
expiring 31 December 2010.

## SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Peter Lofwin BAXTER (re-appointment) Judith BAXTER (re-appointment) Hazel May CHARLES (re-appointment) James Phillip JACKSON (re-appointment) Debra Anne HEFFERNAN (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Tenterden Recreation Reserve Trust	Reserve No. 60459 Public Purpose: Public Notified: 1 June 1928 File Reference: AE80 R 162

## SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Simon WRIGHT (new member) Cindy Gwen ROBERTSON (new member) Wayne John GADDES (new member) David SCHAEFER (new member) Kenneth Harold HICKEY (re-appointment) James Anthony ROBERTSON (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Wongwibinda Public Hall and Recreation Reserve Trust	Reserve No. 76613 Public Purpose: Public Hall Public Recreation Notified: 5 March 1954 File Reference: AE80 R 170

## SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Gwendoline Mary BROWN (re-appointment) Janelle Bronwyn SMITH (new member) Karen COOPER (re-appointment) Jason Andrew COOPER (re-appointment) Timothy Peter LAURIE (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Woolbrook Recreation Reserve Trust	Reserve No. 46983 Public Purpose: Public Recreation Notified: 6 September 1911 File Reference: AE81 R 113

## SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
John Stuart BURNELL (re-appointment) John Arthur McCLENAGHAN (re-appointment) James Whistler STREET (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Wollun Recreation Reserve Trust	Reserve No. 88892 Public Purpose: Public Recreation Notified: 6 April 1973 File Reference: AE83 R 36

## SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Gregory John STEWART (new member) Terry William BROWN (re-appointment) John BURT (re-appointment) Rodney John McGRATH (re-appointment) Allen Geoffrey READ (re-appointment) John Graham ROGERS (re-appointment) Jill BROWN (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Delungra Recreation Reserve Trust	Reserve No. 82061 Public Purpose: Public Recreation Notified: 9 October 1959 File Reference: AE83 R 38

## SCHEDULE

COLUMN 1	COLUMN 2	COLUMN 3
Wayne Howard MUDFORD (re-appointment) Michael Robert BALDWIN (re-appointment)	Gum Flat Recreation Reserve Trust	Reserve No. 62967 Public Purpose: Public Recreation Notified: 2 October 1931 File Reference: AE83 R 49

Rhonda Kaye  
BRABANT  
(re-appointment)  
Alan Howard  
MAKIM  
(re-appointment)  
For a term commencing  
1 January 2007 and  
expiring 31 December 2011.

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SCHEDULE

<i>COLUMN 1</i>	<i>COLUMN 2</i>	<i>COLUMN 3</i>
Terence John TAYLOR (re-appointment) Leslie Albert PARSONS (re-appointment) Leslie Raymond MOULDS (re-appointment) Philippa Nancy WHISH (re-appointment) David John Ross SOMMERLAD (re-appointment) For a term commencing 1 January 2007 and expiring 31 December 2011.	Inverell Pioneer Village Reserve Trust	Reserve No. 87505 Public Purpose: Museum Notified: 14 November 1969 File Reference: AE81 R 91

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**APPOINTMENT OF CORPORATION TO  
MANAGE RESERVE TRUST**

PURSUANT to section 95 of the Crown Lands Act 1989, the corporation specified in Column 1 of the Schedule hereunder is appointed to manage the affairs of the reserve trust specified opposite thereto in Column 2, which is trustee of the reserve referred to in Column 3 of the Schedule.

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

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SCHEDULE

<i>COLUMN 1</i>	<i>COLUMN 2</i>	<i>COLUMN 3</i>
Bendemeer Pre-School	Reserve (R89536) Reserve Trust	Reserve No. 89536 Public Purpose: Pre-School Notified: 22 August 1975 File Reference: AE83 R 25

**ROADS ACT 1993**

Notification of Closing of Roads

IN pursuance of the provisions of the Roads Act 1993, the roads hereunder described are closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to these roads are extinguished.

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

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Description

*Land District – Glen Innes; LGA – Glen Innes Severn*

Road closed: Lot 1, DP 1104861 at Glen Innes. Parish Glen Innes, County Gough. File No.: AE05 H 150.

Note: On closing, the land within Lot 1, DP 1104861 remains vested in the State of New South Wales as Crown Land.

*Land District – Tenterfeld; LGA – Glen Innes Severn*

Road closed: Lot 1, DP 1104862 at Deepwater. Parish Deepwater, County Gough. File No.: AE05 H 148.

Note: On closing, the land within Lot 1, DP 1104862 remains vested in the State of New South Wales as Crown Land.

*Land District – Armidale; LGA – Armidale Dumaresq*

Road closed: Lot 1, DP 1104867 at Armidale. Parish Armidale, County Sandon. File No.: AE05 H 251.

Note: On closing, the land within Lot 1, DP 1104867 remains vested in the State of New South Wales as Crown Land.

*Land District – Walcha; LGA – Walcha*

Road closed: Lot 12, DP 1005202 at Walcha. Parish Glen Morrison, County Vernon. File No.: AE99 H 271.

Note: On closing, the land within Lot 12, DP 1005202 remains vested in Walcha Council as Operational land for the purposes of the Local Government Act 1993.

**GOULBURN OFFICE****159 Auburn Street (PO Box 748), Goulburn NSW 2580****Phone: (02) 4824 3700      Fax: (02) 4822 4287****NOTIFICATION OF CLOSING OF A 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

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**SCHEDULE****Description**

*Parish – Crookwell and Grabben Gullen; County – King;  
Land District – Crookwell; L.G.A. – Upper Lachlan.*

Lots 1 and 2, DP 1099615 (not being land under the Real Property Act).

File No.: GB04 H 475:JK.

Note: On closing, the titles for the land in Lots 1 and 2, DP 1099615 remains vested in the State of New South Wales as Crown Land.

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**MAITLAND OFFICE****Corner Newcastle Road and Banks Street (PO Box 6), East Maitland NSW 2323****Phone: (02) 4937 9300 Fax: (02) 4934 2252****CROWN LANDS ACT 1989****LAND ACQUISITION (JUST TERMS  
COMPENSATION) ACT 1991****Enlargement of Sandgate General Cemetery**

THE Minister for Lands declares that the interests in land described in the Schedule hereto, are acquired by agreement under the provisions of section 25 (2) of the Land Acquisition (Just Terms Compensation) Act 1991 for the purposes of the Crown Lands Act 1989.

On publication of this notice in the Government Gazette, the interests in land are vested in the Minister for Lands as Constructing Authority under section 135 of the Crown Lands Act 1989.

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

**SCHEDULE****Interest in Land**

Fee simple estate in the following land:

All those pieces or parcels of land situate in the City of Newcastle, Parish of Newcastle and County of Northumberland, being Lots 2915 and 2916 in DP 755247

**DECLARATION OF LAND TO BE CROWN LAND**

PURSUANT to section 138 of the Crown Lands Act 1989, the land described in the Schedule hereunder, is declared to be Crown land within the meaning of that Act.

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

**SCHEDULE****Description**

*Land District – Newcastle; Council – Newcastle;  
Parish – Newcastle; County – Northumberland*

1391m<sup>2</sup> being Lot 2915 in DP 755247, 6665m<sup>2</sup> being Lot 2916 in DP 755247, being land acquired this day and vested in the Minister for Lands as Constructing Authority under section 135 of the Crown Lands Act 1989.

3895 m<sup>2</sup> being Lot 2914 in DP 755247, being land purchased by the Sandgate Cemetery Trust. File Ref: MD79 R 149/10

**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: Newcastle  
Local Government Area:  
Newcastle  
Locality: Sandgate  
Lot 2914, DP 755247,  
Parish Newcastle,  
County Northumberland  
Area: 3895 m<sup>2</sup>  
Lot 2915, DP 755247,  
Parish Newcastle,  
County Northumberland  
Area: 1391m<sup>2</sup>  
Lot 2916, DP 755247,  
Parish Newcastle,  
County Northumberland  
Area: 6665m<sup>2</sup>  
File Reference: MD79 R 149/10

**COLUMN 2**

Reserve No. 1005308  
Public Purpose: Urban  
Services (Cemetery and  
Crematorium)  
Notified: 16 January 2004  
Lot 7074, DP 1105147,  
Parish Newcastle,  
County Northumberland  
New Area: approx 33.20 ha

**MOREE OFFICE****Frome Street (PO Box 388), Moree NSW 2400****Phone: (02) 6752 5055 Fax: (02) 6752 1707****DRAFT ASSESSMENT OF CROWN LAND UNDER  
PART 3 OF THE CROWN LANDS ACT 1989 AND  
THE CROWN LANDS REGULATION 2000**Draft Assessment of Crown Land at  
Bingara (Whitlow Road)

THE Minister for Lands has prepared a draft assessment for the Crown land described hereunder.

Inspection of this draft assessment can be made at the office of the Department of Lands, on the corner of Frome and Heber Streets, Moree and at the office of the Gwydir Shire Council at 33 Maitland Street, Bingara, during normal business hours.

Representations are invited from the public on the draft assessment. These may be made in writing for a period of twenty eight (28) days commencing from the 17 November 2006 until 15 December 2006 and should be sent to the Land Assessment Officer, Department of Lands, PO Box 388, Moree NSW 2400. Please quote reference number ME80 H 989.

The lands are generally reserved for future public requirements under the Crown Lands Act 1989 and currently zoned 1 (a) Rural under the provisions of Bingara Shire Local Environmental Plan 1994.

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

**DESCRIPTION***Land District – Bingara; Council – Gwydir Shire*

The assessment area includes approximately sixteen hectares of Crown land 5km to the north east of Bingara off the Whitlow Road. This land is known as Special Lease 1962/2 (Lot 1, DP 721934 and Lot 143, DP 754851), Parish of Molroy, County of Murchison.

Contact: John Williams (02) 6752 5055.

**NOWRA OFFICE****5 O'Keefe Avenue (PO Box 309), Nowra NSW 2541****Phone: (02) 4428 6900 Fax: (02) 4428 6988****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 reserved as specified opposite thereto in Column 2 of the schedule.

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

**SCHEDULE 1***COLUMN 1*

Land District: Nowra  
L.G.A: Shoalhaven  
Parish: Nowra  
County: St Vincent  
Locality: Nowra  
Area: Approx 1530 hectares  
Description: Crown lands shown on the plan held by the Department of Lands  
File Reference NA06 R 17

Note: Existing reservations under the Crown Lands Act are not revoked.

*COLUMN 2*

Reserve No. 1011528  
Public Purpose: "access and public requirements, tourism purposes and environmental and heritage conservation"  
Notified: 9 June 2006

**SYDNEY METROPOLITAN OFFICE**  
**Level 12, Macquarie Tower, 10 Valentine Avenue, Parramatta 2150**  
**(PO Box 3935, Parramatta NSW 2124)**  
**Phone: (02) 8836 5300      Fax: (02) 8836 5365**

**NOTIFICATION OF CLOSING OF ROADS**

IN pursuance of the provisions of the Roads Act, 1993 the roads hereunder specified are closed and the roads cease to be public roads and the rights of passage and access that previously existed in relation to the roads are extinguished.

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

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Description

*Land District – Metropolitan; LGA – Baulkham Hills*

Lots 1 and 2, DP 1100878 at Glenhaven, Parish Castle Hill, County Cumberland. MN05 H 366

Note: On closing, title for the land in Lots 1 and 2 remains vested in the Crown.

## WESTERN DIVISION OFFICE

45 Wingewarra Street (PO Box 1840), Dubbo NSW 2830

Phone: (02) 6883 3000

Fax: (02) 6883 3099

## ALTERATION OF PURPOSE OF A WESTERN LANDS LEASE

IT is hereby notified that in pursuance of the provisions of section 18FA (6) of the Western Lands Act 1901, the purpose and conditions of the undermentioned Western Lands Lease have been altered as shown.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

*Administrative District – Wilcannia  
Shire – Central Darling  
Parish – Wambah; County – Livingstone*

The purpose of Western Lands Lease 14518 being the land contained within Folio Identifier 1/1102463 has been altered from “Residence and Cultivation” to “Residence” effective from 21 August 2006.

As a consequence of the alteration of purpose rent will be assessed annually in line with the Western Lands Act 1901 and Regulations.

The conditions previously annexed to Western Lands Lease 14518 have been revoked and the following conditions have been annexed thereto.

## CONDITIONS AND RESERVATIONS ATTACHED TO WESTERN LANDS LEASE 14518

- (1) In the conditions annexed to the lease, the expression “the Minister” means the Minister administering the Western Lands Act 1901, and any power, authority, duty or function conferred or imposed upon the Minister by or under those conditions may be exercised or performed either by the Minister or by such officers of the Department of Natural Resources as the Minister may from time to time approve.
- (2) In these conditions and reservations the expression “the Commissioner” means the Commissioner charged with the administration of the Western Lands Act 1901 (“the Act”) in accordance with section 4 (2) of the Act.
- (3) (a) For the purposes of this clause the term Lessor shall include Her Majesty the Queen Her Heirs and Successors the Minister and the agents servants employees and contractors of the Lessor Her Majesty Her Majesty’s Heirs and Successors and the Minister.
- (b) The lessee covenants with the Lessor to indemnify and keep indemnified the Lessor from and against all claims for injury loss or damage suffered by any person or body using or being in or upon the Premises or any adjoining land or premises of the Lessor arising out of the Holder’s use of the Premises and against all liabilities for costs charges and expenses incurred by the Lessor in respect of the claim of any such person or body except to the extent that any such claims and demands arise wholly from any negligence or wilful act or omission on the part of the Lessor.
- (c) The indemnity contained in this clause applies notwithstanding that this Lease authorised or required the lessee to undertake or perform the activity giving rise to any claim for injury loss or damage.
- (d) The lessee expressly agrees that the obligations of the Holder under this clause shall continue after the expiration or sooner determination of this Lease in respect of any act deed matter or thing occurring before such expiration or determination.
- (4) The rent of the lease shall be assessed in accordance with Part 6 of the Western Lands Act 1901.
- (5) The rent shall be due and payable annually in advance on 1 July in each year.
- (6) (a) “GST” means any tax on goods and/or services, including any value-added tax, broad-based consumption tax or other similar tax introduced in Australia.  
“GST law” includes any Act, order, ruling or regulation, which imposes or otherwise deals with the administration or imposition of a GST in Australia.
- (b) Notwithstanding any other provision of this Agreement:
  - (i) If a GST applies to any supply made by either party under or in connection with this Agreement, the consideration provided or to be provided for that supply will be increased by an amount equal to the GST liability properly incurred by the party making the supply.
  - (ii) If the imposition of a GST or any subsequent change in the GST law is accompanied by or undertaken in connection with the abolition of or reduction in any existing taxes, duties or statutory charges (in this clause “taxes”), the consideration payable by the recipient of the supply made under this Agreement will be reduced by the actual costs of the party making the supply that are reduced directly or indirectly as a consequence of the abolition of or reduction in taxes.
- (7) The lessee shall pay all rates and taxes assessed on or in respect of the land leased during the currency of the lease.
- (8) The lessee shall hold and use the land leased bona fide for the lessee’s own exclusive benefit and shall not transfer, convey or assign the land or any portion thereof without having first obtained the written consent of the Minister.
- (9) The lessee shall not enter into a sublease of the land leased unless the sublease specifies the purpose for which the land may be used under the sublease, and it is a purpose which is consistent with the purpose for which the land may be used under this lease.
- (10) If the lessee enters into a sublease of the land leased, the lessee must notify the Commissioner of the granting of the sublease within 28 days after it is granted.
- (11) The land leased shall be used only for the purpose of Residence.

- (12) The lessee shall maintain and keep in reasonable repair all improvements on the land leased during the currency of the lease and shall permit the Minister or the Commissioner or any person authorised by the Minister or the Commissioner at all times to enter upon and examine the whole or any part of the land leased and the buildings or other improvements thereon.
- (13) All minerals within the meaning of the Mining Act 1992, and all other metals, gemstones and semiprecious stones, which may be in, under or upon the land leased are reserved to the Crown and the lessee shall permit any person duly authorised in that behalf to enter upon the land leased and search, work, win and remove all or any minerals, metals, gemstones and semiprecious stones in, under or upon the land leased.
- (14) Mining operations may be carried on, upon and in the lands below the land leased and upon and in the lands adjoining the land leased and the lands below those lands and metals and minerals may be removed therefrom and the Crown and any lessee or lessees under any Mining Act or Acts shall not be subject to any proceedings by way of injunction or otherwise in respect of or be liable for any damage occasioned by the letting down, subsidence or lateral movement of the land leased or any part thereof or otherwise by reason of the following acts and matters, that is to say, by reason of the Crown or any person on behalf of the Crown or any lessee or lessees, having worked now or hereafter working any mines or having carried on or now or hereafter carrying on mining operations or having searched for, worked, won or removed or now or hereafter searching for, working, winning or removing any metals or minerals under, in or from the lands lying beneath the land leased or any part thereof, or on, in, under or from any other lands situated laterally to the land leased or any part thereof or the lands lying beneath those lands, and whether on or below the surface of those other lands and by reason of those acts and matters or in the course thereof the Crown reserves the liberty and authority for the Crown, any person on behalf of the Crown and any lessee or lessees from time to time to let down without payment of any compensation any part of the land leased or of the surface thereof.
- (15) The lessee shall comply with the provisions of the Local Government Act 1993, and of the ordinances made thereunder.
- (16) The lessee shall not erect or permit any person to erect any buildings or extend any existing buildings on the land leased except in accordance with plans and specifications approved by the Council of the local Government area.
- (17) The lessee shall ensure that the land leased is kept in a neat and tidy condition to the satisfaction of the Commissioner and not permit refuse to accumulate on the land.
- (18) Upon termination or forfeiture of the lease the Commissioner may direct that the former lessee shall remove any structure or material from the land at his own cost and without compensation. Where such a direction has been given the former lessee shall leave the land in a clean and tidy condition free from rubbish and debris.
- (19) The lessee shall, within 1 year from the date of commencement of the lease or such further period as the Commissioner may allow, enclose the land leased, either separately or conjointly with other lands held in the same interest, with a suitable fence to the satisfaction of the Commissioner.
- (20) If the lessee is an Australian registered company than the following conditions shall apply:
- (i) The Lessee will advise the Commissioner of the name, address and telephone number of the Lessee's company secretary, that person being a person nominated as a representative of the company in respect of any dealings to be had with the company. The Lessee agrees to advise the Commissioner of any changes in these details.
  - (ii) Any change in the shareholding of the Lessee's company which alters its effective control of the lease from that previously known to the Commissioner shall be deemed an assignment by the Lessee.
  - (iii) Where any notice or other communication is required to be served or given or which may be convenient to be served or given under or in connection with this lease it shall be sufficiently executed if it is signed by the company secretary.
  - (iii) A copy of the company's annual financial balance sheet or other financial statement which gives a true and fair view of the company's state of affairs as at the end of each financial year is to be submitted to the Commissioner upon request.

#### ALTERATION OF CONDITIONS OF A WESTERN LANDS LEASE

IT is hereby notified that in pursuance of the provisions of section 18J of the Western Lands Act 1901, the conditions of the undermentioned Western Lands Lease have been altered as shown.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

*Administrative District – Wilcannia  
Shire – Central Darling  
Parish – Wambah; County – Livingstone*

The conditions of Western Lands Lease 7384 being the land contained within Folio Identifier 2/1102463 have been revoked effective from 21 August 2006 and the following conditions have been annexed thereto.

#### CONDITIONS AND RESERVATIONS ATTACHED TO WESTERN LANDS LEASE 7384

- (1) In the conditions annexed to the lease, the expression "the Minister" means the Minister administering the Western Lands Act 1901, and any power, authority, duty or function conferred or imposed upon the Minister by or under those conditions may be exercised or performed either by the Minister or by such officers of the Department of Natural Resources as the Minister may from time to time approve.
- (2) In these conditions and reservations the expression "the Commissioner" means the Commissioner charged with the administration of the Western Lands Act 1901 ("the Act") in accordance with section 4 (2) of the Act.

- (3) (a) For the purposes of this clause the term Lessor shall include Her Majesty the Queen Her Heirs and Successors the Minister and the agents servants employees and contractors of the Lessor Her Majesty Her Majesty's Heirs and Successors and the Minister.
- (b) The lessee covenants with the Lessor to indemnify and keep indemnified the Lessor from and against all claims for injury loss or damage suffered by any person or body using or being in or upon the Premises or any adjoining land or premises of the Lessor arising out of the Holder's use of the Premises and against all liabilities for costs charges and expenses incurred by the Lessor in respect of the claim of any such person or body except to the extent that any such claims and demands arise wholly from any negligence or wilful act or omission on the part of the Lessor.
- (c) The indemnity contained in this clause applies notwithstanding that this Lease authorised or required the lessee to undertake or perform the activity giving rise to any claim for injury loss or damage.
- (d) The lessee expressly agrees that the obligations of the Holder under this clause shall continue after the expiration or sooner determination of this Lease in respect of any act deed matter or thing occurring before such expiration or determination.
- (4) The rent of the lease shall be assessed in accordance with Part 6 of the Western Lands Act 1901.
- (5) The rent shall be due and payable annually in advance on 1 July in each year.
- (6) (a) "GST" means any tax on goods and/or services, including any value-added tax, broad-based consumption tax or other similar tax introduced in Australia.
- "GST law" includes any Act, order, ruling or regulation, which imposes or otherwise deals with the administration or imposition of a GST in Australia.
- (b) Notwithstanding any other provision of this Agreement:
- (i) If a GST applies to any supply made by either party under or in connection with this Agreement, the consideration provided or to be provided for that supply will be increased by an amount equal to the GST liability properly incurred by the party making the supply.
- (ii) If the imposition of a GST or any subsequent change in the GST law is accompanied by or undertaken in connection with the abolition of or reduction in any existing taxes, duties or statutory charges (in this clause "taxes"), the consideration payable by the recipient of the supply made under this Agreement will be reduced by the actual costs of the party making the supply that are reduced directly or indirectly as a consequence of the abolition of or reduction in taxes.
- (7) The lessee shall pay all rates and taxes assessed on or in respect of the land leased during the currency of the lease.
- (8) The lessee shall hold and use the land leased bona fide for the lessee's own exclusive benefit and shall not transfer, convey or assign the land or any portion thereof without having first obtained the written consent of the Minister.
- (9) The lessee shall not enter into a sublease of the land leased unless the sublease specifies the purpose for which the land may be used under the sublease, and it is a purpose which is consistent with the purpose for which the land may be used under this lease.
- (10) If the lessee enters into a sublease of the land leased, the lessee must notify the Commissioner of the granting of the sublease within 28 days after it is granted.
- (11) The land leased shall be used only for the purpose of Residence and Cultivation.
- (12) The lessee shall maintain and keep in reasonable repair all improvements on the land leased during the currency of the lease and shall permit the Minister or the Commissioner or any person authorised by the Minister or the Commissioner at all times to enter upon and examine the whole or any part of the land leased and the buildings or other improvements thereon.
- (13) All minerals within the meaning of the Mining Act 1992, and all other metals, gemstones and semiprecious stones, which may be in, under or upon the land leased are reserved to the Crown and the lessee shall permit any person duly authorised in that behalf to enter upon the land leased and search, work, win and remove all or any minerals, metals, gemstones and semiprecious stones in, under or upon the land leased.
- (14) Mining operations may be carried on, upon and in the lands below the land leased and upon and in the lands adjoining the land leased and the lands below those lands and metals and minerals may be removed therefrom and the Crown and any lessee or lessees under any Mining Act or Acts shall not be subject to any proceedings by way of injunction or otherwise in respect of or be liable for any damage occasioned by the letting down, subsidence or lateral movement of the land leased or any part thereof or otherwise by reason of the following acts and matters, that is to say, by reason of the Crown or any person on behalf of the Crown or any lessee or lessees, having worked now or hereafter working any mines or having carried on or now or hereafter carrying on mining operations or having searched for, worked, won or removed or now or hereafter searching for, working, winning or removing any metals or minerals under, in or from the lands lying beneath the land leased or any part thereof, or on, in, under or from any other lands situated laterally to the land leased or any part thereof or the lands lying beneath those lands, and whether on or below the surface of those other lands and by reason of those acts and matters or in the course thereof the Crown reserves the liberty and authority for the Crown, any person on behalf of the Crown and any lessee or lessees from time to time to let down without payment of any compensation any part of the land leased or of the surface thereof.
- (15) The lessee shall comply with the provisions of the Local Government Act 1993, and of the ordinances made thereunder.

- (16) The lessee shall, within 12 months from the date of commencement of the lease or such further period as the Minister may allow, erect a dwelling on the land in accordance with plans and specifications approved by the Council of the local government area.
  - (17) The lessee shall not erect or permit any person to erect any buildings or extend any existing buildings on the land leased except in accordance with plans and specifications approved by the Council of the local Government area.
  - (18) The lessee shall ensure that the land leased is kept in a neat and tidy condition to the satisfaction of the Commissioner and not permit refuse to accumulate on the land.
  - (19) Upon termination or forfeiture of the lease the Commissioner may direct that the former lessee shall remove any structure or material from the land at his own cost and without compensation. Where such a direction has been given the former lessee shall leave the land in a clean and tidy condition free from rubbish and debris.
  - (20) The lessee shall, within 1 year from the date of commencement of the lease or such further period as the Commissioner may allow, enclose the land leased, either separately or conjointly with other lands held in the same interest, with a suitable fence to the satisfaction of the Commissioner.
  - (21) The lessee shall not obstruct or interfere with any reserves, roads or tracks on the land leased, or the lawful use thereof by any person.
  - (22) The lessee shall erect gates on roads within the land leased when and where directed by the Commissioner for public use and shall maintain those gates together with approaches thereto in good order to the satisfaction of the Commissioner.
  - (23) The right is reserved to the public of free access to, and passage along, the bank of any watercourse adjoining the land leased and the lessee shall not obstruct access or passage by any member of the public to or along the bank.
  - (24) Any part of a reserve for travelling stock, camping or water supply within the land leased shall, during the whole currency of the lease, be open to the use of bona fide travellers, travelling stock, teamsters and carriers without interference or annoyance by the lessee and the lessee shall post in a conspicuous place on the reserve a notice board indicating for public information the purpose of such reserve and, in fencing the land leased, the lessee shall provide gates and other facilities for the entrance and exit of travelling stock, teamsters and others. The notice board, gates and facilities shall be erected and maintained to the satisfaction of the Commissioner. The lessee shall not overstock, wholly or in part, the areas leased within the reserve, the decision as to overstocking resting with the Commissioner.
  - (25) The Crown shall not be responsible to the lessee or the lessee's successors in title for provision of access to the land leased.
  - (26) The Lessee shall comply with the provisions of the Native Vegetation Act 2003 and any regulations made in pursuance of that Act.
  - (27) The lessee shall comply with requirements of section 18DA of the Western Lands Act 1901 which provides that except in circumstances referred to in subsection (3) of that section, cultivation of the land leased or occupied may not be carried out unless the written consent of the Department has first been obtained and any condition to which the consent is subject under subsection (6) is complied with.
  - (28) Notwithstanding any other condition annexed to the lease, the lessee shall, in removing timber for the purpose of building, fencing or firewood, comply with the routine agricultural management activities listed in the Native Vegetation Act 2003.
    - (a) between the banks of, and within strips at least 20 metres wide along each bank of, any creek or defined watercourse;
    - (b) within strips at least 30 metres wide on each side of the centre line of any depression, the sides of which have slopes in excess of 1 (vertically) in 4 (horizontally), that is, approximately 14 degrees;
    - (c) where the slopes are steeper than 1 (vertically) in 3 (horizontally), that is, approximately 18 degrees;
    - (d) within strips not less than 60 metres wide along the tops of any ranges and main ridges;
    - (e) not in contravention of section 21CA of the Soil Conservation Act 1938.
- In addition to the foregoing requirements of this condition, the lessee shall preserve on so much of the land leased as is not the subject of a clearing licence (where possible, in well distributed clumps or strips) not less than an average of 30 established trees per hectare, together with any other timber, vegetative cover or any regeneration thereof which may, from time to time, be determined by the Commissioner to be useful or necessary for soil conservation or erosion mitigation purposes or for shade and shelter.
- (29) The lessee shall not interfere with the timber on any of the land leased which is within a State forest, timber reserve or flora reserve unless authorisation has been obtained under the provisions of the Forestry Act 1916 and shall not prevent any person or persons duly authorised in that behalf from taking timber on the land leased. The lessee shall not have any property right in the timber on the land leased and shall not ringbark, kill, destroy or permit the killing or destruction of any timber unless authorised under the Forestry Act 1916 or unless approval has been issued in accordance with the Native Vegetation Act 2003, but the lessee may take such timber as the lessee may reasonably require for use on the land leased, or on any contiguous land held in the same interest, for building, fencing or firewood.
  - (30) The lessee shall take all necessary steps to protect the land leased from bush fire.
  - (31) The lessee shall, as the Commissioner may from time to time direct, foster and cultivate on the land leased such edible shrubs and plants as the Commissioner may consider can be advantageously and successfully cultivated.

- (32) Whenever so directed by the Commissioner, the lessee shall, on such part or parts of the land leased as shall be specified in the direction, carry out agricultural practices, or refrain from agricultural practices, of such types and for such periods as the Commissioner may in the direction specify.
- (33) The lessee shall not overstock, or permit or allow to be overstocked, the land leased and the decision of the Commissioner as to what constitutes overstocking shall be final and the lessee shall comply with any directions of the Commissioner to prevent or discontinue overstocking.
- (34) The lessee shall, if the Commissioner so directs, prevent the use by stock of any part of the land leased for such periods as the Commissioner considers necessary to permit of the natural reseedling and regeneration of vegetation and, for that purpose, the lessee shall erect within the time appointed by the Commissioner such fencing as the Commissioner may consider necessary.
- (35) The lessee shall furnish such returns and statements as the Commissioner may from time to time require on any matter connected with the land leased or any other land (whether within or outside the Western Division) in which the lessee has an interest.
- (36) The lessee shall, within such time as may be specified by the Commissioner take such steps and measures as the Commissioner shall direct to destroy vermin and such animals and weeds as may, under any Act, from time to time be declared (by declaration covering the land leased) noxious in the Gazette and shall keep the land free of such vermin and noxious animals and weeds during the currency of the lease to the satisfaction of the Commissioner.
- (37) The lessee shall not remove or permit any person to remove gravel, stone, clay, shells or other material for the purpose of sale from the land leased unless the lessee or the person is the holder of a quarry license under regulations made under the Crown Lands Act 1989 or, in respect of land in a State forest, unless the lessee or the person is the holder of a forest materials licence under the Forestry Act 1916, and has obtained the special authority of the Minister to operate on the land, but the lessee may, with the approval of the Commissioner, take from the land such gravel, stone, clay, shells or other material for building and other purposes upon the land as may be required by the lessee.
- (38) If the lessee is an Australian registered company than the following conditions shall apply:
- (i) The Lessee will advise the Commissioner of the name, address and telephone number of the Lessee's company secretary, that person being a person nominated as a representative of the company in respect of any dealings to be had with the company. The Lessee agrees to advise the Commissioner of any changes in these details.
  - (ii) Any change in the shareholding of the Lessee's company which alters its effective control of the lease from that previously known to the Commissioner shall be deemed an assignment by the Lessee.
  - (iii) Where any notice or other communication is required to be served or given or which may be convenient to be served or given under or in connection with this lease it shall be sufficiently executed if it is signed by the company secretary.
  - (iv) A copy of the company's annual financial balance sheet or other financial statement which gives a true and fair view of the company's state of affairs as at the end of each financial year is to be submitted to the Commissioner upon request.

#### GRANTING OF A WESTERN LANDS LEASE

It is hereby notified that under the provisions of Section 28A of the Western Lands Act 1901, the Western Lands Lease of the land specified has been granted to the undermentioned persons.

The lease is subject to the provisions of the Western Lands Act 1901 and the Regulations thereunder and to the special conditions, provisions, exceptions, covenants and reservations set out hereunder.

The land is to be used only for the purpose for which the lease is granted.

All amounts due and payable to the Crown must be paid to the Department of Lands by the due date.

IAN MACDONALD, M.L.C.,  
Minister for Natural Resources

*Administrative District – Walgett North; Shire – Walgett  
Parish – Wallangulla; County – Finch*

Western Lands Lease 14607 was granted to Lightning Ridge Opal and Fossil Centre Incorporated, comprising Lot 1, DP 1103508 (folio identifier 1/1103508) of 3.186 hectares at Lightning Ridge for the purpose of "Business Purposes (Public Museum and Car Park)" for a term in perpetuity commencing 13 November 2006.

Papers: WLL 14607

#### CONDITIONS AND RESERVATIONS ATTACHED TO WESTERN LANDS LEASE 14607

- (1) In the conditions annexed to the lease, the expression "the Minister" means the Minister administering the Western Lands Act 1901, and any power, authority, duty or function conferred or imposed upon the Minister by or under those conditions may be exercised or performed either by the Minister or by such officers of the Department of Natural Resources as the Minister may from time to time approve.
- (2) In these conditions and reservations the expression "the Commissioner" means the Commissioner charged with the administration of the Western Lands Act 1901 ("the Act") in accordance with section 4 (2) of the Act.
- (3) (a) For the purposes of this clause the term Lessor shall include Her Majesty the Queen Her Heirs and Successors the Minister and the agents servants employees and contractors of the Lessor Her Majesty Her Majesty's Heirs and Successors and the Minister.

- (b) The lessee agrees to occupy use and keep the Premises at the risk of the lessee and hereby releases to the full extent permitted by law the Lessor from all claims and demands of every kind resulting from any accident damage or injury occurring therein and the lessee EXPRESSLY AGREES that the Lessor shall have no responsibility or liability for any loss of or damage to fixtures and/or the personal property of the lessee.
- (c) The lessee expressly agrees that the obligations of the lessee under this clause shall continue after the expiration or other determination of this Lease in respect of any act deed matter or thing occurring before such expiration or determination.
- (4) The lessee will (without in any way limiting the liability of the lessee under any other provision of this lease) forthwith take out and thereafter during the Term keep current a public risk insurance policy for \$10,000,000 for any one claim (or such other reasonable amount as the Minister may from time to time specify in writing to the lessee) whereby the Minister shall during the continuance of this lease be indemnified against all actions suits claims demands proceedings losses damages compensations costs charges and expenses mentioned or referred to in this lease to which the Minister shall or may be liable.
- (5) The rent of the lease shall be assessed in accordance with Part 6 of the Western Lands Act 1901.
- (6) The rent shall be due and payable annually in advance on 1 July in each year.
- (7) (a) "GST" means any tax on goods and/or services, including any value-added tax, broad-based consumption tax or other similar tax introduced in Australia.  
"GST law" includes any Act, order, ruling or regulation, which imposes or otherwise deals with the administration or imposition of a GST in Australia.
- (b) Notwithstanding any other provision of this Agreement:
  - (i) If a GST applies to any supply made by either party under or in connection with this Agreement, the consideration provided or to be provided for that supply will be increased by an amount equal to the GST liability properly incurred by the party making the supply.
  - (ii) If the imposition of a GST or any subsequent change in the GST law is accompanied by or undertaken in connection with the abolition of or reduction in any existing taxes, duties or statutory charges (in this clause "taxes"), the consideration payable by the recipient of the supply made under this Agreement will be reduced by the actual costs of the party making the supply that are reduced directly or indirectly as a consequence of the abolition of or reduction in taxes.
- (8) The lessee shall pay all rates and taxes assessed on or in respect of the land leased during the currency of the lease.
- (9) The lessee shall hold and use the land leased bona fide for the lessee's own exclusive benefit and shall not transfer, convey or assign the land or any portion thereof without having first obtained the written consent of the Minister.
- (10) The lessee shall not enter into a sublease of the land leased unless the sublease specifies the purpose for which the land may be used under the sublease, and it is a purpose which is consistent with the purpose for which the land may be used under this lease.
- (11) If the lessee enters into a sublease of the land leased, the lessee must notify the Commissioner of the granting of the sublease within 28 days after it is granted.
- (12) The land leased shall be used only for the purpose of "Business Purposes (Public Museum and Car Park)".
- (13) The lessee shall maintain and keep in reasonable repair all improvements on the land leased during the currency of the lease and shall permit the Minister or the Commissioner or any person authorised by the Minister or the Commissioner at all times to enter upon and examine the whole or any part of the land leased and the buildings or other improvements thereon.
- (14) All minerals within the meaning of the Mining Act 1992, and all other metals, gemstones and semiprecious stones, which may be in, under or upon the land leased are reserved to the Crown and the lessee shall permit any person duly authorised in that behalf to enter upon the land leased and search, work, win and remove all or any minerals, metals, gemstones and semiprecious stones in, under or upon the land leased.
- (15) Mining operations may be carried on, upon and in the lands below the land leased and upon and in the lands adjoining the land leased and the lands below those lands and metals and minerals may be removed therefrom and the Crown and any lessee or lessees under any Mining Act or Acts shall not be subject to any proceedings by way of injunction or otherwise in respect of or be liable for any damage occasioned by the letting down, subsidence or lateral movement of the land leased or any part thereof or otherwise by reason of the following acts and matters, that is to say, by reason of the Crown or any person on behalf of the Crown or any lessee or lessees, having worked now or hereafter working any mines or having carried on or now or hereafter carrying on mining operations or having searched for, worked, won or removed or now or hereafter searching for, working, winning or removing any metals or minerals under, in or from the lands lying beneath the land leased or any part thereof, or on, in, under or from any other lands situated laterally to the land leased or any part thereof or the lands lying beneath those lands, and whether on or below the surface of those other lands and by reason of those acts and matters or in the course thereof the Crown reserves the liberty and authority for the Crown, any person on behalf of the Crown and any lessee or lessees from time to time to let down without payment of any compensation any part of the land leased or of the surface thereof.
- (16) The lessee shall comply with the provisions of the Local Government Act 1993, and of the ordinances made thereunder.

- (17) The lessee shall, within 12 months from the date of commencement of the lease or such further period as the Minister may allow, erect business premises on the land in accordance with plans and specifications approved by the Council of the local government area.
- (18) The lessee shall not erect or permit any person to erect any buildings or extend any existing buildings on the land leased except in accordance with plans and specifications approved by the Council of the local Government area.
- (19) The lessee shall ensure that the land leased is kept in a neat and tidy condition to the satisfaction of the Commissioner and not permit refuse to accumulate on the land.
- (20) Upon termination or forfeiture of the lease the Commissioner may direct that the former lessee shall remove any structure or material from the land at his own cost and without compensation. Where such a direction has been given the former lessee shall leave the land in a clean and tidy condition free from rubbish and debris.
- (21) The lessee shall not erect any fence on the leased area or interfere with or impede the use of any existing track or road on the leased land or adjacent to the leased land, except with the permission of the Commissioner.
- (22) If the lessee is an Australian registered company than the following conditions shall apply:
- (i) The Lessee will advise the Commissioner of the name, address and telephone number of the Lessee's company secretary, that person being a person nominated as a representative of the company in respect of any dealings to be had with the company. The Lessee agrees to advise the Commissioner of any changes in these details.
  - (ii) Any change in the shareholding of the Lessee's company which alters its effective control of the lease from that previously known to the Commissioner shall be deemed an assignment by the Lessee.
  - (iii) Where any notice or other communication is required to be served or given or which may be convenient to be served or given under or in connection with this lease it shall be sufficiently executed if it is signed by the company secretary.
  - (iv) A copy of the company's annual financial balance sheet or other financial statement which gives a true and fair view of the company's state of affairs as at the end of each financial year is to be submitted to the Commissioner upon request.

## REVOCATION OF RESERVATION OF CROWN LAND

PURSUANT to section 90 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

Crown Land reserved for  
Future Public Requirements  
by notification in the  
*Government Gazette* of  
31 March 2006 & 11 August  
2006, as Reserve No. 1011448  
File No: Lands 06/367

#### COLUMN 2

Part of Reserve 1011448  
comprising the whole of  
Portion 3476, DP 757298,  
Parish of Picton, County of  
Yancowinna at Broken Hill

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## Department of Natural Resources

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### WATER ACT 1912

AN application for a licence under section 10 of Part 2 of the Water Act 1912, as amended, has been received as follows:

Kenneth John REDDACLIFF and Pamela Fay REDDACLIFF for an existing 1.25 megalitre earthen bywash dam and a proposed 1.25 megalitre earthen bywash dam and pump on an unnamed watercourse on Lot 75//1010834, Parish of Lowther, County of Westmoreland, for the conservation of water and water supply for the irrigation of 2.0 hectares (vines) (new licence) (dams in excess of MHRDC – not subject to the Hawkesbury/Nepean Embargo) (Reference: 10SL056740) (GA2:493458).

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AN application for an Authority under section 20 of Part 2 of the Water Act 1912, as amended, has been received as follows:

Colin COX and OTHERS for a pump on the Grose River on Part Lot 5//1002776, Parish of Kurrajong, County of Cook, for water supply for domestic purposes (not subject to the Hawkesbury/Nepean embargo) (Reference: 10SA002541) (GA2:493457).

Any inquiries regarding the above should be directed to the undersigned (Telephone: (02) 9895 7194).

Written objections specifying grounds thereof must be lodged with the Department within 28 days of the date of this publication as prescribed by the Act.

WAYNE CONNERS,  
Natural Resource Project Officer,  
Compliance and Licensing Division

Department of Natural Resources,  
PO Box 3720, Parramatta NSW 2124.

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## Department of Planning

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New South Wales

### **Gosford Local Environmental Plan No 452**

under the

Environmental Planning and Assessment Act 1979

I, the Minister for Planning, make the following local environmental plan under the  
*Environmental Planning and Assessment Act 1979*. (CC0000008/PC)

FRANK SARTOR, M.P.,  
Minister for Planning

Clause 1            Gosford Local Environmental Plan No 452

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## **Gosford Local Environmental Plan No 452**

under the

Environmental Planning and Assessment Act 1979

### **1    Name of plan**

This plan is *Gosford Local Environmental Plan No 452*.

### **2    Aims of plan**

The aims of this plan are:

- (a) to rezone the land to which this plan applies from Zone No 5 (a) Special Uses—Club/Hotel/Motel and Ancillary Activities to Zone No 3 (a) Business (General) under the *Gosford Planning Scheme Ordinance*, and
- (b) to enable the use of the land for commercial, retail and residential purposes.

### **3    Land to which plan applies**

This plan applies to Lot 22, DP 1065103, Memorial Avenue, Ettalong Beach as shown edged heavy black on the map marked “Gosford Local Environmental Plan No 452” deposited in the office of the Council of the City of Gosford.

### **4    Amendment of Gosford Planning Scheme Ordinance**

*Gosford Planning Scheme Ordinance* is amended as set out in Schedule 1.

Gosford Local Environmental Plan No 452

Amendments

Schedule 1

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## Schedule 1 Amendments

(Clause 4)

**[1] Clause 3 Interpretation**

Insert in appropriate order in the definition of *Scheme map* in clause 3 (1):  
Gosford Local Environmental Plan No 452

**[2] Clause 49DD Use of certain land at Ettalong for a club, hotel/motel and ancillary facilities**

Omit clause 49DD (3) and (4).

**[3] Clause 49DD (5)**

Omit “subclause (4)”. Insert instead “this clause”.

**[4] Clause 49DM**

Insert in appropriate order:

**49DM Use of certain land at Ettalong Beach**

- (1) This clause applies to Lot 22, DP 1065103, Memorial Avenue, Ettalong Beach, as shown edged heavy black on the map marked “Gosford Local Environmental Plan No 452” deposited in the office of the Council.
- (2) Clauses 28 and 29B do not apply to the land to which this clause applies.
- (3) Despite any other provision of this Ordinance, the maximum floor space ratio for the land to which this clause applies is 1.5:1, but in calculating that floor space ratio the area of any car park that was constructed in accordance with any consent granted under clause 49DD is to be ignored.
- (4) Despite any other provision of this Ordinance, the maximum height for any building on the land to which this clause applies is 22 metres.
- (5) Despite any other provision of this Ordinance, the consent authority must not consent to development on land to which this clause applies unless it has taken into account the following matters:
  - (a) whether the proposed development effectively conceals car parking areas when viewed from public areas outside of the site,

## Gosford Local Environmental Plan No 452

## Schedule 1      Amendments

- 
- (b) whether the proposed development provides active street frontages to Memorial Avenue, Ocean View Road and Picnic Parade in order to provide a continuity and diversity of retail activity and to encourage pedestrian activity,
  - (c) the impact of the proposed development on the solar access and privacy of any dwellings resulting from development for which consent was granted under clause 49DD,
  - (d) whether the proposed development provides a high standard of urban design and architectural quality,
  - (e) whether the proposed development addresses the co-ordination, access and management arrangements for off-street car parking associated with any development for which consent was granted under clause 49DD,
  - (f) the adequacy of any proposed measures to conserve water usage and increase water efficiency.



New South Wales

## **Lismore Local Environmental Plan 2000 (Amendment No 23)**

under the

Environmental Planning and Assessment Act 1979

I, the Minister for Planning, make the following local environmental plan under the  
*Environmental Planning and Assessment Act 1979*. (GRA6322799/PC-1)

FRANK SARTOR, M.P.,  
Minister for Planning

Clause 1            Lismore Local Environmental Plan 2000 (Amendment No 23)

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## **Lismore Local Environmental Plan 2000 (Amendment No 23)**

under the

Environmental Planning and Assessment Act 1979

### **1    Name of plan**

This plan is *Lismore Local Environmental Plan 2000 (Amendment No 23)*.

### **2    Aims of plan**

This plan aims to amend *Lismore Local Environmental Plan 2000*:

- (a) to prohibit advertisements on motor vehicles in certain circumstances, and
- (b) to amend provisions relating to boundary adjustments on rural land, and
- (c) to permit 2 dwellings to be erected on a single parcel of rural land in certain circumstances, and
- (d) to remove a provision relating to investigation areas referred to on the zoning map, and
- (e) to amend provisions relating to the permissibility of:
  - (i) cemeteries and crematoriums in residential and industrial zones, and
  - (ii) residential flat buildings in business zones, and
- (f) to introduce an additional objective to Zone No 2 (f), and
- (g) to correct descriptions of certain properties described in the Schedule of heritage items, and
- (h) to amend the definitions of ***car repair station***, ***community facility*** and ***rural tourist facility*** and replace the definition of ***residential building*** with ***residential flat building***, and
- (i) to rezone certain land in Tuncester to Zone No 1 (a) (General Rural Zone), and
- (j) to rezone certain land from Zone No 3 (f) (Services Business (Flood Liable) Zone) to Zone No 3 (a) (Business Zone).

Lismore Local Environmental Plan 2000 (Amendment No 23)

Clause 3

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**3 Land to which plan applies**

This plan applies:

- (a) in respect of the matter referred to in clause 2 (g) to 1, 9A, 9B and 9D Airforce Road, Lismore, and
- (b) in respect of the matter referred to in clause 2 (i) to part Lot 3, DP 828423 and part Lot 22, DP 792611, Rifle Range Road, Tuncester, shown edged in heavy black on Sheet 1 of the map marked "Lismore Local Environmental Plan 2000 (Amendment No 23)" held in the office of the Council of the City of Lismore, and
- (c) in respect of the matter referred to in clause 2 (j) to land shown edged in heavy black on Sheet 2 of the map marked "Lismore Local Environmental Plan 2000 (Amendment No 23)" held in the office of the Council of the City of Lismore, and
- (d) in respect of all other matters, to all land to which the *Lismore Local Environmental Plan 2000* applies.

**4 Amendment of Lismore Local Environmental Plan 2000**

*Lismore Local Environmental Plan 2000* is amended as set out in Schedule 1.

## Lismore Local Environmental Plan 2000 (Amendment No 23)

## Schedule 1 Amendments

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**Schedule 1 Amendments**

(Clause 4)

**[1] Clause 24 Development for the purpose of advertisements**

Omit clause 24 (3). Insert instead:

**(3) Advertisements on trailers and motor vehicles on public land**

The development of public land (within the meaning of clause 74) to display an advertisement for a commercial purpose on a motor vehicle or trailer is prohibited. This subclause does not apply to a motor vehicle or a trailer attached to a motor vehicle while the vehicle or vehicle and trailer are otherwise lawfully on the carriageway of a public street.

**[2] Clause 30 Zone No 1 (a) (General Rural Zone)**

Omit from item 30.5 of the Table to the clause:

- residential buildings

Insert instead:

- residential flat buildings

**[3] Clause 31 Zone No 1 (b) (Agricultural Zone)**

Omit from item 31.5 of the Table to the clause:

- residential buildings

Insert instead:

- residential flat buildings

**[4] Clause 32 Zone No 1 (c) (Rural Residential Zone)**

Omit from item 32.5 of the Table to the clause:

- residential buildings

Insert instead:

- residential flat buildings

**[5] Clause 35 Zone No 1 (r) (Riverlands Zone)**

Omit from item 35.5 of the Table to the clause:

- residential buildings

Insert instead:

- residential flat buildings

Lismore Local Environmental Plan 2000 (Amendment No 23)

Amendments

Schedule 1

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**[6] Clause 36 Subdivision and development in rural zones**

Omit “, if the consent authority is satisfied that the land will be used for the purpose of agriculture, forestry or a dwelling house,” from clause 36 (1).

**[7] Clause 36 (5) (a)**

Insert “and” after “zones,”.

**[8] Clause 36 (5) (b)**

Insert “and” after “created,”.

**[9] Clause 36 (5) (e)**

Insert at the end of clause 36 (5) (d):

, and

- (e) no additional entitlement for subdivision is created pursuant to subclause (1) or (2).

**[10] Clause 37 Rural dwellings and rural dual occupancy**

Omit clause 37 (6). Insert instead:

- (6) A second dwelling-house may be erected on an allotment of land to which this clause applies, with consent, if:
  - (a) on or before the completion of the second dwelling-house the first dwelling-house on the allotment is demolished or rendered uninhabitable so that it is not able to be separately occupied as a dwelling-house, or
  - (b) the second dwelling-house is to be erected on land within Zone No 1 (c) or land listed in Schedule 4 with a purpose of rural residential subdivision listed in Column 2 of that Schedule and the consent authority is satisfied that:
    - (i) both dwellings have the same vehicular access from a public road, and
    - (ii) the second dwelling-house is located wholly within a radius of 80 metres from the first dwelling-house, and
    - (iii) the land is physically suitable for the construction of two dwelling-houses, and
    - (iv) the land is physically capable of accommodating effluent disposal areas for both dwelling-houses.

**[11] Clause 43 Investigation areas referred to on zoning map**

Omit the clause.

## Lismore Local Environmental Plan 2000 (Amendment No 23)

## Schedule 1 Amendments

---

**[12] Clause 48 Zone No 2 (a) (Residential Zone)**

Omit from item 48.4 of the Table to the clause:

- cemeteries and crematoriums

Insert instead:

- cemeteries

**[13] Clause 48, Table**

Omit from item 48.4:

- residential buildings

Insert instead:

- residential flat buildings

**[14] Clause 48, Table**

Insert in alphabetical order in item 48.5:

- crematoriums

**[15] Clause 49 Zone No 2 (f) (Residential (Flood Liable) Zone)**

Insert at the end of paragraph (c) in item 49.1 of the Table to the clause:

, and

- (d) to minimise the impact of non-residential development on the amenity of existing residences in the locality.

**[16] Clause 49, Table**

Omit from item 49.5:

- residential buildings

Insert instead:

- residential flat buildings

**[17] Clause 51 Subdivision of land in Zones Nos 2 (a) and 2 (v)**

Omit “residential building” from clause 51 (4) (a).

Insert instead “residential flat building”.

Lismore Local Environmental Plan 2000 (Amendment No 23)

Amendments

Schedule 1

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**[18] Clause 58 Zone No 3 (a) (Business Zone)**

Omit from item 58.4 of the Table to the clause:

- residential buildings

Insert instead:

- residential flat buildings (but only if part of the building is used for a commercial purpose that is permitted with development consent)

**[19] Clause 59 Zone No 3 (b) (Neighbourhood Business Zone)**

Omit from item 59.4 of the Table to the clause:

- residential buildings

Insert instead:

- residential flat buildings (but only if part of the building is used for a commercial purpose that is permitted with development consent)

**[20] Clause 60 Zone No 3 (f) (Services Business (Flood Liable) Zone)**

Omit from item 60.5 of the Table to the clause:

- residential buildings

Insert instead:

- residential flat buildings

**[21] Clause 63 Zone No 4 (a) (Industrial Zone)**

Insert in alphabetical order in item 63.4 of the Table to the clause:

- crematoriums

**[22] Clause 63, Table**

Omit from item 63.5:

- crematoriums and cemeteries

Insert instead:

- cemeteries

**[23] Clause 63, Table**

Omit from item 63.5:

- residential buildings

Insert instead:

- residential flat buildings

## Lismore Local Environmental Plan 2000 (Amendment No 23)

## Schedule 1 Amendments

**[24] Schedule 1 Heritage items**

Omit the matter relating to Map No 64 from the Schedule. Insert instead:

64	Lismore	1, 9A, 9B and 9D	Cemetery	30139	Built item
	Cemetery	Airforce Road, Lismore		10033	Landscape item
					Archaeological site

**[25] Schedule 7 Definitions**

Insert “, but not repairs of a kind usually carried out by an auto-electrician” after “spray painting” in the definition of *car repair station*.

**[26] Schedule 7, definition of “community facility”**

Insert “or operated” after “owned”.

**[27] Schedule 7, definitions of “home industry” and “home occupation”**

Omit “residential building” wherever occurring.

Insert instead “residential flat building”.

**[28] Schedule 7, definition of “residential building”**

Omit the definition. Insert instead:

*residential flat building* means a building or group of buildings erected on one lot of land and containing three or more dwellings.

**[29] Schedule 7, definition of “rural tourist facility”**

Omit “guest house, hostel,”.

**[30] Schedule 7, definition of “the map”**

Insert in appropriate order:

Lismore Local Environmental Plan 2000 (Amendment No 23)  
(Sheets 1–4)



New South Wales

## **Richmond River Local Environmental Plan 1992 (Amendment No 29)**

under the

Environmental Planning and Assessment Act 1979

I, the Minister for Planning, make the following local environmental plan under the  
*Environmental Planning and Assessment Act 1979*. (GRA6323048/PC)

FRANK SARTOR, M.P.,  
Minister for Planning

Clause 1 Richmond River Local Environmental Plan 1992 (Amendment No 29)

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## **Richmond River Local Environmental Plan 1992 (Amendment No 29)**

under the

Environmental Planning and Assessment Act 1979

### **1 Name of plan**

This plan is *Richmond River Local Environmental Plan 1992 (Amendment No 29)*.

### **2 Aims of plan**

This plan aims to rezone the land to which this plan applies from Zone No 1 (b1)—Rural (Secondary Agricultural Land) Zone to Zone No 1 (c)—Rural Residential Zone under *Richmond River Local Environmental Plan 1992*.

### **3 Land to which plan applies**

This plan applies to Lots 141 and 142, DP 1064803, Gregors and Pratts Roads, Spring Grove, Parish of Tomki, as shown edged heavy black and lettered “1 (c)” on Sheet 1 of the map marked “Richmond River Local Environmental Plan 1992 (Amendment No 29)” deposited in the office of Richmond Valley Council.

### **4 Amendment of Richmond River Local Environmental Plan 1992**

*Richmond River Local Environmental Plan 1992* is amended by inserting in appropriate order in the definition of **THE MAP** in clause 5 (1) the following words:

MAP 3—replaced by *Richmond River Local Environmental Plan 1992 (Amendment No 29)*

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ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

## ORDER

I, the Minister for Planning, declare under section 75B(1) of the Environmental Planning and Assessment Act 1979 that the development described in the Schedule is a project to which Part 3A of the Environmental Planning and Assessment Act 1979 applies.

FRANK SARTOR, M.P.,  
Minister for Planning,

Sydney, 30 October 2006.

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SCHEDULE

Subdivision, subdivision works and the erection of dwelling houses on land at Kings Forest in the local government area of Tweed, as shown edged heavy black on the map marked “Map 4 – Schedule 3 – Kings Forest” in Schedule 3 to the State Environmental Planning Policy (Major Projects) 2005.

The development does not include:

The erection of dwelling houses on land the zoned 7(1) Environmental Protection (Habitat) under the State Environmental Planning Policy (Major Projects) 2005; and

Exempt and complying development under the Tweed Development Control Plan No 40 (as adopted by Tweed Shire Council on 6 October 2004).

## Department of Primary Industries

### PLANT DISEASES ACT 1924

OR93: Order under Section 13A

I, IAN MACDONALD, M.L.C., Minister for Primary Industries:

1. pursuant to section 13A of the Plant Diseases Act 1924, believe that this Order is necessary in order to avoid an adverse effect on trade in fruit, and by this Order I hereby:
  - (a) from 7 December 2006, authorise an inspector to enter all land or premises with a frontage to or access from a street which is within an urban 60 km an hour or less speed limit zone in the towns specified in Schedule 1 to carry out the fruit fly treatment specified in Schedule 2, to control the pest Queensland Fruit Fly, and
  - (b) provide that the process for objecting to the carrying out of fruit fly treatment is as specified in Schedule 3.

#### SCHEDULE 1 Specified Towns

Barellan	Goolgowi	Mathoura
Barham	Griffith	Merriwagga
Barooga	Grong Grong	Menindee
Berrigan	Hay	Moama
Broken Hill	Hillston	Mulwala
Corowa	Howlong	Narrandera
Darlington Point	Jerilderie	Tocumwal
Deniliquin	Kamariah	Wamoon
Finley	Leeton	Yanco
		Yenda

#### SCHEDULE 2 Fruit Fly Treatment

In this Order:

fruit fly treatment means any one or a combination of the following:

- (a) Fruit fly bait spraying: A registered insecticide plus protein autolysate extract is applied to plant foliage as a spot spray from a backpack spray unit. Note: The registered insecticide is Hy-Mal® that has the active constituent "maldison". The protein autolysate extract is Natfl av 500®. Australian Pesticides & Veterinary Medicines Authority permit number: PER7364.
- (b) Cover spray of fruit trees: A registered insecticide spray is applied to the plant foliage and fruit on fruit trees as a mist spray from a backpack spray unit or by a powered spray unit. Note: The registered insecticide is Lebaycid® that has the active constituent "fenthion".
- (c) The release of sterile Queensland Fruit Fly.

#### SCHEDULE 3

Objection to Fruit Fly Treatment Authorised by this Order

1. An occupier of land or premises on which fruit fly treatment is authorised by this Order to be carried out may object to the carrying out of the fruit fly treatment.

2. An objection must:

- (a) be in writing addressed to the Director-General of the NSW Department of Primary Industries, and
- (b) identify the property concerned and state the name and contact details of the person objecting.

3. An objection will only be considered if it is:

- (a) received by the Regional Director DPI Relations South West, NSW Department of Primary Industries, Private Mail Bag, Yanco NSW 2703, by 4:00 pm on 6 December 2006, or
- (b) delivered to an inspector who, for the purpose of carrying out the fruit fly treatment, has entered the land or premises of the person objecting to the fruit fly treatment being carried out.

4. An objection received under paragraph 3(a) of Schedule 3 but not within the time specified in that paragraph, may be considered before the time that an inspector attends a property to carry out the fruit fly treatment.

Note: This Order remains in force for 6 months from the date it is made.

Dated this 14th day of November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources

### NOXIOUS WEEDS ACT 1993

Appointment of Members to  
Noxious Weeds Advisory Committee

I, IAN MACDONALD MLC, Minister for Primary Industries, pursuant to section 58 of the Noxious Weeds Act 1993, appoint the following persons to the Noxious Weeds Advisory Committee for a term commencing on the date hereof and expiring on 31 August 2008:

Robert GLEDHILL representing NSW CMA Chairs Council

Rebecca RUDD representing Local Government Association of NSW

Dated this 17th day of October 2006.

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources

### MINERAL RESOURCES

NOTICE is given that the following applications have been received:

#### EXPLORATION LICENCE APPLICATIONS

(06-4173)

No. 2877, GRAYNIC METALS LIMITED (ACN 112 898 825), area of 17 units, for Group 1, dated 12 October 2006. (Broken Hill Mining Division).

(06-4212)

No. 2916, CLANCY EXPLORATION PTY LTD (ACN 105 578 756), area of 64 units, for Group 1, dated 6 November 2006. (Orange Mining Division).

(06-4213)

No. 2917, PLATSEARCH NL (ACN 003 254 395), area of 100 units, for Group 1, dated 6 November 2006. (Broken Hill Mining Division).

(06-4214)

No. 2918, PLATSEARCH NL (ACN 003 254 395), area of 79 units, for Group 1, dated 6 November 2006. (Broken Hill Mining Division).

(06-7047)

No. 2922, QUIDONG MINERALS PTY LTD (ACN 121 671 323), area of 25 units, for Group 1, dated 8 November 2006. (Sydney Mining Division).

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources

NOTICE is given that the following applications have been granted:

#### EXPLORATION LICENCE APPLICATIONS

(06-76)

No. 2660, now Exploration Licence No. 6650, OROYA MINING LIMITED (ACN 009 146 794), Counties of Ashburnham and Gordon, Map Sheet (8631, 8632), area of 100 units, for Group 1, dated 20 October 2006, for a term until 19 October 2008.

(06-100)

No. 2681, now Exploration Licence No. 6651, PLENTEX (OPERATIONS) PTY LTD (ACN 079 118 871), County of Mouramba, Map Sheet (8033), area of 57 units, for Group 1, dated 20 October 2006, for a term until 19 October 2008.

(06-124)

No. 2701, now Exploration Licence No. 6652, D'AGUILAR GOLD LIMITED (ACN 052 354 837), Counties of Bathurst and Georgiana, Map Sheet (8730, 8830), area of 49 units, for Group 1, dated 20 October 2006, for a term until 19 October 2008.

(06-214)

No. 2732, now Exploration Licence No. 6653, SOUTHERN GOLD LIMITED (ACN 107 424 519), County of Ashburnham, Map Sheet (8531), area of 95 units, for Group 1, dated 20 October 2006, for a term until 19 October 2008.

(06-232)

No. 2750, now Exploration Licence No. 6656, MINCOR RESOURCES NL (ACN 072 745 692), County of Kennedy, Map Sheet (8333), area of 42 units, for Group 1, dated 27 October 2006, for a term until 26 October 2008.

(06-246)

No. 2764, now Exploration Licence No. 6654, COMPASS RESOURCES N.L. (ACN 010 536 820), Counties of Ashburnham and Kennedy, Map Sheet (8531, 8532), area of 47 units, for Group 1, dated 20 October 2006, for a term until 19 October 2008.

(06-250)

No. 2768, now Exploration Licence No. 6655, WESTERN PLAINS GOLD LTD (ACN 109 426 502), County of Cunningham, Map Sheet (8431, 8432), area of 100 units, for Group 1, dated 20 October 2006, for a term until 19 October 2008.

(06-4093)

No. 2799, now Exploration Licence No. 6658, NEW SOUTH RESOURCES LIMITED (ACN 119557416), County of Clarendon, Map Sheet (8428), area of 22 units, for Group 1, dated 6 November 2006, for a term until 5 November 2008.

#### MINING LEASE APPLICATION

(C95-1006)

Orange No. 51, now Mining Lease No. 1588 (Act 1992), CENTENNIAL SPRINGVALE PTY LIMITED (ACN 052 096 812) AND SPRINGVALE SK KORES PTY LIMITED (ACN 051 015 402), Parish of Clwydd, County of Cook; and Parish of Cook, County of Cook, Map Sheet (8931-3-N, 8931-3-S), area of 976 hectares, to mine for coal, dated 19 October 2006, for a term until 18 October 2027.

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources

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

(C03/0078)

Coal Lease No. 374 (Act 1973), WAMBO COAL PTY LTD, area of 382.3 hectares. Application for renewal received 27 September 2004.

(T94-0003)

Exploration Licence No. 4752, METALLIC RESOURCES PTY LIMITED (ACN 001 867 296), area of 3 units. Application for renewal received 8 November 2006.

(T02-0068)

Exploration Licence No. 6032, MALACHITE RESOURCES NL (ACN 075 613 268), area of 8 units. Application for renewal received 10 November 2006.

(04-558)

Exploration Licence No. 6356, MONARO MINING N.L. (ACN 073 155 781), area of 14 units. Application for renewal received 8 November 2006.

(T86-1049)

Private Lands Lease No. 1208 (Act 1924), GOSFORD QUARRIES (PROPERTIES) PTY LIMITED (ACN 001 226 875), area of 29.95 hectares. Application for renewal received 13 October 2006.

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources

#### RENEWAL OF CERTAIN AUTHORITIES

NOTICE is given that the following authority has been renewed:

(C98-2716)

Exploration Licence No. 5600, MUSWELLBROOK COAL COMPANY LIMITED (ACN 000 009 521), County of Brisbane, Map Sheet (9033), area of 5780 hectares, for a further term until 20 January, 2009. Renewal effective on and from 17 October 2006.

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources

**REFUSAL OF APPLICATION FOR RENEWAL**

NOTICE is given that the application for renewal in respect of the following authority has been refused:

(T03-0043)

Exploration Licence No. 6229, HAZELGROVE ENTERPRISES PTY LIMITED (ACN 068 604 473), Counties of Arrawatta and Gough, Map Sheet (9138), area of 18 units. The authority ceased to have effect on 6 November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources

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**CANCELLATION OF AUTHORITIES AT  
REQUEST OF HOLDERS**

NOTICE is given that the following authorities have been cancelled:

(T99-0101)

Exploration Licence No. 5655, TRIAKO RESOURCES LIMITED (ACN 008 498 119), County of Cunningham, Map Sheet (8233), area of 3 units. Cancellation took effect on 6 November 2006.

(T03-0026)

Exploration Licence No. 6088, TRIAKO RESOURCES LIMITED (ACN 008 498 119), County of Forbes, Map Sheet (8530), area of 11 units. Cancellation took effect on 6 November 2006.

(04-639)

Exploration Licence No. 6394, WESTERN PLAINS GOLD LTD (ACN 109 426 502) AND EAGLEHAWK GEOLOGICAL CONSULTING PTY LTD (ACN 061 324 454), County of Menindee and County of Yancowinna, Map Sheet (7233), area of 91 units. Cancellation took effect on 7 November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources

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**TRANSFER**

(05-277)

Exploration Licence No. 6559, formerly held by DONALD JOHN PERKIN AND GOLDEN REEF ENTERPRISES PTY LTD (ACN 008 138 136) has been transferred to ICON RESOURCES LTD (ACN 115 009 106). The transfer was registered on 3 November 2006.

IAN MACDONALD, M.L.C.,  
Minister for Mineral Resources.

## Roads and Traffic Authority

### ROAD TRANSPORT (GENERAL) ACT 2005

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

GILGANDRA 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.

P. A. MANN,  
General Manager,  
Gilgandra Shire Council  
(by delegation from the Minister for Roads)  
8 November 2006

#### SCHEDULE

**1. Citation**

This Notice may be cited as the Gilgandra Shire Council B Double Notice No. 3/2006.

**2. Commencement**

This Notice takes effect on the date of gazettal.

**3. Effect**

This Notice remains in force until 31 December 2006, unless it is amended or repealed earlier.

**4. Application**

This Notice applies to those B-Doubles vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 4 of the Road Transport (Vehicle Registration) Regulation 1998.

**5. Routes**

<i>Type</i>	<i>Road No.</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>	<i>Conditions</i>
25.	000.	Gilgandra Shire Council area.	N/A.	N/A.	All local roads within Gilgandra Shire Council area to the east of the Newell Highway (H 17).  Travel is not permitted during the following hours on school days: 7:45 a.m. to 9:00 a.m., 3:30 p.m. to 4:45 p.m.  Speed on gravel roads must not exceed 60 kmph.  Routes will operate from 9 November 2006.

**ROAD TRANSPORT (GENERAL) ACT 2005**

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

GILGANDRA 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 Trains may be used subject to any requirements or conditions set out in the Schedule.

P. A. MANN,  
General Manager,  
Gilgandra Shire Council  
(by delegation from the Minister for Roads)  
8 November 2006

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**SCHEDULE****1. Citation**

This Notice may be cited as the Gilgandra Shire Council Road Train Notice No. 2/2006.

**2. Commencement**

This Notice takes effect on the date of gazettal.

**3. Effect**

This Notice remains in force until 31 December 2006, 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 4 of the Road Transport (Vehicle Registration) Regulation 1998.

**5. Routes**

<i>Type</i>	<i>Road No.</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>	<i>Conditions</i>
RT.	000.	Gilgandra Shire Council area.	N/A.	N/A.	<p>All local roads west of the Newell Highway (H 17).</p> <p>Travel is not permitted during the following hours on school days: 7:45 a.m. to 9:00 a.m. and 3:30 p.m. to 4:45 p.m.</p> <p>There is no Road Train access from local roads to the Newell Highway (H17) north of Gilgandra.</p> <p>There is a 10 tonne load limit on the bridge over the Wambelong Creek on Box Ridge road west of Gummin Gummin.</p> <p>There is a 30 tonne, (15kmph) load limit on the bridge over the Terrabile Creek at Curban on National Park road.</p> <p>Speed on gravel roads is not to exceed 60 kmph.</p> <p>Routes will operate from 10 November 2006.</p>

**ROAD TRANSPORT (GENERAL) ACT 2005**

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

LAKE MACQUARIE CITY 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 B-Doubles, may be used subject to any requirements or conditions set out in the Schedule.

BRIAN BELL,  
General Manager,  
Lake Macquarie City Council  
(by delegation from the Minister for Roads)  
27 July 2006

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**SCHEDULE****1. Citation**

This Notice may be cited as the Lake Macquarie City Council 25 Metre B-Double Notice No. 1/2006.

**2. Commencement**

This Notice takes effect on the date of gazettal.

**3. Effect**

This Notice remains in force until 30 September 2010, unless it is amended or repealed earlier.

**4. Application**

This Notice applies to those B-Doubles vehicles which comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 4 of the Road Transport (Vehicle Registration) Regulation 1998.

**5. Routes**

<i>Type</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>	<i>Conditions</i>
25.	Wilton Road, Toronto.	Wangi Road (MR217).	Awaba Road (MR220).	None.

**ROAD TRANSPORT (GENERAL) ACT 2005**

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

GOULBURN MULWAREE 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 25m B-Doubles may be used subject to any requirements or conditions set out in the Schedule.

LUKE JOHNSON,  
General Manager,  
Goulburn Mulwaree Council  
(by delegation from the Minister for Roads)  
1 November 2006

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**SCHEDULE****1. Citation**

This Notice may be cited as Goulburn Mulwaree Council 25m B-Double Route Notice No. 1/2006.

**2. Commencement**

This Notice takes effect from the date of gazettal.

**3. Effect**

This Notice remains in force until 30 September 2010, unless it is amended or repealed earlier.

**4. Application**

This Notice applies to those B-Double vehicles that comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 4 of the Road Transport (Vehicle Registration) Regulation 1998.

**5. Routes**

B-Double routes within the Goulburn Mulwaree Council.

<i>Type</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>
25.	Finlay Road, Goulburn.	MR676 Hume Street.	Robinson Street.

**ROAD TRANSPORT (GENERAL) ACT 2005**

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

GOULBURN MULWAREE COUNCIL, in pursuance of Division 4 of Part 2 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 4.6m High Vehicles may be used.

LUKE JOHNSON,  
General Manager,  
Goulburn Mulwaree Council  
(by delegation from the Minister for Roads)  
1 November 2006

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**SCHEDULE****1. Citation**

This Notice may be cited as Goulburn Mulwaree Council 4.6m High Vehicle Route Notice No. 1/2006.

**2. Commencement**

This Notice takes effect from the date of gazettal.

**3. Effect**

This Notice remains in force until 31 December 2007, unless it is amended or repealed earlier.

**4. Application**

This Notice applies to the vehicle classes specified in Part 2 of this Schedule.

**5. Limitations**

The conditions or requirements set out in Clauses 3.3 and 3.4 of Part 3 ('Vehicle Access'), Part 4 ('General Requirements') and Part 5 ('Special Requirements') of the Schedule to the '4.6 Metre High Vehicle Route Notice 1999' published in *New South Wales Government Gazette* No. 22 of 19 February 1999, as amended by the Notice published in *New South Wales Government Gazette* No. 32 of 3 March 2000, must be duly complied with.

**Part 2 – Vehicle Classes****2.1 Class 1 vehicles**

- a special purpose vehicle that exceeds 4.3 metres, but does not exceed 4.6 metres, in height;
- a vehicle or combination (including a low loader or load platform combination) that is specially designed for the carriage of a large indivisible item, or is carrying a large indivisible item, that together with any load, exceeds 4.3 metres but does not exceed 4.6 metres in height;

**2.2 Class 2 vehicles**

- a combination carrying vehicles on more than one deck that together with any load, exceeds 4.3 metres but does not exceed 4.6 metres in height;
- a single motor vehicle, or a combination, that exceeds 4.3 metres but does not exceed 4.6 metres in height and is built to carry cattle, sheep, pigs or horses.

**2.3 Class 3 vehicles**

- a single motor vehicle, or a combination, that, together with its load exceeds 4.3 metres but does not exceed 4.6 metres in height and is carrying wool, hay bales or other primary produce;
- a single motor vehicle carrying vehicles on more than one deck that, together with its load exceeds 4.3 metres but does not exceed 4.6 metres in height.
- a single motor vehicle, or a combination, that is constructed to exceed 4.3 metres in height, but does not exceed 4.6 metres in height and is carrying freight, other than cattle, sheep, pigs, horses, wool, hay bales, or other primary produce.
- a single motor vehicle or combination carrying a freight container that together with its load exceeds 4.3 metres in height, but does not exceed 4.6 metres in height

Type	Road Name	Starting Point	Finishing Point
4.6m.	Finlay Road, Goulburn.	MR676 Hume Street.	Robinson Street.

**ROAD TRANSPORT (GENERAL) ACT 2005**

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

COOMA MONARO 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 25m B-Doubles may be used subject to any requirements or conditions set out in the Schedule.

NEIL WATT,  
General Manager,  
Cooma Monaro Shire Council  
(by delegation from the Minister for Roads)  
23 October 2006

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**SCHEDULE****1. Citation**

This Notice may be cited as Cooma Monaro Shire Council 25m B-Double Route Notice No. 1/2006.

**2. Commencement**

This Notice takes effect from the date of gazettal.

**3. Effect**

This Notice remains in force until 30 September 2010, unless it is amended or repealed earlier.

**4. Application**

This Notice applies to those B-Double vehicles that comply with Schedule 1 of the Road Transport (Mass, Loading and Access) Regulation 2005 and Schedule 4 of the Road Transport (Vehicle Registration) Regulation 1998.

**5. Routes**

B-Double routes within the Cooma Monaro Shire Council.

<i>Type</i>	<i>Road Name</i>	<i>Starting Point</i>	<i>Finishing Point</i>
25.	Holland Road, Cooma.	MR7624 Polo Flat Road.	Entire length.

**ROAD TRANSPORT (VEHICLE REGISTRATION) ACT 1997****Notice Fixing Fees**

I, Les Wielinga, Chief Executive of the Roads and Traffic Authority, pursuant to section 8 (1) (k) of the Road Transport (Vehicle Registration) Act 1997 and clause 79 of the Road Transport (Vehicle Registration) Regulation 1998, make the Notice set forth hereunder.

This Notice takes effect on 20 November 2006.

LES WIELINGA,  
Chief Executive,  
Roads and Traffic Authority

**Amendments**

The Notice Fixing Fees published in *Government Gazette* No. 82 of 23 June 2006 at pages 4712 to 4715 is amended by replacing Item 18 with the following services and fees in the Schedule to that Notice.

18. European plates (black and white)		
i.	Order fee	\$30
ii.	Standard plate annual fee	\$100
iii.	Personalised annual content fee	\$60
iv.	Personalised annual style fee	\$100
v.	Remake fee	\$30

**ROADS ACT 1993**

Order -Sections 46, 49, 54 and 67

Blayney Shire Council area

Dedication of Land as Public Road and Declaration as a  
Controlled Access Road of part of the Mid Western  
Highway at Kings Plains

I, the Minister for Roads, pursuant to Sections 46, 49, 54  
and 67 of the Roads Act, 1993, by this order:-

1. dedicate as public road the land described in Schedules 1 and 2 under;
2. declare to be a main road the said public road described in Schedule 2 and the public road described in Schedule 3 under;
3. declare to be a controlled access road the said main road described in Schedules 2 and 3;
4. declare that access to the said controlled access road is restricted; and
5. specify in Schedule 4 under, the points along the controlled access road at which access may be gained to or from other public roads.

**HON ERIC ROOZENDAAL MLC**  
**MINISTER FOR ROADS**

—————  
**SCHEDULE 1**

ALL those pieces or parcels of land situated in the Blayney Shire Council area, Parish of Torrens and County of Bathurst shown as:

Lot 4 Deposited Plan 1076225;

Lot 11 Deposited Plan 1040434;

Lots 30 and 32 Deposited Plan 814748;

Lot 6 Deposited Plan 1066903; and

Lot 5 Deposited Plan 1041697.

The above Lots comprise the whole of the land in the correspondingly numbered Certificates of Title and are all shown in RTA Plan 0006 043 AC 4001.

—————  
**SCHEDULE 2**

ALL those pieces or parcels of land situated in the Blayney Shire Council area, Parish of Torrens and County of Bathurst shown as:

Lots 7, 9 and 10 Deposited Plan 1040434;

Lot 3 Deposited Plan 1048694;

Lot 11 Deposited Plan 1063244;

Lots 3 and 4 Deposited Plan 1040708;

Lot 34 Deposited Plan 814748; and

Lots 3 and 4 Deposited Plan 1066903.

The above Lots comprise the whole of the land in the correspondingly numbered Certificates of Title and are all shown in RTA Plan 0006 043 AC 4001.

—————  
**SCHEDULE 3**

ALL that piece or parcel of public road situated in the Blayney Shire Council area, Parish of Torrens and County of Bathurst shown as:

Lot 5 Deposited Plan 1066903.

The above Lot is shown in RTA Plan 0006 043 AC 4001.

—————  
**SCHEDULE 4**

Between the points A and B; and

between the points C and D, all shown in RTA Plan 0006 043 AC 4001.

(RTA Papers 6/43.1170)

**ROADS ACT 1993****LAND ACQUISITION (JUST TERMS  
COMPENSATION) ACT 1991**

Notice of Compulsory Acquisition of Land at Neath  
in the Cessnock City Council area

THE Roads and Traffic Authority of New South Wales by its delegate declares, with the approval of Her Excellency the Governor, that the land described in the Schedule below is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purposes 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 Cessnock City Council area, Parish of Stanford and County of Northumberland, shown as:

Lot 11 Deposited Plan 1088621, being part of the land in Reserve No 1011448 for the Public Purpose of Future Public Requirements notified in Government Gazette No 40 of 31 March 2006 on page 1624 and said to be in the possession of the Crown and Basspark Property Pty Limited (Crown licensee);

Lots 12 and 14 Deposited Plan 1088621, being parts of the land in Reserve No 1011448 for the Public Purpose of Future Public Requirements notified in Government Gazette No 40 of 31 March 2006 on page 1624 and said to be in the possession of the Crown;

Lot 13 Deposited Plan 1088621, being part of the land in Certificate of Title 78/755259 and said to be in the possession of the Crown and David Ross Hickey and Shelley Anne Hickey (Crown lessees);

Lot 11 Deposited Plan 1093275, being part of the land in Certificate of Title 384/1086345 and said to be in the possession of the Crown and Paul Sylvester (Crown licensee);

Lot 12 Deposited Plan 1093275, being part of the land in Reserve No 1011448 for the Public Purpose of Future Public Requirements notified in Government Gazette No 40 of 31 March 2006 on page 1624 and said to be in the possession of the Crown; and

Lot 13 Deposited Plan 1093275, being part of the land in Certificate of Title 350/822155 and said to be in the possession of the Crown;

excluding any existing easements from the compulsory acquisition of the land listed above.

(RTA Papers: FPP 6M1206; RO 85.1573)

**ROADS ACT 1993**

Notice of Dedication of Land as Public Road  
at Kurrajong Heights in the Hawkesbury 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 Hawkesbury City Council area, Parish of Kurrajong and County of Cook, shown as:

Lot 25 Deposited Plan 572027;

Lots 7 and 8 Deposited Plan 711355; and

Lots 1 and 2 Deposited Plan 629849.

(RTA Papers: FPP 91.1186; RO 91.1186)

## Other Notices

### CHARLES STURT UNIVERSITY ACT 1989

#### LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

Notice of Compulsory Acquisition of Land for  
Charles Sturt University

THE Minister for Education and Training, with the approval of Her Excellency the Governor, declares by delegate that the Crown Land described in the Schedule below is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for the purposes of the Charles Sturt University Act 1989.

Dated at Sydney, this 11th day of July 2006.

RAY MASTERTON,

Delegate of the Minister for Education and Training

#### SCHEDULE

##### Land

All that piece or parcel of land situated in the Local Government Area of Wagga Wagga City, Parish of Gobbagombalin and County of Clarendon, being Lot 1, Deposited Plan 1096063.

### CORPORATIONS ACT 2001

Notice Under Section 601AB of the Corporations Act 2001 as applied by Section 325 of the Co-Operatives Act 1992

NOTICE is hereby given that the Co-operative mentioned below will be deregistered when two months have passed since the publication of this notice:

The South Coast Conservation Society Co-Operative Limited

Dated this fourteenth day of November 2006.

C. GOWLAND,

Delegate of the Registrar of Co-Operatives

### DISTRICT COURT OF NEW SOUTH WALES

#### Direction

PURSUANT to section 173 of the District Court Act 1973, I direct that the District Court shall sit in its criminal jurisdiction at the place and time shown as follows:

Bathurst 10.00am 29 January 2007 (3 weeks)  
Special Fixture

Dated this 13th day of November 2006.

R O BLANCH,  
Chief Judge

### ELECTRICITY SUPPLY ACT 1995

Factors for Determining Greenhouse Gas Benchmarks  
for 2007

IN accordance with section 97BF of the Electricity Supply Act 1995, the Tribunal has determined the following factors

for the purpose of determining greenhouse gas benchmarks for benchmark participants for 2007:

- (a) NSW Pool Coefficient for greenhouse gas emissions = 0.941 tCO<sub>2</sub>-e/MHh
- (b) Total State Electricity Demand = 70,595 GWh
- (c) Total State Population = 6,896,800
- (d) Electricity Sector Benchmark = 50,139,736 tCO<sub>2</sub>-e

These factors may also be viewed on the NSW Greenhouse Gas Abatement Scheme website at [www.greenhousegas.nsw.gov.au](http://www.greenhousegas.nsw.gov.au)

Inquiries should be directed to Ms Sarah Stanner-Cranston on (02) 9290 8449 or [sarah\\_stanner-cranston@ipart.nsw.gov.au](mailto:sarah_stanner-cranston@ipart.nsw.gov.au).

JAMES P. COX,  
Chief Executive Officer  
and Full Time Tribunal Member,  
Independent Pricing and Regulatory Tribunal,  
PO Box Q290,  
QVB Post Office NSW 1230

### ERRATUM

IN the *Government Gazette* of 10 November 2006 in the Official Notices Section under the heading Other Notices pages 9557 to 9565 the gazette number shown at the bottom of the page shows No. 1. This is incorrect and should have appeared as No. 135. This erratum now amends that error.

### GEOGRAPHICAL NAMES ACT 1966

PURSUANT to the provisions of section 10 of the Geographical Names Act 1966, the Geographical Names Board has this day assigned the geographical names listed hereunder. GNB5158.

Assigned Name:	Pinnacle Point
Designation:	Point
L.G.A.:	Eurobodalla Council
Parish:	East Nelligen
County:	St Vincent
L.P.I. Map:	Nelligen
1:100,000 Map:	Batemans Bay 8926
Assigned Name:	Hawks Nest Headland
Designation:	Point
L.G.A.:	Eurobodalla Council
Parish:	East Nelligen
County:	St Vincent
L.P.I. Map:	Nelligen
1:100,000 Map:	Batemans Bay 8926

The position and the extent for these features are recorded and shown within the Geographical Names Register of New South Wales. This information can be accessed through the Board's website at [www.gnb.nsw.gov.au](http://www.gnb.nsw.gov.au).

WARWICK WATKINS,  
Chairperson

Geographical Names Board,  
PO Box 143,  
Bathurst NSW 2795

**LAKE ILLAWARRA AUTHORITY ACT 1987****LAND ACQUISITION (JUST TERMS  
COMPENSATION) ACT 1991**

## Compulsory Acquisition

THE Lake Illawarra Authority, with the approval of Her Excellency the Governor, declares that interests in land described in the Schedule hereto are acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purposes of the Lake Illawarra Authority Act 1987.

On publication of this notice in the *Government Gazette* the interests in land and water are vested in the Lake Illawarra Authority under section 18 of the Lake Illawarra Authority Act 1987.

The Minister responsible for the Lake Illawarra Authority is satisfied that the Lake Illawarra Authority requires immediate vacant possession of the land described in the Schedule.

Executive Officer,  
by direction of the Lake Illawarra Authority

**SCHEDULE**

## Interest in Land

Fee simple estate and native title in the following lands and water:

All that piece or parcel of land situated in the Local Government Areas of Wollongong City and Shellharbour City, Parish of Wollongong and County of Camden, being Lot 1 shown in Deposited Plan 1100879.

DoC Ref. 327

**LAKE ILLAWARRA AUTHORITY ACT 1987**

## Section 24

Notice of Extension the the Development Area of Land at Lake Illawarra in the Cities of Wollongong and Shellharbour

HER Excellency the Governor amends Schedule 1 of the Lake Illawarra Authority Act 1987 to extend the development area of the Lake Illawarra Authority by adding to Schedule 1 the land described below.

IAN MICHAEL MACDONALD, M.L.C.,  
Minister for Natural Resources

**THE LAND REFERRED TO**

Fee simple estate and native title in the following lands and water:

All that piece or parcel of land situated in the Local Government Areas of Wollongong City and Shellharbour City, Parish of Wollongong and County of Camden, being Lot 1 shown in Deposited Plan 1100879.

DoC Ref. 327

**LOCAL GOVERNMENT ACT 1993**

## Young Water Supply

THE Minister for Water Utilities of the State of New South Wales, declares that all right, title and interest in the works described in the Schedule hereto, which were constructed

for the purpose of Young Water Supply Scheme are vested in Young Shire Council.

DAVID CAMPBELL, M.P.,  
Minister for Water Utilities

**SCHEDULE**

Works of water supply for the town of Young and all works incidental thereto.

DoC Ref. W707

**LOCAL GOVERNMENT ACT 1993**

## Captains Flat Water Supply Augmentation Stage 2

THE Minister for Water Utilities of the State of New South Wales, declares that all right, title and interest in the works described in the Schedule hereto, which were constructed for the purpose of Captains Flat Water Supply Augmentation Stage 2 Scheme are vested in Palerang Council.

DAVID CAMPBELL, M.P.,  
Minister for Water Utilities

**SCHEDULE**

Works of water supply for the town of Captains Flat and all works incidental thereto.

DoC Ref. W695

**LOCAL GOVERNMENT ACT 1993**

## Milton Ulladulla Sewerage Interim Works

THE Minister for Water Utilities of the State of New South Wales, declares that all right, title and interest in the works described in the Schedule hereto, which were constructed for the purpose of Milton Ulladulla Sewerage Interim Works Scheme are vested in Shoalhaven City Council.

DAVID CAMPBELL, M.P.,  
Minister for Water Utilities

**SCHEDULE**

Works of sewerage for the towns of Milton and Ulladulla comprising upgrade works at three existing sewerage pumping stations and the provision of new substations for each pumping station and all works incidental thereto.

DoC Ref. S213

**LOCAL GOVERNMENT ACT 1993**

## Mittagong Regional Sewerage

THE Minister for Water Utilities of the State of New South Wales, declares that all right, title and interest in the works described in the Schedule hereto, which were constructed for the purpose of Mittagong Regional Sewerage Scheme are vested in Wingecarribee Shire Council.

DAVID CAMPBELL, M.P.,  
Minister for Water Utilities

**SCHEDULE**

Works of sewerage for the town of Mittagong and all works incidental thereto.

DoC Ref. S814

**LOCAL GOVERNMENT ACT 1993****Guyra Sewerage Augmentation**

THE Minister for Water Utilities of the State of New South Wales, declares that all right, title and interest in the works described in the Schedule hereto, which were constructed for the purpose of Guyra Sewerage Augmentation Scheme are vested in Guyra Shire Council.

DAVID CAMPBELL, M.P.,  
Minister for Water Utilities

**SCHEDULE**

Works of sewerage for the town of Guyra comprising reticulation for South Guyra, new trunk main, gravity mains, rising mains, one new sewer pump station, upgrade of one existing pump station, new sewerage treatment plant, telemetry system, desludging existing effluent ponds and all works incidental thereto.

DoC Ref. S913

**LOCAL GOVERNMENT ACT 1993****Waterview Seelands Eatonsville Water Supply**

THE Minister for Water Utilities of the State of New South Wales, declares that all right, title and interest in the works described in the Schedule hereto, which were constructed for the purpose of Waterview Seelands Eatonsville Water Supply Scheme are vested in Clarence Valley Council.

DAVID CAMPBELL, M.P.,  
Minister for Water Utilities

**SCHEDULE**

Works of water supply for the towns of Waterview, Seelands and Eatonsville comprising 1.5ML concrete reservoir, trunk main, booster pumping station and reticulation pipeline from the pre-existing Waterview Reservoir at Eatonsville and all works incidental thereto.

DoC Ref. W618

**LOCAL GOVERNMENT ACT 1993****Coffs Harbour Northern Areas Sewerage**

THE Minister for Water Utilities of the State of New South Wales, declares that all right, title and interest in the works described in the Schedule hereto, which were constructed for the purpose of Coffs Harbour Northern Areas Sewerage Scheme are vested in Coffs Harbour City Council.

DAVID CAMPBELL, M.P.,  
Minister for Water Utilities

**SCHEDULE**

Works of sewerage for Coffs Harbour City Council comprising sewerage of Sandy Beach and sections of Safety Beach including reticulation sewers and pumping stations, sewer rising main pipelines to Woolgoolga Sewerage Treatment Works and all works incidental thereto. Augmentation of Woolgoolga Pumping Station and oxygen injection system to suit Safety Beach sewage connection and all works incidental thereto. Augmentation of Woolgoolga Sewerage Treatment Works and all works incidental thereto. Sewering of Moonee Beach and Emerald Beach including the reticulation sewers and six pumping stations and sewer rising

main pipelines from Emerald Beach and Moonee Beach to Moonee Water Reclamation Plant and all works incidental thereto. Reclaimed water pipelines and associated equipment between Moonee and Woolgoolga and all works incidental thereto. Moonee Water Reclamation Plant at Bucca Road and all works incidental thereto. Upgrading of telemetry equipment for Coffs Harbour Northern Areas Sewerage System and all works incidental thereto.

DoC Ref. S777

**NATIONAL PARKS AND WILDLIFE ACT 1974****Erratum**

IN the compulsory acquisition notice published in the *New South Wales Government Gazette*, dated 16 April 1993, Folio 1815, the area of 1340 square metres described in the Schedule is incorrect and should read 2693 square metres.

LISA CORBIN,  
Director-General,

Department of Environment and Conservation

**NATIONAL PARKS AND WILDLIFE ACT 1974****Notice of Reservation of Historic Site**

I, Professor Marie Bashir, A.C., C.V.O., Governor of the State of New South Wales, with the advice of the Executive Council, reserve the land described in the Schedule below, as part of Hartley Historic Site, under the provisions of section 30A (1) of the National Parks and Wildlife Act 1974.

Signed and sealed at Sydney this 18th day of October 2006.

MARIE BASHIR,  
Governor

By Her Excellency's Command

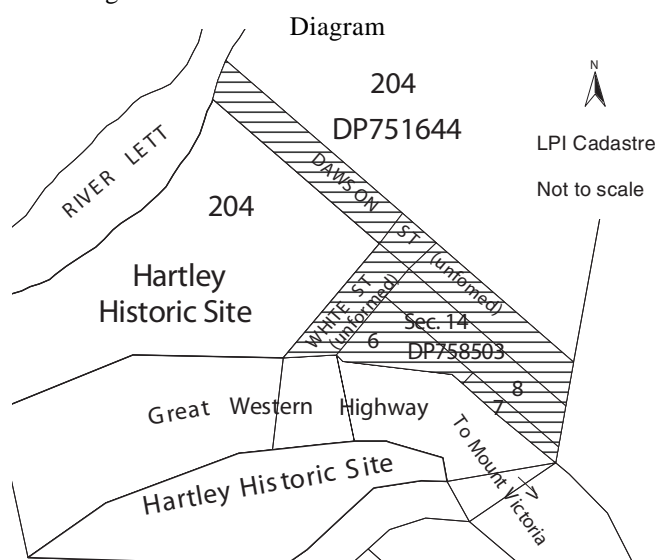
BOB DEBUS, M.P.,  
Minister for the Environment

GOD SAVE THE QUEEN!

**SCHEDULE**

*Land District – Lithgow; LGA – Lithgow*

County Cook, Parish and Village of Hartley, about 1.06 hectares, being the area shown by hatching in the diagram following. NPWS/F/1777.



**NATIONAL PARKS AND WILDLIFE ACT 1974**

## Notice of Reservation of a Nature Reserve

I, Professor MARIE BASHIR, AC, CVO, Governor of the State of New South Wales, with the advice of the Executive Council, reserve the land described in the Schedule below, and assign to that land the name Cudgera Creek Nature Reserve under the provisions of section 30A (1) and section 30A (2) of the National Parks and Wildlife Act 1974.

Signed and sealed at Sydney, this 6th day of September 2006.

MARIE BASHIR,  
Governor

By Her Excellency's Command,

BOB DEBUS, M.P.,  
Minister for the Environment

GOD SAVE THE QUEEN!

**SCHEDULE**

*Land District – Murwillumbah; L.G.A. – Tweed Shire.*

County Rous, Parish Mooball, 59.67 hectares, being Lot 17, DP 1057480; Lots 50 and 51, DP 1057788 and Lots 312 and 313, DP 1000653.

NPWS/03/08716.

**NATIONAL PARKS AND WILDLIFE ACT 1974**Kooraban National Park  
Draft Plan of Management

A draft plan of management for Kooraban National Park has been prepared and is on public exhibition.

Copies of the plan are available free of charge from the NPWS Narooma Office, corner Field Street and Princes Highway, Narooma (telephone: 4476 2888). The plan may also be viewed at the Cobargo Post Office and on the NPWS website: [www.nationalparks.nsw.gov.au](http://www.nationalparks.nsw.gov.au). Written submissions on the plan must be received by The Planner, Kooraban National Park, NPWS, PO Box 282, Narooma NSW 2546, by 26 February 2007.

All submissions received by NPWS are a matter of public record and are available for public inspection upon request to NPWS. Your comments on these draft plans may contain information that is defined as "personal information" under the NSW Privacy and Personal Information Protection Act 1998. The submission of personal information with your comments is voluntary.

**NATIONAL PARKS AND WILDLIFE ACT 1974**

## Proclamation

I, Professor MARIE BASHIR, AC, CVO, Governor of the State of New South Wales, with the advice of the Executive Council and in pursuance of the powers vested in me under section 68 of the National Parks and Wildlife Act 1974, with the consent of every owner and occupier do, on the recommendation of the Director-General of the Department of Environment and Conservation, by this my Proclamation declare the lands described hereunder to be a wildlife refuge for the purposes of the abovementioned Act.

To be known as "Micalo Wetlands Wildlife Refuge".

Signed and sealed at Sydney, this 18th day of October 2006.

MARIE BASHIR,  
Governor

By Her Excellency's Command,

BOB DEBUS, M.P.,  
Minister for the Environment

GOD SAVE THE QUEEN!

**Description**

*Land District – Grafton; Council – Clarence Valley.*

County of Clarence, Parish of Taloumbi, 38.16 hectares, being Lot 10, DP 1029899.

NPWS 06/06541.

**NATIONAL PARKS AND WILDLIFE ACT 1974**

## Proclamation

I, Professor MARIE BASHIR, AC, CVO, Governor of the State of New South Wales, with the advice of the Executive Council and in pursuance of the powers vested in me under section 68 of the National Parks and Wildlife Act 1974, with the consent of every owner and occupier do, on the recommendation of the Director-General of the Department of Environment and Conservation, by this my Proclamation declare the lands described hereunder to be a wildlife refuge for the purposes of the abovementioned Act.

To be known as "Wildhaven Wildlife Refuge".

Signed and sealed at Sydney, this 18th day of October 2006.

MARIE BASHIR,  
Governor

By Her Excellency's Command,

BOB DEBUS, M.P.,  
Minister for the Environment

GOD SAVE THE QUEEN!

**Description**

*Land District – Bellingen; Council – Nambucca.*

County of Raleigh, Parish of Nambucca, 11.3 hectares, being Lot 1, DP 605963.

NPWS 06/06543.

**NATIONAL PARKS AND WILDLIFE ACT 1974**

## Proclamation

I, Professor MARIE BASHIR, AC, CVO, Governor of the State of New South Wales, with the advice of the Executive Council and in pursuance of the powers vested in me under section 68 of the National Parks and Wildlife Act 1974, with the consent of every owner and occupier do, on the recommendation of the Director-General of the Department of Environment and Conservation, by this my Proclamation declare the lands described hereunder to be a wildlife refuge for the purposes of the abovementioned Act.

To be known as "Urimbirra Wildlife Refuge".

Signed and sealed at Sydney, this 18th day of October 2006.

MARIE BASHIR,  
Governor

By Her Excellency's Command,

BOB DEBUS, M.P.,  
Minister for the Environment

GOD SAVE THE QUEEN!

Description

*Land District – Grafton; Council – Clarence Valley.*

County of Clarence, Parish of Stuart, 49.45 hectares, being Lot 8, DP 249285 and Lot 56, DP 751387.

NPWS 06/06380.

**NATIONAL PARKS AND WILDLIFE ACT 1974**

Notice of Reservation of Nature Reserve

I, Professor Marie Bashir A.C., C.V.O., Governor of the State of New South Wales, with the advice of the Executive Council, reserve the land described in the Schedule below, and assign to that land the name Eusdale Nature Reserve under the provisions of section 30A (1) and section 30A (2) of the National Parks and Wildlife Act 1974.

Signed and sealed at Sydney this 8th day of November, 2006.

MARIE BASHIR,  
Governor

By Her Excellency's Command

BOB DEBUS, M.P.,  
Minister for the Environment

GOD SAVE THE QUEEN!

SCHEDULE

*Land District – Bathurst; LGA – Bathurst Regional*

County Roxburgh, Parish Eusdale, about 1,238 hectares, being Lots 94, 113 and 127, DP 755773; including Crown Public road within Lot 127, the western most Crown Public road within Lot 113 and the bed of Eusdale Creek within Lot 127; excluding the eastern most Crown Public road within Lot 113. NPWS/04/08973.

**NATIONAL PARKS AND WILDLIFE ACT 1974**

LAND ACQUISITION (JUST TERMS  
COMPENSATION) ACT 1991

Notice of Compulsory Acquisition

THE Minister for the Environment, with the approval of Her Excellency the Governor, declares that the land described in the schedule below is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purposes of the National Parks and Wildlife Act 1974.

The land is, on publication of this notice, vested in the Minister administering the National Parks and Wildlife Act 1974.

BOB DEBUS,  
Minister for the Environment

SCHEDULE

County Roxburgh, Parishes Eusdale and Yetholme, Local Government Area Bathurst Regional, about 1879.7 hectares, being Lots 60, 94, 113, 125 and 127, DP 755773, Lot 1, DP 537325 and Crown Public roads 20.115 wide and variable width extending from the eastern boundary of Lot 127 to the southern most boundary of Lot 113; also being the whole of Sunny Corner State Forest No. 806, Nos 17 and 26. Extensions dedicated 15 December 1967 and 4 December 1970.

Papers: NPWS/04/08873

**NSW DEPARTMENT OF ENVIRONMENT AND  
CONSERVATION**

Notice of the Approval of the Recovery Plan for  
Large Forest Owls

The Department of Environment and Conservation (DEC), hereby gives notice of the approval of the multi-species Large Forest Owl recovery plan for the Powerful Owl (*Ninox strenua*), Sooty Owl (*Tyto tenebricosa*) and Masked Owl (*Tyto novaehollandiae*). A full version of the approved recovery plan is available on the DEC website [www.nationalparks.nsw.gov.au](http://www.nationalparks.nsw.gov.au). A copy of the plan is also stored at either of the DEC libraries and can be obtained through an inter-library loan.

MARK GIFFORD,  
Director,

Reform and Compliance Branch,  
Environment Protection and Regulation Division

**PROFESSIONAL STANDARDS ACT 1994**

Notification pursuant to Section 13

Investigative and Remedial Engineers Scheme

PURSUANT to section 13 of the Professional Standards Act 1994, I authorise the publication of the Investigative and Remedial Engineers Scheme. The Scheme will commence on 5 November 2006.

BOB DEBUS, M.P.,  
Attorney General

Professional Standards Act 1994 (NSW)

Investigative and Remedial Engineers NSW Scheme

Preamble

- A. The College of Investigative and Remedial Engineers of Australia (CIRCEA) is an occupational association.
- B. CIRCEA has made an application to the Professional Standards Council, appointed under the Professional Standards Act 1994 (NSW) (the Act), for a scheme under the Act.
- C. The scheme is prepared by CIRCEA for the purposes of limiting occupational liability to the extent to which such liability may be limited under the Act.
- D. The scheme propounded by CIRCEA is to apply to all ordinary members and retired members of CIRCEA who have not applied for an exemption.
- E. CIRCEA has furnished the Council with a detailed list of the risk management strategies intended to be implemented in respect of its members and the means by which those strategies are intended to be implemented.

- F. The scheme is intended to remain in force for five (5) years from its commencement unless prior to that time it is revoked, its operation ceases or it is extended pursuant to section 32 of the Act.

#### Investigative and Remedial Engineers NSW Scheme

##### 1. Occupational association

- 1.1 The Investigative and Remedial Engineers NSW scheme (the scheme) is a scheme under the Professional Standards Act 1994 (NSW) (the Act) prepared by the College of Investigative and Remedial Engineers of Australia (CIRCEA) whose business address is Suite 106, Building B, 20 Lexington Drive, Bella Vista NSW 2153.

##### 2. Persons to Whom the scheme Applies<sup>1</sup>

- 2.1 The scheme applies to all ordinary members and retired members of CIRCEA.
- 2.2 This scheme also applies to all persons to whom the scheme applied under clause 2.1 at the time of any act or omission giving rise to occupational liability.<sup>2</sup>
- 2.3 A person may, on application by a person, be exempted from the scheme by the Board of CIRCEA.

##### 3. Limitation of liability

- 3.1 If a person who was at the time of the act or omission giving rise to occupational liability a category A member or a category B member or a category C member against whom a proceeding relating to occupational liability is brought is able to satisfy the court that such member has the benefit of an insurance policy:

- of a kind which complies with the standards determined by CIRCEA,
- insuring such member against that occupational liability, and
- under which the amount payable in respect of the occupational liability relating to the cause of action (including any amount payable by way of excess under or in relation to the policy) is not less than the amount of the monetary ceiling (maximum amount of liability) specified in clause 3.2 hereof as applying to such members at the time at which the act or omission giving rise to the cause of action occurred

the member is not liable in damages<sup>3</sup> in relation to that cause of action above the amount so specified.

- 3.2 The monetary ceiling (maximum amount of liability) required for the purposes of limitation of liability under this scheme at the time at which the act or omission giving rise to the cause of action occurred is to be determined according to the following table:

<i>Class</i>	<i>Description</i>	<i>Monetary ceiling (maximum amount of liability)</i>
1	Category A member	\$1,000,000.00
2	Category B member	\$5,000,000.00
3	Category C member	Such amount not exceeding \$10,000,000.00 as may be specified by CIRCEA pursuant to the conferral of discretionary authority pursuant to clause 4.1 hereof to apply to such member.

- 3.3 This scheme limits the occupational liability in respect of a cause of action founded on an act or omission occurring during the period when the scheme was in force of any person to whom the scheme applied at the time the act or omission occurred.

- 3.4 Relevant definitions for the purposes of this clause are as follows:

“category A member” means a person who is an ordinary member or a retired member of CIRCEA to whom the scheme applies.

“category B member” means a person who is an ordinary member or retired member of CIRCEA to whom the scheme applies, and provides advice predominantly in the geotechnical engineering field.

“category C member” means a person who is a member of CIRCEA to whom the scheme applies and who has applied to CIRCEA and CIRCEA has exercised its discretion pursuant to clause 4.1 hereof to specify in relation to that person a higher monetary ceiling (maximum amount of liability) than would otherwise apply under this scheme in relation to that person for such period (if any) as is also specified by CIRCEA.

- 3.5 This scheme only affects the liability for damages arising from a single cause of action to the extent to which the liability results in damages exceeding \$1,500,000.

##### 4. Conferral of discretionary authority

- 4.1 Pursuant to section 24 of the Act, this scheme confers on CIRCEA a discretionary authority to specify, on application of a member of CIRCEA to whom the scheme applies, a monetary ceiling (maximum amount of liability) not exceeding \$10 million, in all cases or in any specified case or class of case.

##### 5. Commencement

- 5.1 This scheme commences on 5 December 2006.

##### 6. Duration

- 6.1 This scheme will be in force for a period of 5 years from the date of commencement.

##### Footnotes:

<sup>1</sup> Sections 18 and 19 of the Act provide that if the scheme applies to a body corporate, the scheme also applies to each officer of the body corporate and if the scheme applies to a person, the scheme also applies to each partner of the person, and if the scheme applies to a person the scheme also applies to each employee of the person, provided that if such officer of the corporation or partner of the person or employee of the person is entitled to be a member of the same occupational association, such officer, partner or employee is a member of the occupational association. Section 20 provides that the scheme may also apply to other persons as specified in that section. Section 20A extends the limitation of liability of persons to whom the scheme applies by virtue of sections 18 to 20. [Note: there is no equivalent to section 20A in the PSL in any other jurisdictions.]

<sup>2</sup> Occupational liability is defined in section 4 (1) of the Act to mean ‘civil liability arising (in tort, contract or otherwise) directly or vicariously from anything done or omitted by a member of an occupational association acting in the performance of his or her occupation. However, section 5 (1) of the Act provides that the Act does not apply to liability for damages arising from the death or personal injury to a person, a breach of trust or fraud or dishonesty. [Note: All jurisdictions other than NSW exclude a lawyer acting in a Personal Injury matter.] Section 5 (2) of the Act also provides that the Act does not apply to liability which may be the subject of proceedings under Part 13 or 14 of the Real Property Act 1900 (NSW).

<sup>3</sup> Damages as defined in section 4 of the Act means damages awarded in respect of a claim or counter-claim or by way of set-off and includes

interest payable in respect of an amount awarded as damages; and legal costs and expenses ordered to be paid in connection with an award of damages (other than legal costs and expenses incurred in enforcing a judgment or incurred on an appeal made by a defendant).

## PROTECTION OF THE ENVIRONMENT OPERATIONS (WASTE) REGULATION 2005

### General Approval of the Immobilisation of Contaminants in Waste

PURSUANT to the provisions in Clause 50 of the Protection of the Environment Operations (Waste) Regulation 2005 the New South Wales Environment Protection Authority has authorised the following general approval of the immobilisation of contaminants in waste:

(A) Approval Number

2006/15

(B) Specification of waste to which this approval applies

This approval applies to waste consisting of used tar-treated timber arising from oyster farms (active or inactive) located in New South Wales waters and is restricted to such tar treated timber which has already been placed under water to cultivate oysters at the oyster farms prior to the date of this approval.

(C) Contaminants approved as immobilised

C10-C36 Petroleum Hydrocarbons, Cresol (total), m-Cresol, o-Cresol, p-Cresol, Polycyclic aromatic hydrocarbons (PAHs), Benzo-a-pyrene (BaP) and Phenol (non-halogenated).

(D) Type of immobilisation

Natural

(E) Mechanism of immobilisation

C10-C36 Petroleum Hydrocarbons, Cresol (total), m-Cresol, o-Cresol, p-Cresol, PAHs, BaP and Phenol (non-halogenated) are impregnated and adsorbed into the woody tissue of the treated timbers.

(F) Conditions of approval

· Commencement/Expiry Date

This approval commences on 1 January 2007 and expires on 31 December 2007 unless revoked prior to that time.

· Packaging Requirements

None

· Waste Assessment Requirements

The total concentration (SCC) limits for C10-C36 Petroleum Hydrocarbons, Cresol (total), m-Cresol, o-Cresol, p-Cresol, PAHs, BaP and Phenol (non-halogenated) listed in Table A4 of the Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (Waste Guidelines – EPA 1999) do not apply to the assessment of tar-treated timber.

With respect to Cresol (total), m-Cresol, o-Cresol, p-Cresol, BaP and Phenol (non-halogenated) tar treated timber may be classified according to their respective leachable concentration (TCLP) values alone.

Any contaminants listed in Table A4 of the Waste Guidelines (other than C10-C36 Petroleum Hydrocarbons, Cresol (total), m-Cresol, o-Cresol, p-Cresol, PAHs, BaP and Phenol (non-halogenated))

that are contained within tar-treated timber must be assessed in accordance with Technical Appendix 1 of the Waste Guidelines.

· Disposal Restrictions

Tar-treated timber waste subject to this approval that meets the requirements of the Waste Guidelines for classification as 'inert waste' or 'solid waste' may only be disposed of at solid waste landfills or industrial waste landfills which have currently operating leachate-management systems and which are licensed to receive that particular class of waste, and that have licence conditions to receive waste subject to immobilisation approvals with this type of disposal restriction. Tar-treated timber waste subject to this approval that is classified as 'industrial waste' must be disposed of at industrial waste landfills.

The interpretation of the above disposal restrictions should be referred to Part 5 of Technical Appendix 2 of the Waste Guidelines.

· Record keeping requirements

The responsible person is required to keep records of the management and disposal of tar-treated timber waste, which is assessed as industrial waste or hazardous waste, for a period of at least 4 years from the date which the timber waste is disposed of off site.

· Waste Management Requirements

The responsible person must ensure that the landfill is permitted by conditions in its licence to receive waste subject to immobilisation approvals with the above disposal restrictions.

(G) Responsible person

The person or class of persons to whom this general approval relates is the person who carries out the assessment and classification for the purpose of this approval. The responsible person must comply with the conditions of this approval.

MARK GORTA,  
Manager Waste Management,  
Environment Protection Authority  
By Delegation

## PUBLIC WORKS ACT 1912

### LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

#### Mittagong Regional Sewerage Scheme Compulsory Acquisition

THE Minister for Utilities, with the approval of Her Excellency the Governor-in-Council, declares that the Interest in Land described in the Schedule hereto ("Interest in Land"), is acquired by compulsory process under section 19 (1) of the Land Acquisition (Just Terms Compensation) Act 1991, for an authorised work within the meaning of the Public Works Act 1912.

On publication of this notice in the *New South Wales Government Gazette* the Interest in Land is vested in the Minister for Utilities pursuant to section 4 of the Public Works Act 1912.

DAVID CAMPBELL, M.P.,  
Acting Minister for Utilities

**LOCAL GOVERNMENT ACT 1993****Mittagong Regional Sewerage Scheme****Vesting of Interest in Land in Wingecarribee Shire Council**

THE Minister for Utilities, declares that the Interest in Land, which was acquired pursuant to the above notice for the purpose of the Mittagong Regional Sewerage Scheme, is vested in the Wingecarribee Shire Council pursuant to section 59 (1) (a) of the Local Government Act 1993.

DAVID CAMPBELL, M.P.,  
Acting Minister for Utilities

**SCHEDULE**

Notices pursuant to section 19 (1) of the Public Works Act and section 59 (1) (a) of the Local Government Act 1993 in relation to the Mittagong Regional Sewerage Scheme

**Interest in Land**

Easement rights as described under the heading Sewer Pipeline in Memorandum E931212 filed in the Office of Land and Property Information NSW over the site shown in:

Deposited Plan 1038844 (SB55188) as '(A) PROPOSED EASEMENT FOR SEWER PIPELINE VARIABLE WIDTH'.

DoC Reference: 282.

**ROADS ACT 1993****Proclamation**

I, Professor MARIE BASHIR, AC, CVO, Governor of the State of New South Wales, with the advice of the Executive Council and pursuant to the powers vested in me under section 13 (1) of the Roads Act 1993, do, on the recommendation of the Minister administering the National Parks and Wildlife Act 1974, by this my Proclamation, dedicate the land described in the Schedule hereunder as a Public Road.

Signed and sealed at Sydney, this 1st day of November 2006.

MARIE BASHIR,  
Governor

By Her Excellency's Command,

BOB DEBUS, M.P.,  
Minister for the Environment

GOD SAVE THE QUEEN!

**SCHEDULE**

All that piece or parcel of land situated in the Great Lakes Council Area, Parish of Boolambayte, County of Gloucester, containing an area of about 6.6 hectares, being that part of The Lakes Way (Main Road No.111), 30 metres wide, excluded from Myall Lakes National Park by notice in the *New South Wales Government Gazette* on 31 December 2004, Folios 9899 and 9961 and subject to survey: NPWS/F3678.

**PROFESSIONAL STANDARDS ACT 1994****Law Society of NSW (NSW) Scheme****Erratum**

THE Professional Standards Act 1994 – Law Society of NSW (NSW) Scheme which was published in the Government Gazette No 135 of the 10 November 2006 pages 9561 to 9563 contained errors.

Under the heading "4 Conferral of discretionary authority" the paragraph showing as "4.5" should read "4.1" and the paragraph showing as "4.6" should read "4.2". This erratum now amends those errors and the gazettal date remains 10 November 2006.

**THREATENED SPECIES CONSERVATION ACT 1995****Notice of Preliminary Determination**

THE Scientific Committee, established by the Threatened Species Conservation Act, has made a Preliminary Determination to support a proposal to list the Loss of Hollow-bearing Trees as a KEY THREATENING PROCESS in Schedule 3 of the Act.

A copy of the Determination, which contains the reasons for the determination, may be obtained free of charge on the Internet [www.nationalparks.nsw.gov.au](http://www.nationalparks.nsw.gov.au), by contacting the Scientific Committee Unit, PO Box 1967, Hurstville NSW 1481. Tel: (02) 9585 6940 or Fax (02) 9585 6606, or in person at the Department of Environment and Conservation Information Centre, Level 14, 59-61 Goulburn Street, Sydney. Copies of the determination may also be obtained from National Parks and Wildlife Service Area Offices and Visitor Centres, subject to availability.

Any person may make a written submission regarding the Preliminary Determination. Send submissions to: Scientific Committee, PO Box 1967, Hurstville NSW 1481. Attention Suzanne Chate. Submissions must be received by 19 January 2007.

Associate Professor LESLEY HUGHES,  
Chairperson



# TUNNELS

## UNDER CONSTRUCTION

A large, stylized 'X' graphic that serves as a background for the lower half of the page. It is composed of overlapping translucent shapes in shades of blue and orange, creating a sense of depth and movement.

CODE OF PRACTICE 2006

WorkCover. **Watching out for you.**



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This publication may refer to WorkCover NSW administered legislation that has been amended or repealed. When reading this publication you should always refer to the latest laws. Information on the latest laws can be checked at [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au) or contact 1300 656 986.

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## WHAT IS AN INDUSTRY CODE OF PRACTICE?

An approved industry code of practice is a practical guide to employers and others who have duties under the *Occupational Health and Safety Act 2000* (the OHS Act) and the *Occupational Health and Safety Regulation 2001* (the OHS Regulation) for achieving the standard of safety required by the OHS Act and OHS Regulation for a particular area of work.

An approved industry code of practice should be followed unless there is an alternative course of action that achieves the same or better standard of health and safety in the workplace.

An industry code of practice is approved by the Minister for Commerce. It takes effect on the day specified in the code or, if no day is specified, on the day it is published in the *NSW Government Gazette*.

An approved industry code of practice may be amended from time to time (or it may be revoked) by publication in the gazette.

An approved industry code of practice is designed to be used in conjunction with the OHS Act and the OHS Regulation but does not have the same legal force. An approved industry code of practice is advisory rather than mandatory. However, in legal proceedings under the OHS Act or the OHS Regulation, failure to observe a relevant approved industry code of practice can be used as evidence that a person or company has contravened or failed to comply with the provisions of the OHS Act or OHS Regulation.

A WorkCover NSW inspector can cite an approved industry code of practice in a direction, or in an improvement or prohibition notice, indicating the measures that should be taken to remedy an alleged contravention or non-compliance with the OHS Act or the OHS Regulation. Failure to comply with a requirement in an improvement or prohibition notice is an offence.

In summary, an approved industry code of practice:

- gives practical guidance on how the required standard of health, safety and welfare can be achieved in an area of work
- should be followed, unless there is an alternative course of action that achieves the same or better standard of health and safety in the workplace
- can be used in support of the preventive enforcement provisions of the OHS Act or OHS Regulation
- can be used to support prosecutions for failing to comply with or contravening the OHS Act or OHS Regulation.

## FOREWORD

This code of practice replaces the *1990 Code of practice for tunnels under construction*, which commenced on 7 June 1991.

### WHAT IS THE AIM OF THIS CODE OF PRACTICE?

The code gives practical advice on how to decide on appropriate measures to eliminate or control the OHS risks that may arise in the course of tunnel construction. In doing this it provides guidance to employers in the industry on implementing the requirements of the OHS Act and the OHS Regulation, which should be read in conjunction with this code of practice.

### WHAT IS THIS CODE OF PRACTICE ABOUT?

The code explains the processes involved in the systematic management of OHS risks and outlines how to apply a risk management approach to the hazards commonly encountered in tunnel construction in NSW. It is intended to help in identifying the hazards, determining how serious the risks from those hazards are and implementing the most effective means of eliminating or controlling those risks.

### WHO IS THIS CODE OF PRACTICE FOR?

The code is principally aimed at employers, employees, self-employed persons, principal contractors and subcontractors, but is also intended to assist others involved in the process such as clients and tunnel designers. The code is not intended to be applied in the construction of mines.

### WHEN TO USE THIS INFORMATION

The provisions of this code should be considered during the tendering phase, as well as the planning and preparation stages for carrying out the work. The code outlines regulatory requirements (under the OHS Act and OHS Regulation), as well as safety recommendations that may need to be factored into these processes. To effectively implement the code, employers need to be aware of these requirements and have procedures in place to apply them.

## WHAT DO THE SYMBOLS IN THE CODE OF PRACTICE MEAN?

The following symbols are used in the text to highlight things you need to take into account and to help you work out what to do and the tools you require to do the job.



Assess the risks in your workplace



Consult and communicate with employees



Tools that can help you work out your plan



Legal obligations that must be followed



The process of finding things that cause harm, working out how big a problem they are, and then fixing them

## CHAPTER 1 – ESTABLISHMENT

### 1.1 Title

This is the *Code of practice for tunnels under construction*.

### 1.2 Purpose

The purpose of this code of practice is to provide practical guidance on the prevention of illness and injury to persons engaged in, and affected by, construction of tunnels and associated construction works in NSW.

This code provides practical guidance on implementing the requirements of the OHS Act and the OHS Regulation and promotes consultation and cooperation between employers, employees, principal contractors and subcontractors and/or their representatives.

In terms of the relationship and relevance of the WorkCover 'Excavation code' to tunnelling work, it is noted that, although involving some initial excavation work, tunnelling work is almost entirely underground work and is not the primary focus of the excavation code. Accordingly, for those involved in tunnel works the WorkCover *Code of practice: Tunnels under construction* is intended to be the primary guidance document.

### 1.3 Scope

This code of practice applies to employers, employees, self-employed persons, principal contractors, subcontractors and visitors to workplaces across NSW, whose work involves, includes or is in connection with the construction of tunnels (including mined cut and cover excavations and associated construction works).

This code does not apply to mines within the meaning of the *Coal Mines Regulation Act 1982* and the *Mines Inspection Act 1901*.

### 1.4 Commencement

This code of practice will take effect on and from the date of gazettal.

### 1.5 Authority

This is an industry code of practice approved by the Minister for Commerce under section 43 of the Act on the recommendation of the WorkCover Authority of New South Wales (WorkCover NSW).

### 1.6 Repeal of 1990 code of practice

This code of practice replaces the *1990 Code of Practice: Tunnels under construction*, which commenced on 7 June 1991. The 1990 code is revoked under section 45 of the OHS Act and is replaced by this code.

## 1.7 Interpretation

### Recommended practices

Words such as 'should' indicate recommended courses of action. 'Consider' indicates a possible course of action that the code is suggesting the duty holder consider. However, you may choose an alternative and equally effective or better method of achieving safe workplaces.

## 1.8 Legal requirements

Words such as 'must', 'requires' or 'mandatory' indicates that legal requirements exist that must be complied with.

## 1.9 Definitions

The following terms are used in this code of practice with these meanings:

<b>client</b>	means any person who commissions design work for a tunnel construction.  <b>Note:</b> the client and owner of the place of work for the purposes of clause 210 of the OHS Regulation (re the appointment of the principal contractor) are often one and the same entity.
<b>competent person</b>	for any task means a person who has acquired through training, qualification or experience, or a combination of these, the knowledge and skills to carry out that task.
<b>contractor</b>	means a principal contractor or subcontractor.
<b>controller of premises</b>	means a person who has control of premises used by people as a place of work, including: <ul style="list-style-type: none"> <li>• a person who has only limited control of the premises</li> <li>• a person who has, under any contract or lease, an obligation to maintain or repair the premises (in which case any duty imposed on a controller under the OHS Act or OHS Regulation applies only to the matters over which the person has control).</li> </ul>
<b>designer</b>	includes designers of buildings, structures (including tunnels), whether permanent or temporary, or plant whether intended for use by themselves or others.
<b>employee</b>	means an individual who works under a contract of employment or apprenticeship.
<b>employer</b>	means a person who employs persons under contracts of employment or apprenticeship.  <b>Note:</b> Unless the context implies otherwise, employer also includes self-employed persons.
<b>high risk construction work</b>	means all categories of work listed in clause 209 of the OHS Regulation and includes construction work in tunnels.
<b>incident</b>	means any incident prescribed in clauses 341 and 344 of the OHS Regulation.

<b>noise</b>	includes sound and vibration.
<b>OHS management plan</b>	<p>means a site specific plan that includes:</p> <ul style="list-style-type: none"> <li>• a statement listing names, positions and responsibilities of all persons who will have specific responsibilities on the site for occupational health and safety (OHS)</li> <li>• the arrangements for ensuring OHS induction training</li> <li>• the arrangements for managing OHS and safety incidents</li> <li>• site safety rules and the manner of communication of the rules to all persons at the site</li> <li>• safe work method statements for relevant work activities.</li> </ul>
<b>owner</b>	means a person who is the owner of a place of work who is required by clause 210 of the OHS Regulation to appoint a principal contractor. For the purposes of clause 210 of the OHS Regulation, owner has the same meaning as in the <i>Local Government Act 1993</i> (see below for definition of owner in the <i>Local Government Act 1993</i> ).
<b>owner</b> (definition of owner in the <i>Local Government Act 1993</i> )	<p>(a) in relation to Crown land, means the Crown and includes:</p> <ul style="list-style-type: none"> <li>(i) a lessee of land from the Crown, and</li> <li>(ii) a person to whom the Crown has lawfully contracted to sell the land but in respect of which the purchase price or other consideration for the sale has not been received by the Crown, and</li> </ul> <p>(b) in relation to land other than Crown land, includes:</p> <ul style="list-style-type: none"> <li>(i) every person who jointly or severally, whether at law or in equity, is entitled to the land for any estate of freehold in possession, and</li> <li>(ii) every such person who is entitled to receive, or is in receipt of, or if the land were let to a tenant would be entitled to receive, the rents and profits of the land, whether as beneficial owner, trustee, mortgagee in possession, or otherwise, and</li> <li>(iii) in the case of land that is the subject of a strata scheme under the <i>Strata Schemes (Freehold Development) Act 1973</i> or the <i>Strata Schemes (Leasehold Development) Act 1986</i>, the owners corporation for that scheme constituted under the <i>Strata Schemes Management Act 1996</i>, and</li> <li>(iv) in the case of land that is a community, precinct or neighbourhood parcel within the meaning of the <i>Community Land Development Act 1989</i>, the association for the parcel, and</li> <li>(v) every person who by this Act is taken to be the owner, and</li> </ul> <p>(c) in relation to land subject to a mining lease under the <i>Mining Act 1992</i>, includes the holder of the lease, and</p> <p>(d) in Part 2 of Chapter 7, in relation to a building, means the owner of the building or the owner of the land on which the building is erected.</p>

<b>personal protective equipment (PPE)</b>	means any equipment or substance (such as sun protection cream) used to protect health and safety.
<b>principal contractor</b>	<p>in relation to construction work (or a construction project involving construction work) means a person who is, under clause 210 of the OHS Regulation, for the time being appointed or taken to be the principal contractor for the construction work. Where construction work is being undertaken and the owner has not appointed a principal contractor, the owner is taken to be the principal contractor for the construction work.</p> <p>Principal contractors have special duties under the OHS Regulation. The principal contractor is usually the main contractor/contractor undertaking the construction works.</p>
<b>safe work method statement (SWMS)</b>	<p>means a statement that:</p> <ul style="list-style-type: none"><li>• describes how work is to be carried out</li><li>• identifies the work activities assessed as having safety risks</li><li>• identifies the safety risks</li><li>• describes the control measures that will be applied to the work activities</li></ul> <p>and includes a description of the equipment used in the work, the standards or codes to be complied with, the qualifications of the personnel doing the work and the training required to do the work.</p>
<b>subcontractor</b>	means a person who has a sub-contract with the principal contractor to carry out work in accordance with a subcontract.
<b>self-employed person</b>	means a person who works for gain or reward otherwise than under a contract of employment or apprenticeship, whether or not employing others.
<b>WorkCover NSW</b>	means the WorkCover Authority of New South Wales established by section 14 of the <i>Workplace Injury Management and Workers Compensation Act 1998</i> .

## CHAPTER 2 – A SYSTEMATIC APPROACH TO MANAGING RISKS IN UNDERGROUND CONSTRUCTION

### 2.1 Overview



The OHS Act and the OHS Regulation place responsibilities on a number of parties in relation to ensuring workplace health and safety.

The following is an overview of the responsibilities of particular individuals or corporations involved in construction work, the application of risk management principles and requirements for consultation and coordination.

The way to systematically plan and manage health and safety in the workplace is to build risk management and consultation into all those activities that may have OHS implications. This will include activities such as purchasing, work methods or procedures, using contractors, reporting OHS problems, investigating incidents and planning emergency procedures.

The provisions of this code should be considered during the tendering phase as well as the planning and preparation stages for carrying out the work. The code outlines regulatory requirements (under the OHS Act and Regulation) as well as safety recommendations that may need to be factored into these processes. To effectively implement this code, employers need to be aware of these requirements and have procedures in place to apply them.

For full details of legal obligations, the OHS Act and the OHS Regulation need to be consulted.

### 2.2 Understanding responsibilities

#### 2.2.1 Clients



The client's responsibilities under the OHS Act and OHS Regulation will depend on their role in the tunnel design and construction. Clients are in a key position to influence the safe construction of the project. This is because they usually develop the concept design for the tunnel and engage the contractor (the contractor is usually also appointed as the principal contractor under the OHS Regulation) to undertake the construction of the tunnel.

Many aspects of the tunnel that influence the safe construction of a tunnel, such as the need to tunnel in soft ground, are set in place in the concept design. Accordingly, the client should consider these issues at the concept-design stage. The client is also in the best position to influence others to ensure that issues relating to safe construction and maintenance are considered at the design stage and therefore to reduce construction and ongoing operation and maintenance risks. Setting realistic timeframes for tendering, planning and project execution can also assist planning and execution of construction work.

However, the client is not always aware of all the complexities, such as the range of construction techniques, ground conditions and their effect on safety. It is therefore often appropriate for communication to occur between the client and other parties at an early stage to ensure coordination so as to take advantage of the opportunity to identify the best concept design in terms of OHS outcomes. It also allows for a better understanding of the extent of geotechnical investigation required, estimate of likely time needed to prepare a tender offer, construction time and areas of potential delay.

Whilst written for building construction, the WorkCover NSW publication *Construction Hazard Assessment Implication Review (CHAIR)* provides useful guidance.

Through the contract documents, the client is able to require that occupational health and safety plans are implemented during construction to ensure that safe working practices are employed. It would be appropriate for clients to include such a requirement and specifically reference this code of practice in contract documents.

The client, depending on the contractual arrangements, can improve the information flow between the various contractors, especially in relation to the health and safety aspects of the design, and require that relevant records developed during the course of design and construction are made available to the persons responsible for the ongoing operation and maintenance of the tunnel.

### 2.2.2 Controllers of work premises, plant or substances

Controllers of work premises, plant or substances have health and safety legal responsibilities under the OHS Act and OHS Regulation. They must make sure that the premises used as a place of work as well as the plant and substances used in the work process are safe and without risks to health when properly used. For persons who have only limited control of the premises, plant or substances, their responsibilities apply only to the matters over which they have control.

### 2.2.3 Designers

Designers should ensure that:



- (a) to the extent that they have control over a particular section of design work, the structure (or plant) can be safely erected, used, repaired, cleaned, maintained, demolished or abandoned, such that the health and safety of any person is not put at risk by the design,
- (b) information is provided to the client about the health and safety aspects of the design,
- (c) the tunnel design includes a conceptual construction method statement and risk assessment.

Designers should also ensure that, as far as practicable, hazards associated with the following are identified before commencement of the construction work (Refer to Section 2.3):

- (i) the design of the structure (whether permanent or temporary)
- (ii) systems of work required to construct, repair and maintain the structure
- (iii) the intended use of the structure
- (iv) materials required to be used in the construction of the structure, or
- (v) the demolition or abandonment of the structure.

**Note:** In relation to the design of plant, the OHS Regulation contains detailed risk control measures applicable to designers, manufacturers and suppliers of plant.

Where there is more than one designer, critical aspects of the project should be documented and liaison carried out between the client, principal contractor and the relevant designers so that the work can be coordinated to ensure the safe interaction of the different design aspects.

When risks remain in the design work, information should be included with the design to alert others to the risks.

The designer should document the assumed geotechnical conditions used in their design to enable exposed conditions to be compared against the design assumptions as the tunnelling progresses. This allows for monitoring of the conditions and a reassessment of the design where the geotechnical

conditions are found to differ from those assumed in the design. This applies to plant likely to be affected by such a change, as well as the tunnel and associated ground support systems.

#### 2.2.4 Principal contractors



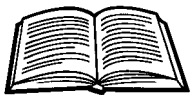
The principal contractor, whether an employer or the person in control of the workplace, must provide and maintain, in relation to those matters over which they have control, a workplace that is safe and without risks to health for its employees and other persons present at the workplace or affected by the work. To fulfil these obligations the principal contractor must plan for the work to be done safely.

The principal contractor must ensure that a site-specific OHS management plan is prepared and documented for each place of work where construction work is to be carried out, before the work commences (see Section 3.8.1). This plan must be developed in consultation with the subcontractor(s) and their employees or representatives. The plan must include safe work method statements, provided by the subcontractors where they are used, for all work activities assessed as having risks. It must also include the following details:

- arrangements for OHS induction training
- arrangements for managing OHS incidents, including response persons
- site-safety rules and arrangements for informing persons affected
- details where persons have specific site OHS responsibilities.

The site-specific OHS management plan must be monitored to ensure that work is carried out safely according to that plan, and that the plan is effective. The plan must be maintained and kept up to date during the course of the construction work, and must be made available for inspection to any person working at the site and to any person about to commence work at the site, employee members of the OHS committee and OHS representatives. The principal contractor must stop work immediately, or as soon as it is safe to do so, where there is a risk to the health or safety of a person.

#### 2.2.5 Subcontractors



The subcontractor(s) doing the work must provide and maintain a workplace that is safe and without risks to health for their employees in relation to those matters over which they have control.



In addition to coordination with the principal contractor in the overall job planning, each subcontractor must develop written safe work method statements, including an assessment of the risks and the controls used to carry out the work safely. Safe work method statements must be provided to the Principal Contractor (Clause 229(2)). A subcontractor must not allow an employee to carry out construction work unless the employee has completed the required induction training.

#### 2.2.6 Employers



Under the OHS Act and the OHS Regulation, employers have an obligation to ensure the health, safety and welfare of employees at work and that other people at the workplace are not exposed to risks to their health and safety. When contracting out work, employers must ensure that contractors are planning and carrying out work in a safe manner and according to the requirements of the OHS Act and OHS Regulation, and this code of practice.

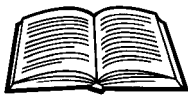
Employers must ensure that any employee employed to carry out construction work has been provided with the required OHS induction training.

The provisions of this code should also be considered during the tendering phase, as well as the planning and preparation stages for carrying out the work. This code outlines regulatory requirements (under the OHS Act and OHS Regulation), as well as safety recommendations that may need to be factored into these processes. To effectively implement this code, employers need to be aware of these requirements and have procedures in place to apply them.

Employers are advised to consult the OHS Act and the OHS Regulation, as well as the following WorkCover NSW publications, for details of their obligations and how they can be met:

- *Code of practice for OHS consultation*
- *Code of practice for risk assessment*
- *Guide: Risk Management at Work.*

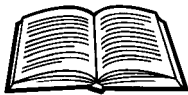
#### 2.2.7 Employees



Employees must take reasonable care of the health and safety of themselves and others. Employees must cooperate with employers in their efforts to comply with occupational health and safety requirements. This means that employees must notify their employer of safety and security hazards, risks and incidents, in line with the requirements of the OHS Act. These requirements should be outlined by the employer's OHS policy, procedures and safety-related instructions.

Employees must not be required to pay for anything done or provided to meet specific requirements made under the OHS Act or OHS Regulation.

#### 2.2.8 Self-employed persons



Self-employed persons must ensure that their undertakings do not expose others to health or safety risks.

#### 2.2.9 Coordination of responsibilities

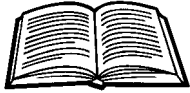
There may be a number of parties involved in a tunnelling project, such as the following:

- the client
- the principal contractor
- controllers of premises, plant or substances
- designers
- employers (principal contractor or subcontractors) who employ persons at the site, including labour hire agencies providing persons to the site
- self-employed persons
- suppliers of plant, materials or prefabricated components
- manufacturers of plant.



Where more than one party has responsibilities at a specific workplace, each party retains their legal responsibilities and must discharge their responsibilities in a coordinated manner.

## 2.3 Consultation and risk management



The OHS Act and the OHS Regulation require employers to address workplace health and safety through a process of consultation and risk management.



The way to systematically plan and manage health and safety in the workplace is to build risk management and consultation into all those activities that may have OHS implications. This will include activities such as purchasing, work methods or procedures, using contractors, reporting OHS problems, investigating incidents and planning emergency procedures.

### 2.3.1 Consultation arrangements



In order to consult with employees, employers are required to set up consultation arrangements and develop and implement consultation procedures.

The OHS Act provides three methods of consultation, which can be used in combination:

- OHS committee
- OHS representatives
- other agreed arrangements.

When the consultation arrangements have been decided, employers are required to record them and advise all existing and new employees of the arrangements.

### 2.3.2 When should consultation be undertaken?



After setting up the consultation arrangements, employers need to consider when and how these consultation arrangements need to be applied.

Employers are required to consult their employees when decisions are being considered that may affect the employees' health, safety or welfare. These include:

- assessing, reviewing and monitoring risks to health and safety
- eliminating or controlling risks to health and safety
- planning for new premises or modifying existing premises
- purchasing new plant, equipment or substances
- planning, designing or changing work tasks or jobs
- determining or reviewing workplace amenities
- determining or reviewing consultation arrangements.

Other decisions which could also affect health and safety include the following:

- coordination and communication with subcontractors in the workplace
- investigating incidents or accidents
- developing emergency procedures.



**Note:** Any procedures that are developed to encompass these activities should incorporate consultation. It may not be practical or reasonable to involve the OHS committee or the OHS representative in every purchase decision or task change, however the OHS committee or OHS representative must be consulted on what process is used to ensure that affected employees are consulted.

### 2.3.3 How should consultation be undertaken?

When engaged in consultation, Section 14 of the OHS Act requires employers to:

- share all relevant information with employees eg if an employer is going to change a work task, employees need to be told of any risk to health and safety that may arise and what will be done to eliminate or control these risks
- give employees reasonable time to express their views – employees need adequate time to assess the information given to them, obtain relevant safety information and consult with fellow employees to enable them to form their views
- value the views of employees and take them into account when the decision is made to resolve the matter – in many cases, agreement will be reached on how the safety issues are to be addressed. When agreement cannot be reached, the employer should explain how the employees' concerns have been addressed.

### 2.3.4 Managing risks in the workplace



Employers and self-employed persons must identify any foreseeable hazards, assess their risks and take action to eliminate or control them.



A hazard identification and risk assessment process must be carried out at the planning and preparation stage by the person doing the work to determine what risks may arise when the work is being carried out. Safe systems of work must then be put in place to eliminate or control these risks. For tunnel construction work, the safe system of work must also be documented by each subcontractor in safe work method statements.

### 2.3.5 Hierarchy of control measures



For each risk identified, control measures must be considered in the following order, starting with (a) first. Each risk identified must be minimised to the lowest level reasonably practicable:

#### (a) The first obligation is to eliminate risk eg choose a different construction method.

Elimination gives the best level of safety and must be adopted unless it is not reasonably practicable. Where elimination is not reasonably practicable, risk must be minimised to the lowest level reasonably practicable by applying controls in the order (b) to (e).

**(b) Substitute the hazard giving rise to the risk with a hazard that gives rise to a lesser risk.**

For example, redesign the work process so that less hazardous equipment, materials or substances are used; use less toxic chemicals or less flammable substances; have products packaged in smaller quantities if lifting them poses risks.

**(c) Isolate the hazard from the person put at risk.**

For example, set up a restricted work area; reduce emissions and noise from machinery through venting and containment or isolation barriers.

**(d) Minimise the risk by engineering means.**

For example, ensure that exposed moving parts on equipment are adequately guarded and lockout devices are fitted; reduce noise levels from machinery by installing dampening methods like mufflers; look for better safety design features on equipment.

**(e) Minimise the risk by administrative means.**

For example, organising the way tasks are done can sometimes reduce exposure to risks; job rotation and task variety can reduce the risks associated with repetitive manual handling tasks; provide appropriate safety training, instruction or information; use written safe work procedures; develop preventative maintenance schedules to identify and fix faulty machinery, use hazard warning signs.

**(f) Use personal protective equipment (PPE).**

For example, use safety eyewear and footwear, hearing protective earplugs or muffs, safety helmets, respirators. PPE is the least preferred solution to OHS problems because it does not really address the hazard but merely provides a shield to protect the worker. However, in some cases, it may be the only practicable means.

This hierarchy provides a basis for determining the most appropriate control measures when discussing and developing your safety plans. There may be cases where no single control measure is sufficient and a combination of control measures will be required. Those at a higher level have greater ability to reduce risk and greater reliability. Administrative control measures require regular monitoring to ensure they are used. Training of workers about each control measure is needed so that workers know how to implement them.



The control measures recommended by a subcontractor should be considered by the principal contractor as part of the OHS management plan. Any new control measures should be evaluated to ensure that they are effective and safe and that new hazards created (directly or indirectly) by them are also controlled.

### 2.3.6 Monitor and review risk assessments and control measures



Clause 12 of the OHS Regulation states that employers must review a risk assessment and any measures adopted to control a risk, whenever:

- (a) there is evidence that the risk assessment is no longer valid
- (b) an injury or illness results from exposure to a hazard to which the risk assessment relates, or
- (c) a significant change is planned to the place of work, work practices or work procedures to which the risk assessment relates.

## CHAPTER 3 – DESIGN FOR SAFE TUNNEL CONSTRUCTION

### 3.1 Overview

The design of tunnels differs significantly from the design of plant and other structures due to the difficulty of ascertaining accurate geological properties and the potential variability of these properties along the tunnel. Thus, the design is based on less reliable material property assumptions than most other designs.

To reduce the risk resulting from this material property uncertainty and variability:

- existing geological information should be reviewed and a site investigation undertaken to confirm the existing information and obtain more specific local geological information as per Section 3.2
- the design should specify the geological conditions assumed in the design, including the relevant issues listed in Section 3.2
- an inspection plan should be developed in order to compare the actual geological conditions as the excavation progresses with the assumed conditions as per Section 3.6
- procedures should be implemented to assess the implications of any such differences and to reassess the adequacy of the design of the tunnel and ground support before the differences constitute a risk to health and safety – this may include ceasing relevant work while the reassessment is being conducted. See section 3.7.

### 3.2 Site investigation



The safety of tunnelling works depends on adequate investigation of the ground and site before construction commences, and proper interpretation of the information obtained. Designers should be provided with all available relevant information and should be involved in the data acquisition for the site investigation program. This may include on-site involvement during the site investigation.

The nature, scope and extent of site investigations should be based on the nature, scope and extent of the project, its location, environments and the proposed tunnel design. It should be planned to provide sufficient information on site conditions, ground and groundwater conditions, previous history and constraints, and to enable realistic assessments of different tunnelling methodologies and designs.

The site investigation should be carried out by suitably qualified and experienced personnel, competent in conducting investigations of similar ground conditions for the range of methodologies being considered.

The following types of study may need to be included in the site investigation:

- topography, geology and hydrology
- location, condition and influence of existing structures, services and old workings and planned future works in the area
- climate and prevailing weather conditions, including seasonal variations
- drilling of boreholes or examining existing borehole results
- assessment of properties of soils and rock, including collection of samples and laboratory testing
- geophysical investigation
- underground survey
- structural survey
- groundwater tests – location, volume and effects on, or resulting from, tunnelling
- blasting trials.



The site investigation will provide information that can assist in the geotechnical risk assessment of ground and other conditions. This should take into consideration at least the following:

- rock mass geology
- planes of weakness
- mechanical properties of soil and rock, planes and rock mass
- in-situ rock stress field magnitude and orientation
- induced rock stress field due to excavation
- potential rock failure mechanisms
- blast damage effects to the rock mass if blasting is being considered
- likely scale and nature of the ground response (movement)
- possible effects on other working places or installations
- groundwater presence and quantity
- possible contaminated environments – whether by gases, liquids or solids, including contamination of the groundwater, eg chemical plumes
- previous relevant experience and historical data for the area.

### 3.3 Tunnel design

The design stage offers the opportunity for hazards to be eliminated or, where this is not reasonably practicable, be minimised to the lowest level reasonably practicable in design. See 2.3.5. The concept design, the information obtained from the site investigation and the anticipated excavation methods should be considered in preparing a design for the tunnel.

The design should include details on the tunnel dimensions and allowable excavation tolerances, the design support and lining requirements for each location within the tunnel and any other requirements for the finished tunnel. The design should also include details for the temporary support, if designed at this stage, or at least the support methods assumed in the design. It should also include information on the excavation methods and ground conditions, including anticipated tunnel deformations, considered in the design. This will allow the design to be reviewed should another excavation or support method be chosen or the actual ground conditions change as the excavation proceeds. See section 3.7.

### 3.4 Design review for construction



This initial tunnel design, referred to in Section 3.3 above, should be reviewed for construction, usually by or in consultation with the tunnelling principal contractor, to take into account any construction needs.

The tunnel design, assumed construction needs, or both may need to be amended to produce a buildable design. This review should consider a range of construction issues, such as the excavation and support installation methods, additional excavation for temporary access, ventilation, spoil removal, refuges, rail sidings, and loadings from roof mounted spoil conveyors and ventilation systems.

As well as amending the tunnel design itself, the design review should produce at least concept designs for ground support systems and construction systems such as ventilation, electrical, water, compressed air, access and materials handling. These systems should be fully designed before excavation commences.

The interdependence of the tunnel design, the chosen construction methods and the ground and environmental conditions are critical and need to be constantly monitored (or addressed). Consequently, continuity in engineering practices at the stages of planning, investigation, design and construction are desirable. This is more effectively achieved by the involvement of a single organisation throughout. If, however, there is a change in the engineering direction of the works, a way should be devised to ensure that the essential continuity is maintained and that the total planning, design and construction process is not fragmented.

### 3.5 Ground support design

Most tunnels and open excavations require some form of permanent ground support, which should be specified in the tunnel design referred to in Section 3.3 above.

Excavation of material causes changes in stress in the surrounding soil or rock that may reduce the capacity of the soil and rock to support itself. Varying geological conditions mean that control measures that have worked previously may not be satisfactory for a current situation.



A risk assessment should be undertaken into the construction phase, as temporary ground support may be needed in addition to, or in advance of, the proposed permanent ground support. Where persons are required to work under unsupported ground, eg for the manual installation of the support, they should be protected by an adequate overhead protection structure.

Ground support systems include engineering issues that involve both structural design and soil/rock mechanics. The use of ground support that is designed for the unique circumstances of the current situation is essential to control the risk of a collapse or tunnel support failure. Consequently, a variety of support systems may need to be developed in advance to cater for the expected range of conditions to be encountered.

Design specifications for engineering controls, such as shoring support structures, should be prepared by a competent person in accordance with relevant Australian Standards, codes and legislative requirements.

### 3.6 Ventilation system design



The ventilation system must be designed to provide adequate levels of ventilation (refer to Section 5.3 and Appendix 5) throughout the tunnel during construction. The ventilation should include the provision for additional localised ventilation to deal with ground gases, production of dust, heat or fumes from the excavation process, operation of large plant or other activities such as maintenance.

The design should allow for the need to install ventilation as the tunnelling progresses to maintain ventilation to the face.

### 3.7 Inspection plans, assessment and reporting procedures



Excavation work, whether a tunnel or an open excavation, must be inspected at regular intervals to ensure that the excavation and its supporting systems are stable and intact to ensure the safety of work proceeding.

The risk assessment must be used to determine an inspection plan, including the frequency, scope of the inspections, and appropriate competencies of the person(s) undertaking the inspections. The inspection frequency, whether based on time or face advance, should take into account the delay due to the assessment and reporting procedures established, so that any identified issues are dealt with before presenting a risk to safety.



Assessment and reporting procedures should be developed in conjunction with the inspection plan, prior to the commencement of excavation on the relevant section of the project.

These procedures should include the competencies for the person(s) conducting the assessment and reporting paths for routine reporting and urgent reporting where the inspection information is assessed as requiring modification to the ground support requirements or otherwise reveals an apparent risk to safety. The procedures should also include reporting procedures for the excavation crew to report urgent matters they identify during excavation.

Where the assessment is to be conducted by the same person(s) undertaking the inspections, the urgent reporting procedures should include provision of advice directly to the person in control of the excavation work.

The assessment and reporting procedures may include the use of hold points and 'approval(s) to excavate', but should not prevent the installation of additional support should the excavation crew determine it is needed.

The procedure should include a formal process for approval of any assessment recommendation to reduce the support from that currently in use. This should apply even at locations where the design specifications include a change to reduced support.

The inspection plan and assessment and reporting procedures should be reviewed based on the results of the inspections and assessments, or after collapses or falls of materials, support failure or adverse weather conditions.

The following activities should be considered for inclusion in the inspection plan:

- mapping and visual assessment of the actual ground conditions and excavated shape as exposed by the tunnel excavation
- monitoring support performance, including:
  - support failures, if any, including during installation
  - evidence of excessive load on supports
  - falls or fretting of ground
- monitoring of time based deterioration such as spalling or slaking eg weathering from temperature changes, humidity changes or exposure to air
- monitoring ground water inflows
- tunnel deformations eg by installing extensometers or by regular survey
- anchor or pull out tests on supports
- core tests of rock
- measuring in-situ ground stresses.

Additional considerations for open excavations include:

- excavated and other material being placed within the zone of influence of the excavation
- machinery operating within the zone of influence of excavations causing weight and vibration influences
- surface soil falling into the excavation
- water seeping into excavations from its side walls or base
- changes to soil and/or weather conditions
- surface water or run-off entering the excavations or accumulating on surface near the excavation
- subsidence alongside the excavations.

Further guidance concerning excavation work on construction sites may be obtained by referring to the WorkCover NSW *Code of practice: excavation*. The trench or excavation may be a confined space and if so the requirements of the OHS Regulation must be observed (Clauses 66-78). Guidance can be found in AS 2865 – *Safe working in a confined space*.

### 3.8 Site-specific planning and preparation

#### 3.8.1 OHS management plan



The principal contractor must ensure that a site-specific occupational health and safety management plan is prepared for each place of work at which the construction work is to be carried out before the work commences, and that the plan is maintained and kept up to date during the course of the work.

The principal contractor must provide sub-contractors with a copy of the relevant parts of the plan and should also ensure that sub-contractors are briefed as to the contents of the plan and understand the risks they may be exposed to.

The plan must include the following:

- the OHS responsibilities of specified people or positions
- the arrangements for ensuring OHS induction training
- the arrangements for managing OHS and safety incidents
- site safety rules and the manner of communication of rules to all persons at the site
- safe work method statements for relevant work activities.



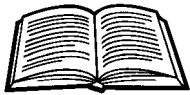
The effective communication of this information is critical at the worksite. Valuable information should be exchanged between outgoing shifts and incoming shifts about the status of the work being performed, the state of the workplace, any changes to work methods required, any relevant safety information or other issues that exist at the workplace.

All workplaces should be thoroughly inspected by the incoming shift to ensure that the place is safe for work to commence.



The OHS Act places an obligation on employers and self-employed persons to provide all necessary supervision to ensure safety. This will mean that those persons with OHS responsibilities outlined in the OHS plan should have the necessary authority to perform and implement their supervisory obligations.

### 3.8.2 Safe work method statements



Clause 227 of the OHS Regulation requires safe work method statements (SWMSs) where the cost of the work undertaken exceeds \$250,000, or for high-risk construction work where the cost does not exceed \$250,000. Construction work in tunnels is one category of high-risk construction work, so tunnelling work requires SWMSs for all work activities assessed as having safety risks.



The SWMS:

- describes how the work is to be carried out
- identifies the work activities assessed as having safety risks
- identifies the safety risks
- describes the control measures that will be applied to the work activities, and
- includes a description of the equipment used in the work, the standards or codes to be complied with, the qualifications of the personnel doing the work and the training required to do the work.



A SWMS should show the work method in a logical sequence. The hazards associated with each process should be identified, and the measures for controlling these hazards specified.

Break down each job into a series of basic job steps to identify the hazards and potential accidents in each part of the job. The description of the process should not be so broad that it leaves out activities with the potential to cause accidents and prevents proper identification of the hazards.

The SWMS could also be used to nominate the competencies, and the number of employees and items of plant required to safely perform the task(s), together with any permits and licences required under the OHS Regulation. Where this is the case, it may be useful to provide copies of such documents and training records with the SWMS.



Employees should be involved and consulted during the development and implementation of any SWMS. All persons involved in carrying out the work should understand the SWMS before commencing the work.

### 3.8.3 Communication systems

Good communication throughout the construction site is fundamental to the safety and efficiency of all aspects of a tunnel project, in particular to the passing of information and instructions, the monitoring of systems and the control of operations such as lifting; transporting persons, materials and plant; coordinating maintenance and managing emergencies.

The communication system should link major workplaces, tunnel portal and face(s), or shaft top and bottom, site offices and safety critical locations on site (eg first aid room or emergency control room or dedicated mobile phone or two-way radio that is permanently attended whilst persons are underground). Means of contacting the emergency services from the site should be available and operational at all times.



A risk assessment should determine whether communication with all mobile vehicles, including personnel transporters, is required. Where electronic communication (non voice) methods are being relied upon, the point of communication reception (eg control room) should be monitored at all times by personnel who have received training in the implementation of the emergency action plan.

For a small and simple job employing few people, unaided voice communication may be adequate. However, consider the need for electronic signalling systems, such as telephones, radios and CCTV for effective safety communication. The communications system may need to accommodate the communication of information on a variety of safety-related items, such as machine-condition monitoring, instrumentation monitoring, atmospheric monitoring and fire alarms.

Means should be available whereby the person in charge of a workplace can communicate requirements for materials and equipment, and raise the alarm and receive instructions in the event of an emergency. The system adopted should depend on the size and length of the tunnel, the number of persons in the tunnel, the system of tunnelling employed and its potential hazards, including the speed of operations.

A system of signalling by bells or by coloured lights can be appropriate for routine communications, such as controlling train movements or requesting that lining segments or other materials be sent forward. Details of any signal code adopted, whether audible or visual, should be communicated effectively to all affected by the operations under way – eg at the top and bottom of each shaft or incline, and in clear view of the plant operator.

The communication system should be independent of the tunnel power supply and installed so that destruction of one unit or the occurrence of a collapse will not interrupt the use of the other units in the system. All wiring, especially that used to transmit warnings in an emergency, should be protected. All communication cables needed to transmit warnings in an emergency should have increased integrity under emergency conditions, such as fire, water or mechanical shock, and a back up communication system should be considered for critical locations.

At all working shafts, a standby means of communication should be available. This should be able to be operated from any position throughout the depth of the shaft.

The codes for both audible and visual signals, as well as call signs and channel allocation should be displayed at strategic locations for all operators. In the case of shafts, this applies to the banksmen, winch and hoist drivers, and all those working in or about the shaft itself.

#### 3.8.4 Amenities



Clause 18 of the OHS Regulation requires that employers ensure that appropriate amenities are available for all of the employer's employees while they are at work. To determine the appropriateness of amenities, employers must take into account matters such as the nature of the work undertaken, the size and location of the place of work, and the number of persons at the place of work.

Employers must also ensure that any amenities provided for workers are maintained in a safe and healthy condition.

The WorkCover NSW *Code of practice: Amenities for construction work* provides details of amenities requirements.

### 3.8.5 Personal protective equipment (PPE)



The use of PPE to control risks is lowest on the hierarchy of control measures listed earlier (see Section 2.3.5). The measures at the lower levels are less effective and they require more frequent reviews of the hazards and systems of work. They should only be used when other control measures are impracticable or when a residual risk remains after implementing other controls.

#### PPE selection and suitability

Where PPE is to be used, it should be appropriate for the risk and conform with the relevant Australian Standard. Employees should be competent in the proper selection, use and maintenance of the PPE. There should be sufficient supervision and monitoring conducted to ensure PPE is used and employees are competent in its use. PPE should be regularly inspected, maintained and replaced as necessary.

#### Clothing for protection

Where there is a risk that workers may be exposed to chemicals or contaminated environments, they should wear clothing for protection against chemicals that conform to the relevant Australian Standards.

#### Eye protection

Dust, flying objects and sunlight are the most common sources of eye damage in excavation work.

Where persons are carrying out cutting, grinding or chipping of concrete or metal, or welding they should be provided with eye protection that conforms to *AS/NZS 1337: Eye Protectors for Industrial Applications*. Eye protection that conforms to AS/NZS 1337 should also be provided where persons carry out other work, such as carpentry or handling of chemicals, where there is a risk of eye injury. Selection, use and management systems should conform to *AS/NZS 1336: Recommended Practices for Occupational Eye Protection*.

For tunnelling activities, such as rock drilling, rock cutting, concreting, service installing, steelwork and plant maintenance, the risk assessment would reasonably be expected to identify a heightened risk of eye injury, and thus require eye protection to be used at all times.

Some above ground works will require eye protection for the above reasons and/or as protection from sunlight UV radiation.

#### Fall-arrest equipment

Harnesses and other fall arrest equipment should be provided where persons are exposed to the risk of a fall when working at height. Such equipment should be selected, used and maintained in accordance with *AS/NZS 1891.4: Industrial Fall-arrest Systems and Devices – Part 4: Selection Use and Maintenance*.

#### Hearing protection

Where personal hearing protection is provided it should conform with *AS 1270: Acoustics – Hearing Protectors*. Control measures including training should conform to *AS/NZS 1269.3: Occupational Noise Management – Hearing Protector Program*.

**High visibility garments/safety reflective vests**

Persons working underground or near traffic, mobile plant or equipment under operator control, should be provided with and use high visibility garments. Such garments should be selected, used and maintained in accordance with *AS/NZS 4602: High Visibility Safety Garments*. Other clothing not covered by the high visibility garment should be light coloured and all garments should be selected for best contrast with the surrounding background.

**Respiratory protective equipment**

Where persons could be exposed to harmful atmospheric contaminants, such as silica dust or welding fumes, respiratory protective equipment that conforms to *AS/NZS 1716: Respiratory Protective Devices* must be used (providing it is within the performance capability of the PPE). Such equipment should be selected and utilised in accordance with *AS/NZS 1715: Selection, use and maintenance of Respiratory Protective Devices*.

**Note:** These standards do not apply to environments where there is an oxygen deficiency due to the presence of asphyxiant gases.

**Footwear**

Persons working on tunnel construction should wear safety footwear that conforms to *AS 2210: Occupational Protective Footwear*. Staff working on broken ground should wear footwear that gives ankle support and metatarsal (arch) protection.

**Safety helmets**

The use of safety helmets may prevent or lessen a head injury from falling objects or a person hitting their head against something. Where there is a likelihood of persons being injured by falling objects, and overhead protection is not provided, persons must be provided with, and must use, an appropriate safety helmet. Appropriate safety helmets should also be provided and used where a person may strike their head against a fixed or protruding object, or where there is a risk of accidental head contact with electrical hazards.

All persons on excavation sites should wear head protection that conforms to *AS/NZS 1801: Occupational Protective Helmets* and be used in accordance with *AS/NZS 1800: Occupational Protective Helmets – Selection, care and use*.

**Safety gloves**

Where there is a risk of hand injury, such as exposure to a harmful substance, excessive heat or cold, or to a mechanical device, hand protection appropriate to the risk and that conforms to *AS/NZS 2161: Occupational Protective Gloves* should be provided and used.

**Self rescuers**

Self rescuers provide the user sufficient oxygen to walk to the surface, the next cache of self rescuers or designated sealable oxygen equipped refuge. They are used in emergencies, such as fire, when the tunnel atmosphere is depleted of oxygen or has levels of contamination beyond the capacity of the respiratory protective equipment provided.

**Waterproof clothing**

Waterproof clothing provided as a system of work relating to weather or site conditions should be effective and suitable for the task. Waterproof clothing should also incorporate light reflective features in accordance with the requirements of the section above.

**3.8.6 Hazard and incident reporting**

A system to report health and safety hazards and incidents should be established. Hazards and OHS problems should be reported as soon as they are noticed so that the risks can be assessed and addressed as quickly as possible. Records of reported hazards should be kept and should include details of the action taken to remove the hazard or control the risk arising from the hazard.

The OHS Act and OHS Regulation also prescribe a number of requirements concerning incident and injury reporting. Refer to the WorkCover NSW website for further details.

**3.8.7 First aid**

Clause 20 of the OHS Regulation requires employers and self-employed persons to provide first aid facilities that are adequate for the immediate treatment of injuries and illnesses that may arise at the place of work and, if more than 25 people are employed, trained first aid personnel.



To ensure adequate first aid provisions, employers and self-employed persons must identify their potential problems, assess their requirements and consult with employees in the process.

When determining the nature, number and location of first aid facilities, and the number of trained first aid personnel, employers must take into account the location and type of work being undertaken. The type of work performed will influence the hazards and the possible harmful consequences for employees. For example, office workers will have different first aid requirements from construction workers. Workplaces using hazardous substances may require specialised first aid facilities, such as eyewash stations and emergency showers. The risk assessment process will assist in identifying the particular needs of the workplace.

Where a first aid room is required, it must only contain equipment or articles, and must only be used, for first aid or occupational health and safety purposes.

For further information regarding matters such as contents of first aid kits, who qualifies as 'trained first aid personnel', and other requirements relating to first aid rooms, consult the OHS Regulation or WorkCover NSW's *First Aid in the Workplace Guide 2001*.

**3.8.8 Emergency response**

Clause 17 of the OHS Regulation specifies that an employer and self-employed person must ensure that, in the event of an emergency at the workplace, arrangements have been made for:

- (a) the shutting down and evacuation of persons from the place of work, and
- (b) emergency communications, and
- (c) appropriate medical treatment of injured persons.

Employers and self-employed persons must also ensure that details of the arrangements for any such evacuation are to be kept on display in an appropriate location(s) at the place of work and that one or more persons are appointed and trained to oversee any such evacuation and, if appropriate, in the use of onsite fire fighting equipment.

Types of emergencies considered should include the following:

- treatment and evacuation of a seriously injured person
- fire underground eg a tunnel-boring machine (TBM)
- sudden flooding eg inrush from above or from an underground water feature
- underground explosion eg ignition of methane inrush
- tunnel collapse, resulting in persons being trapped
- power failure
- above ground emergency that compromises tunnel safety eg fire or chemical spill.

Controls that employers should consider in relation to emergency response include:

- providing a system to identify who is underground, such as a tag board
- developing site emergency procedures, appropriate for the level of risk, including establishing an emergency assembly area and a plan for contacting, and subsequently interacting with, emergency services
- provision of emergency response equipment and training in its use
- provision of control measures to reduce the severity of the emergency eg self-closing bulkheads to control water inrush
- providing self rescuers, breathing apparatus and sealable, self contained atmosphere refuges as well as instruction in their use.

### 3.8.9 Fire and explosion



Clause 62 of the OHS Regulation states that employers must control risks associated with fire and explosion.

Fire in the underground workplace is of particular concern, as the rapid production of noxious fumes and gases makes the severity of this risk extreme.

Controls that employers should consider when implementing fire prevention procedures include the following:

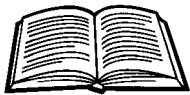
- eliminating activities that could generate flammable or explosive atmospheres, or control such generation by providing adequate ventilation. This could include gas monitoring when excavating in strata suspected of containing ground gas.
- eliminating potential ignition sources, such as naked flames, hot work (eg welding, cutting and grinding), electrical equipment and sources of static electricity, near flammable substances, dusts or waste materials.

**Note:** battery recharging stations are potential sources of both flammable gas and ignition. When tunnelling in known gas strata this may include the use of intrinsically safe electrical equipment.

- removing unnecessary flammable substances, dusts or waste regularly.

- providing an appropriate number and type of fire extinguishers strategically located around the site (including flammable goods storage areas)
- instructing persons working underground in the correct usage of fire extinguishers and fire control underground
- highlight fire extinguishers, fire hoses, fire blankets and hydrants so that they are easily identifiable, and give clear access
- providing flammable goods storage areas, identified with appropriate warning signs
- managing hot work close to dry vegetation by the removal, covering or regular wetting of the vegetation.

#### 3.8.10 Record keeping



The OHS Regulation requires records to be kept for induction training, hazardous substances, safe work method statements, confined spaces, plant, electricity, asbestos, atmospheric monitoring and notification of injuries. Refer to the relevant chapters of the OHS Regulation for further information.

Keeping other relevant health and safety records assists in effective risk management. These could include the following:

- subcontractor monthly reports
- risk assessments
- geotechnical reports
- inspection reports
- health and safety workplace inspection reports
- minutes of safety meetings/site meetings
- incident/accident investigation reports
- hazard reports
- non-conformance reports
- site instructions and diary notes.

#### 3.8.11 Existing services



Before starting the work, the location of any underground services (eg gas, water, sewer, electricity, telecommunication cables, etc) should be identified and marked. Wherever service plans are available they should be obtained by the principal contractor and provided to the subcontractor and operator carrying out the excavation work. Contact the online service plan request provider at [www.dialbeforeyoudig.com.au](http://www.dialbeforeyoudig.com.au) or by phone on 1100.

The subcontractor carrying out the work should allow for inaccuracies and the possibility of other unknown or hidden services. This may be assisted by:

- contacting organisations that can assist in locating underground services
- using remote location devices
- using gas detectors

- being alert for signs of disturbed ground eg change in material (sand in clay), warning tape or pavers during excavation.



Persons whose work may be affected by an underground service should be advised of the location of the underground services. Appropriate control measures should be implemented after consultation with relevant service providers. These measures may include the protection, support, disconnection or removal of services to ensure safety of workers.

For underground electrical services that have not been removed or de-energised, hand excavation in the vicinity should only be undertaken after consultation with the service owner and determination of appropriate controls, considering the voltage, level of insulation provided and local conditions. Controls may include using tools with non-conductive handles, wearing rubber boots and wearing insulating gloves that conform to AS2225 – *Insulating gloves for electrical purposes*.

Gas lines that have been disconnected should be 'blown down' to remove residual gas prior to commencing work.

### 3.8.12 Access



When conducting a risk assessment in connection with safe access and egress to, from and within the work place, the following should be included:

- the layout and condition of the premises (including the presence of any confined spaces)
- the physical working environment, including the potential for people slipping, tripping or falling, and objects or structures falling on people
- controlling the risks to visitors eg contractors, drivers and other people coming into the work site. Also see Site Security, section 3.8.13
- controlling access in areas with moving plant
- emergency access requirements – see section 3.8.8.

An assessment of access requirements should also take into account the number of persons using particular access points, and any tools and equipment that may be required to be carried to or from the work site. Ensuring safe access includes considering a number of other factors, such as lighting, ramps, walkways, stairways, scaffolding and ladders.

Access hazards include wet or oily floors or surfaces, untidy work areas, cluttered passageways, steep or slippery steps and stairs, exposure to plant and poorly-lit work areas.

Control measures that might be introduced include the following:

- installing overhead and fall protection
- storing materials and plant
- keeping work areas and passageways clear and free of obstructions
- removing rubbish, including construction waste and excavated material
- providing handrails
- introducing traffic and plant controls
- erecting safety fences and warning signs.

### 3.8.13 Site security



Clause 235 of the Regulation states that the site is to be secured by perimeter fencing, unless a risk assessment identifies that isolation of hazards at the site can be achieved by other means and such means are provided. The Regulation (Clause 174ZT) also states that access to any dangerous goods and any unauthorised activities on site must be prevented.

Signs are to be erected around the site, clearly visible from outside the site, showing the name and contact telephone number (including after-hours emergency number) of the principal contractor or subcontractor.

Additional consideration should be given to securing hazards at the site from access by authorised visitors eg delivery drivers or persons attending meetings. The following control measures should be considered:

- locating offices, parking and delivery areas away from hazardous areas
- isolating the hazardous area, such as fall zones, sediment ponds and electrical apparatus, with perimeter fencing, barricades, screens, barriers, handrails and/or covers, to prevent unauthorised access
- visitor tags, tag in and out or logged security card access for specific areas
- removing or lowering ladders when not in use
- immobilising plant to prevent unauthorised use
- installing hazard warning lights, signs, markers or flags
- using security guards
- installing night lighting
- locking fuel dispensers.

## CHAPTER 4 – TRAINING, INSTRUCTION, INFORMATION AND SUPERVISION



The OHS Act requires employers and self-employed workers to provide such information, instruction, training and supervision as may be necessary to ensure the health, safety and welfare of their employees while at work.

In addition, some activities are restricted to persons holding the relevant certificate of competency – eg erecting scaffolds and operating cranes and some load-shifting equipment. See the OHS Regulation or the WorkCover NSW publication *Industrial Certification Manual* for a full list of such activities.

### 4.1 Induction training



The OHS Regulation (Clause 213) requires that employees employed to carry out construction work receive OHS induction training, including general health and safety induction training, work activity based induction training and site specific induction training, and that the training cover the topics set out in the WorkCover NSW *Code of practice: Occupational health and safety induction training for construction work 1998*.

Clause 13 of the OHS Regulation requires that each new employee receives induction training that covers:

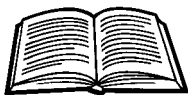
- (a) arrangements at the place of work for the management of occupational health and safety, including arrangements for reporting hazards to management
- (b) health and safety procedures at the place of work relevant to the employee, including the use and maintenance of risk control measures
- (c) how employees can access any health and safety information that the employer is required to make available to employees
- (d) any other matter that the Regulation specifies should be the subject of induction training. The induction training shall be relevant to the place of work concerned, having regard to the competence, experience and age of the new employee.

Also see provisions contained in section 4.4.

### 4.2 Training topics



Training should draw on a knowledge of the known hazards and risks in your operations, including matters described in this code of practice. The source of risks should be pointed out and the adverse outcomes that have been experienced by others should be used to stress the importance of safety.



The content of health and safety training should be tailored to suit the particular work activities and conditions of the workplace and should be based on the risk assessments being carried out.

The training provided and the instruction given should at least include the following:

- all safe work methods to be used on the job, including matters described in this code of practice – ie all hazards, risks and control measures for control of underground hazards, including gases, atmospheric contaminants and ventilation, ground support and tunnel plant

- all information and procedures relevant to controlling risks (this may include regular updated geotechnical risks and controls)
- dust, gas and fire risks that may be present and the controls adopted, including procedures to follow if equipment, such as dust extraction, fails
- the correct use, care and storage in accordance with the manufacturer's recommendations or Australian standards (where appropriate) of plant and associated equipment, personal protective equipment and tools
- how to observe any administrative controls, such as restrictions on entry and warning signs
- emergency and evacuation procedures, including recognising the fire alarm, fire fighting measures, the location of fire fighting equipment and other emergency equipment, the use of fall arrest equipment, confined spaces entry procedures, and the rescue of entrapped persons.

#### **4.3 Who should receive training?**

The target groups for training at a workplace include the following:

- managers and supervisors of employees and/or other persons undertaking the tunnelling work who are considered at risk of injury and/or have responsibility for implementing safe operating procedures
- members of OHS committees and OHS representative(s)
- staff responsible for the purchasing and maintenance of plant, PPE and for designing, scheduling and organising work activities
- persons undertaking risk assessments or preparing SWMSs
- employees and subcontractors undertaking the tunnelling work, including employees of labour hire organisations.

The needs of each target group are different and the content and methods of presenting training material should be tailored to meet the specific needs of each group.

#### **4.4 Provision of information and instruction**

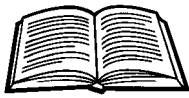
Information may include the following (refer to OHS Regulation Clause 13):

- the results of any applicable risk assessment
- safe work method statements
- a review of risk assessments and/or safe work method statements or operating procedures
- use and maintenance instructions for plant and PPE
- any other relevant OHS information.

Employers should brief each employee as to the contents of risk assessments and safe work method statements when each employee and/or other person first begins to perform tunnelling work, at regular intervals thereafter, and whenever there are changes to risk assessments or new information about health and safety risks becomes available.

Employees and other workers should have, on request, ready access to risk assessments and safe work method statements.

#### 4.5 Supervision



Employers must ensure that employees are provided with such supervision as may be necessary to ensure the health and safety of the employees and any other persons at the employer's workplace. Supervision must be undertaken by a competent person and should take into account the competence, experience and age of each employee.

Supervision is essential to ensure that control measures are applied and safe work method statements are followed.

## CHAPTER 5 – MANAGING RISKS DURING TUNNELLING

The principal contractor and subcontractors have an obligation under the OHS Act to provide and maintain a workplace that is safe and without risks to health for their employees and others in relation to those matters over which they have control.

Control measures to prevent persons being injured during all stages of the tunnel construction and fit out must be provided and maintained as part of a safe system of work.

### 5.1 Risk controls in common tunnelling methods and activities

The common hazards and areas of potential risk in most, if not all, tunnels under construction are closely related to, or exacerbated by, the confines of the underground workplace. They include the following:

- tunnel stability – rock or earth falls and rock bursts
- changing conditions – strata and stress field fluctuations
- limited space and access
- level of expertise – even long-term tunnellers may lack experience in certain specialised aspects or methods
- air contamination or oxygen depletion
- fire or explosion
- the use and maintenance of fixed and mobile plant
- close proximity to electrical supplies and circuits
- use of compressed air and high pressure hydraulics
- projected particles from rock breaking, drilling or cutting
- manual handling
- large scale materials handling, spoil out, and materials and equipment
- uneven surfaces
- wet or other slippery surfaces
- heights
- falling objects
- overhead seepage, ground and process water
- ground gas or water inrush
- contaminated groundwater
- reduced visibility
- loss of power, including lighting and ventilation
- noise levels
- vibration
- hazardous substances and dangerous goods.

For further information on some of these common hazards see section 5.5.



The systems of work and control measures selected are generally determined by individual job factors identified in the consultation and risk assessment process.

The following table outlines common hazards, risks and control measures. This may be used to identify some of the common workplace hazards.

<b>Common tunnelling and excavation activities</b>	
<b>Examples of specific hazards or risks</b>	<b>Example risk control measures</b>
Rock falls	<ul style="list-style-type: none"> <li>• More frequent inspection and scaling</li> <li>• Mechanical scaling and bolting</li> <li>• Mark out bolting pattern by laser survey</li> <li>• Timely installation of ground support</li> <li>• Change ground support methods/density</li> <li>• Overhead protection whilst installing ground support manually</li> </ul>
Failure of floor or roadway	<ul style="list-style-type: none"> <li>• Concrete the floor/roadway</li> </ul>
High water inflow	<ul style="list-style-type: none"> <li>• Grout old drill holes</li> <li>• Injection grouting ahead of the face</li> <li>• Probe drill and drain</li> <li>• Pumping from surface bores</li> </ul>
Scaling	<ul style="list-style-type: none"> <li>• Mechanical equipment</li> <li>• Work from elevating work platform basket</li> <li>• Overhead protection</li> </ul>
Gas inrush	<ul style="list-style-type: none"> <li>• Probe drill hazard areas through check valves</li> <li>• Wet drilling and gas monitoring</li> <li>• Increased face extraction ventilation</li> </ul>
Falls from height	<ul style="list-style-type: none"> <li>• Maintenance platforms with guardrails</li> <li>• Fall arrest</li> <li>• PPE</li> </ul>
Moving plant	<ul style="list-style-type: none"> <li>• Planned vehicle movement procedures</li> <li>• Isolate moving plant from pedestrians</li> <li>• Operator to ensure clear path before moving</li> <li>• Stop plant, pedestrians to walk past</li> <li>• Restrict access</li> <li>• Provide lighting</li> </ul>
Loss of lighting	<ul style="list-style-type: none"> <li>• Emergency lighting and cap lamps</li> </ul>

Common tunnelling and excavation activities	
Examples of specific hazards or risks	Example risk control measures
Manual handling, eg handling air tools, drill rods, supports, cutters, grout.	<ul style="list-style-type: none"> <li>• Engineering assessment of tasks</li> <li>• Use mechanical equipment with automatic feed</li> <li>• Use lifting aids</li> <li>• Team lifting</li> <li>• Select light weight rock drills, smaller bags</li> <li>• Use vibration insulation on handles</li> </ul>
Heat stress	<ul style="list-style-type: none"> <li>• Increase ventilation</li> <li>• More frequent rests and cool water</li> <li>• Cool suits</li> <li>• Reduce use of high heat output equipment</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• Insulation of plant</li> <li>• Hearing protection</li> </ul>
Dust	<ul style="list-style-type: none"> <li>• Increase face extraction ventilation</li> <li>• Water sprays on cutting equipment or over muck heaps and spoil conveyors</li> </ul>

#### 5.1.1 Excavation methods



The site investigation, including geotechnical investigations and risk assessment, the tunnel design, access limitations and other local factors should be used to establish the appropriate excavation methods. It is usual for a number of different excavation methods to be used on a single project.

The tunnel design will usually assume particular excavation and support methods, but other methods may be used provided they are confirmed as not compromising the safety of the tunnel.

The methods of excavation should permit the designed ground support to be installed as planned, and allow for the installation of additional ground support should ground conditions be found to be worse than considered in the design.

Factors to include in determining appropriate excavation methods would include the following:

- the tunnel design, including the dimensions, shape, excavation tolerance of the excavation, and the tunnel support and lining design
- the expertise of the contractors
- available access
- the nature of the ground eg reclaimed ground
- the water table level
- historical excavation experience in the area under similar conditions

- the possibility of flooding from:
  - surface run off, tidal water, rivers, dams, reservoirs, lakes or swamps
  - leaking storm water drains, water mains or flooded communications conduits
  - intersection of old flooded workings or an underground water-bearing structure, such as a fault, cast or perched water table
- the proximity of existing underground services, such as water mains, sewer, drainage, electricity, gas and telephone
- soil nails, rock anchors, basement underpinning, or other pre-existing ground support
- adjacent excavations eg shafts, tunnels or trenches
- other hazards, either natural or man-made, such as:
  - heavy loadings, above or adjacent to the tunnel eg roadways, railway lines, buildings, rivers or planned or existing spoil stockpiles
  - chemical contamination eg from past dumping or natural deposits
  - the presence of methane, or other hazardous gases eg where coal seams are present or vegetation has decayed in the soil
- dynamic loads or ground vibration near an excavation, including:
  - traffic (highway or rail)
  - excavation equipment
  - explosives.

#### 5.1.1.1 Hand excavation

The use of hand methods of excavation is generally limited to small sections of work within larger projects eg a small shaft, sump or drive-in area with limited access and limited possibility for mechanisation.

Many of the common underground construction hazards described in section 5.1 of this code of practice will apply.



Hazard areas that should be considered in greater detail include the following:

- manual handling eg additional physical lifting and activity
- falls from heights eg non mechanised access
- falling objects eg proximity to the worked face
- vibration effects on the body-use of hand tools eg rock drills or jackpicks
- impact eg air leg kick out or broken steels
- noise eg proximity to air tools and drills
- dust eg closer proximity to the face
- heat stress eg due to physical exertion.

**Note:** Hand excavation might be required in a confined space and these risks are covered in Section 5.5.7.

#### 5.1.1.2 Machine excavation



Most tunnelling excavation is mechanised to a considerable extent, therefore, the implications of plant use are very significant in risk management, as detailed in Section 5.4. Plant use in itself presents significant hazards and risks that must be identified and controlled

The hazard areas that should be considered in addition to, or in greater detail to, those common hazards covered in 5.1 include the following:

- moving plant and moving components on plant eg crush, nip or shear
- height eg elevated areas of plant including service access points
- restricted operator visibility and communication eg controls including audible warning sounds, hazard lights, operating lights
- ergonomics – visibility, seat belts, hand rails, seating, controls, stairs, manual handling
- locking and security mechanisms, including power isolation
- fire eg flammable liquids and materials
- high-pressure liquids or gases
- heat eg burns from localised heat sources or heat exhaustion for general heat
- air contamination eg from excavation dust or exhaust emissions
- radiation from lasers.

#### 5.1.1.3 Drill and blast methods

Drill and blast methods for tunnel construction are less widely used with the continued evolution of continuous excavation methods and the environmental impact constraints inherent in many tunnel locations.



For shorter tunnels, or where ground conditions are very hard, drill and blast is often the only alternative. The drill and blast method has particular hazards that require a number of controls for the associated risks.

The hazard areas to be considered in the assessment and control of risks include the following:

- storage, transport and use of explosives
- ground support requirements
- the effect on surrounding strata and existing ground support
- drilling of faces
- firing times and prevention of access to firing areas
- clearance of blasting fumes and dust (refer to section 5.3).
- dealing with misfires.



Explosives are controlled in NSW under the *Explosives Act 2003* and the *Explosives Regulation 2005*, together with any requirements and conditions published by WorkCover NSW. If explosives are to be stored and used at a tunnel construction site, the employer is responsible for the control and safe storage and use of those explosives.

The explosives legislation in NSW requires that anyone who handles explosives must be licensed to do so. To obtain a licence to store explosives, a person or company must apply to WorkCover NSW. The licence to store must be accompanied by a security plan. Guidance material for the compilation of the security plan and other requirements, such as the need for an unsupervised handling licence, is available from WorkCover NSW or by visiting [www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au).

The explosives legislation also requires that explosives are handled safely and requires compliance with *AS 2187: Explosives – storage, transport and use, Parts 1 and 2*. This standard provides details on methods of safe storage and safe use. Site procedures and work methods for controlling the handling of explosives must conform to these standards eg when storing explosives, detonators must never be stored in the same magazine as other explosives.

### 5.1.2 Portal protection

Portal entries, if below the ground surface and not constructed with the final concrete or other permanent structure at the commencement of tunnelling to provide protection, will require other support and protection.

This support will vary but should, at a minimum, include the following:

- ground support of the highwall, if any, above the portal entrance
- support of the portal brow or lip
- protection at the portal, protruding sufficiently out from the tunnel to protect persons entering or leaving the tunnel from material that might be dislodged off the highwall above the portal entrance.

A fence or other barricade should be provided above the portal to retain people and objects if there is access or work being carried out above the portal.

Drainage should be provided to prevent heavy run off entering the tunnel.

### 5.1.3 Scaling and inspections



Inspection of the roof and walls, and scaling of loose rock, should be conducted immediately after excavation. As the effects of time can cause deterioration to rock surfaces, periodic follow-up inspection and scaling should be conducted on unlined areas. A risk assessment, with ongoing revision based on the inspection results, should be used to determine an appropriate period for initial and regular inspection and scaling.

At shift changes, there should be a handover discussion to pass on information on the status of inspection and scaling, including the areas not yet inspected and the location of any identified drummy ground still in need of supporting.

Scaling should take place:

- for drill and blast excavation – after every blast when the face area and spoil heap have been washed down
- for other excavation methods – at intervals as determined by the risk assessment above
- during the support cycle if more loose rock is revealed and as the support installation moves forward from supported ground
- whenever inspection reveals the possibility of loose rock on any wall or roof.

The excavation should be thoroughly washed down prior to the initial inspection. Regular inspections should continue in the unlined tunnel areas, to a schedule determined by the above risk assessment.

Inspections and scaling should be conducted from supported and scaled areas. Where practical, machine scaling is preferred to hand scaling. Where hand scaling is used it should be from an elevated platform (basket).

Drummy ground that can not be scaled down should have additional support installed.

Particular attention should be taken at breakthroughs, as the previous excavation and associated stress changes may have weakened the ground.

#### 5.1.4 Ground-support controls

Most tunnels require some form of permanent ground support. The permanent lining can be installed directly as the excavation progresses, or temporary support installed initially, followed by a permanent lining. This may be followed by the installation of a non-structural secondary lining.



It is a legal requirement that an adequate system of safety, involving shoring, earth retention equipment or other appropriate measures, is in place to control risks to health and safety arising from one or more of the following:

- (a) the fall or dislodgment of earth and rock
- (b) the instability of the excavation or any adjoining structure
- (c) the inrush of water
- (d) the placement of excavated material
- (e) instability due to persons or plant working adjacent to the excavation.

If a system of shoring is used, the employer must ensure that an adequate supply of shoring equipment and material is provided and used to prevent a fall or dislodgment of earth, rock or other material that forms the side of or is adjacent to the excavation work.

It is also a legal requirement that an employer must ensure that adequate measures are taken in the immediate vicinity of excavation work so as to prevent the collapse of the work. In particular, an employer must ensure that no materials are placed, stacked or moved near the edge of excavation work so as to cause the collapse of the work.

Because unsupported ground is often a high risk of falling materials, all tunnels should have some form of ground support or overhead protection during the construction phase.



It is usual for the planned ground support to vary throughout the project as the tunnel dimensions or ground conditions vary, and the locations of changes should be included in the design documentation.

The support actually installed as a tunnel progresses will often alter with exposure and assessment of the actual ground conditions and experience gained from the monitoring of the performance of the supports.

Unless robotically installed, ground support should be installed from supported areas or using plant which provides overhead protection for the installers. The design advance and ground support system may result in the area between the last support and the face as being considered as supported. If so, this should be specified in the design.

The ground conditions should be inspected as the excavation progresses, in accordance with the inspection plan as outlined in Section 3.7.



The results from the inspections should be assessed and the ground support system reassessed, and changed if necessary, when ground conditions deteriorate from that allowed for in the design or the ground support system is not performing as designed. Similarly, changes could be made if the ground conditions are better than allowed for in the design.



Inspection and assessment of the performance of the support system and, if appropriate, changes to the specification, should be carried out by competent persons. Each ground support method or type, despite being a control for the hazards of ground conditions, has its own hazards and risks attached to the process of installation, which need to be controlled.

## 5.2 Risk controls in specialist construction methods and activities



The system of work and the control measures selected should be determined by considering individual job factors identified in the consultation and risk assessment process.

Designers and constructors with extensive and relevant experience in the selected specialist methods should be used during this process. The following sections describe some of the specialist construction methods and activities. They provide examples of relevant specific hazards, risks and control measures that should be considered in addition to, or in greater detail than, the common examples given earlier.

### 5.2.1 Shaft sinking



Shafts vary greatly in construction technique depending on conditions and their purpose, and may be vertical or inclined, lined or unlined, of various shapes, and excavated using various techniques.

Shaft sinking involves excavating a shaft from the top, with access and spoil removal from the top.

Specific hazards and risks may be identified in the following areas:

- shaft dimensions limit clearance
- falls from heights
- falling objects, including fine material and water from shaft wall
- hoisting and winching personnel, materials, spoil, and plant
- working platforms or material kiddles hang up
- communications
- dewatering
- ventilation
- emergency egress.

Examples of control measures include:

- guidance of working platforms and kibbles
- early lining of the shaft
- avoiding the overfilling of kibbles
- cleaning underside of kibbles before lifting
- closing shaft doors before tipping
- cleaning spillage off doors, stage and any steelwork.

### 5.2.2 Raise boring

Raise boring is a method of constructing a shaft (or raise) where underground access has already been established. Raise bored shafts can be from the surface or from one horizon (level) to another underground. The method is remote and does not require personnel to enter the shaft.

The method involves:

- installing a raise borer rig at the top of the planned raise, above the existing tunnel (or other underground excavation)
- drilling a pilot hole down into the tunnel
- attaching a reaming head and back reaming to the rig to create the raise
- supporting the completed hole if it is required – eg by lining or installing ground support.



Specific hazards and risks may be identified in the following areas:

- poor surface materials for set-up
  - breakthrough causes unexpected rock fall
  - rock fall as breakthrough area not secured prior to bit removal
  - manual handling problems with bit removal and reamer head attachment
  - spoil 'mud rush' after a hang up
  - flooding from surface or ground water sources
  - fall into shaft when removing reamer head or rig
  - working platforms or material kibbles hang up
  - communications
  - dewatering
  - ventilation
  - dust
  - emergency egress.
- Control measures include:
- barricading breakthrough area to prevent access well before breakthrough
  - coordinating spoil clearance to reduce likelihood of hang ups or falling material entering the tunnel
  - monitoring spoil flow – stop reaming if hang up occurs to reduce potential mud rush.

### 5.2.3 Raised shafts and excavations

From underground access, a raise or a vertical or sub-vertical excavation may be required to the surface or to another horizon. Certain methods are available, including:

- blind methods where no top access is available, such as:
  - conventional or ladder raise, now largely obsolete for vertical raises, may have application for some inclined excavations
  - Alimak or raise climber working off rail segments
  - shrink method for short excavations working off broken spoil.
- other methods where top access is available, such as:
  - cage or gig rise using a moving cage/platform hoisted through a rope in a pilot hole
  - long-hole rise (using drill and blast)
  - underhand benching or rise stripping.



Specific hazards and risks include the following:

- working and accessing from below the excavated face, which may not have been inspected and scaled
- working upwards, material enters the eyes
- falling objects, and fine material and water from the shaft wall
- communications
- ventilation is more difficult
- isolation, emergency, access and egress issues.

Control measures include the following:

- providing access using a two-level cage, with the top level providing overhead protection when not at the face
- drilling large diameter pilot hole for cage rope and establishing ventilation up the hole
- barricading the bottom area and limiting access to the authorised persons
- barricading and restricting access to the breakthrough area well before breakthrough.

### 5.2.4 Pipe jacking

This method is mostly used in soft tunnelling conditions. The tunnel is lined with a pipe that is installed in sections, pushed or jacked into the increasing tunnel length from the portal. It consists of a typical sequence where:

- a jacking pit is excavated, supported and reinforced to resist the jacking forces
- excavation of a small section of tunnel takes place ahead of a leading pipe
- the continuous line of pipe sections is manually or automatically jacked into position, pushing the leading pipe up to the face

- the face is excavated and the pipe pushed further, adding sections at the rear as space permits.

The support and lining is provided by the pipe. Face support may be required depending on the conditions.



Specific hazards and risks include the following:

- restricted access and dimensions, including the pipe-positioning area
- jack operation and jacking forces
- soft material, which leads to face failure
- water or liquefied soil or mud inflow
- pipe binds, leaving face and excavated section exposed for longer than planned.
- visibility.

Control measures include the following:

- using mechanical rather than manual lifting where possible
- locating jack power pack away from work area in the pit
- supporting the face during jacking
- dewatering or grouting to reduce water inflow
- lubricating pipes or installing intermediate jacking stations in longer tunnels.
- lighting.

#### 5.2.5 Caissons

This method is used to sink shafts in very soft or wet ground conditions. The method is suitable for shafts generally larger than bored shafts. The caisson method involves:

- concrete (or steel) sections stacked upon each other at the surface, the lower or leading section having a cutting edge
- excavation of the shaft bottom undercuts the edge of the leading caisson and the sections move downward together under their own weight, or they are driven down.

The shaft remains fully supported and lined for its entire length.

Caissons may be pressurised in certain circumstances with compressed air to provide temporary ground support and reduce water ingress at the shaft bottom. For controls applicable to working in a pressurised atmosphere with this method refer to *AS 4774.1: Work in compressed air and hyperbaric facilities – Part 1: Work in tunnels, shafts and caissons*.

#### 5.2.6 Ground freezing

Ground freezing is used to sink shafts in very soft and wet ground conditions and where there are free running saturated sands. It is rarely used in Australia but, due to different ground conditions, is more common in Europe.

The wet ground where the shaft is to be sunk is artificially frozen, excavated as though it were solid rock, then lined and sealed before being allowed to thaw. The process can also be applied to horizontal development.



The additional hazards stem from the reduced temperature and include the effect of cold on personnel and equipment, spoil removal (it may melt or resolidify depending on the ambient temperature), and the risk of collapse from localised or general thawing.

Control measures include the following:

- warm clothing and footwear, job rotation, rest periods
- heated operators' cabins, rest areas
- temperature and refrigeration plant monitoring
- excavation and spoil-removal equipment adapted for cold operation.

### 5.2.7 Compressed-air tunnelling

The use of a compressed-air atmosphere is not commonly used in Australia. For the additional requirements and controls applicable to working in a pressurised atmosphere, refer to *AS 4774.1: Work in compressed air and hyperbaric facilities – Part 1: Work in tunnels, shafts and caissons*.

This method is used to provide additional temporary ground support in very soft and extremely wet ground conditions, and where other means of preventing excessive ingress of water or the collapse of ground into the tunnel are not practical.

The pneumatic support process involves providing a bulkhead, with air locks for access into the tunnel, and pressurising the tunnel with compressed air to hold back the water and weak strata.

### 5.2.8 Pressure grouting

Pressure grouting involves pumping a grout (eg cement slurry or chemical grout) under pressure into a void or permeable ground. Pressure grouting:

- fills voids behind a tunnel or shaft lining to increase the integrity and strength of the lining or to reduce water inflow
- stops or reduces direct water inflows into the excavation
- improves ground conditions by cementing unstable areas.



Prior to implementing a pressure grouting program, employers should review the relevant risk assessments and measures adopted to control risks.

Specific hazards and risks include the following:

- cement or chemical grout dust
- eye or skin contact with grout, which causes chemical burns, poisoning and other toxic effects
- high-pressure hoses and connections.
- fracturing of the ground
- damage to nearby services, buildings or structures.

Control measures include the following:

- easy to read pressure gauge assists in reducing risk of exceeding specified grout pressure
- presetting the specified grout pressure
- washing and eye-wash facilities at grout site
- PPE, such as gloves and full-face eye shields.

### 5.3 Air quality and ventilation systems



Clause 51 of the OHS Regulation requires employers to ensure that no person is exposed to an airborne concentration of an atmospheric contaminant above the relevant exposure standard (refer to Section 5.3.2).

Employers are also required to ensure that:

- mechanical ventilation appropriate for the work being carried out is used to control atmospheric contaminants and that the ventilation is maintained regularly, and
- if a mechanical ventilation system is used to control exposure to a contaminant, the system:
  - is located as close as is practicable to the source of the contaminant to minimise the risk of inhalation by a person at work
  - is used for as long as the contaminant is present
  - is kept free from accumulations of dust, fibre and other waste materials and is maintained regularly
  - is designed and constructed so as to prevent the occurrence of fire or explosion if the system is provided to control contaminants arising from flammable or combustible substances
- if a ducted ventilation system is used, an inspection point is fitted at any place where blockages in the ventilation system are likely to occur.



Tunnels are usually at risk of having atmospheric contamination and require mechanical ventilation, unless connections to the surface or other ventilated areas provide measured airflows that are adequate to control the atmospheric contamination. Sources of contamination, or other atmospheric risks, that ventilation may control, include:

- gases and fumes seeping or flowing into the tunnel eg ground gases such as methane, carbon dioxide and sulphur dioxide, engine fumes such as carbon monoxide and carbon dioxide, and leakage from nearby gas bottles or tanks, fuel tanks, sewers, drains or gas pipes. (See table in section 5.3.2)
- dust, gases and fumes created by the activities in the tunnel eg silica dust, flammable dusts such as coal and sulphide and the gases and fumes above
- excess heat and humidity created by the activities in the tunnel
- oxygen depletion due to internal combustion engines, oxidation or other natural processes.

As well as tunnel excavations, these hazards can be encountered in excavations for foundations, bored and drilled pier holes, shafts, drives, pits and trenches. The detrimental effects of inadequate ventilation can be short term, or accumulative and long term.

Tunnel ventilation is usually achieved through a mechanical ventilation system. It ensures that sufficient oxygen is available for respiration (from fresh air), and dilutes and transports harmful atmospheric

contaminants away from work areas.

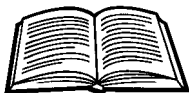
Air flow velocities can be very low in large tunnels, therefore current industry practice in most tunnels is to maintain a minimum 0.5 m/sec velocity to provide sufficient air velocity to clear contaminants. This will provide a clean and safe atmospheric work environment and provide cooling for persons working in warm and humid environments.



The arduous and changing nature of tunnelling means there should be:

- an adequately designed ventilation system that is capable of supplying all the necessary ventilation quantity requirements by supplying sufficient air flow to all those underground areas at all times when persons are present throughout the construction
- regular monitoring of air flows and atmosphere
- ongoing and effective maintenance on the ventilation system including prompt repair of all leaks and maintenance of rigid and flexible ducts, barricades and fans
- a regularly advanced and upgraded ventilation system in accordance with the results of the monitoring program results, so that sufficient air flows are always maintained
- appropriately sign posted unauthorised entry for areas without adequate ventilation
- self contained breathing apparatus (or self rescuer) supplied to any person working in an area that is at risk of not maintaining a safe atmosphere
- specific controls and monitoring of explosive gases
- continued monitoring and control of the sources of contaminants eg reduce diesel emissions, block boreholes, store materials on surface
- personal or machine mounted continuous monitoring devices that sound an alarm when dangerous gas levels, or oxygen depletion, are detected.

### 5.3.1 Monitoring air quality



Clause 52 of the OHS Regulation requires appropriate risk control measures to be put in place when atmosphere in a place of work contain an unsafe oxygen level.

A safe level is defined as not less than 19.5 per cent or more than 23.5 per cent by volume under normal atmospheric pressure. A safe oxygen level does not, however, mean that there are no toxic or flammable gases present.



The risk assessment process should be used to:

- determine the engineering controls, work practices and onsite atmospheric or biological monitoring required
- determine the monitoring program for airborne contaminants such as dust and fumes, including taking air samples and ensuring compliance with NOHSC standards.

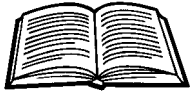


The monitoring program should include testing before work recommences after a break where ventilation has not been maintained. The work areas should be examined by competent persons using appropriate detecting and measuring equipment.

It should include air testing for the following:

- flammable fumes or gases
- oxygen deficiency (presence of asphyxiant gases)
- airborne contaminants (toxic gases, fumes or respirable dusts).

When PPE is provided, employers should ensure any respirators supplied are capable of preventing persons inhaling hazardous dust or other airborne contaminants at the concentration and duration of the exposure. Refer to *AS/NZS 1715: Selection, use and maintenance of respiratory protective devices*.



If a risk assessment indicates that monitoring of atmospheric contaminants should be undertaken, clause 55 of the OHS Regulation requires employers to ensure that:

- (a) appropriate monitoring is undertaken in accordance with a suitable procedure, and
- (b) the results of the monitoring are recorded, and
- (c) any employee or other person working at the employer's place of work who may be or may have been exposed to an atmospheric contaminant that has been monitored is provided with the results of the monitoring, and
- (d) the monitoring records are readily accessible to any such employee or person.

Employers must ensure that exposure to an airborne concentration of a contaminant classified as a hazardous substance is not at a level greater than that established by the adopted national *Exposure standards for atmospheric contaminants in the occupational environment*.

### 5.3.2 Hazardous contaminants



Personnel may be exposed to contaminants by inhaling, swallowing, or absorbing by contact with skin or eyes. Hazardous materials can present a physical, chemical and/or biological risk to human health.

Hazardous materials include the following:

- silica dust and synthetic mineral fibres
- toxic gases, fumes, vapours and other toxic chemicals
- explosive and asphyxiant gases
- biologically active substances, microorganisms
- hazardous wastes.

These contaminants can:

- arise from the mechanical process of tunnelling eg drilling or cutting or be uncovered excavation eg silica dust
- be produced in-situ (eg exhaust gases from internal combustion engines) or from blasting activity (eg carbon monoxide)
- be introduced into the tunnel from the external environment eg liquid fuels or chemicals.

Common source activities for harmful airborne contaminants are contained in the table below.

Activity	Contaminant	Harmful components
Hot work	Welding/cutting fumes	Metal oxides, oxides of nitrogen, ozone, fluorides
Operation of internal combustion engines	Exhaust fumes	Carbon monoxide, carbon dioxide, particulates, oxides of nitrogen, fuel vapours, aldehydes and hydrogen sulphide. Oxygen depletion can occur.
Tunnelling	Rock dust	Silica and other mineral dusts including coal dust
Shotcreting, concreting, grouting	Cement dust/accelerator	Cement dust, ammonia and chemical accelerating compounds
Shot firing	Blasting fumes	Silica dust, ammonia, oxides of nitrogen, carbon monoxide, sulphur dioxide, hydrogen sulphide, carbon dioxide
Battery charging	Vapours	Flammable gas, acid fumes

Clause 51 of the OHS Regulation requires employers to ensure that no person is exposed to an airborne concentration of atmospheric contaminants (other than synthetic mineral fibre dust) as determined in accordance with the documents entitled:

- *Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment (NOHSC: 3008)*
- *Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment (NOHSC: 1003)*

as amended from time to time by amendments published in the *Chemical Gazette of the Commonwealth of Australia*.

An approximate guide to the effects and consequences of some common air contaminants (and oxygen depletion) at concentrations beyond acceptable national exposure standards is provided in the following table. For the applicable exposure standards, refer to the 'Hazardous Substances Information System (HSIS)' located on the Australian Safety and Compensation Council website ([www.ascc.gov.au](http://www.ascc.gov.au)).

Common contaminants	Range of typical effects at increasing levels of exposure above acceptable limits
Carbon dioxide	<ul style="list-style-type: none"> <li>• Increased depth of breathing within 15 mins of exposure</li> <li>• Feeling of inability to breathe, headache, dizziness, sweating, and disorientation</li> <li>• Nausea, strangling sensation, stupor and loss of consciousness within 15 minutes. Many deaths reported from exposure above 20 per cent.</li> </ul>
Carbon monoxide	<ul style="list-style-type: none"> <li>• Headache within a few mins. Possibility of collapse in half hour, coma in 1 hour and possible death in 1.5 hours.</li> </ul>

Common contaminants	Range of typical effects at increasing levels of exposure above acceptable limits
Hydrogen sulphide	<ul style="list-style-type: none"> <li>Initial eye irritation, then loss of sense of smell</li> <li>Rapid breathing, respiratory arrest, collapse, and then death.</li> </ul>
Nitrogen dioxide	<ul style="list-style-type: none"> <li>Considered dangerous for short-term exposure. Moderately irritating to eyes and nose</li> <li>Fatal within 30 minutes. Death is due to fluid build up in lungs (pulmonary edema) leading to asphyxia.</li> </ul>
Sulphur dioxide	<ul style="list-style-type: none"> <li>Irritation of the eyes, nose, and throat, choking, and coughing within minutes</li> <li>Immediately dangerous</li> <li>A 10 minute exposure has been fatal at high concentration.</li> </ul>
Silica dust	<ul style="list-style-type: none"> <li>Cumulative exposure leads to lung damage/disease (silicosis)</li> <li>Can occur after 15 to 20 years of moderate to low exposure, or after a few months of very high exposure</li> <li>Death can occur.</li> </ul>
<b>Non contaminants</b>	
Oxygen depletion	<ul style="list-style-type: none"> <li>Rate of respiration increased</li> <li>Fatigue on exertion, disturbed respiration</li> <li>Nausea, inability to move freely, collapse</li> <li>Respiration stops, heart stops within a few mins.</li> </ul>

#### 5.3.2.1 Dusts and silica

When airborne dust particles are less than  $5\mu\text{m}$  in size, they are too fine to be filtered by the nasal cavity and can be inhaled, or respired, deep into the lungs. Long term exposure to respirable dusts can lead to diseases ranging from bronchitis to various cancers. Even if the dust is not at harmful levels or sizes, it can increase the risk of physical injury or harm because of the reduced visibility and irritation to eyes and throat.

Non-hazardous nuisance dust can be generated about the site or underground by dry roadways, bare soil or rock, vegetation removal, traffic, wind and the like.

There are several dusts of particular concern, including the following:

- silica (classified as a carcinogen and particularly applicable to tunnelling)
- asbestos (see Section 5.3.2.3)
- coal, lead or anything containing radioactive elements (not generally encountered in tunnelling).



The risk assessment of the tunnel should consider the presence of silica and the likely generation of dust containing silica. Crystalline silica is a common mineral present in sandstone, quartz and many other rocks. Respirable particles of silica can be produced in tunnelling operations. Exposure to respirable silica is known to cause silicosis, a respiratory lung disease that can be fatal. Further information on silica dust is contained in the WorkCover NSW publication *How to Prevent Silicosis*.

**Note:** The national exposure standard for respirable quartz (silica) is 0.1 mg/m<sup>3</sup>.

During the tunnelling operation, mineral dust can be generated and released into the atmosphere when:

- rock or concrete is broken, drilled, cut or blasted, or wherever ground is disturbed
- rock-cutting with road headers or tunnel-boring machines (TBMs)
- loading broken rock at face
- transporting spoil on conveyor belts
- working at spoil transfer points
- installing or removing ventilation ducts
- concreting and shotcreting, spraying and handling bagged ingredients
- moving traffic
- muck piles dry out.

Controls for harmful airborne substances include:

- designing, using and maintaining an exhaust ventilation system
- maintaining extraction at, or close to, the point of generation – such as the face and spoil conveyor transfer points
- using extractors or dust collecting devices inline, near the face
- provision of procedures and equipment for the cleaning of scrubbers and changing of air filters used with atmospheres containing silica dust
- increasing the extraction rate (ventilation capacity) when and where required
- isolation of the dust producing area eg by the provision of bulkheads, mist curtains or ‘butchers doors’
- wet spraying, to suppress dust at the point of generation
- adding surfactant (detergent) to dust suppression water
- using other substances for dust suppression eg salting roads
- using tools fitted with dust extraction or water attachments
- wet drilling
- installing water applicators onto the machinery, rather than using hand held applicators
- wetting muck piles, spoil conveyors, roadways
- spraying water over spoil heaps after blasting and while loading
- limiting exposure times to dust
- providing PPE eg respirators rated for concentration and duration of exposure
- fitting air-filtering systems to the air-conditioning units of excavators and other machinery
- keeping man-vehicles dust sealed
- assessing and controlling the risk of cross contamination between worksites, work processes or workers’ clothing.

Information on dust diseases and workers compensation can be obtained from the Workers Compensation and Dust Diseases Board of NSW.

### 5.3.2.2 Diesel emissions – scrubbers and catalytic converters



Internal combustion engines other than diesel should not be used underground, and only low sulphur diesel fuel should be used (see 5.4.4). The exhaust emissions from diesel engines can constitute a major source of contamination and oxygen depletion to a tunnel atmosphere. This should be considered in the plant selection and in the design, operation and monitoring of the ventilation system.

Where diesel engines are used, the tunnel ventilation should be monitored by testing the tunnel air for the products and effects of diesel engines, such as:

- oxygen deficiency (and the presence of asphyxiant gases)
- airborne contaminants such as toxic gases and fumes.

Similarly, the performance of the engines should be tested at the exhaust prior to being certified for underground use, then at three-monthly intervals after being put into service, to determine that the emissions of carbon monoxide, carbon dioxide and nitrogen oxides are below the appropriate limits.

In addition to the dilution and extraction provided by the ventilation system, exhaust conditioners such as water baths or catalytic converters should be installed and maintained on diesel engines that are used underground.

Generally, catalytic converters are most suited to large engines used for heavy workload conditions, such as materials handling. Catalytic converters need cleaning, or replacing, at intervals as recommended by manufacturers.

Smaller engines, and those subject to intermittent running, such as service vehicles, are more suited to water-bath type exhaust conditioners. Remember, the water baths require regular, often daily, filling-up to remain operational. Low level shut down devices may be installed to stop operation before the conditioner becomes ineffective.



Emission levels should be monitored through full-load exhaust-gas testing on the plant, and by testing the diluted tunnel atmosphere. The contaminants should be monitored and controlled to meet the exposure standards set out in Section 4.3.1.

### 5.3.2.3 Asbestos

Asbestos is a hazardous mineral made up of tiny fibres. When disturbed, it forms a dust. The fibres can be inhaled into the lungs and remain for decades. Carcinogen and exposure to airborne asbestos fibres can cause mesothelioma, asbestosis, pleural plaque and lung cancer.

There are different types of asbestos eg *chrysotile* (white asbestos), *amosite* (brown asbestos) and *crocidolite* (blue asbestos) and all are prohibited carcinogenic substances.

In the past, asbestos was widely used in building, plumbing and industrial applications because of its inert and insulating properties. To identify asbestos, a risk assessment should be conducted on building sheet materials, electrical panels and boards, lagging and pipe insulation, gaskets, brake pads and insulation wool, rope and blankets, and buried fill.

Asbestos can also occur as a natural deposit in the rock strata.



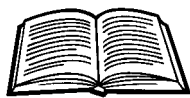
Clause 43 of the OHS Regulation requires controllers to ensure that risk assessment and control measures for asbestos work are carried out in accordance with the *Guide to the Control of Asbestos Hazards in Buildings and Structures* (NOHSC: 3002 (1988)) and the *Code of Practice for the Safe Removal of Asbestos* (NOHSC: 2002 (1988)).



If a risk assessment indicates the need for atmospheric monitoring of a workplace in which asbestos or asbestos containing material is located, the employer must ensure that the monitoring is carried out by a competent person in accordance with the document entitled *Guidance note on the membrane filter method for estimating airborne asbestos dust* ((NOHSC: 3003 (1988)).

### 5.3.3 Heat stress management

Clause 47 of the OHS Regulation requires employers to ensure that:



- (a) adequate ventilation and air movement is provided in indoor environments that may become hot, and
- (b) appropriate work and rest regimes relative to the physical fitness, general health, medication taken and body weight of each employee exposed to heat are implemented.



To determine the level of heat-related risks for a worker, the following factors interact with each other:

- environmental conditions eg air temperature, radiant heat, humidity, air flow
- physical work eg strenuous or light
- work organisation eg its duration, exposure to heat, time of day
- clothing eg heavy protective clothing.

A combination of these conditions can cause heat stress or heat stroke and the effects can range from simple discomfort to life threatening illnesses.

Heat stress reduces work capacity and efficiency. Signs of heat stress include tiredness, irritability, clammy skin, confusion, light-headedness, inattention and muscular cramps.

Signs of heat stroke include high body temperature, no sweating, hot and dry skin, confusion and, if life-threatening, loss of consciousness.

Conditions of high, wet bulb temperatures and low air velocities give little cooling effect. The current industry practice has found it is necessary to maintain a **minimum** of 0.5 m/s velocity in the tunnel and other headings because the air cooling power or cooling effect on the clothed body is a function of air velocity. See Appendix 5.

Current industry practice suggests that personnel be moved away from the area when the air-cooling power is less than 140 W/m<sup>2</sup> (being the metabolic heat production rate for medium work) ie air velocity of 0.5 m/s, and a wet bulb temperature of 30°C.

For more detailed guidance on managing and measuring hot work hazards, refer to the WorkCover NSW *Code of practice for work in hot and cold environments*.

Controls for preventing heat stress include the following:

- providing adequate ventilation
- undertaking a risk assessment and determining monitoring regime
- reducing items of heat-producing equipment in tunnel
- monitoring air velocity and wet-bulb temperature regularly, determining cooling effect, assessing and recording results
- regulating air flow, or modifying ventilation, to ensure adequate cooling
- refrigerating the air supply in extreme conditions
- providing additional ventilation fans to create air flows in low-flow areas
- rotating personnel in hot areas
- providing rest breaks in cool environments
- providing cool vests
- educating personnel to recognise symptoms of heat stress
- providing cool drinking water – current industry practice suggests workers drink half a litre of water each hour when hot environments cause excessive sweating
- providing PPE for surface heat exposure eg shade, hats.

#### 5.4 Plant-related risks

Tunnelling operations invariably involve a variety of plant – plant that may be hand held, fixed, rubber tyred, tracked or rail mounted, and powered electrically, by diesel engine or compressed air. Internal combustion engines other than diesel should not be used underground.

Because of the confines of underground work and other factors, including visibility, noise, congestion, roadway conditions and pedestrian traffic, there are many and varied risks to be assessed and controlled in relation to plant design, selection, use and maintenance.

##### 5.4.1 General



Chapter 5 of the OHS Regulation sets out the requirements for managing the risks arising from operating plant. Plant is the term used for all machinery, tools, appliances and equipment. These requirements also include a registration system for certain plant designs and certain items of plant.

Control measures to prevent persons being injured during the use and maintenance of plant must be provided and maintained as part of a safe system of work. The *WorkCover NSW Guide for Plant 2001* and the *Code of practice for moving plant on construction sites* provide information to assist in controlling workplace risks arising from the use of plant and moving plant respectively, and should be read in conjunction with this code.

The OHS Regulation also requires that powered mobile plant be designed to include devices that protect the operator against rollover, falling objects or ejection, and warning devices for those at risk from moving plant. Earthmoving machinery designed to have a mass of 700–100,000 kg must include a protective structure conforming to *AS2294: Earth-moving machinery – protective structures*.

For certain plant eg some mobile cranes, forklifts, elevating work platforms, excavators and loaders, and certain activities eg scaffolding, rigging and dogging, the OHS Regulation requires the operator to hold an appropriate certificate of competency.



Controls applicable to most plant include the following:

- guarding to prevent contact with moving or hot parts, eg nip, shear and pinch points, rotating shafts and exhaust systems
- barricading or fencing to prevent access to hazardous areas or as fall protection
- installing roll over protection (ROPS) and falling object protection (FOPS)
- using eye protection
- installing reversing beepers, flashing hazard lights
- installing reversing cameras, or reversing sensors on mobile plant with restricted rear visibility
- providing adequate lighting
- installing fire safety equipment
- providing ongoing maintenance, including underground servicing complexities.

#### 5.4.2 Plant and vehicle movement procedures



Plant movement may be hazardous. The risk is commonly a crush injury and can arise from activities such as:

- transporting and installing fixed equipment eg transformers
- moving self-relocatable plant eg road-header, TBM, drill rig, rock bolter
- other moving vehicles in the tunnel eg haul trucks, left-hand drives, service vehicles, personnel carriers, locomotives, rail cars, loaders, delivery vehicles.

Vehicle movement procedures should be developed on the basis of a risk assessment, and should be updated as the conditions on the site change.

The WorkCover NSW *Code of practice for moving plant on construction sites* provides general guidance in relation to the issues involving moving plant but, due to the confined environment and restricted lighting and noise, the tunnelling environment places additional constraints on the available controls.

Control measures include the following:

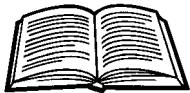
- reducing vehicle movements by using conveyors to remove spoil, and coordinating deliveries to and from the working areas to reduce empty or near-empty journeys eg by backloading
- scheduling activities to reduce periods of traffic congestion
- using a block system eg traffic lights
- providing vehicle passing bays
- lining the tunnel floor, or maintaining it regularly
- having vehicle operators remain in the cabin during loading/unloading, provided there is no risk from remaining in the cabin and they are not required to assist with the loading/unloading activities
- using vehicles designed to keep the occupants appropriately contained/restrained
- providing pedestrian shelters
- cleaning windows and lights
- providing high visibility, reflective clothing and cap lamps.

#### 5.4.3 Machine suitability and assessment

Manufacturers of plant and equipment design it for specific applications and should provide instruction manuals or other information that will assist in determining its suitability for the intended application and appropriate control measures when used as designed.

Plant selected for a tunnelling project should be chosen for its performance and suitability against a number of criteria, including the following:

- duty requirements eg whether designed for use underground or in need of modification
- compliance with regulations and relevant standards eg electrical standards
- physical dimensions and requirements eg clearance available, ventilation, power and water
- appropriate levels of emissions eg exhaust, noise, vibration and heat
- suspension eg vehicle or suspension seating to suit the surface conditions
- safety and ease of operation
- ease of maintenance
- skills and training required to operate and maintain.



Clause 105 of the OHS Regulation requires that a manufacturer of plant provide other persons who have responsibilities under the OHS Regulation with all available information about the plant that is necessary to enable the other persons to fulfil their responsibilities.

Such information includes the following:

- (i) the purpose for which the plant was designed
- (ii) testing or inspections to be carried out on the plant
- (iii) installation, commissioning, operation, maintenance, cleaning, transport, storage and, if the plant is capable of being dismantled, dismantling of the plant
- (iv) systems of work needed for the safe use of the plant
- (v) knowledge, training or skill necessary for persons undertaking testing and inspection of the plant
- (vi) emergency procedures.

**Note:** Equipment specifically designed for a project, including one-off items constructed by the tunnel builder, also require a risk assessment and provision of the above information.



Where plant is used for purposes for which it was not designed eg due to the fitting of an attachment, direct modification or a change in the manner of use, a competent person should conduct an assessment as to whether the change presents an increased risk to health and safety. If it does, additional control measures should be implemented, and information provided. See the plant position paper, WorkCover NSW *Use of plant for purposes for which it was not designed*.

#### 5.4.4 Fuelling – surface and underground

Substances or articles such as fuel that have a hazard related to fires or explosions, rapid chemical reactions, or immediate health risks (such as poisoning) are dangerous goods.



Dangerous goods are regulated under the *OHS Act 2000* and the OHS Regulation. These set out obligations regarding the notification of dangerous goods being stored and handled and a risk management approach together with specific control measures such as storage, signage, labelling, material safety data sheets (MSDSs), monitoring, health surveillance, record keeping, training and emergency planning.

Advice on complying with this legislation can be found in the WorkCover NSW *Code of practice for the storage and handling of dangerous goods*. Appendix 8 of the code contains specific advice on the use of industrial trucks in hazardous zones as defined by the OHS Regulation.

Fuel used for diesel engines to be used underground should be of low sulphur content, ie should contain less than 0.25 per cent sulphur by weight. (See relevant material safety data sheet).

Safe fuelling procedures (see WorkCover NSW *Code of practice for the storage and handling of dangerous goods*) should be established and where practical, fuelling should be conducted on the surface. Underground fuelling should be at designated fuelling bays, unless it is impractical to bring the plant to the fuelling bay. Engines should be switched off in fuelling bays and there should be no naked flames, lights or smoking in the fuelling area.

Fuelling bays should be:

- adequately ventilated
- a safe distance from traffic and roads
- built of non-flammable materials
- constructed with a sill or bund to prevent fuel escaping
- separate from vehicle repair or servicing bays
- without any naked flame
- provided with suitable fire extinguishers
- provided with an anti-static hose and pump, with a self-closing nozzle and a shut off tap to prevent fuel leakage when unattended (gravity-method fuelling may also be considered).

For underground fuelling:

- stored fuel should be limited to minimum quantities required for efficient operations
- an oil-absorbent material should be available and used to clean spills (dispose of used material promptly)
- fuelling at other than a fuelling bay may be by hose and pump or for small quantities by manually pouring from appropriate containers.

For surface fuelling, the fuelling station should:

- meet EPA requirements
- be properly signposted
- be surrounded with traffic barriers
- be locked when not in use.

#### **5.4.5 Man riding vehicles**

Personnel should be transported in vehicles that are designed for such a purpose. These vehicles should be provided with:

- seating for each person
- overhead protection and an enclosure to prevent body parts protruding

- suitable access eg doors and steps
- means for passengers to signal the driver, particularly if the driver is unable to see the passengers
- enough space for a stretcher and ability to transport injured personnel.

If not self propelled, the vehicle should be towed by a locomotive or prime mover, rather than pushed.

Personnel should not be transported with explosives, spoil or construction materials, except where it has been assessed that there is no risk to passengers.

#### 5.4.6 Rolling stock – locomotives and rail cars

In long tunnels, diesel and electric locomotives and rail cars are a common mode of hauling materials and personnel.



As well as the general issues that apply to all plant, the risk management process for rolling stock should consider the following issues:

- maximum grade
- power, diesel or electric
- fail-safe brakes with dead-man control
- speed limiters, governors
- couplings and safety chains
- signalling systems
- the rail track eg gauge, switchgear, passing zones
- pedestrian access
- appropriate rolling stock
- derailments, including prevention measures, recovery systems and equipment
- tipping systems
- buffer stops.

#### 5.4.7 Conveyors

In tunnels, conveyors are used for the transport of spoil from the face to muck cars, or directly to the spoil stockpile or disposal area on the surface. A number of conveyor types are available for use. Conveyors should conform to AS 1755: *Conveyors – safety requirements*, which sets out the minimum safety requirements for the design, installation, guarding, use, inspection and maintenance of conveyors and conveyor systems.



The risk management process should identify and eliminate (or control) the hazards and risks associated with conveyors.

For tunnelling, the following controls should be considered:

- isolating conveyors from normal work areas to prevent entanglement of limbs or body
- preventing personnel from riding on conveyors
- using fire resistant or fire resistant anti-static conveyor belting
- providing fire extinguishers

- preventing of oversize material entering the conveyor system
- reducing spillage from overloaded conveyors eg regulate the conveyor's feed rate and belt speed
- suppressing dust
- implementing power isolation procedures to allow for maintenance, spillage clean-up, and clearing the rollers
- implementing maintenance systems that consider the increased risk, fire or falling objects, posed by failed bearings on idlers and drums
- implementing procedures after shutdown and maintenance.

#### 5.4.8 Cranes, hoists and winders

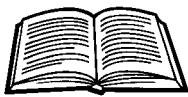
This section refers particularly to lifting plant for materials and personnel, and includes cranes (eg elevating work platforms) and hoists (eg winders).

In addition to general plant issues, there are specific requirements for cranes and hoists, such as design standards, risk control measures, and registration requirements.

**Note:** Item registration needs to be renewed annually, even for plant designed prior to 2001.

Cranes and hoists must conform to the relevant parts of *AS 1418: Cranes, hoists and winches*, and their use should conform to the relevant parts of *AS 2550: Cranes, hoists and winches – safe use*.

#### 5.4.9 Specialist plant



Control measures to prevent personnel being injured during the use and maintenance of plant must be provided and maintained as part of a safe system of work. This principle applies to all plant, whether generic equipment that is used industry-wide or specialist plant that is used in tunnel construction. All plant, even custom designed plant, is subject to the same requirements under the OHS Regulation.

Where specialist plant used in tunnel construction is moving plant, the recommendations set out in 5.4.2 also apply.

##### 5.4.9.1 Shotcrete rigs, jumbos, road headers, TBMs and electric tunnel muckers



Significant issues regarding specialist plant include the following:

- having ventilation close to the face to remove dust
- locking-out the plant as per the manufacturer's instructions (eg isolating the power, discharging accumulators) before accessing the face or carrying out maintenance, repairs or pick changes
- not standing under unsupported ground, unless protected by overhead protection
- not standing near plant that is likely to move, or near movable parts of the plant (eg gathering arms, tail conveyors, booms) when the operator's vision is restricted
- avoiding falling objects eg from the tunnel, conveyors or booms
- avoiding rotating drill steels that catch clothing and hair.

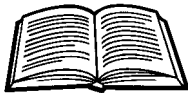
#### 5.4.9.2 Other purpose-built tunnelling equipment

Other purpose-built tunnelling equipment (eg formwork, liner-segment handling equipment and spoil-car tipping station) also fall under the definition of plant, and the designer and manufacturer have the same duties and obligations as those who manufacture and design any other plant.

### 5.5 Other common tunnelling risks

#### 5.5.1 Noise

Construction in tunnels and associated construction work and the enclosed work environment, combined with the plant and tunnelling activity, can generate high noise levels.



Clause 49 of the OHS Regulation requires employers to ensure that appropriate control measures are taken if a person is exposed to noise levels that:

- (a) exceed an 8-hour noise level equivalent of 85 dB(A), or
- (b) peak at more than 140 dB(C).

The WorkCover NSW *Code of practice for noise management and protection of hearing at work* provides practical guidance on managing noise levels in the workplace. This code adopts the NOHSC *National code of practice for noise management and protection of hearing*.



All workplaces that exceed the noise levels prescribed in the OHS Regulation should be assessed, unless workers' exposure to noise can be reduced below these levels immediately. As a general rule, if it is necessary to use a raised voice to communicate with a nearby personnel (say, one metre away), it is advisable to carry out an assessment.

In the assessment of noise levels it should be noted that:

- hearing loss or damage may be related to both duration of exposure and loudness of the noise
- hearing loss may be permanent
- noise assessments should be carried out by competent persons.

Examples of relevant hazards and risks include the following:

- poor sound-insulated stationary equipment eg compressors
- high-noise activity eg rock drilling, air tools
- high-noise mobile equipment eg loaders, road-headers, shotcrete machines.

Controls for noise include the following:

- isolating the noise by an engineered solution, such as:
  - constructing sound-deadening structures around static plant
  - fitting sound-attenuating silencers to fans
  - fitting and maintaining mufflers to exhausts
  - applying sound-proofing material to walls and around equipment
  - selecting low-noise equipment
- reducing effects of high-noise activity by:

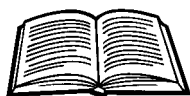
- fitting sound-absorbing material eg workshop walls
- limiting personnel in high-noise areas eg at the face during drilling
- initiating blasts from a distance eg from the surface
- enforcing PPE hearing-protection use
- limiting exposure times
- reducing effects of high-noise mobile equipment by:
  - selecting plant with lower noise output
  - increasing efficiency of silencers
  - fitting additional mufflers to exhausts.

As the risks to hearing are so widespread in tunnelling works, all persons underground should carry at least basic hearing protection (eg ear plugs) for use when appropriate. More task specific hearing protection should be provided at the relevant work locations.

### 5.5.2 Hazardous substances

As the first option to reduce risks associated with hazardous substances, consideration should always be given to using substances that are less hazardous.

Where hazardous substances are introduced into a tunnel (or into an enclosed space), care must be taken to reduce the chance of spillage or loss of containment, and the hazard that this may give rise to. Some of these contaminants may be hazardous substances for which established workplace exposure standards must be observed.



Chapter 6 of the OHS Regulation sets out the requirements for managing the risks arising from hazardous substances. The *WorkCover NSW Code of practice for the control of workplace hazardous substances* provides advice on meeting the requirements of the OHS Regulation.



It is recommended practice not to store hazardous substances below ground. Only sufficient quantities of these materials for use on one day or shift should be held below ground. Before a new substance is introduced to the underground workplace, a risk assessment should be conducted in order to determine if there is a potential for it to cause a hazardous contamination of the air or ground. Consideration should be made of the risk it poses during normal use, storage and if containment is lost.

The manufacturer's material safety data sheet (MSDS) will provide information on the hazards associated with the material, including how to deal with spillage, leaks and fires.

Written procedures for safe use and handling, including emergency procedures, should be prepared for all substances posing a significant risk. Training should be given to all personnel using these substances.

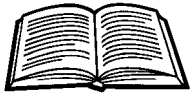
Where hazardous substances are used, employers must:

- prevent exposure beyond the standard exposure limits
- train employees in the safe use of the substance and ensure they have access to the manufacturer's MSDS
- ensure that any necessary PPE is available and used
- ensure that all containers are labelled, especially when a hazardous substance is decanted

- ensure that all containers are cleaned when empty
- keep a register of hazardous substances used and a record of training provided
- provide supervision by competent person
- undertake health surveillance and biological monitoring where there is a risk to employees of exposure to hazardous substances affecting their health and safety (See cl.165, OHS Regulation).

For information on dangerous goods see section 5.4.4. Advice on complying with the dangerous goods provisions of the OHS Regulation can be found in the WorkCover NSW *Code of practice for the storage and handling of dangerous goods*.

### 5.5.3 Visibility and lighting



Clause 46 of the OHS Regulation requires employers to ensure that lighting is provided that:

- (a) is adequate to allow employees to work safely
- (b) does not create excessive glare
- (c) is adequate to allow persons who are not employees to move safely within the workplace
- (d) facilitates safe access and egress from the place of work, including emergency exits.

Poor visibility can result in:

- collisions
- persons struck or run over by plant
- inability to assess conditions of ground, plant and the like
- trips, falls and other injuries
- fatigue.

Control measures that should be considered include the following:

- hard wired lighting at transformer installations, workshops or service bays, fuelling points, pump stations or sumps, stores areas, crib rooms, loading points, unloading points, shaft and tunnel intersections, plant rooms, and in the transition zone some distance into the tunnel
- additional lighting at the face area eg lighting on the platform of mobile equipment
- adequate lighting for detailed work, hazardous processes, and where machinery is being operated
- lighting of emergency egress.

Where cap lamps are provided, there should be:

- one cap lamp provided, charged and maintained for all underground personnel
- adequate lamps to allow each lamp to be fully charged each day
- spare cap lamps for other personnel that may be underground on any given day.

### 5.5.4 Compressed air



Compressed air systems include air compressors, receivers (pressure vessels) that may be stand-alone or contained within the compressor unit, water traps, and reticulation such as valves and hoses supplying compressed air-powered tools and equipment. These systems may represent hazards and risks during installation and use. The WorkCover NSW *Guide for Plant 2001* also provides information on controlling workplace plant-related risks.

Injuries can be caused by:

- a sudden release of pressure due to a failure with pressure vessels or pipes, flexible hoses and tools
- incorrect installation of pipes, inadequate pressure rating, stressed joints
- incorrect work methods eg pressure not bled before working on reticulation, checks not made before pressurisation, uncoupling hoses under pressure, not fitting clips or safety chains
- unsafe acts eg cleaning with compressed air without appropriate PPE
- absence of PPE, inappropriate PPE
- contamination of the atmosphere by oils or exhaust in compressed air.

Controls for eliminating the risk of compressed air include the following:

- installing isolation valves 200m apart and at intersections
- installing and maintaining pressure relief valves
- supporting pipes at each end before joiner, and to the wall or roof
- ensuring traffic has adequate clearance around plant
- using appropriate equipment eg correct pressure-rated equipment, such as hoses, valves and pipe work, and compressors that supply oil-free air
- maintaining equipment appropriately eg maintain lines, repair leaks promptly, place receivers in protected positions, clip hoses and chain joints for hoses more than 50mm diameter
- storing equipment safely
- conducting periodic checks as required eg check pressure gauges on receivers, check valves before turning on air, clear water traps and drains daily, bleed all pressure from systems before disconnecting, re pressurise slowly, check pressure fittings for tension or other loads, use compressed air appropriately
- using appropriate PPE eg use eye and hearing protection when blowing out holes.

#### 5.5.5 Electrical safety



Clause 64 of the OHS Regulation requires employers to ensure that:

(a) Electrical installations at places of work

all electrical installations at a place of work are inspected and tested, after they are installed and prior to their energising for normal use, by a competent person to ensure they are safe for use, and

(a1) all electrical installations at a place of work are maintained by a competent person to ensure they remain safe for use

(a2) Electrical articles used in construction work

all electrical articles that are used in construction work are regularly inspected, tested and maintained by a competent person to ensure they are safe for use if the articles are supplied with electricity through an electrical outlet socket

(a3) Electrical articles that may be affected by hostile environment

all electrical articles that are supplied with electricity through an electrical outlet socket that are at a place of work where the safe operation of the electrical article could be affected by a hostile operating environment are regularly inspected, tested and maintained by a competent person to ensure they are safe for use

- (a4) Electrical installations and articles found to be unsafe
  - all electrical installations and electrical articles at a place of work that are found to be unsafe are disconnected from the electricity supply and are repaired, replaced or permanently removed from use
- (b) plant is not used in conditions likely to give rise to electrical hazards
- (c) appropriate work systems are provided to prevent inadvertent energising of plant connected to the electricity supply
- (d) if excavation work is to be carried out at a place of work, all available information concerning the position of underground electrical cables is obtained and disseminated to persons at the place
- (e) persons at work, their plant, tools or other equipment and any materials used in or arising from the work do not come into close proximity with overhead electrical power lines (except if the work is done in accordance with a written risk assessment and safe system of work and the requirements of the relevant electricity supply authority)
- (f) any electrical cord extension sets, flexible cables or fittings:
  - (i) are located where they are not likely to be damaged (including damage by liquids) or are protected against any damage
  - (ii) are not laid across passageways or access ways unless they are suitably protected
- (g) adequate signs to warn of the hazards, and (if necessary) restrict access, are provided at or near any area in which there is a risk of exposure of persons to hazards arising from electricity.

In this clause, **hostile operating environment** means an operating environment at a place of work where an electrical article is in its normal use subjected to operating conditions that are likely to result in damage to the article, and, for example, includes an operating environment that may:

- (a) cause mechanical damage to the article, or
- (b) expose the article to moisture, heat, vibration, corrosive substances or dust that is likely to result in damage to the article.



Clause 41 of the OHS Regulation outlines particular risk control measures that must be observed by controllers of premises and clauses 207 and 208 prescribe a range of safety measures to be observed when conducting electrical work on electrical installations.

This section of the code on electrical safety should be read in conjunction with the following Standards and installation rules:

- *AS/NZS 3000: Electrical installations* (known as the Australian/New Zealand wiring rules), which is mandatory under the *Electricity (Consumer Safety) Regulation 2006*
- *AS/NZS 3012: Electrical installations – construction and demolition sites*, which has been adopted as a code under the *WorkCover NSW Code of practice for technical guidance*
- *NSW Service and Installation Rules: Section 7 – High voltage installations.*

#### 5.5.5.1 Installation, inspection, testing and record-keeping

To ensure they are safe, all electrical installations associated with tunnel construction must be inspected and tested by a competent person after they are installed and prior to their energising for normal use. All electrical articles used in construction work must be regularly inspected, tested and maintained by a competent person to ensure they are safe for use if the articles are supplied with electricity through an electrical outlet socket. All electrical installations and electrical articles associated with tunnel construction that are found to be unsafe must be disconnected from the electricity supply and repaired, replaced or permanently removed.



These activities must be carried out in accordance with the OHS regulatory requirements contained in the *WorkCover NSW Code of practice for electrical practices for construction work* and the *WorkCover NSW Code of practice for low-voltage electrical work*.

#### 5.5.5.2 Electric cables – reeling and trailing

There should be a cable management system in place specifying minimum installation requirements to ensure that reeling or trailing cables are protected from damage. Trailing cables must only be handled during normal operation using appropriate PPE such as hooks, tongs, slings, or other PPE and equipment designed for the purpose.

#### 5.5.5.3 Cables – construction wiring

Construction wiring and switchboards should be supported and positioned at a height above the tunnel floor to prevent damage from passing vehicles, mobile equipment, falling rocks and the like.

Single and three-phase final sub-circuits must be protected by a residual current device (RCD) with a rated tripping current not exceeding 30 mA, which operates in all live (active and neutral) conductors. This includes construction lighting, socket outlets supplying hand-held or portable equipment, and relocatable structures.

Light fittings should be fitted with a cover to protect against moisture and dust.

#### 5.5.5.4 Portable generators

Portable generators should not be used or placed in tunnels unless they are diesel-powered and fitted with exhaust scrubbers. Portable generators must comply with *AS 2790: 1989 (as amended) Electricity generating sets – transportable (up to 25kW)*. Depending on the type of generator, they should be connected to the wiring and equipment in accordance with *AS/NZS 3012: Electrical installations – construction and demolition sites* and *AS/NZS 3010: Electrical installations – generating sets*.

The following arrangements are permitted for single-phase generators:

- a generator connected to a site switchboard, which is fitted with socket-outlets and RCD protection. In this case the generator must be installed by an electrical contractor in accordance with the requirements of *AS/NZS 3000: Wiring rules* and *AS/NZS 3010* and be inspected and tested by a licensed electrician prior to being introduced to service and after relocation
- a generator with integral 30mA RCD and socket-outlets to which portable equipment can be connected.

#### 5.5.5.5 High voltage installations

**High voltage** means an operating voltage of more than 1000 V a.c. or 1500 V d.c. between phase conductors or between a phase conductor and an earth as defined in *AS/NZS 3000: Wiring rules*.

A qualified electrical engineer should design the high-voltage reticulation and earthing system for tunnel construction. They should also certify that the high-voltage earthing systems have been tested and that all the electrical protection will operate as designed should an earth fault occur. A **qualified electrical engineer** means an electrical engineer who is a charter member of the Australian Institution of Engineers, or a person who is recognised by WorkCover as being competent to exercise the functions of a qualified engineer.

An employer must ensure that personnel carrying out work on a high-voltage system hold a current certificate for high-voltage work, or are directly supervised by a person qualified in such work.

An access permit system must be in place to monitor all persons who access high-voltage installations.

Clause 32(3) of the *Electricity (Consumer Safety) Regulation 2006* requires electrical installation work to be carried in accordance with *AS/NZS 3000:2000 Wiring rules* and *AS/NZS 3000:2000 Electrical installations*.

A note at the end of Clause 32(3) of the *Electricity (Consumer Safety) Regulation 2006* requires persons carrying out work on electrical installations connected, or intended for connection, to a distribution system within the meaning of the *Electricity Supply Act 1995* to have regard to the *New South Wales Service and Installation Rules* published by the Department of Energy, Utilities and Sustainability from time to time.

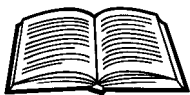
Section 7 of the *NSW Service and Installation Rules* describes operating procedures and criteria that are to be followed when work is carried out on a high voltage electrical installation. Attachment A to section 7, under the heading 'Schedule of Minimum Operating Procedures and Safety Equipment', sets out a number of criteria for working on high voltage electrical installations. These include:

- staff and contractors are adequately trained to work on the installation
- operating procedures are established and safety equipment is provided to ensure the safe performance of all work on the installation.
- operating procedures are to comply with the procedures detailed in the supporting standard *AS 2467: Maintenance of electrical switchgear*
- electrical safety rules covering all aspects of operating the high voltage installation are to be documented and provided to all persons engaged in the work
- operators are to be trained in the use of high voltage earthing equipment
- testing equipment is to be provided to prove the installation is deenergised
- access permit forms are to be provided to facilitate the monitoring of all persons accessing isolated sections of the high voltage electrical installation.
- the provision of a live line indicator stick, which is tested at least once every 12 months.

Other aspects of safe work practices and procedures for work on a high voltage electrical installation can be found in the *NSW Service and Installation Rules*.

Signs indicating 'DANGER – HIGH VOLTAGE' should be in suitable positions along the entire length of the high voltage cable. They must be placed on the outside of the substation enclosure, and at each entry point. Appropriate signs must also be placed on all high-voltage plant and equipment. An 'AUTHORISED PERSONS ONLY' sign must be placed on all doorways and panels of the substation. High voltage switchgear and associated equipment must be clearly labelled to indicate the portion of the electrical installation that it controls.

#### 5.5.6 Welding (and oxy cutting)



Part 7.3 of the OHS Regulation sets out particular risk control measures for welding, including exposure to atmospheric contaminants and other hazards, and ultraviolet radiation.

Section 187 of the OHS Regulation requires employers to ensure that:

- (1) exposure of persons to atmospheric contaminants arising from welding, including fumes, gases and vapours emitted from materials consumed during welding and from materials being welded, is controlled by use of one or more of the following measures (in descending order of priority):
  - (a) substituting a less hazardous process, material or procedure
  - (b) using appropriate ventilation.
- (2) persons directly involved in welding are wearing appropriate personal protective equipment
- (3) adequate signs to warn of the hazards are provided at or near any area in which there is a risk of exposure of persons to hazards arising from welding.

Section 189 of the OHS Regulation requires employers to ensure that risks associated with exposure of persons to harmful levels of ultraviolet radiation at or near the site of welding are controlled by use of the following measures (in descending order of priority):

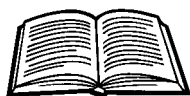
- (a) using appropriate screens to provide protection from ultraviolet radiation
- (b) ensuring that persons required to be in an area in which there is a risk of exposure to ultraviolet radiation are wearing appropriate protective equipment
- (c) ensuring that persons who are not carrying out welding are not permitted to enter an area in which there is a risk of exposure to ultraviolet radiation and that adequate signs to warn of the hazards are provided.

Additional control measures that should be considered include the following:

- fitting flash back arrestors to gas-based welding equipment
- transportation and securing of cylinders to fixed supports or appropriate trolleys
- storing gas-based welding cylinders in ventilated areas
- limiting below ground storage, to prevent the build-up of explosive atmospheres
- providing additional extraction ventilation when welding
- fitting voltage-reduction devices to electric welders.

For further information, see Appendix 2.

#### 5.5.7 Confined spaces



Tunnels under construction must be assessed for risks associated with confined spaces as defined in Cl 66 of the OHS Regulation. There may also be activities on the surface during construction that could constitute confined spaces.

Clause 68 of the OHS Regulation requires employers to ensure that no person enters a confined space, or work is not carried out inside or outside a confined space if:

- (a) there is a risk to the health and safety of a person entering, occupying or working on the surface of the confined space, or
- (b) there is a risk of fire or explosion, and the risk has not been controlled as required by this Regulation.

The OHS Regulation imposes restrictions on persons authorised to enter a confined space and on when those persons are allowed to enter. Clauses 66-78 of the OHS Regulation outline the requirements for working in confined spaces. Guidance can be found in AS 2865: *Safe working in a confined space*.

Examples of hazards and risks include entering shafts, tanks, pipes and pumping station sumps; extreme temperature; and poor air quality.

Examples of controls include the following:

- directing adequate ventilation flows into the work area
- standing personnel outside a confined space when a person is working inside
- directing gases to the open air, or using continuous air replacement systems
- using purging agents
- testing the air quality to determine areas of possible contamination
- providing appropriate emergency equipment
- planning, establishing and rehearsing emergency procedures.

#### 5.5.8 Manual handling

Manual handling is any activity requiring the use of force exerted by a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any animate or inanimate object. This may also include sustained and awkward postures or repetitive motions.

It is one of the main hazards that cause back pain and other musculoskeletal disorders.



Clause 80 of the OHS Regulation requires employers to ensure that:

- (a) all objects are, where appropriate and as far as reasonably practicable, designed, constructed and maintained so as to eliminate risks arising from the manual handling of the objects
- (b) work practices used in a place of work are designed so as to eliminate risks arising from manual handling
- (c) the working environment is designed to be, as far as reasonably practicable and to the extent that it is within the employer's control, consistent with the safe handling of objects.

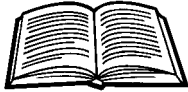
Further information about manual handling is available from clauses 79-81 of the OHS Regulation and from the *National Code of Practice for Manual Handling* (NOHSC:2008 (1990)).

Examples of manual handling controls for tunnels include the following:

- considering manual handling issues in the design, or suitability assessment, of plant
- modifying the design of the objects to be handled
- using mechanical aids or machines for lifting
- planning ahead, selecting correct equipment, redesigning tasks
- using team lifting
- mechanising ground support and other material handling operations
- introducing palletised or bulk-handling systems
- introducing pods for transporting materials with service vehicles
- purchasing materials in bulk or in smaller weight containers
- minimising double-handling by planned placement of materials
- limiting loads lifted and carried
- using waist-height storage areas
- using work platforms to avoid extensive reaching

- training personnel in manual handling techniques, correct use of mechanical aids and team lifting
- modifying the workplace, taking into account work design and work practice to avoid lifting, twisting, slips and trips
- rotating tasks to avoid prolonged repetition of handling.

#### 5.5.9 Falls from heights



Clause 56 of the OHS Regulation requires employers to ensure that risks associated with falls from heights are controlled by provision and maintenance of:

- a stable and securely fenced work platform (such as scaffolding or other portable work platform), or
- if (i) is not reasonably practicable – secure perimeter screens, fencing, handrails or other forms of physical barriers capable of preventing the fall of a person, or
- if (ii) is not reasonably practicable – other forms of physical restraints that are capable of arresting the fall of a person from a height of more than 2 metres.

Employers are also required to provide safe means of movement between different levels.



Tunnels under construction present an increased risk of falls due to the wet, slippery or uneven ground, inadequate lighting, or inappropriate PPE. Areas where fall protection could be required include the following:

- shafts, pits, trenches and sumps
- cuttings and benches,
- elevated structures, working platforms, service platforms, ladders, stairs, formwork, lifts, scaffolding, bins, walls, roofs, portal walls and batters
- plant, bins and tanks.

In addition to the control measures specified in the OHS Regulation, the following control measures may be appropriate:

- improved lighting
- stairways instead of ladders
- signposting hazards
- housekeeping, such as removing trip hazards, grading roadways and rectifying slippery areas.

Separate guidance material is also available from WorkCover NSW in relation to safe work on roofs, use of fall arrest systems and portable ladders. Standards Australia has guidance material on industrial fall-arrest systems, portable ladders, fixed platforms, and scaffolding.

More information is available in the WorkCover NSW *Safe Working at Heights Guide 2006*.

#### 5.5.10 Falling objects



Clause 57 of the OHS Regulation requires employers to ensure that risks associated with falling objects are controlled by the use of the following measures:

- provision of safe means of raising and lowering plant, materials and debris in the place of work

- (b) provision of a secure physical barrier to prevent objects falling freely from buildings or structures in or in the vicinity of the place of work
- (c) if it is not possible to provide a secure physical barrier, provisions of measures to arrest the fall of objects
- (d) provision of appropriate personal protective equipment
- (e) isolate danger zone to establish a 'no go' area.



Risk assessments should be performed to determine appropriate control measures to protect persons from accidental falls of objects, including rock, shotcrete, spoil, tools, plant and other construction materials.

The following are highlighted for the particular risk of falling objects, from or into:

- shafts, including working stages or platforms within them
- pits, trenches, sumps, benches
- equipment, bins, tanks, kibbles, spoil stackers, lifts, plant
- building of roofs or walls of the tunnel, cuttings, portal walls, batters
- elevated structures, such as conveyors, hoisting facilities, bins, tipping mechanisms for spoil, working platforms, formwork, ladders, scaffolding.

Controls that can reduce the risk of objects falling from heights include:

- modifying design eg kick (toe) boards, chutes, splash plates
- prohibiting work above other persons
- installing screens, overhead protection, protected walkways, isolating danger areas as 'no go' zones
- housekeeping floors and access ways, cleaning spillage, using lanyards or thongs on tools.

#### 5.5.11 Vibration

In tunnels, the operation of certain tools and plant can expose persons to high levels of harmful vibration. The types of hand-held plant that can generate such vibration are rock drills, jack picks, concrete vibrators, air tools and the like. Mobile plant can also generate high vibration levels.

Controls that can reduce vibration include the following:

- replacing hand held machines with remote controlled systems eg rock-drilling jumbos or slide-mounted drills
- fixing out of balance items
- servicing plant to the manufacturer's specifications to reduce vibration
- use of vibration absorbing handles or rubber type vibration insulating devices between the tool and the hands
- providing foot-pusher plates for sinking drills
- providing suspended or vibration absorbing seating in plant
- providing padded seating in man riding vehicles.

#### 5.5.12 Eye injury



Projected objects or hazardous substances could cause eye contact. Some hazards may be physical, such as rock, metal shards, glass, mud and dust. Others may be chemical, such as acids, fuel, cement powders, oil and ammonium nitrate etc. Risks can also include high pressure water, acidic ground water, polluted water, or radiation from welding.

Risk factors should be considered when repairing plant and equipment, installing support, welding, working on pumps or water lines, turning on air and water, blowing out hoses, hammering steel, dropping objects, or handling substances.

Risks of eye injury can be eliminated or controlled by the following:

- using alternative methods such as tunnel machine methods (not drill and blast) or automatic drilling machines
- draining pressure from air lines before work
- covering substances when handling
- not pouring or improvising when handling hazardous substances
- using fitting guards and screens
- using engineering methods
- providing appropriate training, instruction and information
- using PPE during hazardous activities, and eye protection at all times regardless of the activities
- specialised eye protection (eg visors and goggles) where required.

As the risks of eye injury are so widespread in tunnelling works, all persons underground during the tunnel construction should carry at least basic eye protection, and use it when appropriate. More task specific eye protection should be provided at the relevant work locations.

## APPENDIX 1 – WORKERS COMPENSATION INSURANCE



Anyone who employs workers, and in some cases engages contractors, must maintain a current workers compensation insurance policy. Penalties apply for failing to have a current policy in place.

All employers have a legal liability to pay workers compensation to workers who are injured in the course of their work, and employers are required by law to hold a workers compensation insurance policy from a licensed WorkCover insurer or Scheme Agent to cover that liability.

For workers compensation insurance purposes the *Workplace Injury Management and Workers Compensation Act 1998* (1998 Act) defines a worker, subject to certain specified exceptions to mean:

*A person who has entered into or works under a contract of service or a training contract with an employer (whether by way of manual labour, clerical work or otherwise, and whether the contract is expressed or implied, and whether the contract is oral or in writing).*

In addition, the 1998 Act deems certain other persons to be workers for workers compensation purposes eg some types of contractors.

For assistance in clarifying your obligation contact your insurer, Scheme Agent or the WorkCover Assistance Service on **13 10 50**.

## APPENDIX 2 – USEFUL PUBLICATIONS

### WORKCOVER GUIDES

- *A guide to dust hazards*
- *First aid in the workplace guide* Cat No 121
- *Guidelines for writing work method statements in plain English* Cat No 231
- *HazPak* Cat No 228
- *High visibility clothing guide*
- *Plant guide* Cat No 233
- *Risk management* Cat No 425
- *Safe working at heights guide 2006* Cat No 1321
- *CHAIR safety in design tool guideline for building and civil projects* Cat No 976
- *Subby pack* Cat No 975
- *Use of personal protective equipment at work – a guidance note*
- *Work involving use of carcinogenic substances* Aug 2002

### WORKCOVER CODES OF PRACTICE

- *Code of practice: Control of workplace hazardous substances* Cat No 153
- *Code of practice: Amenities for construction work* Cat No 317
- *Code of practice: OHS consultation* Cat No 311
- *Code of practice: Electrical practices for construction work* Cat No 301
- *Code of practice: Low voltage electrical work.*
- *Code of practice: Excavation (2000)* Cat No 312
- *Code of practice: Moving plant on construction sites (2004)* Cat No 1310
- *Code of practice: Noise management and protection of hearing at work* Cat No 150
- *Code of practice: Storage and handling of dangerous goods (2005)* Cat No 1354
- *Code of practice: Overhead protective structures* Cat No 17
- *Code of practice: Technical guidance* Cat No 962
- *Code of practice: Working in hot or cold environments (2001)* Cat No 309
- *Code of practice: Storage and handling of dangerous goods.*

### NATIONAL OCCUPATIONAL HEALTH AND SAFETY COMMISSION (NOHSC) PUBLICATIONS

These publications can be obtained from the Office of the Australian Safety and Compensation Council (formerly NOHSC) or **[www.ascc.gov.au](http://www.ascc.gov.au)**.

- *Adopted national exposure standards for atmospheric contaminants in the occupational environment* (NOHSC:1003)
- *Code of practice for the safe removal of asbestos* (NOHSC:2002 (2005))
- *Guidance note on the interpretation of exposure standards for atmospheric contaminants in the occupational environment.* 3rd Edition (NOHSC:3008)
- *Membrane filter method for estimating airborne asbestos fibres.* 2nd Edition (NOHSC: 3003)
- *NOHSC National code of practice for noise management and protection of hearing at work* (NOHSC:2009 (2000))

**AUSTRALIAN STANDARDS**

Standards may be purchased directly from Standards Australia, currently via SAI Global at [www.saiglobal.com/shop](http://www.saiglobal.com/shop)

- AS/NZS 1200 *Pressure equipment*
- AS 1269.3 *Occupational noise management – Hearing protector program*
- AS 1270 *Acoustics – Hearing protectors*
- AS/NZS 1336 *Recommended practices for occupational eye protection*
- AS/NZS 1337 *Eye protectors for industrial applications*
- AS/NZS 1338.1 *Filters for eye protectors – Filters for protection against radiation generated in welding and allied operations*
- AS 1418 (Series) *Cranes, hoists and winches (design series)*
- AS 1657 *Fixed platforms, walkways, stairways and ladders – Design, construction and installation*
- AS 1668.2 *The use of mechanical ventilation and air conditioning in buildings – Mechanical ventilation for acceptable indoor-air quality*
- AS 1674.1 *Safety in welding and allied processes: Part 1 – Fire precautions*
- AS 1674.2 *Safety in welding and allied processes: Part 2 – Electrical*
- AS 1742.3 *Manual of uniform traffic control devices – Traffic control devices for works on roads*
- AS/NZS 1715 *Selection, use and maintenance of respiratory protective devices*
- AS/NZS 1716 *Respiratory protective devices*
- AS 1755 *Conveyors – Safety requirements*
- AS 1891.4 *Industrial fall arrest systems and devices – Selection, use and maintenance*
- AS/NZS 2161.1 *Occupational protective gloves – Selection, use and maintenance*
- AS/NZS 2161.2 *Occupational protective gloves – General requirements*
- AS/NZS 2161.3 *Occupational protective gloves – Protection against mechanical risks*
- AS/NZS 2161.5 *Occupational protective gloves – Protection against cold*
- AS 2187.0 *Explosives – Storage transport and use (terminology)*
- AS 2187.1/Amdt1-2000 *Explosives – Storage transport and use (storage)*
- AS 2187.2 *Explosives – Storage transport and use (use)*
- AS 2225 *Insulating gloves for electrical purposes*
- AS 2430.1 *Classification of hazardous areas – explosive gas atmospheres*
- AS 2430.3.1 *Classification of hazardous areas – examples of area classification – general*
- AS 2550 SEt *Safe use of cranes, hoists and winches*
- AS/NZS 2604 *Sunscreen products – Evaluation and classification*
- AS 2790 *Electricity generating sets – Transportable (up to 25kW)*
- AS/NZS 2802:200 *Electric cables: Reeling and Trailing – for Mining and General Use (other than Underground Coal Mining)*

- AS 2865 *Safe working in a confined space*
- AS 2985 *Workplace atmospheres – Method for sampling and gravimetric determination of respirable dust*
- AS 2986.1-2003 *Workplace air quality – Sampling and analysis of volatile organic compounds by solvent desorption/gas chromatography – Pumped sampling method*
- AS 2986.2-2003 *Workplace air quality – Sampling and analysis of volatile organic compounds by solvent desorption/gas chromatography – Diffusive sampling method*
- AS/NZS 3010 *Electrical installations – Generating sets*
- AS/NZS 3012 *Electrical installations – Construction and demolition sites*
- AS 3640 *Workplace atmospheres – method for sampling and gravimetric determination of inhalable dust*
- AS/NZS 3760 *In service safety inspection and testing of electrical equipment*
- AS 3853.1 *Fume from welding and allied processes – Guide to methods for the sampling and analysis of particulate matter*
- AS 3853.2 *Fume from welding and allied processes – Guide to methods for the sampling and analysis of gases*
- AS 4343 *Pressure equipment – Hazard levels*
- AS/NZS 4602 *High visibility safety garments*
- AS 4774.1 *Work in compressed air and hyperbaric facilities : Work in tunnels, shafts and caissons*

#### OTHER REFERENCES INCLUDING OVERSEAS STANDARDS

- **American Conference of Governmental Industrial Hygienists (1330 Kemper Meadow Drive Cincinnati OHIO 45240-1634):** *Industrial Ventilation – A Manual of Recommended Practice*
- **NSW Roads and Traffic Authority (1998):**
  - *Traffic Authority Manual: Traffic control at worksites*
  - *Manual of Uniform Traffic Control Devices*
- **ISO 7243:** *Hot Environment – Estimation of heat stress on working man, based on the WBGT-index*
- **Welding Technology Institute of Australia:**
  - *Health and Safety in Welding*
  - *Guidelines on Fume Minimisation*
- **British Standard BS6164 (2001):** *Code of practice for safety in tunnelling in the construction industry*
- **International Tunnelling Association (ITA)**

Guidance material can be ordered or downloaded from the ITA web site: **www.ita-aites.org** as follows:  
 PATH : ITA-AITES > ITA ASSOCIATION > Products / Publications > Working Groups Publications >  
 WG N° 5 – HEALTH AND SAFETY IN WORKS:

  - ITA booklets:
    - *Safe working in tunnelling* (2004)
    - *Guidelines for good tunnelling practice* (1993)

- *Safe working in tunnelling* (1989)
- *Guidelines for good tunnelling practice* (1987)
- Articles:
  - *Guidelines for good tunnelling practice: Summary of the ITA working group report* (Tunnelling and underground space technology, Vol. 2, Nr. 2, pp. 217–218, 1987)
  - *Guidelines for good tunnelling practice* (Advances in Tunnelling Technology and Subsurface Use, Vol. 3, Nr. 4, pp. 169–193, 1983)
  - *Safety signs in tunnels* (Advances in Tunnelling Technology and Subsurface Use, Vol. 1, Nr. 2, pp. 183–190, 1981)
- **International Tunnel Insurers' Group (ITIG):** *A code of practice for risk management of tunnel works*
- **British Tunnelling Society and Association of British Insurers:** *A joint code of practice for risk management of tunnel works in the UK*

### 76 APPENDIX 3 – HAZARD CLASSIFICATION OF COMMON FUELS AND ATMOSPHERIC CONTAMINANTS IN TUNNELLING

Substance	Hazardous substance classification	Dangerous Goods classification	Buoyancy in air (as a pure substance at ambient conditions) ↑ = Buoyant ↔ = Neutral ↓ = Non-buoyant	Origin or source of hazard and comments
Acetylene	NA	Class 2.1 flammable gas	↑	Leak from gas cylinder, hoses or torch
Ammonia	Toxic, corrosive	Class 2.3 Toxic gas	↑	Evolved from concreting or grouting
Asbestos	Toxic (long-term), causes cancer	Class 9 miscellaneous	↓	Contaminated fill sites, old underground water pipes or conduit
Butane	NA	Class 2.1 flammable gas	↓	Leaks from cylinders of 'rock gas', butane torches
Carbon dioxide	Asphyxiant	Class 2.2 non-flammable non-toxic gas	↓	From combustion engine exhausts, filled ground, thermal areas
Carbon monoxide	Toxic	Class 2.3 Toxic gas, sub-risk Class 2.1 flammable gas	↔	Incomplete combustion from engines, higher concentrations if poorly tuned
Diesel fuel (distillate)	Harmful	Combustible liquid (included as a dangerous goods in OHS Regulation)	?	Leaks from storage tanks, pipes near petroleum installations, service stations or refuelling areas
Hydrogen sulphide	Very toxic	Class 2.3 Toxic, sub-risk Class 2.1 flammable	↓	Peaty ground, decaying organic matter eg from filled ground, thermal areas

<b>Substance</b>	<b>Hazardous substance classification</b>	<b>Dangerous Goods classification</b>	<b>Buoyancy in air</b> (as a pure substance at ambient conditions) ↑ = Buoyant ↔ = Neutral ↓ = Non-buoyant	<b>Origin or source of hazard and comments</b>
Kerosene and other low volatility solvents	Harmful	Class 3.3 flammable liquid	↓	Leaks from pipes or tanks near petroleum installations, service stations or refuelling areas. Leaks from storage
LP Gas	Depends on contaminants	Class 2.1 flammable gas	?	Leaks from tanks, pipes near petroleum installations, service stations or refuelling areas
Methane (natural gas)	NA	Class 2.1 flammable gas	↑	Leaking reticulation pipes, peaty ground, decaying organic matter eg from filled ground
Nitric Oxide			↔	
Nitrogen dioxide (and other oxides of nitrogen)	Very toxic and corrosive	Class 2.3, sub risk 5.1 oxidising and 8 corrosive	↓	Electric arc welding. Nitric oxide produced by combustion engines and explosive use quickly reacts with air to form nitrogen dioxide
Oxygen	NA	Class 2.2, sub risk 5.1 oxidising	↔	Leaks from gas cylinders or hoses (eg used with acetylene torches). Concentration in air is 21 per cent
Ozone	Hazardous	NA (not transported in cylinders)	↓	Electrical sparks and arcing (eg electric motors). Arc welding, especially of aluminium alloys. Respiratory irritant
Petrol and other high volatility solvents	Carcinogen, harmful and irritant	Class 3.1 flammable liquid	↓	Leaks from tanks, pipes near petroleum installations, service stations or refuelling areas

Substance	Hazardous substance classification	Dangerous Goods classification	Buoyancy in air (as a pure substance at ambient conditions) ↑ = Buoyant ↔ = Neutral ↓ = Non-buoyant	Origin or source of hazard and comments
Propane			↓	
Silica	Hazardous if particles of respirable size	NA	↓	Cutting sandstone rock. Cumulative exposure leads to lung damage and cancer.
Sulfur dioxide (sulphur dioxide)	Toxic and corrosive	Class 2.3 toxic gas, sub-risk Class 8 corrosive	↓	Thermal areas, combustion

**Notes:**

1. LP Gas is Liquefied Petroleum Gas, a mixture of propane and butane.
2. Use the above list to check the entries needed on your hazardous substances and dangerous goods register. As examples, all fuels kept at the site, gases used in cylinders and silica dust if cutting through sandstone should be included on the register.
3. Control measures required if exposure limits exceeded.
4. Buoyancy in air of a contaminant may be relevant when positioning detectors of monitoring exposures.

## APPENDIX 4 – HEAT STRESS AND AIR COOLING

A table of air-cooling power as a function of air velocity (W/m<sup>2</sup>).

Air velocity	Wet bulb temperature (°C)					
(m/s)	20.0	22.5	25.0	27.5	30.0	32.5
0.1	176	153	128	100	70	37
0.25	238	210	179	145	107	64
0.5	284	254	220	181	137	87
1.0	321	290	254	212	163	104

**Notes:**

1. The values given in the above table are the clothing corrected air cooling power at varying wet bulb temperatures and air velocities.
2. The radiant temperature is taken to be equal to the dry bulb temperature, which is typically 10°C higher than the wet bulb temperature.

## APPENDIX 5 – VENTILATION METHODS AND EQUIPMENT

In considering the design and capacity of a tunnel ventilation system, there are a number of configurations and types of equipment that may be used. The following is a brief outline of some of the principal alternatives.

Ventilation systems may be:

- forced supply
- extraction
- alternating, or a combination of extraction and forced supply
- overlap systems.

Fans are used to force or extract air in all the methods above. Fans may be axial flow and:

- single, double or multiple stage
- contra-rotating or non contra-rotating (normally in matched pairs)
- direct driven with motor within the fan casing, or driven with motor outside the fan casing
- flameproof type, suitable for use in hazardous atmospheres (including the motors used), or non flameproof type.

Fans are generally designated to be:

- primary fans:
  - located either on the surface or underground, but providing the main ventilation airflow or basic ventilation capacity to the tunnel workings
  - may be centrifugal or axial
  - are electrically powered, sometimes adjustable and often monitored
  - often remain installed in a fixed position throughout the progress of the works.
- auxiliary fans:
  - located underground in the proximity of the workings providing the required flows at the active areas
  - used for regulating the airflows about the tunnel workings
  - may be installed in-line as booster fans to increase the whole airflow in that line
  - are often moved forward as work progresses or ventilation needs alter
  - are generally axial flow and electric, but may be compressed air powered for small short-term air flow applications.

Fans are:

- usually fitted with an evase to increase efficiency and also with a shroud with a screen to prevent persons or materials coming in contact with the blades
- available for special circumstances, such as potentially flammable or explosive atmospheres, with very specific safety features, motor types and requirements
- selected for the duty required of them to meet the demands of the tunnel work, including equipment, smoke clearance, air velocity requirements, leakage losses, inefficiency, additional future needs and the like

- valued in terms of fan pressure and delivered air capacity against resistance or friction in the duct, the excavations or the workings as the case may be.

In any system, because the airflow will otherwise take the route of least resistance, the air flow is directed to the required tunnel areas by a combination of:

- ducting, including:
  - rigid ducting of steel or fibreglass for the main ventilation lines, used in the extraction system for lines under negative pressure (suction)
  - flexible ducting of canvas, polythene etc for face ventilation, sometimes the main flows for forced air flows under positive pressure (blowing)
  - flameproof, special ducting for hazardous (flammable or explosive) atmospheres.
- airways, including:
  - shafts, or ventilation rises conducting air to or from the surface
  - service drives or headings carrying ventilation intake or exhaust air.

The airflow may be regulated by a combination of any or all of the following:

- barricades built of timber, steel, concrete, bricks
- ventilation doors that can be opened or adjusted
- ventilation regulators that can be adjusted – usually fitted in a barricade
- booster or auxiliary fans to increase flows to selected areas
- brattice or fabric stoppings and brattice wings for directing (low pressure) flows to areas with little air movement – such as pump stations or refuges
- altering fans settings to change flows.

Ventilation systems are monitored by measuring a number of atmospheric conditions. This can be done by using instruments including:

- a mercury or aneroid barometer to determine air pressure differences at different points in the system
- wet and dry thermometers to determine the temperature and humidity at any place in the tunnel
- a sling psychrometer to more accurately determine the relative humidity at any place in the tunnel
- a Kata thermometer to determine the cooling effect of air
- a water gauge for measuring air pressure differences (for example across a fan) and normally used with a pitot tube
- an anemometer (usually mounted on a stick) to measure the air velocity at any place in the tunnel
- continuous dust monitoring equipment (**Note:** the high humidity in tunnels can affect their accuracy)
- continuous gas monitoring equipment
- gas detection units or gas test tubes to determine the concentration of contaminants or other gases in the air etc.

In a **forced ventilation system** fresh intake air is drawn from the outside and pushed through ducting (or sometimes through other headings) via in-line fans, to the working face(s). This system has the following advantages, including:

- the air flow can be distributed through flexible ducting that is cheaper and easier to install than rigid ducting

- there is generally no need for an additional overlap system at the face, as a sacrificial section of flexible ducting can be used at the high wear section near the tunnelling activity
- activity behind the face such as trucking or service works in the access do not become a source of contaminants at the working face as the airflow is away from that face.

This system does have some significant drawbacks that have to be considered in meeting the obligations for proper ventilation, including:

- all the work activity, apart from near the fresh air discharge points, takes place in 'return' air that has been contaminated with dust, fumes etc from the working places
- the system relies simply on the dilution of the contaminants, heat etc to provide a safe environment
- the principle of capturing the contaminants as close as possible to the source is not possible
- flexible duct tends to suffer more damage and be higher maintenance than rigid ducting
- the system is not readily boosted with in-line fans
- auxiliary ventilation of other areas consists of forcing air with diluted contaminants into them, etc.

In an **extraction ventilation system**, contaminated exhaust air is drawn from the working faces or places through rigid ducting or headings to the surface via the fans either fitted in-line, into barricades or on shaft tops etc. This system has the following advantages including:

- the contaminants from the face tunnelling activity are captured into the ventilation system very close to the point of generation
- there is little contact with contaminants from the face activity
- leakage occurs into the duct only
- an overlap system is readily installed at the face to protect ducting and to allow face advance and ventilation extension
- can be incorporated with dust filter systems behind say, TBMs or roadheaders
- in-line boosting is readily done by fitting an axial fan in-line subject to power availability and pressure considerations
- auxiliary ventilation of other areas is possible by breaking into the ducting and installing tee or y pieces etc.

This system does have some drawbacks that have to be considered, including:

- the rigid ducting is harder to repair or replace than flexible duct
- installation rates are slower for rigid ducting
- costs are higher for rigid ducting
- more leaks are possible due to the greater number of joints and the need to align and sleeve each joint
- a forcing system or overlap is still required at the face generally to allow flexibility and to reduce the number of set ups to install rigid ducting that is ideally done from some distance behind the face
- The dust, fumes or gases from activity behind the face is drawn to the face first before being exhausted to the surface etc.

Note that combination systems of forced and exhaust ventilation are possible to design.

Other

**Overlap** is a description given to a system of:

- using a forcing fan and ducting with the forcing fan set behind the end of an extraction system
- ensuring that the forcing fan must have a lesser capacity than the extraction capacity at this point – if not, recirculation will occur
- ensuring that the forcing fan will push fresh intake air to the face where it will return with the contaminants to the exhaust duct and be removed to surface.

As ventilation fans are a major source of noise underground, the noise levels generated by the ventilation systems should be limited to those levels determined in the OHS Regulation. This states that employers must ensure that appropriate control measures are taken if a person is exposed to noise levels that exceed an 8-hour noise level equivalent of 85 dB(A), or peak at more than 140 dB(C).

In addition, common industry practice is to limit the noise levels associated with ventilation equipment to not exceed 100dBA for intermittent exposures.

Various silencers are available or can be built for noise abatement. Fans can also be mounted within sound reducing structures.

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# PRIVATE ADVERTISEMENTS

## COUNCIL NOTICES

### BAULKHAM HILLS SHIRE COUNCIL

Roads Act 1993 – Section 162

Roads (General) Regulation 2000

Naming a new section of public road and the renaming of an existing section of public road (Green Road), Kellyville to the names described below.

NOTICE is hereby given that pursuant to the Roads (General) Regulation 2000 as amended and Section 162 of the Roads Act 1993 as amended, Baulkham Hills Shire Council resolved on 15 July 2003 to rename the roads described below.

<i>Description</i>	<i>Proposed Road Name</i>
The new deviation of Green Road from the intersection of President Road, Rosebery Road and existing Green Road southwards to meet up with the current intersection of Green Road & Wrights Road.	Green Road
The remaining section of Green Road south-east from the intersection of Rosebery Road and President Road to the intersection of Wrights Road.	Morris Grove

Enquiries: Land Information Section on 9843 0555.

[2784]

### BLACKTOWN CITY COUNCIL

Roads Act 1993 and Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land

BLACKTOWN CITY COUNCIL declares, with the approval of Her Excellency the Governor, that the land described in Schedule 1 below, excluding mines and minerals in the land and excluding the interests in Schedule 2 to this notice are acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purpose of the Roads Act 1993 (public road) and for the purpose of the Local Government Act 1993 (open space). Dated at Blacktown 13 November 2006. RON MOORE, General Manager, Blacktown City Council, PO Box 63, Blacktown NSW 2148.

#### SCHEDULE 1

Lot 1 DP 1098904 (public road).

Lot 2 DP 1098904 (Open Space).

#### SCHEDULE 2

Easement for Transmission Line 30.48 wide (vide G643601).

Easement for Transmission Line (vide 15783-300) Vide Gov. Gaz 11.05.56 Fol. 1327.

Easement for Transmission Line 30.48 wide (vide H467381).

[2785]

### CABONNE COUNCIL

Naming of Roads

NOTICE is hereby given that Cabonne Council, in pursuance of section 162 of the Roads Act 1993 has named the road described hereunder:

<i>Description</i>	<i>Name</i>
The extension of Noble Street in Eugowra to "Sunnyside" property gate	Noble Street

Authorised by resolution of Council on 21 August 2006.  
G. L. P. FLEMING, General Manager, Cabonne Council, PO Box 17, Molong NSW 2866.

[2786]

### CLARENCE VALLEY COUNCIL

Roads Act 1993

Dedication of Land as a Public Road

NOTICE is hereby given that pursuant to section 16, Roads Act 1993, Council hereby dedicates as public road the parcel of land set out in the Schedule Below. STUART McPHERSON, General Manager, Clarence Valley Council, Locked bag 23, Grafton NSW 2460.

#### SCHEDULE

Residue of land in certificate of Title Volume 1429, Folio 232 being road shown in Deposited Plan 4039 known as Wiblens Lane, Palmers Island

[2787]

### CLARENCE VALLEY COUNCIL

Roads Act 1993

Dedication of Land as Public Road

NOTICE is hereby given that pursuant to section 10 of the Roads Act 1993 the Clarence Valley Council dedicates the lands described in Schedule 1 hereunder as public road. Dated 10 November 2006. STUART McPHERSON, General Manager, Clarence Valley Council, Locked Bag 23, Grafton NSW 2460.

#### SCHEDULE 1

Land shown as intended to be dedicated as public road in the Plan of Subdivision, Deposited Plan 1093910, situated on Yamba Road and James Creek Road in the locality of Palmers Channel in the Parish of Taloumbi, County of Clarence.

[2788]

### GOULBURN MULWAREE COUNCIL

Local Government Act 1993

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Easement

THE Goulburn Mulwaree Council declares, with the approval of Her Excellency the Governor, that the easement described in the Schedule below is acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for sewerage purposes. Dated at Goulburn 6 November 2006. LUKE JOHNSON, General Manager, (02) 4823 4555.

**SCHEDULE****Interest in Land**

Easement rights for sewer pipeline in the terms set out hereunder over the site shown in:

Deposited Plan 1070291 as:

‘(A) PROPOSED EASEMENT FOR SEWER PIPELINE 5 WIDE’ within lots 1 and 2 in Deposited Plan 456815 lots 21 and 22 in Deposited Plan 3257 and Lane 6.095 wide within Certificate of Title Volume 1595 Folio 55 shown in Deposited Plan 3257

**Terms of Easement**

Easement for Sewer Pipeline FULL AND FREE right for the Body having the benefit of this easement (being a public or local authority) and every person authorised by it from time to time and at all times to pass and convey sewage in any quantities through the servient tenement TOGETHER WITH the right to use for the purpose of the easement any line of pipes (including works ancillary thereto) already laid within the servient tenement for the purposes of the passage and conveyance of such sewage or any pipe or pipes (including works ancillary thereto) in replacement, substitution or duplication therefor and where no such line of pipes exists to lay place and maintain a line of pipes of sufficient internal diameter (including works ancillary thereto) beneath the surface of the servient tenement AND TO lay place and maintain upon the surface of the servient tenement any works ancillary to the said line of pipes AND TOGETHER WITH the right for the Body having the benefit of this easement (being a public or local authority) and every person authorised by it with any tools, implements, or machinery, necessary for the purposes, to enter upon the servient tenement and to remain there for any reasonable time for the purposes of laying, inspecting, cleansing, repairing, maintaining, or renewing such pipeline or any part thereof (including works ancillary thereto) AND for any of the aforesaid purposes to open the soil of the servient tenement to such extent as may be necessary PROVIDED THAT the Body having the benefit of this easement (being a public or local authority) and every person authorised by it will take all reasonable precautions to ensure as little disturbance as possible to the surface of the servient tenement and will restore that surface as nearly as practicable to its original condition. [2789]

**GOULBURN MULWAREE COUNCIL****Sale of Land for Unpaid Rates**

Thursday, 8 March 2007

NOTICE is hereby given to the person named hereunder that Goulburn Mulwaree Council has resolved in pursuance of Section 713, of the Local Government Act 1993, to offer for sale at public auction the land described hereunder. The person named is known to Council to be the owner of the land on which the rates and charges, as at 24 October 2006, are due:

<i>Owners Name</i>	<i>Land Description</i>	<i>Total Amount Owning</i>
Estate of E. Feltham	Lot 8, Sec 1, DP 758653, Area: 1537 square metres, Property Unknown, Marulan.	\$9,589.84
Regina Keylikhes	Lot 223, DP 750059, Area: 148.95 ha, 3790 Oallen Ford Road, Windellama	\$2,702.62
Lawrence J. Brown	Lot 20, DP 718004, Area: 80.63 ha, 1279 Mountain Ash Road, Goulburn	\$3,558.45

Mary Srbic	Lots 17, DP 793733, Area: 43.36 ha, 295 Wolgon Road, Oallen.	\$2,224.98
Jeffrey P Sadlowski	Lots 11, DP 800406, Area: 1416 square metres, 59 Rosebery Street, Tarago	\$3,403.04
Wendy Elizabeth Johnston	Lots 2, DP 853403, Area: 1310 square metres, 47 Coromandel Street, Goulburn.	\$6,396.42

Council has attempted to contact the owner whose name appears in Goulburn Mulwaree Council's records as the rateable owner, and any interested parties, the result of these efforts include the service of rate notices, title searches, and electoral roll searches.

Any intending purchasers should satisfy themselves to the exact location of the block and the location/condition of power, water and sewerage connection, as well as the occupation of the property for vacant possession.

Unless payment in full is made to the Goulburn Mulwaree Council of the amount stated as Total Amount Owing, together with any other rates and extra charges becoming due and payable after the publication of this notice, before the time fixed for the sale, the said land will be offered for sale by public auction by L J Hooker Real Estate, on Thursday, 8 March 2007, at 2.00 pm, at the Goulburn Soldiers Club, 15 Market Street, Goulburn. LUKE JOHNSON, General Manager, tel. (02) 4823 4555. [2790]

**SHOALHAVEN CITY COUNCIL****Local Government Act 1993****Land Acquisition (Just Terms Compensation) Act 1991****Notice of Compulsory Acquisition of Easement**

THE SHOALHAVEN CITY COUNCIL declares, with the approval of Her Excellency the Governor, that the easement described in the Schedule below is acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for water supply purposes.

Dated at Nowra this 2nd day of August 2006.

RUSS PIGG,  
General Manager

**SCHEDULE****INTEREST IN LAND**

Easement rights for Water Pipeline the terms of which are shown hereunder over the site shown in Deposited Plan 1065111 as:

‘(B) PROPOSED EASEMENT FOR WATER PIPELINE 8 WIDE’ within Crown Public Road Between Lot 5 DP1017929 & Lot 56 DP755971

**EASEMENT FOR WATER PIPELINE**

FULL AND FREE RIGHT AND LIBERTY for the Authority benefited its officers servant and agents and every person authorised by it to lay down pipes and necessary surface valves for water supply purposes and use and maintain such pipes and valves through and under the easement TOGETHER WITH FULL AND FREE RIGHT AND LIBERTY from time to time and at all times to inspect the condition of the pipes and to cleanse maintain mend repair and relay such pipes or valves or any part thereof and for such purposes or any of them at all reasonable times with or

without surveyors workmen materials machinery implements and other persons and things to pass and re-pass and with or without vehicles to enter into and upon the servient tenement and to bring and place and have thereon to remove therefrom carry away use and leave any of the clay, sand, gravel, stones and earth which shall be taken out of the land comprising the servient tenement and to do all such acts and things which may be deemed necessary for the above purpose by the Authority benefited PROVIDED THAT in carrying out or performing any such inspection, cleansing, maintenance, mending, renewing, repairing, relaying or replacing of such lines of pipes and valves and excavating, taking up, renewing, repairing, relaying or replacing the surface of the servient tenement the Authority benefited shall make as little disturbance on or do as little damage as possible to the

servient tenement and shall with all practicable speed restore and make good all or any such damage or disturbance and as far as practicable and with all reasonable speed restore the surface of the servient tenement to its former state and condition as existed prior to the undertaking of any works on the servient tenement. [2791]

### TAMWORTH REGIONAL COUNCIL;

#### New Bridge Name

NOTICE is hereby given that the Tamworth Regional Council proposes that the newly constructed bridge on Heiligmans Lane over the Timbumburi Creek located in Warral, approximately 4.5 kilometres from Tamworth be named the "Edenvale Bridge". [2792]

### GRIFFITH CITY COUNCIL

#### Local Government Act 1993

#### Sale of Land for Unpaid Rates

NOTICE is hereby given to the person(s) named hereunder that the Council of the City of Griffith has resolved, in pursuance of section 713 of the Local Government Act 1993, to sell the land described hereunder (of which the person(s) named are known to the Council to be the owner(s) or to have an interest) and on which the amount of rates and charges stated in each case, as at 30 June 2006, is due:

<i>Owner(s) or Person(s) having interest in the land</i>	<i>Description of the land (Lot, Section, Deposited Plan and Street Address)</i>	<i>Amount of rates &amp; charges overdue for more than 5 years</i>	<i>Interest accrued on amount on column (c)</i>	<i>Amount of all other rates &amp; charges due and in arrears</i>	<i>Interest accrued on amount in column (e)</i>	<i>Total</i>
<i>(a)</i>	<i>(b)</i>	<i>(c)</i>	<i>(d)</i>	<i>(e)</i>	<i>(f)</i>	<i>(g)</i>
Charles Shaw, Robert Rowley Briggs, Eric De Burgh Cuningham, George Robert Mayben Campbell, Walter William Heywood Tyson as Joint Tenants	Lot 1 DP 347258 City of Griffith Parish of Mirrool County of Sturt	\$2,122.11	\$611.72	\$2,007.84	\$1,453.47	\$6,195.14

In default of payment to the Council of the amount stated in Column (g) above and any other rates and charges (including extra charges) becoming due and payable after publication of this notice, or any arrangements satisfactory to the Council for payment of all such rates and charges being entered into by the rateable person before the time fixed for the sale, the said land will be offered for sale by Public Auction by Mr Alister Watt, Licensed Auctioneer, at the offices of Rawlinson & Brown, 50-56 Banna Avenue, on Wednesday, 21 February 2007 at 2.00pm. Any personal information submitted to Griffith City Council will be dealt with according to the Privacy and Personal Information Protection Act 1998, the Freedom of Information Act 1993 and the Local Government Act (1993). P. BROOKS, General Manager, PO Box 485, Griffith NSW 2680. [2793]

### ESTATE NOTICES

NOTICE of intended distribution of estate.—Any person having any claim upon the estate of HILDA MYRTLE THOMPSON, late of Unit 124, "The Grange", McAuley Place, Waitara, in the State of New South Wales, retired secretary, who died on 16 February, 2006 must send particulars of his/her claim to the executors, Peter Czat Oliver Thompson and Paul Raymond Thompson, c.o. Collins & Thompson, Solicitors, 8 Coronation Street, Hornsby NSW 2077 within one calendar month from publication of this notice. After that time the assets of the estate may be conveyed and distributed having regard only to the claims of which at the time of conveyance or distribution the executors have notice. Probate was granted in New South Wales on 26 October, 2006. COLLINS & THOMPSON, Solicitors, 8 Coronation Street, Hornsby NSW 2077, tel.: (02) 9476 2788. [2794]

NOTICE of intended distribution of estate.—Any person having any claim upon the estate of PHYLLIS ROBERTA SCARLETT, late of Masonic Towers, Lowe Road, Hornsby in the State of New South Wales, Retired Nursing Sister, who died on 25 May 2006, must send particulars of his/her claim to the Executor, Stephen Hugh Scarlett, c.o. Collins & Thompson, Solicitors, 8 Coronation Street, Hornsby NSW 2077, within one calendar month from publication of this notice. After that time the assets of the estate may be conveyed and distributed having regard only to the claims of which at the time of conveyance or distribution the Executor has notice. Probate was granted in New South Wales on 7 November 2006. COLLINS & THOMPSON, Solicitors, 8 Coronation Street, Hornsby NSW 2077, tel.: (02) 9476 2788. [2795]

NOTICE of intended distribution of estate.—Any person having any claim upon the Estate of KEVIN RONALD BOWMAN late of Bronte, Engineer who died on 26 March, 2006, must send particulars of the claim to the Executor, Sheilah Milroy, at c.o. ADAMS RAVES MARSH & CO., Solicitors, Level 9, 227 Elizabeth Street, Sydney 2000 within one calendar month from publication of this Notice. After that time, the assets of the Estate will be distributed having regard only to the claims of which at the time of distribution the executor has notice. Probate was granted in New South Wales on 10 August, 2006. ADAMS RAVES MARSH & CO., Solicitors, Level 9, 227 Elizabeth Street, Sydney NSW 2000 (DX 255 Sydney) tel.: 9264 3066. [2796]

### COMPANY NOTICES

NOTICE of voluntary winding up.—ST GEORGE STARR-BOWKETT CO-OPERATIVE SOCIETY No. 22 SECTION LIMITED (in voluntary liquidation).—At a special meeting of the abovenamed society duly convened and held at Newtown on 9 November 2006, the subjoined special resolution was duly passed. It was resolved that: (1) The Society be wound voluntarily. (2) The Maree Emery, c.o. 43 Enmore Road, Newtown NSW 2042, be appointed liquidator at a fee of Two Thousand Dollars (\$2,000.00) or such lesser fee as may be determined by the Co-operative Advisory Council. (3) That the liquidator be empowered to compromise with debtors and/or creditors. D. L. SCUTTS, Director, A. R. Parker, Secretary, c.o. Newtown United Co-operative Building Association, 43 Enmore Road, Newtown NSW 2042, tel.: (02) 9557 1898. [2797]

NOTICE of voluntary liquidation.—ST GEORGE STARR-BOWKETT CO-OPERATIVE SOCIETY No. 21 SECTION LIMITED (in voluntary liquidation), Registered Office: 43 Enmore Road, Newtown, NSW 2042.—Notice is hereby given that all persons having any claims against the above Society are required, on or before 8 December 2006, to send their names and addresses and particulars of their debts and claims to Maree Emery, the Liquidator of the said Society, at her office and if so required by notice in writing from the said liquidator, are personally or by their Solicitors to come in and prove their debts or claims at such time and place as shall be specified in such notice, or in default thereof they shall be excluded from the benefits of any distribution made before such debts are so lodged or proved. Dated at Newtown 9th November 2006. M. EMERY, Liquidator, c.o. Newtown United Co-Operative Building Association, 43 Enmore Road, Newtown NSW 2042, tel.: (02) 9557 1898. [2798]

NOTICE of final general meeting.—DYLFY PTY LIMITED, ACN 003 294 595 (in voluntary liquidation).—In accordance with section 509 of the Corporations Act, notice is hereby given that the final general meeting of the abovenamed company will be held on 18 December 2006 at 10.00 am, for the purpose of having laid before it by the liquidator an account showing how the winding up has been conducted and the manner in which the assets of the company have been distributed and a hearing of an explanation of the account by the liquidator and to authorise the liquidator to destroy all books and records of the company on completion of all duties. Dated 14 November 2006. LORETTA RABBITT, Liquidator Shrubsole & Rabbitt Services Pty Limited, Suite 15, 838 Old Princes Highway, Sutherland NSW 2232, tel.: (02) 9521 2122. [2799]

NOTICE of final general meeting.—KIZNOT PTY LIMITED, ACN 003 219 690 (in voluntary liquidation).—In accordance with section 509 of the Corporations Act, notice is hereby given that the final general meeting of the abovenamed company will be held on 18 December 2006 at 11.00 am, for the purpose of having laid before it by the liquidator an account showing how the winding up has been conducted and the manner in which the assets of the company have been distributed and a hearing of an explanation of the account by the liquidator and to authorise the liquidator to destroy all books and records of the company on completion of all duties. Dated 14 November 2006. LORETTA RABBITT, Liquidator Shrubsole & Rabbitt Services Pty Limited, Suite 15, 838 Old Princes Highway, Sutherland NSW 2232, tel.: (02) 9521 2122. [2800]

NOTICE of final meeting of members.—MEGHAVEN ENTERPRISES PTY LIMITED, ACN 000 941 177 (in liquidation).—Notice is hereby given that pursuant to section 509 of the Corporations Act 2001, the final meeting of members of the abovementioned company will be held at the offices of Booth Partners of 52 Osborne Street, Nowra on the 15 day of December 2006 at 10:00 am for the purpose of laying before the meeting liquidators' final account and report and giving any explanation thereof. Dated 17 November 2006. ALLAN W. BARNES, liquidator, 52 Osborne Street, Nowra NSW 2541, tel.: (02) 4421 4344. [2801]

### OTHER NOTICES

#### ENERGYAUSTRALIA

Electricity Supply Act 1995

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land  
and an Interest in Land

Tanilba Bay

ENERGYAUSTRALIA declares, with the approval of Her Excellency the Governor and the Executive Council, that the land and easement described in Schedule 1 of this notice are acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for the purposes of the Electricity Supply Act 1995.

Dated at Sydney this 2nd day of November 2006.

Signed, sealed and delivered for and on behalf of EnergyAustralia by GRANT KENNETH GREENE-SMITH its duly constituted Attorney pursuant to Power of Attorney registered Book 4476, No. 983, who declares that he holds the position set out beneath his signature.

G. GREENE-SMITH,  
Manager,  
Property Portfolio

G. SMITH,  
Witness.

#### SCHEDULE 1

All that pieces or parcel of land at Tanilba Bay situated in the Local Government Area of the City of Port Stephens, Parish of Sutton, County of Gloucester and State of New South Wales, being Lot 1272 in Deposited Plan No. 1068860 being part of Lot 127 in Deposited Plan 753194 and said to

be in the possession of the Crown. Easement for electricity transmission line and access thereto 30 wide marked (1) in Deposited Plan 1068860 and being over all that piece or parcel of land at Tanilba Bay situated in the Local Government Area of the City of Port Stephens, Parish of Sutton, County of Gloucester and State of New South Wales being Lot 1272 in Deposited Plan 1068860 and said to be in the possession of the Crown. [2802]

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**ENERGYAUSTRALIA**

Electricity Supply Act 1995

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land  
and an Interest in Land

Dora Creek

ENERGYAUSTRALIA declares, with the approval of Her Excellency the Governor and the Executive Council, that the easement over the land described in Schedule 1 of this notice is acquired by compulsory process in accordance with the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for the purposes of the Electricity Supply Act 1995.

Dated at Sydney this 7th day of November 2006.

Signed, sealed and delivered for and on behalf of EnergyAustralia by GRANT KENNETH GREENE-SMITH its duly constituted Attorney pursuant to Power of Attorney registered Book 4476, No. 983, who declares that he holds the position set out beneath his signature.

G. GREENE-SMITH,  
Manager,  
Property Portfolio

W. WEEKLEY,  
Witness.

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**SCHEDULE 1**

Easement for electricity transmission lines and access thereto marked (A) and (B) in Deposited Plan No. 1050934 comprised within Lot 116 in Deposited Plan No 755218 with respect to the above part shown (B) and over all that piece or parcel of land at Dora Creek situated in the Local Government Area of the City of Lake Macquarie, Parish of Coorumbung, County of Northumberland and State of New South Wales being Crown Land with respect to the part shown (A) and said to be in the possession of the Crown. [2803]

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