South Australia

Natural Resources Management (Marne Saunders Prescribed Water Resources Area—Reduction of Water Access Entitlements) Regulations 2009

under the *Natural Resources Management Act 2004*

Contents

Preamble

1 The Marne River and Saunders Creek Area was declared to be a surface water prescribed area, all watercourses in the Marne River and Saunders Creek Area were declared to be prescribed watercourses and existing and future wells in the Marne River and Saunders Creek Area were declared to be prescribed wells by the *Water Resources (Marne River and Saunders Creek—Prescribed Water Resources) Regulations 2003*.

Note—

Those regulations came into operation on 20 March 2003—see *Gazette 20.03.2003 p1111*.

2 Those regulations were revoked by the *Water Resources (Marne Saunders Prescribed Water Resources Area) Regulations 2005* (the ***2005 regulations***), which declared—

(a) an area to be the Marne Saunders Prescribed Water Resources Area; and

(b) all watercourses situated in the Marne Saunders Prescribed Water Resources Area to be prescribed watercourses; and

(c) all wells situated in the Marne Saunders Prescribed Water Resources Area and wells drilled in that area after the commencement of those regulations to be prescribed wells; and

(d) the Marne Saunders Prescribed Water Resources Area to be a surface water prescribed area.

Note—

Those regulations came into operation on 7 April 2005—see *Gazette 7.04.2005 p834*.

3 Pursuant to Schedule 4 clause 54(2) of the Act, the 2005 regulations continue in force and effect as if they were regulations made under section 125 of the Act.

4 Pursuant to the 2005 regulations, the prescribed period in relation to the Marne Saunders Prescribed Water Resources Area ended on 20 March 2006.

5 The prescribed period having ended, the Minister is of the opinion that the aggregate of water access entitlements assigned to existing users under section 164N(1) and (2) of the Act exceeds the capacity of the resource.

6 It is now appropriate to make regulations setting out a scheme for the reduction of water access entitlements of existing users in the Marne Saunders Prescribed Water Resources Area.

1—Short title

These regulations may be cited as the *Natural Resources Management (Marne Saunders Prescribed Water Resources Area—Reduction of Water Access Entitlements) Regulations 2009*.

2—Commencement

These regulations come into operation on the day on which they are made.

3—Interpretation

(1) In these regulations—

Act means the *Natural Resources Management Act 2004*;

average adjusted winter runoff—see regulation 4;

category A zone, in relation to underground water, means the following underground water management zones and sub-zone as set out in the plans lodged as Deposits No 49 of 2008 and 28 of 2009 in the General Registry Office:

(a) Unconfined Zone 1;

(b) Confined Zone A;

(c) Confined sub-zone C2;

consumptive use limit—see regulation 7;

dam includes a reservoir or lake;

Department means the administrative unit of the Public Service that is designated from time to time by the Minister by notice in the Gazette as being the Department for the purposes of these regulations;

diversion structure means a structure or object that collects, diverts or extracts water flowing in a watercourse, or surface water flowing over land;

establishment period, applying to particular land within the Marne Saunders Prescribed Water Resources Area, means the establishment period for the area in which the land is situated under the *Water Resources (Marne Saunders Prescribed Water Resources Area) Regulations 2005*;

existing user means—

(a) an existing user under section 164N of the Act; and

(b) an existing user under section 36 of the repealed Act;

flow path, in relation to water, means the path or direction over land which the water flow naturally takes or would take;

licensable dam means a dam used for a purpose other than stock watering or domestic purposes—

(a) that had been lawfully constructed on the relevant land as at the end of the establishment period applying to the land; or

(b) that had not been constructed on the relevant land as at the end of the establishment period applying to the land but in respect of which the existing user had committed significant financial or other resources during that period;

main watercourse management sub-zone means a main watercourse management sub-zone specified in Schedule 4 Part 1;

management sub-zone, in relation to an existing user, means the main watercourse management sub-zone or tributary management sub-zone (as set out in the plan lodged as Deposit No 1 of 2009 in the General Registry Office) of the management zone of the Marne Saunders Prescribed Water Resources Area in which the relevant land, or the relevant part of the relevant land, is located;

management zone, in relation to an existing user, means a management zone (as set out in the plans lodged as Deposits No 47, 49 and 51 of 2008 in the General Registry Office) of Marne Saunders Prescribed Water Resources Area;

Marne Saunders Prescribed Water Resources Area has the same meaning as in the *Water Resources (Marne Saunders Prescribed Water Resources Area) Regulations 2005*;

maximum theoretical enterprise requirement or ***MTER***, in relation to an existing user, means the MTER for the user determined in accordance with regulation 5;

non-licensable dam means a dam used, or to be used, for stock watering or domestic purposes and that had been lawfully constructed on the relevant land as at the end of the establishment period applying to the land;

reasonable requirements of an existing user—see regulation 6;

repealed Act means the *Water Resources Act 1997* (as in force immediately before the commencement of Schedule 4 of the Act);

tributary management sub-zone means a tributary management sub-zone specified in Schedule 4 Part 2;

watercourse water means water in a watercourse.

(2) For the purposes of these regulations, a reference to a particular climate band will be taken to be a reference to the climate band of that number, as set out in the map lodged as Deposit No 29 of 2009 in the General Registry Office.

(3) For the purposes of these regulations, the area of catchment areas is to be measured in square kilometres.

(4) For the purposes of these regulations, a management sub-zone will be taken to be upstream of a main watercourse diversion structure if—

(a) in the case of a main watercourse management sub-zone—the whole of the management sub-zone lies upstream of the main watercourse diversion structure;

(b) in the case of a tributary watercourse management sub-zone—the primary point of inflow from the tributary management sub-zone to the main watercourse management sub-zone is upstream of that main watercourse diversion structure.

(5) For the purposes of these regulations, diversion structures will be taken to be hydrologically continuous if they are connected by the same flow path or watercourse.

(6) Nothing in these regulations authorises an existing user to take more water under a water access entitlement than an amount equal to the user's reasonable requirements.

4—Average adjusted winter runoff

(1) The ***average adjusted winter runoff*** (measured in megalitres) at a particular diversion structure that takes water from a tributary management sub-zone is to be determined by multiplying the average adjusted winter runoff depth applicable at the diversion structure (as determined by the Minister) by the catchment area upstream of the diversion structure.

(2) The ***average adjusted winter runoff*** (measured in megalitres) at a particular diversion structure that takes water from a main watercourse management sub-zone (the ***main watercourse diversion structure***) is to be determined by aggregating the average adjusted winter runoff volume for each tributary management sub-zone upstream of the diversion structure.

(3) In this regulation—

average adjusted winter runoff volume, for a tributary management sub-zone, is the volume specified in column 2 of the table in Schedule 3 in relation to the tributary management sub-zone.

5—Maximum theoretical enterprise requirement

(1) For the purposes of these regulations, the maximum theoretical enterprise requirement for an existing user is to be determined as follows:

(a) if the existing user is an intensive farmer—the estimated water requirement of the user, calculated—

(i) in relation to an animal or animals of a kind referred to in the table in Schedule 1—

(A) by multiplying the number of a particular kind of animal referred to in column 1 of the table farmed by the user by the estimated water requirement in column 2 of the table relating to the relevant animal; and

(B) aggregating the amounts referred to in subsubparagraph (A) for each kind of animal intensively farmed by the user;

(ii) in the case of an intensive farmer of yabbies (*Cherax destructor*)—by applying the following formula in relation to the pond used to farm the yabbies (or, if the user has more than 1 such pond, by applying the formula to each such pond and aggregating the results):

where—

L means length in metres of the pond

W means width in metres of the pond

D means depth in metres of the pond

ER means the evaporation rate of 1.95 metres per year;

(iii) if the intensive farming involves a washdown for dairy cattle—

(A) in the case of farming involving less than 150 animals—3 224 kilolitres per year; or

(B) in the case of farming involving not less than 150 animals but less than 350 animals—4 049 kilolitres per year; or

(C) in the case of farming involving not less than 350 animals—5 566 kilolitres per year;

(iv) if the intensive farming involves a washdown for dogs—4.9 kilolitres per m^2 of the washdown;

(b) if the existing user is an irrigated crop farmer—

(i) to the extent that the relevant crop is in climate band 1—the irrigated crop water requirement of the user, calculated by multiplying the number of hectares of the crop in climate band 1 by the irrigated crop water requirement in column 2 of the table in Schedule 2 relating to the relevant crop;

(ii) to the extent that the relevant crop is in climate band 2—the irrigated crop water requirement of the user, calculated by multiplying the number of hectares of the crop in climate band 2 by the irrigated crop water requirement in column 3 of the table in Schedule 2 relating to the relevant crop;

(iii) to the extent that the relevant crop is in climate band 3—the irrigated crop water requirement of the user, calculated by multiplying the number of hectares of the crop in climate band 3 by the irrigated crop water requirement in column 4 of the table in Schedule 2 relating to the relevant crop;

(iv) to the extent that the relevant crop is in climate band 4—the irrigated crop water requirement of the user, calculated by multiplying the number of hectares of the crop in climate band 4 by the irrigated crop water requirement in column 5 of the table in Schedule 2 relating to the relevant crop;

(v) to the extent that the relevant crop is in climate band 5—the irrigated crop water requirement of the user, calculated by multiplying the number of hectares of the crop in climate band 5 by the irrigated crop water requirement in column 6 of the table in Schedule 2 relating to the relevant crop;

(c) if the existing user is an industrial user—the industrial water requirements applicable to the user specified in 1 or more of the following subparagraphs:

(i) in the case of olive pickling and bottling (including washdown)—300 kilolitres per year;

(ii) in the case of a winery processing more than 700 but less than 900 tonnes of grapes per year—2 500 kilolitres per year;

(iii) in the case of a winery processing less than 200 tonnes of grapes per year—300 kilolitres per year;

(iv) in the case of a winery with 2.5 hectares of surrounding gardens—14 550 kilolitres per year;

(v) in the case of a winery nursery and surrounding trees—500 kilolitres per year;

(vi) in the case of washdown for winery plant and equipment—250 kilolitres per year;

(vii) in the case of a quarry (sawing equipment and washdown)—4 000 kilolitres per year;

(viii) in the case of a quarry (diamond wire saw)—200 kilolitres per year;

(ix) in the case of a restaurant with 14 accommodation units—700 kilolitres per year;

(d) if more than 1 of the above paragraphs or subparagraphs applies in relation to the existing user—the aggregate of all applicable requirements.

(2) For the purposes of this regulation, a reference to a particular number of animals, or to the size of a particular crop, yabbie pond or washdown for dogs, will be taken to be a reference to the maximum number of animals, or size of the crop, pond or washdown, farmed or used by the existing user during the establishment period applying to the relevant land.

6—Reasonable requirements

For the purposes of these regulations, the ***reasonable requirements*** of an existing user, or a class of existing users, will be taken to be an amount of water equal to the MTER for the existing user (if any).

7—Consumptive use limit

(1) For the purposes of these regulations, the ***consumptive use limit*** for a tributary management sub-zone will be taken to be the amount set out in column 3 of the table in Schedule 3 relating to the relevant tributary management sub-zone.

(2) For the purposes of these regulations, the ***consumptive use limit*** at a diversion structure in a main watercourse management sub-zone will be taken to be an amount equal to the aggregate of the consumptive use limits for each tributary management sub-zone upstream of the diversion structure.

(3) For the purposes of these regulations, an ***existing user's share of the consumptive use limit***, in relation to a tributary management sub-zone, will be taken to be the proportion of the available consumptive use limit for the tributary management sub-zone that represents the proportion of the existing user's reasonable requirements as compared to the total reasonable requirements of all existing users within the management sub-zone.

(4) For the purposes of these regulations, an ***existing user's share of the consumptive use limit***, at a diversion structure in a main watercourse management sub-zone, will be taken to be the proportion of the available consumptive use limit at the diversion structure that represents the proportion of the existing user's reasonable requirements as compared to the total reasonable requirements of all existing users—

(a) in that part of the main watercourse management sub-zone that is upstream of the diversion structure; plus

(b) in all other management sub-zones upstream of the diversion structure.

(5) For the purposes of this regulation, the ***available consumptive use limit*** for a tributary management sub-zone will be taken to be the consumptive use limit for the tributary management sub-zone less an amount equal to 30% of the capacity of all non-licensable dams for the management sub-zone (as at the end of the establishment period applying to the management sub-zone).

(6) For the purposes of this regulation, the ***available consumptive use limit*** at a diversion structure in a main watercourse management sub-zone will be taken to be the consumptive use limit at the diversion structure less an amount equal to 30% of the capacity of—

(a) all non-licensable dams in that part of the main watercourse management sub-zone that is upstream of the diversion structure; plus

(b) all non-licensable dams in all other management sub-zones upstream of the diversion structure.

8—Water taken from multiple resources or multiple diversion structures etc

(1) If an existing user has water access entitlements under section 164N of the Act in respect of more than 1 water resource, the Minister may, in reducing a water access entitlement or entitlements—

(a) reduce the amount of water that may be taken under a particular water access entitlement, or the aggregate amount of water that may be taken under all such water access entitlements; or

(b) make an order specifying the amount of water that may be taken from a particular water resource; or

(c) make an order specifying a proportion or ratio in which water may be taken from each water resource.

(2) If an existing user has water access entitlements under section 164N of the Act in respect of multiple diversion structures—

(a) all of which are in the same management sub-zone; and

(b) that are hydrologically continuous; and

(c) in relation to which the flow path stays within the same property,

the Minister may, in reducing a water access entitlement or entitlements—

(d) reduce the total amount of water that may be taken at 1 or more of the diversion structures; or

(e) make an order specifying—

(i) the amount of water that may be taken at a particular diversion structure; or

(ii) the aggregate amount of water that may be taken at all such diversion structures; or

(f) make an order specifying a proportion or ratio in which water may be taken at each of the diversion structures.

(3) If an existing user has water access entitlements under section 164N of the Act in respect of multiple wells in the same water resource, the Minister may, in reducing a water access entitlement or entitlements—

(a) reduce the total amount of water that may be taken from the wells; or

(b) make an order specifying—

(i) the amount of water that may be taken from a particular well; or

(ii) the aggregate amount of water that may be taken from the wells.

(4) A person who contravenes an order under this regulation is guilty of an offence.

Maximum penalty:

(a) in the case of a body corporate—$10 000;

(b) in the case of a natural person—$5 000.

Expiation fee: $315.

9—Scheme for reduction of water access entitlements for existing users

(1) Subject to this regulation, for the purposes of section 164N(3)(b) of the Act, a water access entitlement assigned to an existing user in the Marne Saunders Prescribed Water Resources Area under section 164N of the Act, or under section 36 of the repealed Act, may be reduced in accordance with the following provisions:

(a) in the case of a water access entitlement of an existing user in respect of surface water (other than surface water comprised of roof runoff)—the Minister may reduce the water access entitlement such that the amount of surface water that may be taken at a particular diversion structure under the water access entitlement is reduced to the lesser of—

(i) the existing user's share of the consumptive use limit for the user's management sub-zone, determined in accordance with regulation 7; or

(ii) the amount of water comprising—

(A) in the case of a diversion structure that is a licensable dam—the capacity of the dam; or

(B) 100% of the average adjusted winter runoff upstream of the diversion structure less—

- the amount of evaporation from each licensable and non-licensable dam in the catchment area upstream of the diversion structure; and
- the consumptive use in the catchment area upstream of the diversion structure,

whichever is the lesser; or

(iii) the MTER for the existing user (if any);

(b) in the case of a water access entitlement of an existing user in respect of surface water comprised of roof runoff—the Minister may reduce the water access entitlement such that the amount of roof runoff that may be taken under the water access entitlement is reduced to an amount equal to 85% of the rainfall falling on the relevant roof area at any particular time;

(c) in the case of a water access entitlement of an existing user in respect of watercourse water—the Minister may reduce the water access entitlement such that the amount of watercourse water that may be taken at a particular diversion structure under the water access entitlement is reduced to the lesser of—

(i) the existing user's share of the consumptive use limit for the user's management sub-zone, calculated in accordance with regulation 7; or

(ii) the amount of water comprising 100% of the average adjusted winter runoff at the diversion structure less—

(A) the amount of evaporation from each licensable and non-licensable dam in the catchment area upstream of the diversion structure; and

(B) the consumptive use in the catchment area upstream of the diversion structure; or

(iii) the MTER for the existing user (if any);

(d) in the case of a water access entitlement of an existing user in respect of underground water taking the water from a category A zone—the Minister may reduce the water access entitlement such that the amount of underground water that may be taken at a particular well under the water access entitlement is reduced to the reasonable requirements of the existing user, less a percentage determined by the Minister for the purposes of this paragraph.

(2) Despite subregulation (1), if the reduction of a water access entitlement of an existing user at a diversion structure in accordance with that subregulation would result in the amount of water allocated, or to be allocated, at the diversion structure being less than 50% of the MTER for the existing user, then the Minister may instead reduce the water access entitlement such that the amount of water allocated, or to be allocated, in relation to the water access entitlement at the diversion structure is reduced to the lesser of—

(a) 50% of the MTER for the existing user; or

(b) if the water access entitlement relates to a licensable dam—the capacity of the dam.

(3) For the purposes of this regulation, the ***amount of evaporation*** from a dam will be taken to be an amount of water equal to the lesser of—

(a) 30% of the dam's capacity; or

(b) the capacity of the dam less any existing user allocation to be taken from the dam.

(4) For the purposes of paragraphs (a)(ii) and (c)(ii) of subregulation (1), the ***consumptive use*** in a catchment area will be taken to be an amount of water equal to—

(a) the allocations for all existing users to be made from the surface water or watercourse water (as the case requires), excluding any allocations of surface water comprised of roof runoff; plus

(b) 30% of the capacity of all non-licensable dams in the catchment area.

Schedule 1—Estimated water requirements—intensive farming

Kind of animal	Estimated water requirement for animal
Dairy cattle	55 kL/animal/year
Chicken (meat)	0.13 kL/bird/year
Chicken (eggs)	0.18 kL/bird/year
Pigs (sow breeding unit)	91 kL/sow breeding unit/year*
Sheep (feedlot)	1.46 kL/animal/year
Dogs (kennel)	5.5 kL/animal/year
Horses	18 kL/animal/year
Rabbits	4.13 kL/animal/year

* The estimated water requirement in relation to sow breeding units is calculated at a ratio of 1:10 sows to growers/weaners/finishers.

Schedule 2—Irrigated crop water requirements

Crop	Band 1*	Band 2*	Band 3*	Band 4*	Band 5*
Reference crop	8.63	9.55	9.78	10.18	10.70
Acacia	4.86	5.38	5.52	5.83	6.72
Almond nursery	8.63	9.55	9.78	10.18	10.70
Apricot	6.30	7.05	7.19	n/a	n/a
Beetroot	n/a	n/a	n/a	3.31	3.38
Bush tomato	4.86	5.38	5.52	5.83	6.72
Cereal hay	n/a	n/a	n/a	0.39	0.70
Citrus	4.82	5.40	5.54	n/a	n/a
Eucalyptus	5.83	6.49	6.65	7.04	7.51
Fruit tree (not otherwise listed)	6.30	7.05	7.19	n/a	n/a
Garden	5.82	6.45	6.60	6.97	7.43
Geraldton wax	4.86	5.38	5.52	5.83	6.72
Lucerne hay	7.99	8.75	8.91	9.31	9.76
Lucerne graze	5.83	6.49	6.65	7.04	7.51
Muntrie berries	4.86	5.38	5.52	5.83	6.72
Native produce (not otherwise listed)	4.86	5.38	5.52	5.83	6.72
Native trees	5.83	6.49	6.65	7.04	7.51
Nursery	8.63	9.55	9.78	10.18	10.70
Olive (oil)	4.77	5.27	5.41	5.67	6.04
Olive (fresh)	5.29	5.89	6.03	6.35	6.80

Crop	Band 1*	Band 2*	Band 3*	Band 4*	Band 5*
Pasture	5.83	6.49	6.65	7.04	7.51
Pasture starter	0.94	1.02	1.01	1.01	1.01
Pecan	6.30	7.05	7.19	n/a	n/a
Pumpkin	4.75	5.07	5.12	5.16	5.25
Quandong	4.86	5.38	5.52	5.83	6.72
Recreational crop	5.82	6.45	6.60	6.97	7.43
Semibaccarta	4.86	5.38	5.52	5.83	6.72
Sorghum	5.91	6.39	6.46	6.55	6.68
Stonefruit (not otherwise listed)	6.30	7.05	7.19	n/a	n/a
Tomato	n/a	n/a	n/a	11.15	11.67
Turf (buffalo, couch, kikuyu)	n/a	n/a	n/a	8.23	8.70
Turf (fescue)	n/a	n/a	n/a	9.54	10.03
Vegetables (not otherwise listed)	4.75	5.07	5.12	5.16	5.25
Watermelon	n/a	n/a	n/a	5.54	5.59
Wine grape (red)	1.87	2.15	2.22	2.36	2.53
Wine grape (white)	1.94	2.23	2.31	2.45	2.61
Woodlot	5.83	6.49	6.65	7.04	7.51

* all measurements are megalitres per hectare per year.

Schedule 3—Table of values

Management sub-zone	Average adjusted winter runoff volume for management sub-zone (megalitres)	Consumptive use limit for management sub-zone (megalitres)
M1-01	1783	535
M1-02	957	287
M1-03	557	167
M1-04	163	49
M1-05	900	270
M1-06	103	31
M1-07	353	106
M1-08	120	36
M1-09	497	149
M1-10	363	109
M1-11	87	26
M2-01	270	81

Management sub-zone	Average adjusted winter runoff volume for management sub-zone (megalitres)	Consumptive use limit for management sub-zone (megalitres)
M2-02	183	55
M2-03	457	137
M2-04	527	158
M2-05	93	28
M2-06	90	27
M2-07	80	24
M2-08	73	22
M2-09	30	9
M2-10	127	38
M2-11	63	19
M2-12	47	14
M2-13	37	11
M2-14	30	9
M2-15	20	6
M3	80	24
M4	70	21
M5	123	37
M6	n/a	the amount determined by the Minister
M7	n/a	the amount determined by the Minister
M8	n/a	the amount determined by the Minister
S1-01	257	77
S1-02	43	13
S1-03	43	13
S1-04	13	4
S1-05	40	12
S1-06	13	4
S2-01	127	38
S2-02	63	19
S2-03	43	13
S2-04	30	9
S2-05	30	9
S2-06	17	5
S2-07	53	16
S2-08	33	10
S2-09	23	7
S2-10	17	5

Management sub-zone	Average adjusted winter runoff volume for management sub-zone (megalitres)	Consumptive use limit for management sub-zone (megalitres)
S2-11	37	11
S3	123	37
S4	80	24
S5	37	11
S6	27	8
S7	n/a	the amount determined by the Minister
S8	n/a	the amount determined by the Minister

Schedule 4—Main watercourse and tributary management sub-zones

Part 1—Main watercourse management sub-zones

Management sub-zone	Management zone
M6	Upper Marne
M7	Lower Marne
M8	Upper Marne
S7	Upper Saunders
S8	Lower Saunders

Part 2—Tributary management sub-zones

Management sub-zone	Management zone
M1-01 to M1-11 (inclusive)	Upper Marne
M2-01 to M2-15 (inclusive)	Upper Marne
M3	Upper Marne
M4, M5	Lower Marne
S1-01 to S1-06 (inclusive)	Upper Saunders
S2-01 to S2-11 (inclusive)	Upper Saunders
S3 to S6 (inclusive)	Lower Saunders

Legislative history

Notes

- For further information relating to the Act and subordinate legislation made under the Act see the Index of South Australian Statutes or www.legislation.sa.gov.au.

Principal regulations

Year	No	Reference	Commencement
2009	295	*Gazette 10.12.2009 p6233*	10.12.2009: r 2