



Queensland

# Water Resource (Pioneer Valley) Amendment Plan (No. 1) 2009

## Subordinate Legislation 2009 No. 212

made under the

*Water Act 2000*

## Contents

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		Page
1	Short title .....	7
2	Plan amended .....	7
3	Amendment of s 2 (Purposes of plan) .....	7
4	Insertion of new ss 5A and 5B .....	7
	5A Groundwater management area and groundwater sub-areas .....	7
	5B Watercourse area and declaration about watercourse—Act, s 1006(2) .....	7
5	Amendment of s 6 (Information about areas) .....	8
6	Amendment of s 7 (Nodes) .....	8
7	Amendment of s 8 (Water to which plan applies) .....	8
8	Insertion of new s 8A .....	9
	8A Outcomes for water in plan area .....	9
9	Amendment of s 9 (General outcomes) .....	9
10	Insertion of new s 9A .....	10
	9A General outcomes for groundwater .....	10
11	Amendment of s 10 (General ecological outcomes) .....	11
12	Replacement of pt 3, div 2 hdg (Ecological outcomes for particular parts of the plan area) .....	12
13	Amendment of s 12 (Estuaries) .....	12
14	Amendment of s 13 (Blacks Creek and Pioneer River) .....	12

Contents

---

15	Amendment of s 14 (Subcatchment areas 2, 3 and 4) . . . . .	12
16	Amendment of s 15 (Subcatchment area 12). . . . .	13
17	Amendment of s 16 (Palm Tree Creek) . . . . .	13
18	Amendment of s 17 (Silver Creek) . . . . .	13
19	Amendment of s 18 (Teemurra Creek) . . . . .	13
20	Insertion of new pt 3, div 3 . . . . .	13
	Division 3        General ecological outcomes for groundwater	
	18A        General ecological outcomes . . . . .	14
21	Insertion of new pt 4, div 1, sdiv 1 hdg . . . . .	14
22	Amendment of s 19 (Performance indicators for environmental flow objectives) . . . . .	14
23	Amendment of s 20 (Environmental flow objectives) . . . . .	14
24	Insertion of new pt 4, div 1, sdiv 2 . . . . .	15
	Subdivision 2    Groundwater	
	20A        Environmental flow objectives . . . . .	15
	20B        Performance indicators for environmental flow objectives—relevant groundwater-dependent ecosystems . . . . .	15
	20C        Performance indicator for environmental flow objectives—seawater intrusion. . . . .	15
25	Amendment of s 21 (Performance indicators for water allocation security objectives). . . . .	16
26	Amendment of s 22 (Water allocation security objectives). . . . .	16
27	Insertion of new pt 4A. . . . .	16
	Part 4A        General strategies for achieving outcomes for surface water and groundwater	
	Division 1       Particular strategies for achieving outcomes	
	22A        Amending in conjunction water licences and standby water licences . . . . .	16
	22B        Nominal entitlement or annual volumetric limit. . . . .	18
	Division 2       Moratorium notices and arrangements for applications made before 25 June 2003	
	22D        Continued effect of moratorium notice published on 25 June 2003 and subsequently amended—Act, s 46(3) . . . . .	21
	22E        Particular applications accepted but not dealt with before 25 June 2003. . . . .	23
	Division 3       Measuring devices	
	22F        Volume . . . . .	24

	22G	Electrical conductivity—groundwater . . . . .	24
28		Amendment of pt 5, hdg (Strategies for achieving outcomes) . . .	25
29		Amendment of s 23 (Decisions consistent with objectives) . . . . .	25
30		Amendment of s 24 (Assessing impact of decisions). . . . .	25
31		Amendment of s 25 (Taking or interfering with water from waterholes or lakes) . . . . .	25
32		Amendment of s 26 (Matters chief executive must consider). . . . .	26
33		Amendment of s 27 (Licences for unallocated water in subcatchment area 12). . . . .	26
34		Insertion of new s 30A . . . . .	26
	30A	Granting water licences to take declared water . . . . .	26
35		Amendment of s 33 (Conditions of authorisations) . . . . .	27
36		Amendment of s 34 (Location for taking water) . . . . .	27
37		Amendment of s 40 (Nominal volume for unsupplemented water)	27
38		Amendment of s 45 (Water allocation groups for unsupplemented water allocations) . . . . .	28
39		Replacement of s 46 (Volume of unsupplemented water) . . . . .	28
	46	Water licences to take unsupplemented water . . . . .	28
40		Amendment of s 47 (Annual volumetric limit for unsupplemented water) . . . . .	29
41		Insertion of new s 48A . . . . .	29
	48A	Purpose to be stated on water licence . . . . .	29
42		Replacement of pt 5, div 7, hdg (Moratorium notice) . . . . .	30
43		Insertion of new s 48B . . . . .	30
	48B	Taking declared water for stock or domestic purposes authorised. . . . .	30
44		Amendment, relocation and renumbering of s 49 (Continued effect of moratorium notice—Act, s 46(3)) . . . . .	30
45		Insertion of new pt 5A. . . . .	30
	Part 5A	Strategies for achieving outcomes (groundwater)	
	Division 1	Preliminary	
	49	Decisions consistent with objectives . . . . .	31
	49A	Assessing impact of decisions . . . . .	31
	49B	Limitation on taking groundwater—Act, s 20(6) . . . . .	32
	49C	Restrictions on taking groundwater . . . . .	32
	49D	Decisions not to increase amount of groundwater taken . . . . .	33

Contents

---

Division 2	Environmental management rules, water sharing rules and water allocation change rules	
49E	Matters to be considered for environmental management rules . . . . .	35
49F	Matters to be considered for water sharing rules . . . . .	36
49G	Matters to be considered for water allocation change rules . . . . .	37
Division 3	Unallocated groundwater	
49H	Unallocated groundwater . . . . .	38
Division 4	Authorisations for purpose other than stock or domestic purposes	
49I	Taking groundwater using existing works authorised . . . . .	38
Division 5	Granting water licences	
49J	Granting water licences for authorisation 4 . . . . .	39
Division 6	Converting authorisations to water allocations	
49K	Application of div 6 . . . . .	39
49L	Elements of a water allocation . . . . .	39
49M	Nominal volume . . . . .	40
49N	Annual volumetric limit . . . . .	41
49O	Purpose to be stated on water allocation . . . . .	42
49P	Conditions for water allocations . . . . .	42
49Q	Water allocation groups . . . . .	42
Division 7	Amending water licences	
Subdivision 1	Amending particular water licences	
49R	Authorisations 5, 14, 15 and 16—Act, s 217 . . . . .	42
Subdivision 2	Amending water licences generally	
49S	Application of sdiv 2 . . . . .	43
49T	Elements of water licences. . . . .	43
49U	Nominal entitlement . . . . .	43
49V	Purpose to be stated on water licence . . . . .	44
49W	Conditions may be imposed on water licences . . . . .	44
Subdivision 3	Annual entitlements for particular water licences	
49X	Authorisation 8, 10 or 12 . . . . .	44
49Y	Authorisation 5, 13 or 15 . . . . .	45
49Z	Announced entitlement. . . . .	45

	Division 8	Review of particular water licences	
	49ZA	Process and criteria for review . . . . .	46
	Division 9	Authorisations for stock or domestic purposes	
	49ZB	Taking groundwater authorised . . . . .	48
	Division 10	Miscellaneous	
	49ZC	Relationship with Integrated Planning Act 1997 . . . . .	49
46		Amendment of s 50 (Monitoring) . . . . .	50
47		Amendment of s 54 (Implementation schedule) . . . . .	50
48		Amendment of s 56 (Minor amendment of plan—Act, s 57) . . . . .	51
49		Replacement of schs 1–3 . . . . .	52
	Schedule 1	Plan area and location of surface water nodes	
	Schedule 2	Subcatchment areas	
	Schedule 2A	Groundwater management area and location of groundwater nodes	
	Schedule 2B	Groundwater sub-areas	
	Schedule 2C	Watercourse area	
	Schedule 3	Nodes	
50		Amendment of sch 4 (Environmental flow objectives) . . . . .	60
51		Amendment of sch 5 (Water allocation security objectives) . . . . .	63
52		Amendment of sch 6 (Total volumes for water allocation groups)	64
53		Insertion of new sch 6A . . . . .	67
	Schedule 6A	Annual volumetric limit for groundwater	
54		Amendment of sch 7 (Rates and pump sizes) . . . . .	68
55		Replacement of sch 8 (Water allocation groups) . . . . .	68
	Schedule 8	Water allocation groups	
56		Amendment of sch 9 (Priority areas) . . . . .	70
57		Insertion of new schs 9A–9C . . . . .	70
	Schedule 9A	Coastline and seawater intrusion baseline	
	Schedule 9B	Domestic areas	
	Schedule 9C	Annual entitlement	
	Part 1	2009–2010 water year	
	1	Groundwater sub-area 11, 15, 16 or 17 . . . . .	73
	Part 2	2010–2011 water year	
	2	Groundwater sub-area 11, 15, 16 or 17 . . . . .	74
	Part 3	2011–2012 water year	
	3	Groundwater sub-area 11, 15A or 15B . . . . .	74

Contents

---

4	Groundwater sub-area 15C, 15D, 16 or 17 . . . . .	75
Part 4	2012–2013 water year	
5	Groundwater sub-area 11, 15, 16 or 17—electrical conductivity of less than 1500 $\mu$ S/cm . . . . .	76
6	Groundwater sub-area 11, 15, 16 or 17—electrical conductivity of 1500 $\mu$ S/cm or more . . . . .	77
Part 5	2013–2014 water year	
7	Groundwater sub-area 11, 15, 16 or 17—electrical conductivity of less than 1500 $\mu$ S/cm . . . . .	78
8	Groundwater sub-area 11, 15, 16 or 17—electrical conductivity of 1500 $\mu$ S/cm or more . . . . .	78
58	Amendment of sch 10 (Dictionary) . . . . .	79

**1 Short title**

This plan may be cited as the *Water Resource (Pioneer Valley) Amendment Plan (No. 1) 2009*.

**2 Plan amended**

This plan amends the *Water Resource (Pioneer Valley) Plan 2002*.

**3 Amendment of s 2 (Purposes of plan)**

Section 2—

*insert—*

‘(f) to regulate the taking of groundwater.’.

**4 Insertion of new ss 5A and 5B**

After section 5—

*insert—*

**‘5A Groundwater management area and groundwater sub-areas**

‘(1) The groundwater management area is the area shown on the map in schedule 2A.

‘(2) Each part of the groundwater management area that is within a groundwater sub-area shown on the map in schedule 2B is a groundwater sub-area for this plan.

‘(3) A groundwater sub-area contains all the aquifers in the groundwater sub-area.

**‘5B Watercourse area and declaration about watercourse—Act, s 1006(2)**

‘(1) The watercourse area is the part of the plan area shown on the map in schedule 2C.

[s 5]

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- ‘(2) Groundwater in an aquifer under a watercourse, or under land adjacent to a watercourse, in the watercourse area is declared to be water in a watercourse (*declared water*).’.

## 5 Amendment of s 6 (Information about areas)

Section 6(1)—

*omit, insert—*

- ‘(1) The exact location of the following is held in digital electronic form by the department—
- (a) the boundaries of the plan area, subcatchment areas, groundwater management area, groundwater sub-areas, watercourse area and domestic areas;
  - (b) the coastline and seawater intrusion baseline.’.

## 6 Amendment of s 7 (Nodes)

- (1) Section 7(1)(a), after ‘area’—

*insert—*

‘or in the groundwater management area’.

- (2) Section 7(2), after ‘schedule 1’—

*insert—*

‘or schedule 2A’.

- (3) Section 7(3), after ‘alphabet’—

*insert—*

‘or number’.

## 7 Amendment of s 8 (Water to which plan applies)

- (1) Section 8(a), after ‘spring’—

*insert—*

‘(*surface water*)’.

- (2) Section 8(b)—



---

*omit, insert—*

‘(b) groundwater.’.

## **8 Insertion of new s 8A**

Part 3, division 1—

*insert—*

### **‘8A Outcomes for water in plan area**

‘Water is to be allocated and sustainably managed in a way that—

- (a) recognises the natural state of watercourses, lakes, springs and aquifers has changed because of water infrastructure, flow supplementation and the taking of water; and
- (b) seeks to achieve a balance in the following outcomes—
  - (i) the general outcomes mentioned in sections 9 and 9A;
  - (ii) the general ecological outcomes mentioned in sections 10 and 18A;
  - (iii) the specific ecological outcomes mentioned in sections 12 to 18.’.

## **9 Amendment of s 9 (General outcomes)**

- (1) Section 9, heading, after ‘outcomes’—

*insert—*

**‘for surface water and groundwater’.**

- (2) Section 9, from ‘Water’ to ‘outcomes—’—

*omit, insert—*

‘Each of the following is a general outcome for water in the plan area—’.

- (3) Section 9(c) and (d), ‘additional water’—

*omit, insert—*

[s 10]

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- ‘additional surface water’.
- (4) Section 9(c), ‘saltwater’—  
*omit, insert—*  
‘seawater’.
- (5) Section 9(f), ‘with water’—  
*omit, insert—*  
‘with surface water’.
- (6) Section 9(i), after ‘ecosystems’—  
*insert—*  
‘including natural groundwater-dependent ecosystems’.

## **10 Insertion of new s 9A**

After section 9—

*insert—*

### **‘9A General outcomes for groundwater**

- ‘(1) Each of the following is a general outcome for groundwater in the plan area—
- (a) to maintain the capability of a part of a groundwater flow system to be connected to a watercourse, lake or spring where there are users of surface water dependent on baseflow;
  - (b) to provide for the continued use of water entitlements and other authorisations to take groundwater in a groundwater sub-area, other than water entitlements and other authorisations to take groundwater in an affected groundwater sub-area (the *affected water entitlements*);
  - (c) to provide the opportunity to recover, in affected groundwater sub-areas, the use of the affected water entitlements;
  - (d) to maintain and protect, where practicable, the quality of groundwater for consumptive purposes;

*Example of a consumptive purpose—*

irrigation

(e) to prevent further seawater intrusion.

‘(2) In this section—

***affected groundwater sub-area*** means a groundwater sub-area affected or likely to be affected by seawater intrusion to the extent that the ability to take water under a water entitlement is reduced or extinguished.

***groundwater flow system*** means a discrete 3 dimensional system through which groundwater flows from the area where groundwater is recharged to the area where groundwater is discharged from the system.

***groundwater sub-area*** means a groundwater sub-area or part of a groundwater sub-area.’.

## 11 Amendment of s 10 (General ecological outcomes)

(1) Section 10, heading, after ‘outcomes’—

*insert—*

**‘for surface water and groundwater’.**

(2) Section 10, from ‘Water’ to ‘water—’—

*omit, insert—*

‘Each of the following is a general ecological outcome for water in the plan area—’.

(3) Section 10, ‘and springs’—

*omit, insert—*

‘, springs and groundwater’.

(4) Section 10(e), after ‘ecosystems’—

*omit, insert—*

‘and groundwater-dependent ecosystems’.

[s 12]

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**12 Replacement of pt 3, div 2 hdg (Ecological outcomes for particular parts of the plan area)**

Part 3, division 2 heading—

*omit, insert—*

**‘Division 2 Specific ecological outcomes for surface water’.**

**13 Amendment of s 12 (Estuaries)**

(1) Section 12(1), from ‘Water’ to ‘managed’—

*omit, insert—*

‘An ecological outcome for surface water is’.

(2) Section 12(2), from ‘water’ to ‘managed’—

*insert—*

‘an ecological outcome for surface water is’.

**14 Amendment of s 13 (Blacks Creek and Pioneer River)**

(1) Section 13(1), before ‘water’—

*insert—*

‘surface’.

(2) Section 13(2), from ‘The’ to ‘managed’—

*omit, insert—*

‘An ecological outcome for the water is’.

**15 Amendment of s 14 (Subcatchment areas 2, 3 and 4)**

Section 14, from ‘Water’ to ‘managed’—

*omit, insert—*

‘An ecological outcome for surface water in subcatchment area 2, 3 or 4 is’.

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**16 Amendment of s 15 (Subcatchment area 12)**

Section 15, from ‘Water’ to ‘intrusion’—

*omit, insert—*

‘An ecological outcome for surface water in subcatchment area 12 is to reduce seawater intrusion’.

**17 Amendment of s 16 (Palm Tree Creek)**

Section 16, from ‘Water’ to ‘managed’—

*omit, insert—*

‘An ecological outcome for surface water in Palm Tree Creek downstream of the diversion pipeline outlet from Teemburra Dam is’.

**18 Amendment of s 17 (Silver Creek)**

Section 17, from ‘Water’ to ‘managed’—

*omit, insert—*

‘An ecological outcome for surface water in Silver Creek downstream of the outlet for the diversion channel for surface water from Cattle Creek is’.

**19 Amendment of s 18 (Teemburra Creek)**

Section 18, from ‘Water’ to ‘managed’—

*omit, insert—*

‘An ecological outcome for surface water in Teemburra Creek downstream of Teemburra Dam is’.

**20 Insertion of new pt 3, div 3**

Part 3—

*insert—*

[s 21]

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## **‘Division 3                    General ecological outcomes for groundwater**

### **‘18A    General ecological outcomes**

‘Each of the following is a general ecological outcome for groundwater in the plan area—

- (a) to maintain biological diversity of groundwater-dependent ecosystems;
- (b) to maintain groundwater levels at depths, and groundwater flows, providing for the groundwater requirements of groundwater-dependent ecosystems;
- (c) to maintain the capability of groundwater to flow from a part of an aquifer to another part of the aquifer or to watercourses, lakes, estuaries, near-shore marine systems or wetlands.’.

### **21        Insertion of new pt 4, div 1, sdiv 1 hdg**

Part 4, division 1, before section 19—

*insert—*

### **‘Subdivision 1        Surface water’.**

### **22        Amendment of s 19 (Performance indicators for environmental flow objectives)**

Section 19—

*insert—*

- ‘(d) for assessing baseflow in subcatchment area 12—
- (i) daily flow less than 1ML; and
  - (ii) daily flow less than 50ML.’.

### **23        Amendment of s 20 (Environmental flow objectives)**

Section 20, from ‘this plan’—

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*omit, insert—*

‘surface water are stated in schedule 4, parts 1 to 4.’.

**24 Insertion of new pt 4, div 1, sdiv 2**

Part 4, division 1—

*insert—*

**‘Subdivision 2 Groundwater**

**‘20A Environmental flow objectives**

‘The environmental flow objectives for groundwater are stated in schedule 4, parts 5 and 6.

**‘20B Performance indicators for environmental flow objectives—relevant groundwater-dependent ecosystems**

‘The performance indicators for the environmental flow objectives for assessing flow to a relevant groundwater-dependent ecosystem are—

- (a) level 1 drawdown deviation; and
- (b) level 2 drawdown deviation.

**‘20C Performance indicator for environmental flow objectives—seawater intrusion**

‘(1) The performance indicator for the environmental flow objectives for assessing the extent of seawater intrusion is the maximum seawater intrusion area.

‘(2) In this section—

*seawater intrusion area* means the area of land, expressed in hectares, between the coastline and the seawater intrusion front.’.

[s 25]

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**25 Amendment of s 21 (Performance indicators for water allocation security objectives)**

Section 21—

*insert—*

‘(c) for taking groundwater—the annual volume probability.’.

**26 Amendment of s 22 (Water allocation security objectives)**

Section 22—

*insert—*

‘(c) for water allocations to take groundwater—schedule 5, part 3.’.

**27 Insertion of new pt 4A**

After section 22—

*insert—*

**‘Part 4A General strategies for achieving outcomes for surface water and groundwater**

**‘Division 1 Particular strategies for achieving outcomes**

**‘22A Amending in conjunction water licences and standby water licences**

‘(1) This section applies to the following water licences (each a *relevant licence*)—

- (a) an in conjunction water licence;
- (b) a standby water licence.



- 
- ‘(2) Within 60 business days after the plan amendment day, the chief executive must amend, under section 217 of the Act, the relevant licences for consistency with subsections (3) to (5).
- ‘(3) A relevant licence amended under this section (an *amended licence*) must state—
- (a) for a relevant licence to take unsupplemented water that states the maximum area that may be irrigated—the maximum area, that must be 0.49 of the maximum area stated on the licence, rounded up to the nearest whole number and expressed in hectares; or
  - (b) for a relevant licence to take groundwater that states a nominal entitlement—the nominal entitlement, rounded up to the nearest whole number, that is—
    - (i) if a meter is used to measure the volume of water taken under the licence—the greater of the following—
      - (A) the maximum volumetric take of groundwater under the licence in a water year, metered during the period of not more than 10 years immediately before 30 November 2007, that must be no more than the nominal entitlement stated on the relevant licence;
      - (B) 0.49 of the nominal entitlement stated on the relevant licence; or
    - (ii) if a meter is not used to measure the volume of water taken under the licence—0.49 of the nominal entitlement stated on the licence as at the plan amendment day.
- ‘(4) An amended licence must also state a purpose mentioned in—
- (a) for an amended licence to take unsupplemented water—section 48A; or
  - (b) for an amended licence to take groundwater—section 49V.

[s 27]

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- ‘(5) Any conditions stated on a relevant licence that authorises the taking of surface water from the Eton water supply scheme must be removed.

## ‘22B Nominal entitlement or annual volumetric limit

- ‘(1) The chief executive must decide the following—
- (a) the nominal entitlement for a water licence to take declared water in the watercourse area granted under section 30A;
  - (b) the nominal entitlement for a water licence to take groundwater in the part of the undeclared area in groundwater sub-area 1, 2, 3, or 15 granted under section 49J;
  - (c) the annual volumetric limit for a water allocation to take groundwater mentioned in section 49K converted from authorisation 3.
- ‘(2) The nominal entitlement or annual volumetric limit must not be more than the estimated volume to take groundwater for the entitlement.
- ‘(3) However, if the chief executive is satisfied the volume of groundwater taken during the relevant period (a *higher volume*) is more than the estimated volume, the chief executive may decide a nominal entitlement or annual volumetric limit that is more than the estimated volume.
- ‘(4) In considering whether a higher volume of groundwater was taken during the relevant period, the chief executive must have regard to each of the following—
- (a) the capacity of existing works to take groundwater as at the plan amendment day;
  - (b) the number of hours existing works were operated during the relevant period;
  - (c) for existing works for irrigation purposes—the volume of groundwater estimated by the chief executive to have been taken during the relevant period for irrigating crops grown during the period;

- 
- (d) for existing works for a purpose other than irrigation purposes—the volume of groundwater estimated by the chief executive to have been taken during the relevant period for the purpose;
  - (e) the efficiency of the use of the groundwater mentioned in paragraph (c) or (d);
  - (f) for existing works for taking water under a water licence to take groundwater in the Pioneer locality—the nominal entitlement stated on the licence;
  - (g) the availability of groundwater in the aquifer to which the works mentioned in paragraph (a), (b), (c), (d), or (f) relate;
  - (h) the availability of other water sources in the area to which the water entitlement relates;
  - (i) the density of water bores for taking groundwater in the area to which the water entitlement relates.

‘(5) Subsection (4) does not limit the matters the chief executive may consider.

‘(6) In this section—

***capacity of existing works*** means—

- (a) if the water bore for the works has a design pumping rate only—the design pumping rate for the bore; or
- (b) if the works have an equipped rate only—the equipped rate for the works; or
- (c) if the works have a design pumping rate and an equipped rate—the lesser of the design pumping rate for the bore, or the equipped rate, for the works.

***design pumping rate***, for a water bore, means the pumping rate—

- (a) at which the bore can be pumped without causing the bore’s pump to break suction; and
- (b) estimated from an analysis of a pumping test based on the drawdown available in the bore above the pump inlet that would sustain pumping for 70 consecutive days.

[s 27]

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***equipped rate***, for works, means the rate at which pumping equipment installed on the works can be pumped for the purposes for which the works are used.

***estimated volume***, to take groundwater for a water entitlement, means the least of the following—

- (a) the volume worked out by multiplying the capacity of existing works by the number of hours, that must not be more than 1200 hours, the chief executive decides having regard to—
  - (i) the efficiency of the use of groundwater using the works during the relevant period; and
  - (ii) the availability of other water sources in the area to which the water entitlement relates;
- (b) the volume of groundwater taken using existing works for irrigation purposes during the relevant period that must not be more than 3ML of water for each hectare irrigated;
- (c) the volume of groundwater taken using existing works for a purpose other than irrigation purposes during the relevant period that must not be more than 10ML;
- (d) the volume of groundwater taken under a water licence to take groundwater in the Pioneer locality using existing works that must not be more than the nominal entitlement stated on the licence;
- (e) the availability of groundwater in an aquifer that must not be more than 1ML/ha of aquifer under the land to which the works mentioned in paragraph (a), (b), (c) or (d) relate.

***existing works*** means works that the chief executive is satisfied were used or capable of being used to take groundwater for a purpose other than stock or domestic purposes on 24 June 2003.

***Pioneer locality*** means the Pioneer locality, declared by order in council published in the gazette on 21 June 1947.

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*relevant period* means each 1 year period during the period of not more than 10 years immediately before the plan amendment day.

## **‘Division 2                    Moratorium notices and arrangements for applications made before 25 June 2003**

### **‘22D    Continued effect of moratorium notice published on 25 June 2003 and subsequently amended—Act, s 46(3)**

- ‘(1) This section continues, in part, the effect of the moratorium notice published on 25 June 2003 and amended on 29 September 2005 and 28 June 2008.
- ‘(2) Subsection (3) applies to an application for a water licence to take or interfere with surface water in subcatchment area 13 or 14, or to take groundwater, made on or after 25 June 2003, if granting the application would have 1 or more of the following effects—
  - (a) increase the amount of water that may be taken or interfered with;
  - (b) change the location from which the water may be taken or interfered with;
  - (c) increase the maximum rate for taking or interfering with the water.
- ‘(3) The application will not be accepted until the resource operations plan is approved.
- ‘(4) However, subsection (3) does not apply to an application—
  - (a) to reinstate, under section 221 of the Act, an expired water licence; or
  - (b) to amalgamate, under section 224 of the Act, 2 or more water licences in force immediately before the plan amendment day; or

[s 27]

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- (c) to replace, under section 225 of the Act, an original licence with 2 or more water licences; or
  - (d) to replace, under section 229 of the Act, an expired licence with 1 or more water licences.
- ‘(5) Works to take groundwater must not be physically started.
- ‘(6) However, subsection (5) does not apply to the following works—
- (a) works for taking groundwater for stock or domestic purposes on land in domestic area A other than a part of the area affected by seawater intrusion;
  - (b) works for taking groundwater for stock or domestic purposes on land in domestic area B, other than a part of the area affected by seawater intrusion, if there are no existing works on the land and—
    - (i) a plan of survey for a reconfiguration of the land is registered before 28 June 2008; or
    - (ii) a plan of survey for a reconfiguration of the land is registered on or after 28 June 2008 and the reconfiguration does not result in more lots being created on the land than existed immediately before the reconfiguration; or
    - (iii) a reconfiguration of the land is undertaken by a constructing authority under the *Acquisition of Land Act 1967* and the plan of survey for the reconfiguration of the land is registered on or after 28 June 2008; or
    - (iv) part of the land is acquired by voluntary acquisition for a public purpose by a constructing authority and the plan of survey for the acquisition is registered on or after 28 June 2008;
  - (c) works authorised by or associated with mining tenements granted under the *Mineral Resources Act 1989*;
  - (d) works, replacing existing works, to be constructed within 10m of the existing works.

‘(7) Completed, or partly completed, works existing immediately before the plan amendment day must not be changed, enlarged or deepened, other than works for town water supply west of 149° east.

‘(8) In this section—

*149° east* means the area described as 149° east worked out using the Geocentric Datum of Australia 1994, commonly called ‘GDA94’, notified in the Commonwealth Government Gazette No. GN 35 on 6 September 1995, at page 3369.

*existing works* means works for taking or interfering with water that the chief executive is satisfied were installed and operable before 28 June 2008.

## **‘22E Particular applications accepted but not dealt with before 25 June 2003**

‘(1) Subsection (2) applies to an application for a water licence to take or interfere with surface water in subcatchment area 13 or 14, or to take groundwater, accepted but not dealt with before 25 June 2003, if granting the application would have 1 or more of the following effects—

- (a) increase the amount of water that may be taken or interfered with;
- (b) change the location from which the water may be taken or interfered with;
- (c) increase the maximum rate for taking or interfering with the water.

‘(2) The application must be refused.

‘(3) However, subsection (2) does not apply to an application—

- (a) to reinstate, under section 221 of the Act, an expired water licence; or
- (b) to amalgamate, under section 224 of the Act, 2 or more water licences in force immediately before the plan amendment day; or

[s 27]

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- (c) to replace, under section 225 of the Act, an original licence with 2 or more water licences; or
- (d) to replace, under section 229 of the Act, an expired licence with 1 or more licences.

### **‘Division 3                    Measuring devices**

#### **‘22F    Volume**

- ‘(1) A measuring device must be used to measure the volume of water taken under a water entitlement for a purpose, other than stock or domestic purposes, in the plan area.
- ‘(2) Subsection (1) applies—
  - (a) from the day the water entitlements are declared to be metered entitlements under the *Water Regulation 2002*, part 7; and
  - (b) in the circumstances mentioned in part 7 of the regulation.

#### **‘22G    Electrical conductivity—groundwater**

- ‘(1) The chief executive must decide whether to install a meter for measuring and recording the electrical conductivity of groundwater taken under a water entitlement using a water bore on land in groundwater sub-area 11, 12, 13, 15, 16 or 17.
- ‘(2) In deciding whether to install the meter, the chief executive must have regard to—
  - (a) the electrical conductivity of the groundwater in the sub-area; and
  - (b) the proximity of the bore to the seawater intrusion front.
- ‘(3) If the chief executive decides to install the meter, it must be used from the day and in the circumstances mentioned in the resource operations plan.’



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**28 Amendment of pt 5, hdg (Strategies for achieving outcomes)**

Part 5, heading, after ‘outcomes’—

*insert—*

‘(surface water)’.

**29 Amendment of s 23 (Decisions consistent with objectives)**

(1) Section 23, after ‘management of’—

*insert—*

‘surface’.

(2) Section 23(a), after ‘schedule 4’—

*insert—*

‘, part 1, 2, 3 or 4’.

(3) Section 23(b), after ‘schedule 5’—

*insert—*

‘, part 1 or 2’.

**30 Amendment of s 24 (Assessing impact of decisions)**

Section 24(1), after ‘period’—

*insert—*

‘for surface water’.

**31 Amendment of s 25 (Taking or interfering with water from waterholes or lakes)**

Section 25(1)(c), ‘water’—

*omit, insert—*

‘surface water’.

[s 32]

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**32 Amendment of s 26 (Matters chief executive must consider)**

Section 26(1), ‘unallocated water’—

*omit, insert—*

‘unallocated surface water’.

**33 Amendment of s 27 (Licences for unallocated water in subcatchment area 12)**

(1) Section 27, before ‘water’—

*insert—*

‘surface’.

(2) Section 27(1) and (3), ‘annual volumetric limit’—

*omit, insert—*

‘nominal entitlement’.

(3) Section 27(1), ‘annual volumetric limits’—

*omit, insert—*

‘nominal entitlements’.

**34 Insertion of new s 30A**

Part 5, division 4—

*insert—*

**‘30A Granting water licences to take declared water**

‘(1) This section applies if, under section 37 of the Act, a regulation requires the owner of land in the watercourse area on which there are existing works for taking groundwater to notify the chief executive of the works and the water use.

‘(2) After the chief executive receives the notice, the chief executive must, under section 212 of the Act, grant a water licence to the owner to take declared water using the works.

‘(3) The licence must be—

- 
- (a) granted under a process stated in the resource operations plan; and
  - (b) consistent with part 5A, division 7.
- ‘(4) However, for the purpose of granting a water licence under this section, a reference in part 5A, division 7 to groundwater is taken to be a reference to declared water.
- ‘(5) In this section—  
*existing works* means works that the chief executive is satisfied were used or capable of being used to take groundwater for a purpose other than stock or domestic purposes on 24 June 2003.’.

**35 Amendment of s 33 (Conditions of authorisations)**

- (1) Section 33(1), before ‘water’—  
*insert—*  
‘surface’.
- (2) Section 33(2), ‘which water’—  
*omit, insert—*  
‘which surface water’.

**36 Amendment of s 34 (Location for taking water)**

- Section 34, before ‘water’—  
*insert—*  
‘surface’.

**37 Amendment of s 40 (Nominal volume for unsupplemented water)**

- Section 40, after ‘schedule 6,’—  
*insert—*  
‘table 1.’.

[s 38]

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**38 Amendment of s 45 (Water allocation groups for unsupplemented water allocations)**

(1) Section 45, after ‘schedule 8,’—

*insert—*

‘part 1,’

(2) Section 45(a), ‘and;’—

*omit, insert—*

‘; or’.

(3) Section 45(b)—

*renumber* as section 45(c).

(4) Section 45—

*insert—*

‘(b) for an authorisation to take declared water for a purpose other than stock or domestic purposes—the water allocation group mentioned in column 3 for the subcatchment area; or’.

(5) Section 45(c) as renumbered, ‘column 3’—

*omit, insert—*

‘column 4’.

**39 Replacement of s 46 (Volume of unsupplemented water)**

Section 46—

*omit, insert—*

**‘46 Water licences to take unsupplemented water**

‘(1) A water licence to take unsupplemented water must state—

(a) a nominal entitlement for the licence; and

(b) the maximum rate at which water may be taken under the licence; and

(c) the purpose for which water may be taken under the licence.

‘(2) The purpose stated on the water licence must be ‘rural’ or ‘any’.’.

**40 Amendment of s 47 (Annual volumetric limit for unsupplemented water)**

(1) Section 47, heading—

*omit, insert—*

**‘47 Nominal entitlement’.**

(2) Section 47(1) and (2), ‘annual volumetric limit’—

*omit, insert—*

‘nominal entitlement’.

(3) Section 47(2)(b)(ii)—

*renumber as section 47(2)(b)(iv).*

(4) Section 47(2)(b)(i)—

*omit, insert—*

‘(i) for a licence in subcatchment area 12 or 14—3.3;  
and

(ii) for a licence in subcatchment area 13—2.5; and

(iii) for a conditional licence other than in  
subcatchment area 12, 13 or 14—3.3; and’.

**41 Insertion of new s 48A**

Part 5, division 6—

*insert—*

**‘48A Purpose to be stated on water licence**

‘The purpose to be stated on a water licence to take unsupplemented water must be—

(a) if the purpose for which the water is being taken is agriculture, aquaculture, domestic, irrigation, stock, stock intensive or a similar purpose—‘rural’; or

(b) otherwise—‘any’.’.

[s 42]

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**42 Replacement of pt 5, div 7, hdg (Moratorium notice)**

Part 5, division 7, heading—

*omit, insert—*

**‘Division 7 Taking declared water for stock or domestic purposes’.**

**43 Insertion of new s 48B**

Part 5, division 7—

*insert—*

**‘48B Taking declared water for stock or domestic purposes authorised**

‘(1) This section applies to an owner of land—

(a) in the watercourse area; and

(b) not adjoining a watercourse in the watercourse area.

‘(2) The owner may take declared water in the area for stock or domestic purposes.’.

**44 Amendment, relocation and renumbering of s 49 (Continued effect of moratorium notice—Act, s 46(3))**

(1) Section 49, heading, after ‘notice’—

*insert—*

**‘published on 20 September 2000’.**

(2) Section 49(2) and (3), before ‘water’—

*insert—*

‘surface’.

(3) Section 49—

*relocate and renumber*, in part 4A, division 2, as section 22C.

**45 Insertion of new pt 5A**

After section 48B—

*insert—*

## **‘Part 5A                    Strategies for achieving    outcomes (groundwater)**

### **‘Division 1                Preliminary**

#### **‘49            Decisions consistent with objectives**

‘Decisions about the allocation or management of groundwater in the plan area, other than a decision relating to a water permit, must be consistent with—

- (a) the environmental flow objectives stated in schedule 4, part 5 or 6; and
- (b) the water allocation security objectives stated in schedule 5, part 3.

#### **‘49A    Assessing impact of decisions**

- ‘(1) The groundwater computer program’s simulation for the simulation period for groundwater is used to assess consistency with the environmental flow objectives and water allocation security objectives for groundwater.
- ‘(2) If it is not practicable to use the groundwater computer program, another assessment method approved by the chief executive may be used.
- ‘(3) The chief executive may approve an assessment method for subsection (2) only if the chief executive is satisfied the method will assess consistency with the objectives at least as accurately as the groundwater computer program.
- ‘(4) In this section—

***groundwater computer program*** means the MODFLOW computer program or MODHMS computer program.

***MODFLOW computer program*** means the department’s computer program and associated data files, and statistical and data processing programs, that simulate groundwater levels,

[s 45]

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groundwater demand, recharge and groundwater flows in parts of the plan area.

***MODHMS computer program*** means the department's computer program and associated data files, and statistical and data processing programs, that simulate groundwater levels, groundwater demand, recharge, groundwater flows, river flows and seawater intrusion in parts of the plan area.

**'49B Limitation on taking groundwater—Act, s 20(6)**

'A person may not take groundwater in the groundwater management area other than—

- (a) under a water permit; or
- (b) under a water entitlement; or
- (c) under an authorisation under section 49I or 49ZB.

**'49C Restrictions on taking groundwater**

'(1) This section applies to the chief executive in making a decision about—

- (a) changing a water allocation to take groundwater; or
- (b) a water licence to take groundwater; or
- (c) converting a water licence to take groundwater to a water allocation to take groundwater; or
- (d) taking groundwater involving an exchange between surface water and groundwater.

'(2) If the allocation or licence allows taking groundwater, the chief executive must—

- (a) consider the impact the taking may have on the ecological values of a waterhole, lake, hyporheic zone, or streamflow, connected to groundwater; and
- (b) consider the impact the cumulative taking may have on—
  - (i) surface water flows and groundwater flows; and



- 
- (ii) other water users; and
  - (iii) seawater intrusion or an area of poor water quality; and
  - (c) impose a condition on the allocation or licence about—
    - (i) maintaining the ecological values of a waterhole, lake, hyporheic zone, or streamflow, connected with the groundwater; or  
*Example for paragraph (c)(i)—*
      - a condition that the groundwater may be taken only if the water level in bore 12600022 is above 22m AHD
    - (ii) limiting the maximum daily, monthly or quarterly rates of take of groundwater.  
*Example for paragraph (c)(ii)—*
      - a condition that the maximum quarterly rate of take of groundwater is 25ML
- ‘(3) However, the chief executive need not impose a condition mentioned in subsection (2)(c) if the chief executive is satisfied—
- (a) the taking will not adversely impact on the ecological values or other water users; or
  - (b) for a water allocation or water licence that replaces an authorisation in force immediately before the plan amendment day—the holder of the authorisation would suffer economic hardship if the condition were imposed.
- ‘(4) Subsection (2) does not limit the matters the chief executive may consider.
- ‘(5) In this section—
- AHD** means Australian Height Datum.

**‘49D Decisions not to increase amount of groundwater taken**

- ‘(1) The chief executive must not make a decision about the allocation or management of groundwater in the plan area that would—

[s 45]

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- (a) increase the annual volumetric limits for water allocations to take groundwater in the plan area; or
  - (b) increase the nominal entitlements for water licences to take groundwater in the plan area; or
  - (c) allow the taking, other than under a relevant authorisation, of groundwater of an electrical conductivity of more than 1500 $\mu$ S/cm in groundwater sub-area 11, 12, 13, 15, 16 or 17, that is seawater intruded.
- ‘(2) A decision mentioned in subsection (1)(b) includes a decision about an application for a water licence to take groundwater, made but not decided before the plan amendment day.
- ‘(3) Subsection (1)(a) and (b) do not apply to a decision—
- (a) about a water permit; or
  - (b) about an application mentioned in section 22D(4) or 22E(3); or
  - (c) to grant a water licence under section 30A; or
  - (d) to grant a water licence under section 49J; or
  - (e) to convert an authorisation to a water allocation mentioned in section 49K.
- ‘(4) In this section—
- relevant authorisation*** means—
- (a) authorisation 5, 13 or 15 in the part of groundwater sub-area 11, 15, 16 or 17 that is seawater intruded if—
    - (i) for a water year mentioned in schedule 9C—the annual entitlement for the authorisation is decided under section 49Y; or
    - (ii) for a water year starting on or after 1 July 2014—the water taken under the authorisation is for public health purposes; or
  - (b) authorisation 16.

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**‘Division 2                    Environmental management rules,  
water sharing rules and water  
allocation change rules**

**‘49E    Matters to be considered for environmental  
management rules**

- ‘(1) In deciding the environmental management rules relating to groundwater to be included in the resource operations plan, the chief executive must consider—
- (a) the distance of a water bore from a watercourse, lake, spring or area of ecological value; and
  - (b) the groundwater flow regime required to maintain the following—
    - (i) habitats needed by aquatic biota in hyporheic zones;
    - (ii) relevant groundwater-dependent ecosystems;
    - (iii) the connectivity through the flow of water between an aquifer and an adjacent watercourse, lake or spring to replenish instream pools and enable movement of instream aquatic biota;
    - (iv) the natural seasonality of low flows and periods of no flow; and
  - (c) the impact the taking or proposed taking of groundwater may have on the following—
    - (i) the ecological values of waterholes, lakes, springs, groundwater-dependent vegetation or hyporheic zones;
    - (ii) seawater intrusion or water quality;
    - (iii) baseflow.
- ‘(2) Subsection (1) does not limit the matters the chief executive may consider.

**‘49F Matters to be considered for water sharing rules**

- ‘(1) In deciding the water sharing rules to be included in the resource operations plan for authorisations to take groundwater in a part of the groundwater management area, the chief executive must consider—
- (a) any water sharing rules for the authorisations existing immediately before the plan amendment day; and
  - (b) the local availability of water that may be taken from aquifers, baseflow, streamflows or waterholes, and the connectivity of surface water and groundwater; and
  - (c) the environmental flow objectives stated in schedule 4, part 5 or 6; and
  - (d) the water allocation security objectives stated in schedule 5, part 3; and
  - (e) the operating arrangements and supply requirements for water infrastructure and environmental management rules under the resource operations plan; and
  - (f) the daily volumetric limits, monthly volumetric limits or quarterly volumetric limits for the water entitlements; and
  - (g) the annual volumetric limits for water allocations, decided under sections 22B and 49N; and
  - (h) the nominal entitlements for water licences decided under sections 22B and 49U; and
  - (i) the impact of the taking on authorisations in the part of the groundwater management area; and
  - (j) the impact of the taking on the movement of the seawater intrusion front; and
  - (k) the proximity of any water bores to the seawater intrusion front; and
  - (l) the electrical conductivity of the groundwater taken under the authorisations.
- ‘(2) Subsection (1) does not limit the matters the chief executive may consider.

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**‘49G Matters to be considered for water allocation change rules**

- ‘(1) In deciding the water allocation change rules to be included in the resource operations plan for water allocations to take groundwater in a part of the groundwater management area, the chief executive must consider—
- (a) the volume density for a locality in the part of the groundwater management area relative to the availability of water in the part; and
  - (b) the impact the proposed taking would have on the following—
    - (i) watercourses, lakes, springs, baseflow, waterholes or areas of ecological value;
    - (ii) the ecological values of relevant groundwater-dependent ecosystems;
    - (iii) seawater intrusion or areas of poor water quality;
    - (iv) other authorisations in the area of the proposed taking;
    - (v) nodes or monitoring bores in the part of the groundwater management area.
- ‘(2) Subsection (1) does not limit the matters the chief executive may consider.
- ‘(3) In this section—

***monitoring bore*** means a water bore used for monitoring water levels in an aquifer.

***volume density***, for a locality in a part of the groundwater management area, means the total annual volumetric limits for all the water allocations in the locality divided by the area of the locality.

## **‘Division 3                    Unallocated groundwater**

### **‘49H    Unallocated groundwater**

‘There is no unallocated groundwater in the groundwater management area other than—

- (a) for granting water licences under section 49J; or
- (b) for water allocations mentioned in section 49K converted from authorisation 3; or
- (c) for stock or domestic purposes under division 9.

## **‘Division 4                    Authorisations for purpose other than stock or domestic purposes**

### **‘49I    Taking groundwater using existing works authorised**

‘(1) An owner of land on which there is existing works may continue to take groundwater in the undeclared area for a purpose other than stock or domestic purposes for 60 business days after the plan amendment day.

‘(2) Also, if the owner gives the chief executive notice in the approved form of the works, the owner may continue to take the water using the works after the notice is given.

‘(3) In this section—

*existing works* means works that the chief executive is satisfied were used or capable of being used to take groundwater for a purpose other than stock or domestic purposes on 24 June 2003.

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## **‘Division 5                    Granting water licences**

### **‘49J    Granting water licences for authorisation 4**

- ‘(1) The chief executive must, under section 212 of the Act, grant a water licence to take groundwater in the part of the undeclared area in groundwater sub-area 1, 2, 3 or 15 to the owner mentioned in section 49I(2) if the owner is the holder of authorisation 4.
- ‘(2) The licence must be—
- (a) granted under a process stated in the resource operations plan; and
  - (b) consistent with division 7.
- ‘(3) In this section—

*authorisation 4* means an authorisation under section 49I(2) to continue to take groundwater in the part of the undeclared area in groundwater sub-area 1, 2, 3 or 15 using the works mentioned in the section.

## **‘Division 6                    Converting authorisations to water allocations**

### **‘49K    Application of div 6**

‘This division applies to water allocations to take groundwater converted under the resource operations plan from authorisation 1, 2, 3, 6, 7, 9 or 11.

### **‘49L    Elements of a water allocation**

- ‘(1) A water allocation to take groundwater must state the following—
- (a) a nominal volume for the allocation;
  - (b) an annual volumetric limit for the allocation;

[s 45]

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- (c) the location from which water may be taken under the allocation;
  - (d) the purpose for which water may be taken under the allocation;
  - (e) the conditions, including any conditions decided under section 49P, under which water may be taken under the allocation;
  - (f) the water allocation group to which the water allocation belongs.
- ‘(2) A water allocation to take groundwater may state a daily volumetric limit, monthly volumetric limit or quarterly volumetric limit for the allocation.

#### ‘49M Nominal volume

- ‘(1) In deciding the nominal volume for a water allocation to take groundwater in a water allocation group mentioned in schedule 6, table 2, column 1 (the *group*), the chief executive must—
- (a) have regard to—
    - (i) the local availability of the groundwater; and
    - (ii) the conditions under which groundwater may be taken under the allocation; and
    - (iii) the simulated mean annual supply for the allocation; and
    - (iv) the efficiency of the use of the groundwater taken; and
  - (b) ensure the total of the nominal volumes for the group is not more than the volume stated in schedule 6, table 2, column 3 for the group.
- ‘(2) In this section—
- simulated mean annual supply*, for a water allocation, or water allocation group, to take groundwater, means the total volume of groundwater simulated to have been pumped by water bores under the allocation or group, if the allocation or



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group was in existence for the whole of the simulation period for groundwater, divided by the number of years in the simulation period for groundwater.

#### **‘49N Annual volumetric limit**

- ‘(1) The annual volumetric limit for a water allocation to take groundwater is—
- (a) for authorisation 1—the nominal entitlement stated on the authorisation; and
  - (b) for authorisation 2—the volume worked out under section 22A(3)(b); and
  - (c) for authorisation 3—the volume worked out under section 22B; and
  - (d) for authorisation 6—the nominal entitlement stated on the authorisation multiplied by the percentage stated in schedule 6A, column 2 for the authorisation; and
  - (e) for authorisation 7 or 9 for which the precomplementary component nominal entitlement is—
    - (i) 20ML or less—the precomplementary component nominal entitlement; or
    - (ii) more than 20ML—the greater of the following—
      - (A) the annual volumetric limit worked out by multiplying the precomplementary component nominal entitlement by the percentage stated in schedule 6A, column 2;
      - (B) 20ML; and
  - (f) for authorisation 11—1300ML.
- ‘(2) In deciding the annual volumetric limits for water allocations in a water allocation group mentioned in schedule 6, table 2 column 1, the chief executive must ensure the total of the annual volumetric limits for the group is not more than the volume stated in schedule 6, table 2, column 2 for the group.

[s 45]

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**‘49O Purpose to be stated on water allocation**

‘The purpose to be stated on a water allocation to take groundwater must be—

- (a) if the purpose stated on the authorisation is agriculture, aquaculture, dewatering, domestic, irrigation, stock, stock intensive or a similar purpose—‘rural’; or
- (b) otherwise—‘any’.

**‘49P Conditions for water allocations**

‘In deciding the conditions under which groundwater may be taken under a water allocation, the chief executive must have regard to—

- (a) the conditions stated on the authorisation; or
- (b) any development permit relating to the authorisation.

**‘49Q Water allocation groups**

‘A water allocation to take groundwater in a groundwater sub-area mentioned in schedule 8, part 2, column 1, belongs to the water allocation group mentioned opposite the sub-area in column 2.

**‘Division 7 Amending water licences**

**‘Subdivision 1 Amending particular water licences**

**‘49R Authorisations 5, 14, 15 and 16—Act, s 217**

- ‘(1) Within 60 business days after an amendment of the resource operations plan, the chief executive must, under section 217 of the Act, amend authorisations 5, 14, 15 and 16 for consistency with the resource operations plan.
- ‘(2) In this section—

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*authorisation 14* means a water licence to take groundwater, in force immediately before the plan amendment day, in groundwater sub-area 1, 2 or 3 or the part of groundwater sub-area 17 that is not seawater intruded.

## **‘Subdivision 2 Amending water licences generally**

### **‘49S Application of sdiv 2**

‘This subdivision applies to the following water licences to take groundwater—

- (a) a water licence mentioned in section 30A, 49J or 49R;
- (b) authorisation 8, 10, 12 or 13.

### **‘49T Elements of water licences**

‘A water licence to take groundwater—

- (a) must state—
  - (i) a nominal entitlement that may be taken under the licence; and
  - (ii) the purpose for which groundwater may be taken under the licence; and
- (b) may state—
  - (i) a daily volumetric limit, monthly volumetric limit or quarterly volumetric limit for the licence; or
  - (ii) conditions under which the groundwater may be taken.

### **‘49U Nominal entitlement**

‘(1) The nominal entitlement for a water licence to take groundwater is—

- (a) for a water licence mentioned in section 30A or 49J—the volume worked out under section 22B; or

[s 45]

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- (b) for an authorisation mentioned in section 49R—the volume stated on the licence immediately before the plan amendment day; or
  - (c) for authorisation 8 or 10—the volume worked out under subsection (2); or
  - (d) for authorisation 12—4200ML; or
  - (e) for authorisation 13—the volume worked out under section 22A(3)(b).
- ‘(2) The nominal entitlement for authorisation 8 or 10 is the available component of authorisation 7 or 9.

**‘49V Purpose to be stated on water licence**

‘The purpose to be stated on a water licence to take groundwater must be—

- (a) if the purpose for which the water is being taken is agriculture, aquaculture, dewatering, domestic, irrigation, stock, stock intensive or a similar purpose—‘rural’; or
- (b) otherwise—‘any’.

**‘49W Conditions may be imposed on water licences**

‘The chief executive must, when preparing an amendment of the resource operations plan, impose on a water licence to which this division applies any condition the chief executive is satisfied is necessary to ensure the purposes and outcomes of this plan are achieved.

**‘Subdivision 3 Annual entitlements for particular water licences**

**‘49X Authorisation 8, 10 or 12**

‘The chief executive must set the annual entitlement for authorisation 8, 10 or 12 to 0 for 5 years from the

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commencement of an amendment of the resource operations plan.

**‘49Y Authorisation 5, 13 or 15**

- ‘(1) Until an amendment of the resource operations plan is approved, the chief executive may decide the annual entitlement for authorisation 5, 13 or 15 under schedule 9C for a water year mentioned in the schedule.
- ‘(2) Subsection (3) applies if an amendment of the resource operations plan commences during a water year mentioned in schedule 9C.
- ‘(3) The chief executive must include in the amendment the annual entitlement for authorisation 5, 13 or 15 under schedule 9C for any subsequent water year mentioned in the schedule.

**‘49Z Announced entitlement**

- ‘(1) This section applies to authorisations 5, 13 and 15.
- ‘(2) If the water sharing rules for taking water from a part of the groundwater management area that is seawater intruded require the chief executive to decide an announced entitlement for a water year, the chief executive must—
  - (a) decide the announced entitlement before the start of the water year to which the announced entitlement relates; and
  - (b) do 1 or more of the following—
    - (i) give notice of the announced entitlement to the holders of the water licences to which the entitlement relates;
    - (ii) publish the announced entitlement in a newspaper circulating generally in the groundwater management area;
    - (iii) publish the announced entitlement on the department’s website on the internet.

[s 45]

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- ‘(3) An announced entitlement for a water year is a percentage of a nominal entitlement.
- ‘(4) In deciding an announced entitlement, the chief executive must consider—
  - (a) the following to the extent appropriate for the part of the groundwater management area that is seawater intruded and to which the entitlement relates—
    - (i) measured and simulated trends in groundwater levels;
    - (ii) measured and simulated trends in electrical conductivity of groundwater;
    - (iii) long term average sustainable yield;
    - (iv) historical groundwater use;
    - (v) anticipated groundwater use;
    - (vi) weather conditions, including weather forecasts; and
  - (b) the water sharing rules for taking groundwater from the groundwater management area.
- ‘(5) If the chief executive varies an announced entitlement for a water year during the water year, subsection (2)(b) applies to the varied announced entitlement.

## **‘Division 8                      Review of particular water licences**

### **‘49ZA Process and criteria for review**

- ‘(1) This section applies to the following—
  - (a) a water licence to take groundwater in the part of the undeclared area in groundwater sub-area 15 that is seawater intruded and mentioned in section 49J;
  - (b) authorisation 5, 8, 10, 12, 13 or 15.
- ‘(2) The chief executive must, in preparing an amendment of the resource operations plan, develop a review process to decide

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whether the conditions imposed on the licence must be changed for consistency with the water sharing rules included in the resource operations plan.

- ‘(3) The chief executive must conduct the review every 5 years after the commencement of an amendment of the resource operations plan.
- ‘(4) In deciding the water sharing rules for the licences to be reviewed that are to be included in the resource operations plan, the chief executive must be satisfied that all of the following criteria are met—
  - (a) the trends in groundwater levels and electrical conductivity of the groundwater are as worked out under the resource operations plan;
  - (b) the electrical conductivity of groundwater to be taken under the licence is less than 1500 $\mu$ S/cm;
  - (c) the position of the seawater intrusion front is more than 1000m from any water bore to take groundwater.
- ‘(5) If the chief executive is satisfied that the criteria mentioned in subsection (4) are met, the chief executive may amend the licence to change a condition on the licence, including to impose a condition that the maximum volume of groundwater that may be taken under the licence in a groundwater sub-area mentioned in schedule 6A, column 1 is the nominal entitlement stated on the licence multiplied by the percentage stated in schedule 6A, column 2 opposite the sub-area.
- ‘(6) The announced entitlement for the licences, decided by the chief executive at the time of the review—
  - (a) must not be more than the announced entitlement for the sub-area in which the licences being reviewed occur; and
  - (b) may be for a water year or part of a water year for the licence.
- ‘(7) Subsections (3) to (6) do not limit the matters the chief executive may consider in developing the review process.
- ‘(8) In this section—

[s 45]

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*announced entitlement* see the *Water Regulation 2002*, section 66.

## **‘Division 9                    Authorisations for stock or domestic purposes**

### **‘49ZB Taking groundwater authorised**

- ‘(1) Subject to this section, an owner of land in the groundwater management area may take groundwater for stock or domestic purposes.
- ‘(2) An owner of land in domestic area B or C may take groundwater for stock or domestic purposes using existing works or replacement works.
- ‘(3) An owner of land in domestic area B, other than a part of the area that is seawater intruded, on which there are no existing works may take groundwater using works constructed after 28 June 2008 if—
  - (a) a plan of survey for a reconfiguration of the land is registered before 28 June 2008; or
  - (b) a plan of survey for a reconfiguration of the land is registered on or after 28 June 2008 and the reconfiguration does not result in more lots being created on the land than existed immediately before the reconfiguration; or
  - (c) part of the land is resumed by a constructing authority under the *Acquisition of Land Act 1967* and the plan of survey for the resumption is registered on or after 28 June 2008; or
  - (d) part of the land is acquired by voluntary acquisition for a public purpose by a constructing authority and the plan of survey for the acquisition is registered on or after 28 June 2008.
- ‘(4) An owner of land in domestic area C on which there are no existing works must not take groundwater using works constructed after 28 June 2008.



- 
- ‘(5) An owner of land in a part of the groundwater management area that is seawater intruded and on which there are no existing works must not take groundwater using works constructed after the plan amendment day.
- ‘(6) In this section—
- existing works* means works that the chief executive is satisfied were used or capable of being used to take groundwater for stock or domestic purposes on 28 June 2008.
- replacement works* means works replacing existing works to be constructed within 10m of the existing works.

## ‘Division 10            Miscellaneous

### ‘49ZC Relationship with *Integrated Planning Act 1997*

- ‘(1) Works to take groundwater for stock or domestic purposes are self-assessable development for the *Integrated Planning Act 1997*, schedule 8, part 2, table 4, item 1(b)(iii).
- ‘(2) Works to take groundwater for other than stock or domestic purposes are assessable development for the *Integrated Planning Act 1997*, schedule 8, part 1, table 4, item 3(c)(ii).
- ‘(3) Subsection (2) does not apply to—
- (a) the repair or maintenance of works if the repair or maintenance does not alter the design of the works; or
  - (b) works constructed under a development permit.
- ‘(4) Works that are an excavation that interferes with groundwater in groundwater sub-area 3, 15, 16 or 17 are assessable development for the *Integrated Planning Act 1997*, schedule 8, part 1, table 4, item 3(c)(ii).
- ‘(5) In this section—
- excavation* means a cavity, of more than 2ML capacity, in the surface of land that—
- (a) is open; and
  - (b) results from digging or scooping out material; and

[s 46]

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- (c) exposes groundwater at its intersection with the upper zone of saturation.’.

#### **46 Amendment of s 50 (Monitoring)**

- (1) Section 50(1)(a)—

*insert—*

- ‘(vi) stream water levels; and
- (vii) groundwater levels; and’.

- (2) Section 50(1)—

*insert—*

- ‘(c) natural relevant groundwater-dependent ecosystems monitoring, for—

- (i) depth to groundwater level; and
- (ii) seawater intrusion or water quality in coastal aquifers; and

- (d) natural groundwater-dependent ecosystems monitoring, for—

- (i) volume of baseflow; and
- (ii) stream water levels; and
- (iii) distribution, and information on the hydraulic-habitat requirements in aquifers and hyporheic zones, of micro-organism species and communities.’.

- (3) Section 50(2)—

*insert—*

- ‘(c) monitoring programs, including monitoring programs for natural vegetation ecosystems, required by the chief executive.’.

#### **47 Amendment of s 54 (Implementation schedule)**

- (1) Section 54(2)(a), from ‘in’ to ‘allocations’—

*omit, insert—*

‘to take surface water in a surface water priority area to water allocations’.

- (2) Section 54(2)(b), ‘unallocated water’—

*omit, insert—*

‘unallocated surface water’.

- (3) Section 54(2)(c), ‘for water’—

*omit, insert—*

‘for surface water’.

- (4) Section 54(4)—

*renumber* as section 54(5).

- (5) Section 54—

*insert—*

- ‘(4) Within 1 year after the plan amendment day, it is proposed to amend the resource operations plan to convert authorisations to take groundwater in the groundwater priority area to water allocations to take groundwater.’.

- (6) Section 54(5) as renumbered, ‘Subsections (2) and (3)’—

*omit, insert—*

‘Subsections (2), (3) and (4)’.

- (7) Section 54—

*insert—*

- ‘(6) In this section—

***groundwater priority area*** see schedule 9, section 4.

***surface water priority area*** means a priority area other than the groundwater priority area.’.

#### **48 Amendment of s 56 (Minor amendment of plan—Act, s 57)**

- (1) Section 56(j), from ‘section 49’ to ‘section 42’—

*omit, insert—*

[s 49]

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‘section 22C or 22D if notice of the amendment is published as if it were a moratorium notice under section 26’.

(2) Section 56—

*insert—*

‘(k) an amendment to change the boundaries of the following, including by subdividing or amalgamating—

- (i) a domestic area;
- (ii) a groundwater sub-area;
- (iii) the watercourse area;

(l) an amendment to change, for water allocation group class 2C, 3C, 4C or 6C, the nominal volume of the allocation to the nominal volume stated in schedule 6, table 1, column 2 for the group;

(m) an amendment to increase, for a water allocation in water allocation group 4, 6 or 15, the annual volumetric limit for the allocation to the annual volumetric limit stated in schedule 6, table 2, column 2 for the allocation group;

(n) an amendment to increase, for water allocation group 4, 6 or 15, the nominal volume for the group to the nominal volume stated in schedule 6, table 2, column 3 for the group.’.

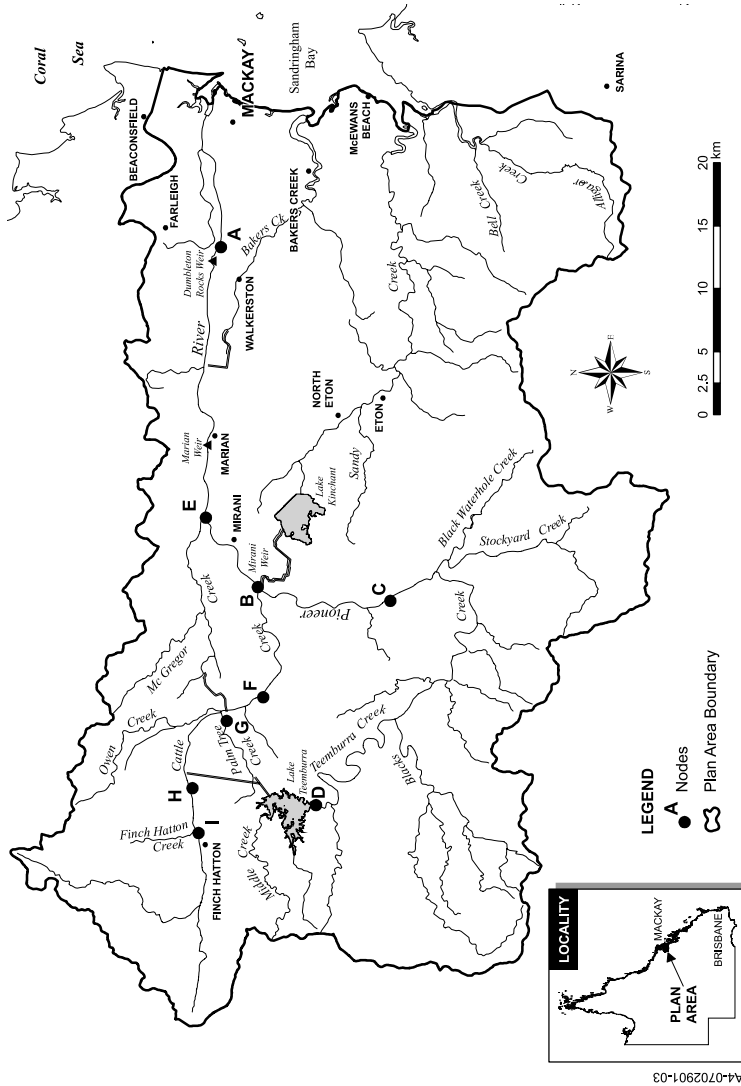
## **49 Replacement of schs 1–3**

Schedules 1 to 3—

*omit, insert—*

# 'Schedule 1 Plan area and location of surface water nodes

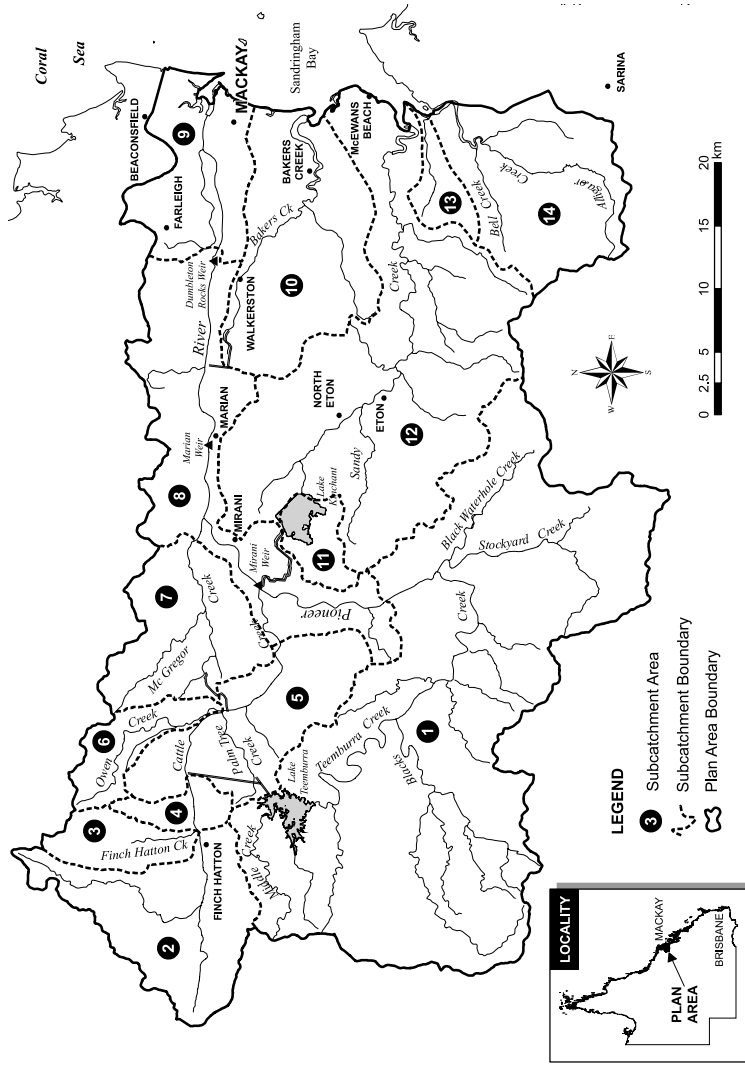
sections 4 and 7(2)



[s 49]

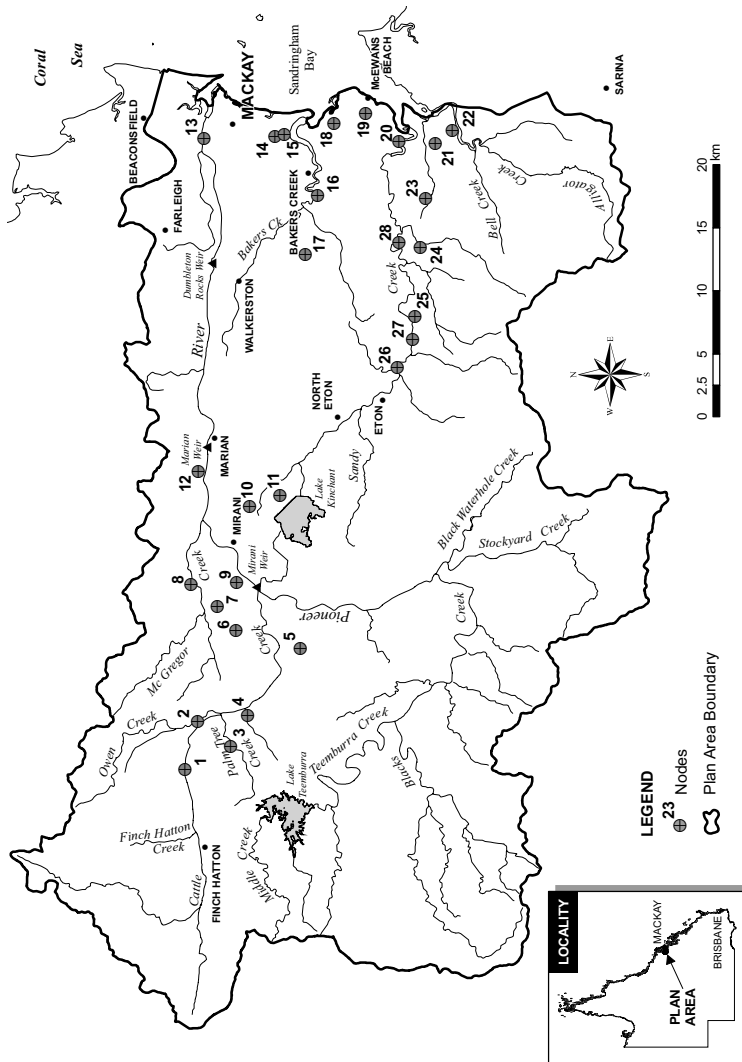
# 'Schedule 2 Subcatchment areas

section 5



# 'Schedule 2A Groundwater management area and location of groundwater nodes

sections 5A(1) and 7(2)

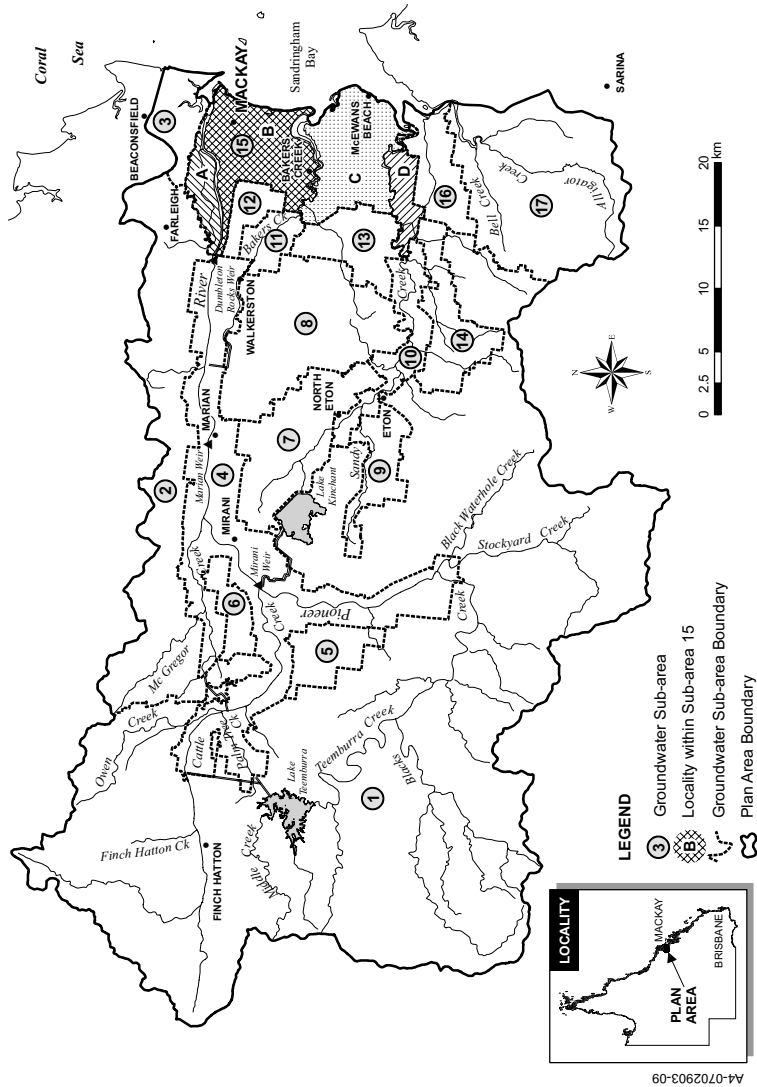


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[s 49]

# 'Schedule 2B Groundwater sub-areas

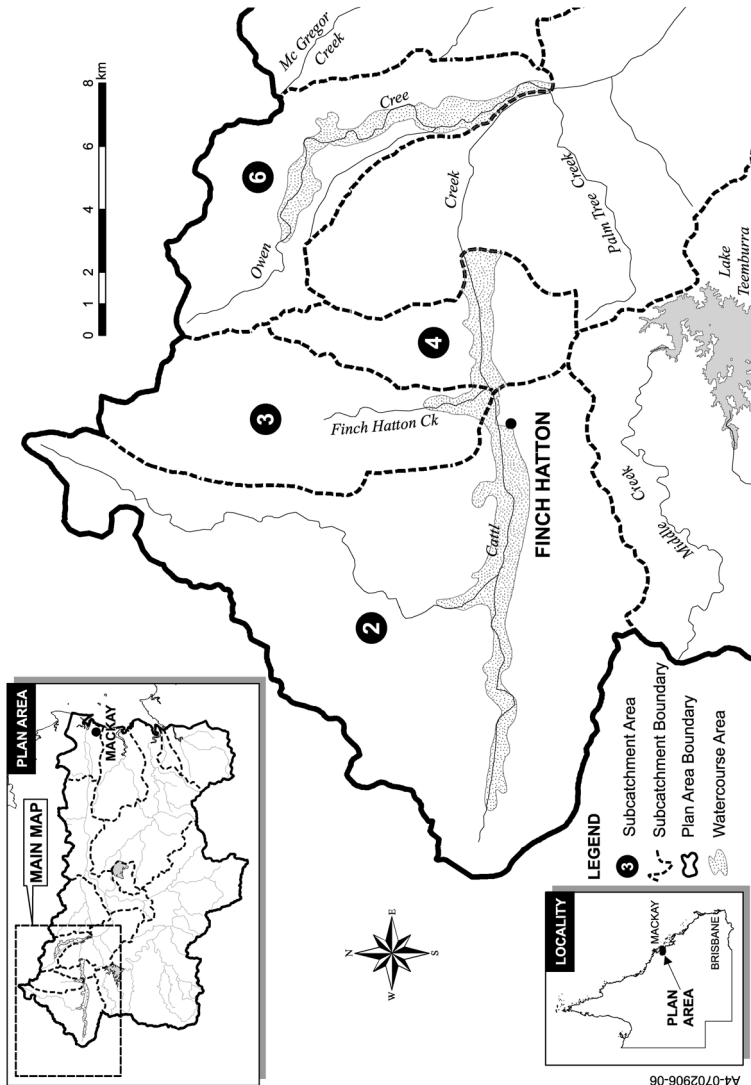
section 5A(2)





# 'Schedule 2C Watercourse area

section 5B



## **‘Schedule 3      Nodes**

section 7(2)

### **‘Part 1                      Surface water**

<b>Node</b>	<b>Location</b>
A	Pioneer River at a northerly projection of the common boundary of lot 2 on RP711122 and lot 1 on RP709234 where the common boundary intersects the Pioneer River
B	Pioneer River at Mirani Weir tailwater gauging station (AMTD 45.7km)
C	Pioneer River at Sarich’s gauging station (AMTD 57.7km)
D	Teemburra Creek at Teemburra Dam tailwater gauging station (AMTD 20.2km)
E	McGregor Creek at the regulating weir on the creek (AMTD 0.7km)
F	Cattle Creek at Gargett gauging station (AMTD 11.0km)
G	Palm Tree Creek at its confluence with Cattle Creek (AMTD 0.0km)
H	Cattle Creek upstream of the outlet of the Tannallo pipeline (AMTD 21.2km)
I	Finch Hatton Creek at its confluence with Cattle Creek (AMTD 0.0km)

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## **'Part 2                      Groundwater**

<b>Node</b>	<b>Location</b>
1	Cattle Creek Pinnacle area
2	Cattle Creek Pinnacle area near its confluence with Owens Creek
3	Palm Tree Creek
4	Cattle Creek Gargett area
5	Septimus area
6	Barkers Creek area
7	McGregor Creek
8	McGregor Creek east of the Mt Ossa Road crossing
9	Mirani West area
10	De Moleyns Lagoon area
11	Kinchant Dam area
12	Pioneer River north of the Marian weir
13	Mackay area east of the Bruce Highway and south of the Pioneer River
14	Lower Barkers Creek at UTM coordinates 725777E 7655714N MGA Zone 55
15	Lower Barkers Creek at UTM coordinates 725926E 7654974N MGA Zone 55
16	Lower MacLennan Creek
17	Upper Rocky Creek area
18	Coastal area south of Lower Barkers Creek
19	Coastal area north of McEwans Beach
20	Estuary of Sandy Creek

[s 50]

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<b>Node</b>	<b>Location</b>
21	Sandringham Creek in the Bruce Highway area
22	Alligator Creek in the Bruce Highway area
23	Sandringham Lagoon
24	Marwood area
25	Sandy Creek in the Homebush area
26	Sandy Creek near its confluence with Ross Creek
27	Sandy Creek at Homebush gauging station (AMTD 32.7km)
28	Sandy Creek at a line perpendicular to the bank of the creek at UTM coordinates 717324E 7647415N MGA Zone 55, adjacent to lot 2 on RP703266’.

#### **50 Amendment of sch 4 (Environmental flow objectives)**

- (1) Schedule 4, heading, ‘section 20’—  
*omit, insert—*  
‘sections 20 and 20A’.
- (2) Schedule 4, items 1 to 6 and 7(a), after ‘simulation period’—  
*insert—*  
‘for surface water’.
- (3) Schedule 4—  
*insert—*

### **‘Part 4 Baseflow objectives**

- ‘11 At each node mentioned in table 9, column 1—
  - (a) the percentage of the total number of days in the simulation period for groundwater on which the daily flow is less than 1ML be between the minimum and maximum percentages stated for the node in column 2; and

- (b) the percentage of the total number of days in the simulation period for groundwater on which the daily flow is less than 50ML be between the minimum and maximum percentages stated for the node in column 3.

**Table 9**

<b>Column 1 Node</b>	<b>Column 2 Minimum–Maximum %</b>	<b>Column 3 Minimum–Maximum %</b>
27	0-20	74-79
28	0-20	67-75

**‘Part 5****Relevant  
groundwater-dependent  
ecosystem flow objectives**

- ‘12 At each node mentioned in table 10, column 1—
- (a) minimise the extent to which groundwater levels exceed the level 1 drawdown deviation stated in column 2; and
- (b) groundwater levels must not exceed the level 2 drawdown deviation stated in column 3.

**Table 10**

<b>Column 1 Node</b>	<b>Column 2 Level 1 drawdown deviation (Metres)</b>	<b>Column 3 Level 2 drawdown deviation (Metres)</b>
1	0.5	0.5
2	0.5	0.5
3	0.5	0.5
4	0.8	1.0
5	3.0	5.0
6	3.0	5.0
7	1.6	3.0
8	0.8	1.2

[s 50]

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<b>Column 1 Node</b>	<b>Column 2 Level 1 drawdown deviation (Metres)</b>	<b>Column 3 Level 2 drawdown deviation (Metres)</b>
9	3.0	5.0
10	3.0	5.0
11	0.9	1.5
12	0.8	1.1
13	0.5	0.5
14	0.5	0.6
15	0.5	0.5
16	0.5	0.5
17	0.9	1.5
18	0.6	0.8
19	0.5	0.7
20	0.5	0.5
21	0.6	0.8
22	0.5	0.6
23	1.1	2.75
24	3.0	5.0
25	0.8	1.1
26	0.5	0.5

## **‘Part 6                      Seawater intrusion objectives**

- ‘13 In each part of a groundwater sub-area, described in table 11, column 2, opposite the groundwater sub-area mentioned in column 1, the part of the groundwater sub-area, expressed in hectares, between the coastline and the maximum extent of simulated seawater intrusion is less than the seawater intruded area stated in column 3.

**Table 11**

<b>Column 1</b> <b>Groundwater sub-area</b>	<b>Column 2</b> <b>Part of groundwater sub-area</b>	<b>Column 3</b> <b>Area (Hectares)</b>
15A	north of the Pioneer River influenced by the tide	265
15B	south of the Pioneer River, and north of Bakers Creek, influenced by the tide	1866
15C	south of Bakers Creek, and north of Sandy Creek, influenced by the tide	2313
15D	south of Sandy Creek influenced by the tide	704
16	south of Sandy Creek influenced by the tide between the estuaries of Sandy Creek and Alligator Creek	671

### **51 Amendment of sch 5 (Water allocation security objectives)**

- (1) Schedule 5, part 2, item 5, ‘the table’—  
*omit, insert—*  
‘table 1’.
- (2) Schedule 5, part 2, ‘Table’—  
*omit, insert—*  
‘**Table 1**’.
- (3) Schedule 5—  
*insert—*

## **‘Part 3 Groundwater**

- ‘6 For a water allocation to take groundwater in a groundwater sub-area mentioned in table 2, column 1, the annual volume probability be at least the percentage stated opposite the

[s 52]

sub-area in column 2, and the extent to which it is less than the percentage stated opposite the sub-area in column 3 be minimised.

**Table 2**

<b>Column 1 Groundwater sub-area</b>	<b>Column 2 Annual volume probability Minimum %</b>	<b>Column 3 Annual volume probability Maximum %</b>
4	55	60
5	51	56
6	65	70
7	47	52
8	50	55
9	33	38
10	46	51
11	48	53
12	41	46
13	49	54
14	28	33
15	44	49
16	90	95'.

**52 Amendment of sch 6 (Total volumes for water allocation groups)**

(1) Schedule 6, heading, after 'section 40'—

*insert—*

' , 49M or 49N(2)'.

(2) Schedule 6, before the table—



*insert—*

**‘Table 1’.**

(3) Schedule 6, table—

*insert—*

‘Class 2C

the nominal volume for a water allocation to take declared water in the watercourse area in groundwater sub-area 1, subcatchment 2, stated in the resource operations plan

Class 3C

the nominal volume for a water allocation to take declared water in the watercourse area in groundwater sub-area 1, subcatchment 3, stated in the resource operations plan

Class 4C

the nominal volume for a water allocation to take declared water in the watercourse area in groundwater sub-area 1, subcatchment 4, stated in the resource operations plan

Class 6C

the nominal volume for a water allocation to take declared water in the watercourse area in groundwater sub-area 1 or 4, subcatchment 6, stated in the resource operations plan’.

(4) Schedule 6—

*insert—*

[s 52]

**‘Table 2**

<b>Column 1 Water allocation group</b>	<b>Column 2 Annual volumetric limit ML</b>	<b>Column 3 Nominal volume ML</b>
4	12107 plus the annual volumetric limits for water allocations, expressed in megalitres, in the undeclared area in groundwater sub-area 4, stated in the resource operations plan	9631 plus the nominal volumes for water licences, expressed in megalitres, in the undeclared area in groundwater sub-area 4, stated in the resource operations plan
5	1275	1130
6	1512 plus the annual volumetric limits for water allocations, expressed in megalitres, in the undeclared area in groundwater sub-area 6, stated in the resource operations plan	1107 plus the nominal volumes for water licences, expressed in megalitres, in the undeclared area in groundwater sub-area 6, stated in the resource operations plan
7	11133	9269
8	4837	4112
9	768	663
10	5413	3478
11	2250	1304
12	2575	971
13	4159	3201
14	2507	1952

<b>Column 1 Water allocation group</b>	<b>Column 2 Annual volumetric limit ML</b>	<b>Column 3 Nominal volume ML</b>
15	8704 plus the annual volumetric limits for water allocations, expressed in megalitres, in the undeclared area in groundwater sub-area 15, stated in the resource operations plan	4413 plus the nominal volumes for water licences, expressed in megalitres, in the undeclared area in groundwater sub-area 15, stated in the resource operations plan
16	188	181’.

**53 Insertion of new sch 6A**

After schedule 6—

*insert—***‘Schedule 6A Annual volumetric limit for groundwater**sections 49N(1) and 49ZA(5) and schedule 10, definition  
*complementary component*

<b>Column 1 Groundwater sub-area</b>	<b>Column 2 Percentage</b>
11	55
12	55
13	60
15A	55
15B	55
15C	60
15D	100

[s 54]

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<b>Column 1 Groundwater sub-area</b>	<b>Column 2 Percentage</b>
16	100
17	100’.

**54 Amendment of sch 7 (Rates and pump sizes)**

Schedule 7, table—

*insert—*

‘75	36
250	300
300	347
350	405
375 to 400	500
405	637
500	762
600 to 610	1000
660	1528
800	2130’.

**55 Replacement of sch 8 (Water allocation groups)**

Schedule 8—

*omit, insert—*

## **‘Schedule 8      Water allocation groups**

sections 45 and 49Q

### **‘Part 1                      Surface water**

<b>Column 1 Subcatchment area</b>	<b>Column 2 Water allocation group</b>	<b>Column 3 Water allocation group</b>	<b>Column 4 Water allocation group</b>
1	—		Class 1B
2	Class 2A	Class 2C	—
3	Class 3A	Class 3C	—
4	Class 4A	Class 4C	Class 4B
5	Class 5A	—	Class 5B
6	Class 6A	Class 6C	Class 6B
7	Class 7A	—	Class 7B
8	—	—	Class 8B

### **‘Part 2                      Groundwater**

<b>Column 1 Groundwater sub-area</b>	<b>Column 2 Water allocation group</b>
4	4
5	5
6	6
7	7
8	8

[s 56]

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<b>Column 1</b> <b>Groundwater sub-area</b>	<b>Column 2</b> <b>Water allocation group</b>
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16’.

**56 Amendment of sch 9 (Priority areas)**

Schedule 9—

*insert—*

**‘4 Groundwater priority area**

‘The groundwater priority area consists of groundwater sub-areas 4 to 16.’.

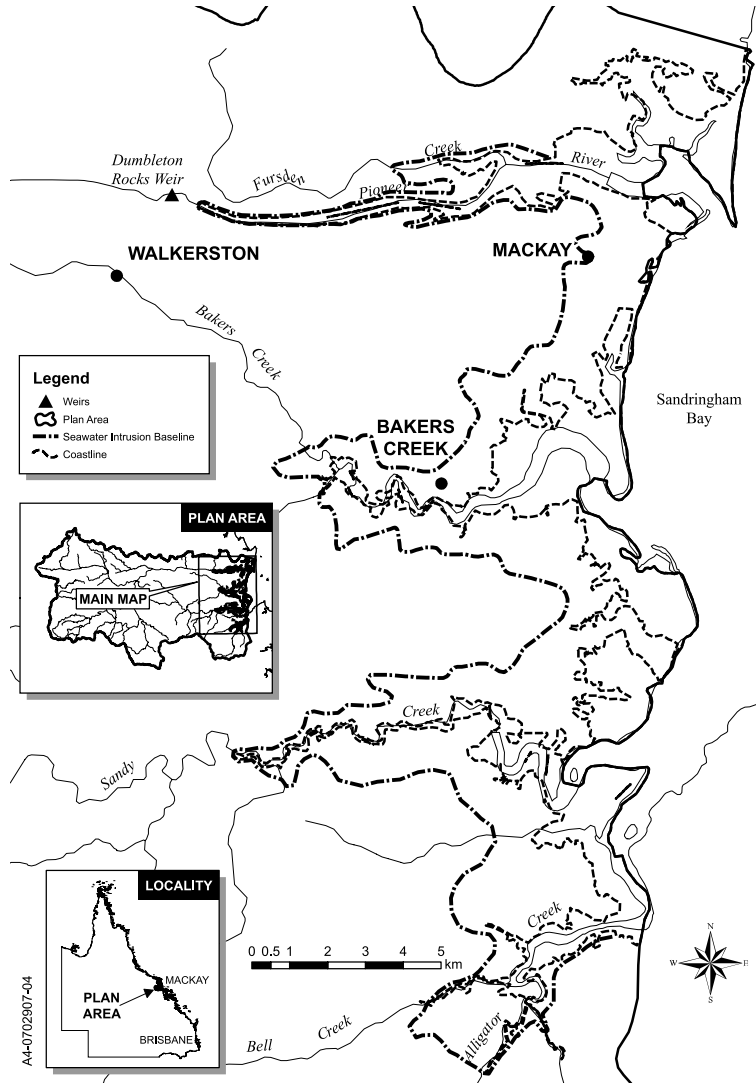
**57 Insertion of new schs 9A–9C**

After schedule 9—

*insert—*

# 'Schedule 9A Coastline and seawater intrusion baseline

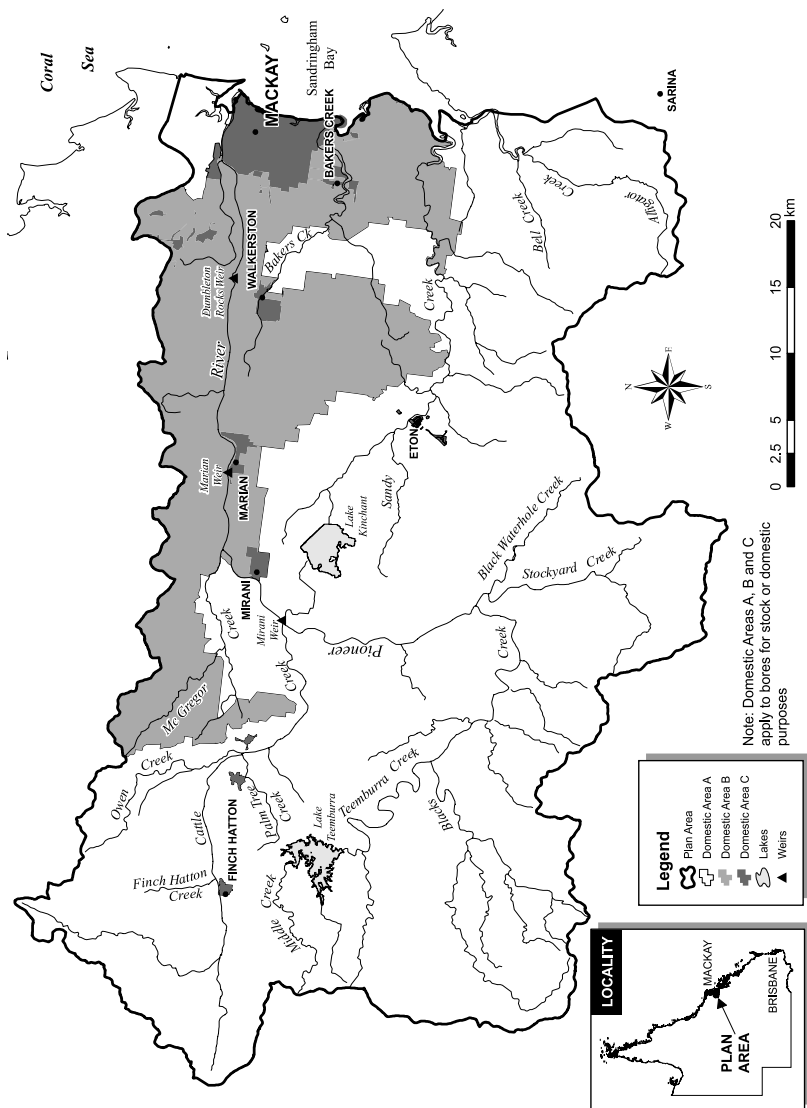
schedule 10, definitions *coastline* and *seawater intrusion baseline*



[s 57]

## 'Schedule 9B Domestic areas

schedule 10, definitions *domestic area A*, *domestic area B* and *domestic area C*



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## ‘Schedule 9C Annual entitlement

section 49Y

### ‘Part 1 2009–2010 water year

#### ‘1 Groundwater sub-area 11, 15, 16 or 17

- ‘(1) For the water year starting on 1 July 2009, the annual entitlement for authorisation 5, 13, or 15 (a *licence*) in the part of groundwater sub-area 11, 15, 16 or 17 that is seawater intruded is—
- (a) if the nominal entitlement stated on the licence is more than 5ML, the greater of the following—
    - (i) the relevant annual entitlement for the licence;
    - (ii) 5ML; or
  - (b) if the nominal entitlement stated on the licence is 5ML or less—the nominal entitlement stated on the licence.
- ‘(2) In this section—

*relevant annual entitlement*, for a licence, means the annual entitlement for the licence worked out using the formula—

$$R = N \times A$$

where—

*R* means the relevant annual entitlement for the licence.

*N* means the nominal entitlement stated on the licence.

*A* means the announced entitlement for the water year for the part of the area.

## **‘Part 2                           2010–2011 water year**

### **‘2           Groundwater sub-area 11, 15, 16 or 17**

- ‘(1) For the water year starting on 1 July 2010, the annual entitlement for authorisation 5, 13, or 15 (a *licence*) in the part of groundwater sub-area 11, 15, 16 or 17 that is seawater intruded is—
- (a) if the nominal entitlement stated on the licence is more than 5ML, the greater of the following—
    - (i) the relevant annual entitlement for the licence;
    - (ii) 5ML; or
  - (b) if the nominal entitlement stated on the licence is 5ML or less—the nominal entitlement stated on the licence.

- ‘(2) In this section—

*relevant annual entitlement*, for a licence, means the annual entitlement for the licence worked out using the formula—

$$R = F \times N \times A$$

where—

*R* means the relevant annual entitlement for the licence.

*F* means 0.6.

*N* means the nominal entitlement stated on the licence.

*A* means the announced entitlement for the water year for the part of the area.

## **‘Part 3                           2011–2012 water year**

### **‘3           Groundwater sub-area 11, 15A or 15B**

- ‘(1) For the water year starting on 1 July 2011, the annual entitlement for authorisation 5, 13, or 15 (a *licence*) in the part

of groundwater sub-area 11, 15A or 15B, that is seawater intruded is—

- (a) if the nominal entitlement stated on the licence is more than 5ML, the greater of the following—
  - (i) the relevant annual entitlement for the licence;
  - (ii) 5ML; or
- (b) if the nominal entitlement stated on the licence is 5ML or less—the nominal entitlement stated on the licence.

‘(2) In this section—

***relevant annual entitlement***, for a licence, means the annual entitlement for the licence worked out using the formula—

$$R = F \times N \times A$$

where—

***R*** means the relevant annual entitlement for the licence.

***F*** means 0.55.

***N*** means the nominal entitlement stated on the licence.

***A*** means the announced entitlement for the water year for the part of the area.

#### ‘4 **Groundwater sub-area 15C, 15D, 16 or 17**

‘(1) For the water year starting on 1 July 2011, the annual entitlement for authorisation 5, 13, or 15 (a ***licence***) in the part of groundwater sub-area 15C, 15D, 16 or 17 that is seawater intruded is—

- (a) if the nominal entitlement stated on the licence is more than 5ML, the greater of the following—
  - (i) the relevant annual entitlement for the licence;
  - (ii) 5ML; or
- (b) if the nominal entitlement stated on the licence is 5ML or less—the nominal entitlement stated on the licence.

‘(2) In this section—

[s 57]

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***relevant annual entitlement***, for a licence, means the annual entitlement for the licence worked out using the formula—

$$R = F \times N \times A$$

where—

***R*** means the relevant annual entitlement for the licence.

***F*** means 0.6.

***N*** means the nominal entitlement stated on the licence.

***A*** means the announced entitlement for the water year for the part of the area.

## **‘Part 4                                      2012–2013 water year**

### **‘5        Groundwater sub-area 11, 15, 16 or 17—electrical conductivity of less than 1500 $\mu$ S/cm**

‘For the water year starting on 1 July 2012, the annual entitlement for authorisation 5, 13, or 15 (a *licence*) in the part of groundwater sub-area 11, 15, 16 or 17 that is seawater intruded where the electrical conductivity of groundwater is less than 1500 $\mu$ S/cm is—

- (a) if the nominal entitlement stated on the licence is 20ML or more, the greater of the following—
  - (i) 20 multiplied by the announced entitlement for the water year for the part of the area;
  - (ii) 5ML; or
- (b) if the nominal entitlement stated on the licence is less than 20ML but more than 5ML, the greater of the following—
  - (i) the nominal entitlement stated on the licence multiplied by the announced entitlement for the water year for the part of the area;
  - (ii) 5ML; or

- 
- (c) if the nominal entitlement stated on the licence is 5ML or less—the nominal entitlement stated on the licence.

**‘6 Groundwater sub-area 11, 15, 16 or 17—electrical conductivity of 1500 $\mu$ S/cm or more**

- ‘(1) For the water year starting on 1 July 2012, the annual entitlement for authorisation 5, 13, or 15 (a *licence*) in the part of groundwater sub-area 11, 15, 16 or 17 that is seawater intruded where the electrical conductivity of groundwater is 1500 $\mu$ S/cm or more is 0.
- ‘(2) However, if the water taken under the licence is for public health purposes, the annual entitlement is—
- (a) if the nominal entitlement stated on the licence is 20ML or more, the greater of the following—
- (i) 20 multiplied by the announced entitlement for the water year for the part of the area;
- (ii) 5ML; or
- (b) if the nominal entitlement stated on the licence is less than 20ML but more than 5ML, the greater of the following—
- (i) the nominal entitlement stated on the licence multiplied by the announced entitlement for the water year for the part of the area;
- (ii) 5ML; or
- (c) if the nominal entitlement stated on the licence is 5ML or less—the nominal entitlement stated on the licence.

## **‘Part 5 2013–2014 water year**

### **‘7 Groundwater sub-area 11, 15, 16 or 17—electrical conductivity of less than 1500 $\mu$ S/cm**

‘For the water year starting on 1 July 2013, the annual entitlement for authorisation 5, 13, or 15 (a *licence*) in the part of groundwater sub-area 11, 15, 16 or 17 that is seawater intruded where the electrical conductivity of groundwater is less than 1500 $\mu$ S/cm is—

- (a) if the nominal entitlement stated on the licence is 20ML or more, the greater of the following—
  - (i) 20 multiplied by the announced entitlement for the water year for the part of the area;
  - (ii) 5ML; or
- (b) if the nominal entitlement stated on the licence is less than 20ML but more than 5ML, the greater of the following—
  - (i) the nominal entitlement stated on the licence multiplied by the announced entitlement for the water year for the part of the area;
  - (ii) 5ML; or
- (c) if the nominal entitlement stated on the licence is 5ML or less—the nominal entitlement stated on the licence.

### **‘8 Groundwater sub-area 11, 15, 16 or 17—electrical conductivity of 1500 $\mu$ S/cm or more**

- ‘(1) For the water year starting on 1 July 2013, the annual entitlement for authorisation 5, 13, or 15 (a *licence*) in the part of groundwater sub-area 11, 15, 16 or 17 that is seawater intruded where the electrical conductivity of groundwater is 1500 $\mu$ S/cm or more is 0.
- ‘(2) However, if the water taken under the licence is for public health purposes, the annual entitlement is—

- (a) if the nominal entitlement stated on the licence is more than 5ML—5ML; or
- (b) if the nominal entitlement stated on the licence is 5ML or less—the nominal entitlement stated on the licence.’.

## 58 Amendment of sch 10 (Dictionary)

(1) Schedule 10, *authorisation, nominal volume, simulation period and water allocation group*—  
*omit.*

(2) Schedule 10—

*insert—*

‘ $\mu$ S means micro-siemens.

***announced entitlement***, for a water year, means an announced entitlement for the water year decided by the chief executive under section 49Z.

***annual entitlement***, for authorisation 5, 8, 10, 12, 13 or 15, means the volume of water that may be taken under the authorisation during a particular water year.

***annual volume probability***, for a group of water allocations to take groundwater, means the percentage of years in the simulation period for groundwater in which the volume of water that may be taken by the group is at least the total of the nominal volumes for the allocations in the group.

***authorisation***—

- (a) generally, means a licence, permit or other authority to take or interfere with water under the Act or the repealed Act, other than a permit for stock or domestic purposes; or
- (b) for part 5, division 5—see section 31.

***authorisation 1*** means an authorisation to take groundwater, in force immediately before the plan amendment day, in groundwater sub-area 4, 5, 6, 7, 8, 9, 10 or 14, other than a water licence that was an in conjunction water licence to take groundwater or standby water licence to take groundwater.

**authorisation 2** means a water licence to take groundwater that was an in conjunction water licence to take groundwater or standby water licence to take groundwater, other than authorisation 13.

**authorisation 3** means an authorisation under section 49I(2) for continuing to take groundwater in the part of the undeclared area in groundwater sub-area 4 or 6 using the works mentioned in the section.

**authorisation 5** means a water licence to take groundwater, in force immediately before the plan amendment day, in the part of groundwater sub-area 11, 15 or 16 that is seawater intruded, other than authorisation 13.

**authorisation 6** means a water licence to take groundwater, in force immediately before the plan amendment day, in the part of groundwater sub-area 15D or 16 that is not seawater intruded.

**authorisation 7** means a water licence to take groundwater, in force immediately before the plan amendment day, in the part of groundwater sub-area 11, 15A, 15B or 15C that is not seawater intruded, other than the complementary component of the licence.

**authorisation 8** means a water licence to take groundwater comprising the available component of authorisation 7.

**authorisation 9** means a water licence to take groundwater, in force immediately before the plan amendment day, in groundwater sub-area 12 or 13, other than the complementary component of the licence.

**authorisation 10** means a water licence to take groundwater comprising the available component of authorisation 9.

**authorisation 11** means a water licence to take groundwater, commonly known as water licence 20155L, in force immediately before the plan amendment day, other than the complementary component of the licence.

**authorisation 12** means a water licence to take groundwater comprising the complementary component of authorisation 11.



**authorisation 13** means a water licence to take groundwater that was an in conjunction water licence to take groundwater, or standby water licence to take groundwater, in the part of groundwater sub-area 15, 16 or 17 that is seawater intruded.

**authorisation 15** means a water licence to take groundwater for a purpose other than aquaculture purposes, in force immediately before the plan amendment day, in the part of groundwater sub-area 17 that is seawater intruded.

**authorisation 16** means a water licence to take groundwater for aquaculture purposes, in force immediately before the plan amendment day, in the part of groundwater sub-area 17 that is seawater intruded.

**available component**, of authorisation 7 or 9, means—

- (a) for authorisation 7 or 9 mentioned in section 49N(1)(e)(i)—0; or
- (b) for authorisation 7 or 9 mentioned in section 49N(1)(e)(ii)—the difference between the precomplementary component nominal entitlement for the authorisation and the annual volumetric limit for the allocation.

**baseflow** means the part of streamflow derived from the natural discharge of groundwater into a watercourse, lake or spring.

**coastline** means the line marked as the coastline on the map in schedule 9A.

**complementary component**, of a water licence to take groundwater, means—

- (a) for authorisation 7 or 9 for taking groundwater in a groundwater sub-area mentioned in schedule 6A, column 1—the volume worked out using the formula—

$$C = N \times \left( 1 - \frac{n}{100} \right)$$

where—

**C** means the complementary component.

*N* means the nominal entitlement stated on the licence immediately before the plan amendment day.

*n* means the number stated in schedule 6A, column 2, opposite the groundwater sub-area mentioned in column 1; or

(b) for authorisation 11—4200ML.

*constructing authority* has the meaning given in the *Acquisition of Land Act 1967*, section 2.

*daily volumetric limit*, for a water entitlement, means the maximum volume of water that may be taken under a water entitlement in a day.

*declared water* see section 5B.

*domestic area* means domestic area A, domestic area B or domestic area C.

*domestic area A* means the area shown as domestic area A on the map in schedule 9B.

*domestic area B* means the area shown as domestic area B on the map in schedule 9B.

*domestic area C* means the area shown as domestic area C on the map in schedule 9B.

*drawdown* means the actual or simulated lowering of the groundwater level in a water bore that is caused by pumping.

*Eton priority area* see schedule 9, section 1.

*Eton water supply scheme* means the area consisting of the Eton priority area.

*fresh groundwater* means groundwater that has—

- (a) low concentrations of salt and other impurities; and
- (b) an electrical conductivity of less than 1500 $\mu$ S/cm.

*groundwater* means water from an underground source.

*groundwater-dependent ecosystem* means a biological ecosystem that is wholly or partly dependent on groundwater, including the following—

- (a) an aquifer, baseflow or wetland ecosystem;
- (b) an estuarine or near-shore marine ecosystem;
- (c) a riparian vegetation ecosystem;
- (d) a terrestrial vegetation ecosystem.

***groundwater management area*** means the groundwater management area under section 5A(1).

***groundwater sub-area*** means a groundwater sub-area under section 5A(2).

***groundwater sub-area 15A*** means the locality in groundwater sub-area 15 shown as 'A' on the map in schedule 2B.

***groundwater sub-area 15B*** means the locality in groundwater sub-area 15 shown as 'B' on the map in schedule 2B.

***groundwater sub-area 15C*** means the locality in groundwater sub-area 15 shown as 'C' on the map in schedule 2B.

***groundwater sub-area 15D*** means the locality in groundwater sub-area 15 shown as 'D' on the map in schedule 2B.

***hyporheic zone*** means the zone in which an exchange between surface water and groundwater occurs.

***in conjunction water licence***—

- 1 *In conjunction water licence* means a water licence to take or interfere with unsupplemented water that—
  - (a) was in force immediately before the plan amendment day: and
  - (b) stated a maximum area that may be irrigated by taking or interfering with unsupplemented water under the licence; and
  - (c) immediately before 16 June 2005, included a condition authorising the taking of a combination of unsupplemented water and surface water from the Eton water supply scheme.
- 2 *In conjunction water licence* means a water licence to take groundwater that—

[s 58]

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- (a) was in force immediately before the plan amendment day; and
- (b) stated a nominal entitlement for taking groundwater; and
- (c) immediately before 16 June 2005, included a condition authorising the total volume of surface water taken from the Eton water supply scheme and groundwater taken in a water year under the licence to be no more than the nominal entitlement stated on the licence.

*Example of a condition included on an in conjunction water licence to take groundwater—*

a condition authorising the taking of groundwater in conjunction with the channel supply for the Eton water supply scheme

***June 2003 level*** mean the actual or simulated groundwater level in a water bore on 30 June 2003.

***level 1 drawdown deviation*** means the drawdown below the June 2003 level that may be exceeded, from time to time, for periods of more than 365 consecutive days.

***level 2 drawdown deviation*** means the drawdown below the June 2003 level that must not be exceeded for more than 365 consecutive days.

***MGA*** means Map Grid of Australia 1994 mentioned in the ‘Geocentric datum of Australia technical manual’ published by the Intergovernmental Committee on Surveying and Mapping.

*Editor’s note—*

At the plan amendment day, the manual could be inspected on the committee’s website at <[www.icsm.gov.au/icsm/gda/gdatm/](http://www.icsm.gov.au/icsm/gda/gdatm/)>.

***nominal entitlement*** see the *Water Regulation 2002*, section 65.

***Pioneer subartesian area*** means the Pioneer subartesian area on plan AP10057, declared to be a subartesian area under the *Water Regulation 2002*, section 102.

***plan amendment day*** means the day this definition commences.

**plan area** means the area shown as the plan area on the map in schedule 1.

**plan of survey** has the meaning given by the *Land Title Act 1994*, schedule 2.

**precomplementary component nominal entitlement**, for authorisation 7 or 9, means the nominal entitlement stated on the authorisation before the complementary component of the authorisation is worked out.

**public health purposes** includes ablutions and toilets.

**quarterly volumetric limit**, for a water entitlement, means the maximum volume of water that may be taken under a water entitlement in any 3 consecutive months.

**registered** means registered in the freehold land register.

**relevant groundwater-dependent ecosystem** means a groundwater-dependent ecosystem that is a riparian vegetation ecosystem or terrestrial vegetation ecosystem.

**riparian vegetation ecosystem** means a vegetation ecosystem, other than a terrestrial vegetation ecosystem, that includes groundwater-dependent vegetation growing on, or immediately adjacent to, the banks of a lagoon or stream in the plan area.

**seawater intrusion** means the ingress of seawater—

- (a) from the coast or an estuary into an aquifer in which there is fresh groundwater; and
- (b) caused by human activities.

**seawater intrusion baseline** means a line—

- (a) marked as the seawater intrusion baseline on the map in schedule 9A; and
- (b) representing the seawater intrusion front as at the plan amendment day.

**seawater intrusion front** means a line representing the extent of seawater intrusion into an aquifer where the electrical conductivity of groundwater in the aquifer is at least 1500 $\mu$ S/cm.

***simulation period*** means the period—

- (a) for surface water—from 1 July 1900 to 30 June 1996; or
- (b) for groundwater—from 1 July 1900 to 30 June 2003.

***standby water licence***—

- 1 ***Standby water licence*** means a water licence to take or interfere with unsupplemented water that—
  - (a) was in force immediately before the plan amendment day: and
  - (b) stated a maximum area that may be irrigated by taking or interfering with water under the licence; and
  - (c) immediately before 16 June 2005, included a condition authorising the taking of unsupplemented water only if surface water from the Eton water supply scheme is unavailable.

*Example of a condition included on a standby water licence to take unsupplemented water—*

a condition that unsupplemented water may be taken under the licence only if surface water normally taken from the Eton water supply scheme is not available

- 2 ***Standby water licence*** means a water licence to take groundwater that—
  - (a) was in force immediately before the plan amendment day: and
  - (b) stated a nominal entitlement for taking groundwater; and
  - (c) immediately before 16 June 2005, included a condition authorising the taking of groundwater only if surface water from the Eton water supply scheme is unavailable.

***surface water*** see section 8(a).

***terrestrial vegetation ecosystem*** means a vegetation ecosystem, other than a riparian vegetation ecosystem.

***undeclared area*** means the area, comprising the part of groundwater sub-area 1, 2, 3, 4, 6 or 15, that is not the Pioneer subartesian area.

**UTM** means a system known as Universal Transverse Mercator used to project a spherical earth onto a flat map.

**voluntary acquisition**, of land, means acquisition of land, other than under the *Acquisition of Land Act 1967*, with the agreement of the owner of the land.

**water allocation group** means—

- (a) for a water allocation group for water allocations to take surface water—a water allocation group mentioned in schedule 8, part 1; or
- (b) for a water allocation group for water allocations to take groundwater—a water allocation group mentioned in schedule 8, part 2.

**water bore** means a subartesian bore.

**watercourse area** means the area shown as the watercourse area on the map in schedule 2C.’.

- (3) Schedule 10, definitions *annual proportional flow deviation*, *50% daily flow*, *90% daily flow*, *mean annual flow*, *mean wet season flow*, *monthly supplemented water sharing index*, *pre-development flow pattern*, *simulated mean annual diversion*, *30% unsupplemented water sharing index*, *50% unsupplemented water sharing index* and *70% unsupplemented water sharing index*, after ‘simulation period’—

*insert*—

‘for surface water’.

- (4) Schedule 10, definition *unsupplemented water*, ‘means water’—

*omit, insert*—

‘means surface water’.

ENDNOTES

- 1 Approved by the Governor in Council on 8 October 2009.
- 2 Notified in the gazette on 9 October 2009.
- 3 Laid before the Legislative Assembly on . . .
- 4 The administering agency is the Department of Environment and Resource Management.

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