DWLBC REPORT

Pyap to Kingston Numerical Groundwater Model 2008

Volume 1 - Report and Figures

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FOREWORD

South Australia's unique and precious natural resources are fundamental to the economic and social wellbeing of the State. It is critical that these resources are managed in a sustainable manner to safeguard them both for current users and for future generations.

The Department of Water, Land and Biodiversity Conservation (DWLBC) strives to ensure that our natural resources are managed so that they are available for all users, including the environment.

In order for us to best manage these natural resources it is imperative that we have a sound knowledge of their condition and how they are likely to respond to management changes. DWLBC scientific and technical staff continues to improve this knowledge through undertaking investigations, technical reviews and resource modelling.

Rob Freeman
CHIEF EXECUTIVE
DEPARTMENT OF WATER, LAND AND BIODIVERSITY CONSERVATION

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During the development of the Border to Lock 3 numerical groundwater model numerous discussions were held regarding model fundamentals, technical issues and progress with Mr Don Armstrong of Lisdon Associates, who also undertook a review of the model and report.

Brenton Howe (Department of Water Land and Biodiversity Conservation) and Dylan Irvine (Flinders University) made a great contribution to the Appendices of this report (Volume II).

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SUMMARY

The Pyap, New Residence, Moorook and Kingston Irrigation areas (referred to as the Pyap to Kingston area in this report) are located adjacent to the River Murray in the northeast region of the South Australian part of the Murray Basin. Concerns have been raised regarding the salt load impacts on the river resulting from irrigation development. Run of the River (ROR) data shows that 16–64 t/d of salt enters the river in the area (between River kilometres of 432 to 480). The original pre-development base salt load entering the river is estimated (by the model) to be ~3.7 t/d in the Pyap to Kingston area. Current modelling predicts ~34 t/d of salt entered the river in the Pyap to Kingston area in 2006. This additional salt load is due to an increased flux of saline groundwater that has occurred in response to the development of irrigation drainage induced groundwater mounds.

To meet obligations under the Murray Darling Basin Comission's (MDBC) Basin Salinity Management Strategy (BSMS), SA is undertaking to develop a suite of accredited MODFLOW groundwater models to bring entries forward to the BSMS Salinity Registers. This work is undertaken by the Knowledge Information Division (Department of Water Land and Biodiversity Conservation—DWLBC) under the broad direction of Strategic Policy Division DWLBC, in liaison with the Murray–Darling Basin Commission. Through the groundwater modelling process, scenarios are established that assist in determining the origin and volume of salt entering the River Murray from groundwater sources.

DWLBC have developed a MODFLOW numerical groundwater flow model (Border to Lock 3 Model) from the SA–VIC border to the Woolpunda area in South Australia (Yan et al. 2005). This model covers most of the Riverland area, including the Pyap to Kingston project area (Fig. 1). The objectives of the modelling project were to develop a model capable of simulating the regional aquifer system in the Riverland area that could be used to:

- Improve the understanding of the hydrogeology of the regional aquifer system and processes in the model area.
- Predict the flux of saline groundwater and salt load entering the River Murray under different accountable development and management actions (100 year predictions from current year), hence provide modelled salt loads for use as Salinity Register entries.
- Assist with broad scale planning with the possibility for future groundwater management schemes (eg salt interception schemes—SIS) that will help control the flux of saline groundwater (and therefore salt load) entering the River Murray.

The fundamental objective of the modelling work undertaken has been to improve confidence in the model parameters and results to levels that will enable and assist:

- Accreditation of the model by the MDBC.
- Use of modelled salt loads as Salinity Register entries.

After calibrations were made, the transient model was used to run scenarios which have produced estimates of the groundwater fluxes (and resultant salt load) entering the River Murray resulting from accountable irrigation and management actions in the Pyap, New Residence, Moorook and Kingston areas. The scenarios are summarised in Table S-1 and predicted salt loads entering the River Murray are summarised in Tables S-2 to S-5.

Table S-1. Summary of modelling scenarios

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

1. Improved Irrigation Practices 2. Rehabilitation 3. Salt Interception Scheme (see Glossary for definitions)

Table S-2. Summary of predicted salt load (t/d) entering the River Murray – Pyap Area

Pyap Area	Year				
	1988	2000	2006	2050	2106
S–1	2.3	2.3	2.3	2.3	2.3
S–2	2.6	2.7	2.8	3.8	5.4
S–3A	7.1	9.6	7.6	9.5	9.7
S–3B	7.1	9.6	6.4	5.9	5.9
S–3C	7.1	9.6	6.4	5.9	5.9
S–4	7.1	9.6	6.4	9.3	11.1
S–5	7.1	9.6	6.4	9.3	11.1

Table S-3. Summary of predicted salt load (t/d) entering the River Murray – New Residence Area

New Residence Area	Year				
	1988	2000	2006	2050	2106
S–1	0.3	0.3	0.3	0.3	0.3
S–2	0.7	0.9	1.1	2.1	3.4
S–3A	9.9	10.8	10.8	10.1	10.2
S–3B	9.9	10.7	10.3	6.6	6.5
S–3C	9.9	10.7	10.3	6.6	6.5
S–4	9.9	10.7	10.3	11.1	12.4
S–5	9.9	10.7	10.3	11.2	13.5

Table S-4. Summary of predicted salt load (t/d) entering the River Murray – Moorook Area

Moorook Area	Year				
	1988	2000	2006	2050	2106
S–1	0.8	0.8	0.8	0.8	0.8
S–2	1.0	1.1	1.2	1.6	2.0
S–3A	13.8	11.7	10.7	7.2	7.2
S–3B	13.8	11.3	9.9	4.0	4.0
S–3C	13.8	11.3	9.7	3.4	3.4
S–4	13.8	11.3	9.7	4.9	5.0
S–5	13.8	11.3	9.7	5.0	5.4

Table S-5. Summary of predicted salt load (t/d) entering the River Murray – Kingston Area

Kingston Area	Year				
	1988	2000	2006	2050	2106
S–1	0.3	0.3	0.3	0.3	0.3
S–2	0.5	0.5	0.5	0.6	0.6
S–3A	9.5	8.5	7.6	4.5	4.5
S–3B	9.5	8.4	7.6	2.4	2.4
S–3C	9.5	8.4	7.6	2.3	2.3
S–4	9.5	8.4	7.6	3.3	3.4
S–5	9.5	8.4	7.6	3.3	3.4

1. INTRODUCTION

The Department for Water, Land and Biodiversity Conservation (DWLBC) developed a numerical MODFLOW groundwater flow model for the Riverland area, from the SA–VIC border to Lock-3 in South Australia in 2005 (Yan et al., 2005). The aim of the project was to upgrade the existing Border to Lock 3 model, and use the model as a management tool for determining salt loads entering the River Murray from the Pyap to Kingston irrigation areas. After the model has been reviewed by groundwater modelling experts and accredited by the Murray Darling basin Commission (MDBC), the model could be used to evaluate salt loads resulting from accountable actions, irrigation practice and irrigation area development, and be used as Salinity Register entries.

This report extensively documents the model inputs and outputs in a format that will assist completion of the MDBC review and accreditation process. The report has two volumes:

- Volume 1 – Report and Figures, which contains the report and key figures depicting the project area, model structure, parameters and model results.
- Volume 2 – Appendices, which contain detailed model inputs (recharge zones and rates), outputs of groundwater flux and salt loads for the various scenarios modelled and data for sensitivity and uncertainty analyses.

1.1 POLICY BACKGROUND

In 2001, the Murray Darling Basin Ministerial Council approved the publication of the Basin Salinity Management Strategy 2001–15 (BSMS). Similarly, the South Australian Government adopted the River Murray Salinity Strategy 2001–15 in 2001. These initiatives followed the adoption of the Ministerial Councils' Salinity and Drainage Strategy 1988 (S&DS), taking into account the 1999 Basin Salinity Audit and the National Land and Water Resources Audit.

The objectives of the BSMS are to:

1. Maintain water quality of the shared water resources of the River Murray and River Darling.
2. Control the rise in salt loads in all tributary rivers of the Murray-Darling Basin.
3. Control land degradation and protect important terrestrial ecosystems, protect farmland, cultural heritage and built infrastructure.
4. Maximize net benefits from salinity control across the Basin.

Under the S&DS, 1 January 1988 was adopted as a baseline from which any subsequent actions that affected River Murray salinity were the responsibility of the State in which the action occurred. One of the main components carried forward from the S&DS was the system of salinity credits and debits, however changes were made to the manner in which credits and debits were entered on the Salinity Registers. Under the 1988 Strategy, debits and credits were entered as the impact at 30 years. Within the BSMS, entries onto the register are the average over the 30 years, with the impact at 100 years also recorded. The BSMS allows for any action resulting in an increase in river salinity, such as new irrigation developments, to occur, provided that salinity credits, gained by contributing to the funding of salt interception schemes or other measures, are available to offset any salinity debits arising from these accountable actions.

The S&DS has significantly reduced salinity in the River Murray through implementation of salt interception schemes and improved land and water management. The target of restricting river salinity at Morgan below a threshold of 800 EC at least 95% of the time is close to being met. However, the 1999 Salinity Audit highlighted that the future impacts of salt mobilisation, due to further irrigation developments and the effects of dryland salinity, would diminish the achievements of the S&DS unless further action was taken. Consequently, the BSMS commits the partner governments to an initial seven-year investment program of salinity mitigation works and measures to be implemented across the Murray Darling Basin to deliver 61 EC credits to the river and to offset the States accountable actions.

There are currently five operational salt interception schemes within SA (Woolpunda, Waikerie, Waikerie IIA, Qualco – Sunlands Groundwater Control Scheme and Bookpurnong). The Loxton SIS is currently under construction and further scheme extensions are being investigated in the Woolpunda–Cadell reach near Waikerie, and in the Pike–Murtho area.

SA proposed a credit allocation and cost-sharing methodology on the basis of the model results of the various pre-88 and post-1988 actions undertaken in each of the areas. The assessment of those impacts is required to be consistent with the reporting requirements of both Schedule ‘C’ of the Murray-Darling Basin Agreement 1992 and the Basin Salinity Management Strategy Operational Protocols 2005.

1.2 BORDER TO LOCK 3 MODELLING BACKGROUND

Figure 1 shows that the model domain (Border to Lock 3 model) is considerably larger than the Pyap to Kingston project area. The model domain was designed to cover the entire Riverland area for various projects and also to avoid potential model boundary effects interfering with model results within the project area. The major irrigation districts included in the Border to Lock 3 model are Loxton, Bookpurnong, Pike, Murtho, Berri, Renmark, Pyap, New residence, Moorook and Kingston. The Border to Lock 3 model has been refined in all areas before 2007 with the exception of Pyap, New residence, Moorook and Kingston areas.

The Border to Lock 3 model has been developed progressively by DWBLC and its consultants. Australian Water Environments (AWE) undertook preliminary hydrogeological investigations in the Loxton–Bookpurnong area aimed at increasing the knowledge of the hydrogeology in relation to the construction of a SIS in both areas. This work culminated in a submission (DWLBC 2003) to the MDBC High Level Inter-Jurisdictional Working Group on Salt Interception in February 2003 regarding SIS in the Loxton–Bookpurnong area. AWE developed a MODFLOW model of the Loxton–Bookpurnong area in 1999, and developed a more complex model in later 2002 and early in 2003 (AWE 2003).

DWLBC commenced further hydrogeological investigations in the Loxton area from mid 2003. One component of these investigations was modelling, and in late 2003 DWLBC took over further development of the model.

By 2004 and 2005, Border to Lock 3 model refinements were concentrated on the Loxton–Bookpurnong and Pike–Murtho areas and on the following model features:

- Replicating the gradient between the highland and floodplain.

- Improving modelled potentiometric heads on the floodplain and improving the gradient between the floodplain and the River Murray.
- Revising model layer structure contours and simplifying model layers based on all information from old and new investigations.

The model was then used by DWLBC for SIS investigations at Loxton–Bookpurnong and Pike–Murtho areas. The model and results for the Loxton area were reviewed and accredited by MDBC in 2004 and for Bookpurnong in 2005.

Since the model has been transferred back to DWLBC, DWLBC have made further significant improvements throughout the Pike and Murtho regions which address the issues raised by Salient Solutions (2005) and REM–Aquaterra (2005). The fundamental objective of the modelling work undertaken has been to improve confidence in the model parameters and results to levels that will enable and assist accreditation of the model by the MDBC. The model and modelled results in Pike and Murtho areas were reviewed and accredited by MDBC in 2006.

Subsequent to the above model development, DWLBC commissioned Aquaterra in partnership with REM and AWE to refine the Border to Lock 3 model for the Berri–Renmark region in early 2006. The conceptual and numerical models for the Berri and Renmark areas are described by Aquaterra et. al. (2006). The model also retained the previous refinements made in the Loxton–Bookpurnong and Pike–Murtho areas in 2006.

The Border to Lock 3 model for the Berri–Renmark area was independently reviewed by Lisdon Associates based on the groundwater modelling guidelines (MDBC 2001) and requirements for MDBC Salinity Register entries in 2006. This review recommended that:

- Salt load estimates from the model should not be used as Salinity Register entries.
- Further work is needed to address model issues related to calibration performance and salt loads in terms of the long-term averages as seen in the River and those modelling recommendations made by Lisdon Associates (2006) and DWLBC.

After transferring the model back to DWLBC in mid 2006, DWLBC and Aquaterra have made further improvements to the model throughout the Berri–Renmark region. Modifications were made to aquifer structure and new estimates of aquifer hydraulic conductivities were applied. The model now better matches the declining water level trends observed from the 1980s onwards and has an improved calibration, which has addressed some of the key issues raised by DWLBC, MDBC and Lisdon Associates. In line with the other improvements DWLBC have made to the model, the fundamental objective of the modelling work undertaken has been to improve confidence in the model parameters and results to levels that will enable and assist:

- Accreditation of the model by the MDBC.
- Use of modelled salt loads as Salinity Register entries.
- Broad scale planning of groundwater management schemes (eg salt interception scheme- SIS) that will control the flux of saline groundwater (and therefore salt load) entering the River Murray.

The latest version of the Border to Lock 3 model now represents the platform for all future numerical salt load calculation estimates and salt interception concept designs between Lock 6 (SA border) and Lock 3.

1.3 OBJECTIVES

Numerical groundwater flow models enable the creation of a computer based mathematical representation of the conceptual understanding of an aquifer system. The model is a powerful tool for validating the understanding and for predicting the response of the aquifer system to imposed stresses.

The objectives of DWLBC groundwater modelling were to develop an *impact assessment model of moderate complexity* (in the terminology of the Murray Darling Basin Commission, 2001) capable of simulating the regional aquifer system.

The objectives of this modelling were to:

- Provide additional confidence in the numerical groundwater model (Border to Lock 3 model) and its predictions specifically in the Pyap to Kingston area.
- Develop a (processing) time efficient model that could be used to further revise salt loads resulting from accountable actions, resulting from existing and future irrigation development.
- Obtain accreditation of the model (Pyap–Kingston area) by the MDBC.
- Calculate modelled salt loads acceptable as Salinity Register entries.
- Develop a model that can be used to assist with broad scale planning of groundwater management schemes (eg. salt interception) in the near future for the Pyap – Kingston Irrigation areas.

2. HYDROGEOLOGY AND HYDROLOGY OF THE PYAP TO KINGSTON AREA

2.1 LOCATION

The Kingston, Moorook, New Residence and Pyap irrigation areas are located in the Riverland region of South Australia on the western side of the River Murray (Fig. 1). The Pyap to Kingston irrigation areas together occupy an area of ~3400 ha. The project area is bounded by the River Murray on the northern and eastern sides. Water bodies and irrigation areas are clearly distinguishable on aerial photography and are shown in Figure 2.

2.2 CLIMATE

The climate is typically characterised by hot dry summers and cool, wet winters. The average annual rainfall is ~300 mm with potential evapotranspiration of 2000 mm/y (Table 1). More than 60% of average annual rainfall occurs over the six months between May and October.

Table 1. Average monthly rainfall and potential evapotranspiration (mm) at Loxton, station 025034 (Bureau of Meteorology 2006)

	J	F	M	A	M	J	J	A	S	O	N	D	Annual
Rainfall	15	17	17	21	27	26	35	33	33	32	26	22	304
Potential evapotranspiration	313	263	214	129	74	48	59	84	120	177	234	295	2009

2.3 HYDROLOGY

The River Murray and associated wetlands and anabranches located within the River Murray floodplains are the dominant surface water features in the Pyap to Kingston region. River water levels between Kingston and Pyap are regulated by Locks 3 (downgradient) and 4 (upgradient) and River Murray water levels are typically held at 9.8 m AHD in this reach.

Surface water control structures are in place on some anabranches. The Kingston and Moorook area borders the floodplain area that is filled with a complex network of anabranches and lagoons.

2.4 REGIONAL HYDROGEOLOGY

The Murray Basin is a closed groundwater basin containing Cainozoic unconsolidated sediments and sedimentary rock up to 600 m in thickness, and contains a number of regional aquifer systems (Evans and Kellet, 1989).

Within the study area, there are three aquifer systems of significance - Monoman Formation, Loxton Sands and Murray Group Limestone (see hydrogeological cross section in Fig. 3).

In the highland areas, the main water table aquifer occurs in the Loxton Sands. This aquifer forms a regionally extensive unconfined to semi-confined aquifer, into which the channel of the ancestral River Murray is incised. Within this channel, the semi-confined Monoman Sands aquifer has been deposited. The Loxton Sands aquifer and the Monoman Sands aquifer are considered to be in direct hydraulic communication in the study area.

Within the Pyap to Kingston irrigation areas, the groundwater flow direction in all aquifers of interest is generally towards the floodplain and then the River Murray. The river and its anabranches behave as a sink for regional groundwater in the study area.

Groundwater salinity ranges between 5000–30 000 mg/L in the project area. The values given in Figure 4 (which were used in the calculation of predicted salt load for each of the modelled zones) were analysed to determine the frequency distribution of salinities in the model budget zone. The median value was found to be 26 200 mg/L and the mean 23 400 mg/L. Saline groundwater enters the River Murray by the following pathways:

1. Direct inflow via seepage from exposed Loxton Sands at or near the base of cliffs adjacent to the River Murray.
2. Discharge from the Monoman Sands that act as a conduit for lateral flow from the Loxton Sands (and upward leakage from the Murray Group Limestone) underlying the floodplains.
3. Discharge from the Monoman Sands into local wet land features, often at the back of the floodplain, that deliver high salt loads during and after periods of flood.
4. Slow upward leakage from the underlying confined Murray Group Limestone aquifer.

These processes are summarised in an conceptual hydrogeological model (Fig. 5). The figure details the conceptual model of groundwater flow between the aquifers, the broader regional groundwater flow system, inter-aquifer flow and local recharge mechanisms.

The hydraulic communication between the Loxton Sands and Monoman Formation is an important component in controlling the salt movement in the area. The flux of saline groundwater entering the River Murray is dominated by the hydraulic conductivity of the Loxton Sands, and the head difference between the river and nearby groundwater.

Groundwater discharge subsequently occurs either directly to the River Murray (or one of its backwaters or anabranches) through the Loxton Sands or Monoman Sands aquifer, or through evapotranspiration. Typical rates of evapotranspiration from the floodplain are 250 mm/y (Holland et al., 2001).

In the project area downstream of Loxton, erosion of the Bookpurnong Beds has created a direct vertical connection of the river valley (Monoman Sands) with the underlying Murray Group Limestone. The extent of this erosion is not well known, and given that the Loxton Sands aquifer maintains lateral connection with the river valley throughout the entire project area, the majority of the salt load contributed to the River is likely to be contributed through the Loxton Sands and Monoman Formations.

The schematic diagram of the Pyap to Kingston conceptual hydrogeological model is presented in Figure 5. The figure highlights the regional groundwater flow directions and leakage between the various hydrogeological units.

2.5 HYDROGEOLOGICAL UNITS

Each of the various hydrogeological units (Table 2) in the project area, are discussed in order of increasing depth below ground surface.

Table 2. Hydrogeological units of the Pyap to Kingston area

Hydrogeological unit		**Aquifer/aquitard**	**Salinity range** (mg/L)
Coonambidgal Formation		Clay layer	NA
Monoman Formation		Aquifer unconfined – semi-confined in river valley	2000–50 000
Loxton Sand		Aquifer unconfined to (semi-confined?) on highland	5000–25 000
Lower Loxton Clay and Shells		Aquitard – clay, shells	NA
Bookpurnong Formation		Aquitard – clay	NA
Murray Group Limestone	Pata Formation	Semi-confined aquifer limestone	5000–20 000
	Winnambool Formation	Aquitard – marl	NA
	Glenforslan Formation	Semi-confined aquifer limestone	~20 000
	Finniss Formation	Aquitard – marl	NA
	Upper Mannum Formation	Confined aquifer limestone	~20 000
	Lower Mannum Formation	Confined aquifer limestone	NA

2.5.1 COONAMBIDGAL FORMATION

The Coonambidgal Formation occurs ubiquitously across the floodplain and comprises clay and silts deposited during periods of episodic flooding (Yan et al. 2005).

Drilling across the region has indicated the unit can vary in thickness from 1–9 m across the floodplains. It is likely that, similar to the other floodplains in the region, the greater thicknesses would be observed at or near the break in slope between the floodplain and highland.

2.5.2 MONOMAN FORMATION

On the floodplain, the Monoman Sands lie beneath the Coonambidgal Formation clay and above the regional upper sequences of Murray Group Limestone.

Typically, the Monoman Sands comprise a mixture of channel and sheet sand deposits with intervening sequences of silty clay. This is likely to result in highly variable transmissivity throughout the floodplain similar to that encountered in the Loxton–Bookpurnong investigations. Floodplain drilling carried out by REM in December 2004 (including the Pike–Mundic, Woolenook Bend, and Gurra Gurra areas) revealed that the thickness of the Monoman Sands ranged between 7–19 m (REM-Aquaterra, 2005). It is likely that in the Pyap to Kingston area, similar ranges could be realised, however thicknesses at the larger end of the scale (ie 12–19 m) generally only occur within paleo channels, often found in expansive floodplains, possibly like the one found between Pyap and New Residence.

Due to its semi-unconfined nature and hydraulic connection, the potentiometric surface for the Monoman Sands has been merged with the Loxton Sands as model layer one and is presented in Figure 6.

2.5.3 BLANCHETOWN CLAY

The Blanchetown Clay aquitard occurs sporadically throughout the region and due to its laucustrine environment of deposition, can grade from silty soft clay with poor plasticity and low density, to hard dense clay with high plasticity.

The Blanchetown Clay is absent across the floodplain and in some large low-lying areas in the project area.

2.5.4 LOXTON SANDS

The Loxton Sands have been eroded from the floodplain but are present throughout the highland areas, often exposed in cliff faces within the project area. Potential salinity mitigation strategies for the highland area are likely to target the Loxton Sands because of the favourable hydraulic properties, the connection with the River Valley and the elevation of this sub-unit with respect to river pool levels. While the thickness of the Loxton Sands is ~30–40 m (calculated using ground elevation contours and structure contours), the saturated thickness is only around 5–10 m (from the structure contours and water table contours). The Loxton Sands become unsaturated on the western side of project area (Fig. 3).

Figure 6 shows that groundwater flow in the Loxton Sands aquifer is dominated by the groundwater mound that has developed due to recharge of excess irrigation water in a wide corridor from the irrigation areas. These mounds have raised hydraulic gradients that drive groundwater flow towards the River Murray.

Groundwater salinity values in the Monoman Sands and Loxton Sands vary dramatically across the study area as shown in Figure 4, which is believed to reflect both the impact of lower salinity irrigation water on the more saline native groundwater and evaporative effects on the floodplain. In the Loxton Sands, values range from as low as 5000 mg/L (close to the river and under certain irrigation areas), to over 30 000 mg/L.

2.5.5 BOOKPURNONG BEDS

The Lower Loxton Clay and the Bookpurnong Beds, whilst recognised as discrete stratigraphic units, form the major low permeability confining bed throughout the region separating the Murray Group Limestone and Loxton Sands aquifers. This aquitard primarily dips downward gently from southwest to northeast. As stated in AWE 1998, *“The Bookpurning Beds lens out and are absent near to the Pyap to Kingston reach of the River”.* Borehole data (Pers comm. Steve Barnett 2007) show that the Bookpurnong Beds exist through most of the highland area from Pyap to Kingston and may absent under the river valley.

2.5.6 MURRAY GROUP LIMESTONE

The Murray Group Limestone is a confined aquifer in most of the eastern part of the model area. Due to the effects of regional scale geological folding, these layers rise to the west, and the Murray Group Limestone aquifer is shallower and becomes unconfined just to the west of the Pyap to Kingston area (AWE 1998).

Recent work has resulted in a more detailed subdivision of the Murray Group Limestone, reflecting a change from predominantly fluvial environments of the Murray Group to alternating deeper marine and shelf facies. These facies variations can be identified by the deposition of predominantly marl aquitards (Winambool Formation, Finnis Formation), or limestone aquifers (Pata Formation, Glenforslan Formation, Upper and Lower Mannum Formations).

2.5.6.1 Pata Formation

The Pata Formation semi-confined aquifer is a poorly consolidated bryozoal limestone with interbedded friable sand layers. The Pata Formation aquifer dips gently to the northeast to depths ~55 m (-5 m AHD) below ground surface at Bookpurnong. This unit is typically in the range of 10–15 m in thickness with an observed thickening to the northeast.

Although described as a limestone, the unit represents a poor aquifer due to the presence of marl. Pumping tests conducted by DWLBC at both floodplain and highland sites have returned yields of ~0.5–1 L/s.

Groundwater salinities in the Pata Formation are from 5000 mg/L up to 20 000 mg/L.

2.5.6.2 Winnambool Formation

The Winnambool Formation aquitard comprises grey to pale green calcareous clay (marl) and silty clay. This unit dips to the northeast, consistent with the regional tilt. The Winnambool Formation provides an effective aquitard between the Pata Formation and Glenforslan Formation.

2.5.6.3 Glenforslan Formation

The Glenforslan Formation semi-confined aquifer is a grey sandy limestone that closely resembles the Pata Formation, with the exception that it contains occasional fine-grained, hard bands. This unit has a thickness consistently in the range 20–30 m and dips to the northeast.

Groundwater salinity in the Glenforslan Formation is around 20 000 mg/L in the Woolpunda area (near Kingston).

2.5.6.4 Finnis Formation

The Finniss Formation aquitard consists of a thin but persistent grey to dark grey clay with thin sand layers and hard bands separating the Glenforslan Formation and Upper Mannum Formation. This unit has a maximum thickness of 4.5 m but is commonly 1–2 m in thickness.

2.5.6.5 Upper Mannum Formation

The Upper Mannum Formation confined aquifer has only been fully penetrated by a number of wells in the Woolpunda area (near Kingston). This unit dips to the northeast, but is difficult to distinguish from the underlying Lower Mannum Formation in some areas.

Groundwater salinity in the Upper Mannum Formation is around 20 000 mg/L in the Woolpunda area.

2.5.6.6 Lower Mannum Formation

The Lower Mannum Formation confined aquifer has only been fully penetrated by a number of wells in the Woolpunda area. This formation comprises hard, well compacted and moderately to well cemented grey limestone with some evidence of recrystallisation. There is an increase of fine carbonate sand towards the top of the unit.

The potentiometric surface for the Murray Group Limestone (drawn for ~1990) is presented in Figure 7. Regional groundwater flow (based on Barnett 1991) occurs toward the river in the project area from the west towards the east and north east.

The groundwater contours suggest that the Murray Group Limestone has some degree of interaction with the river valley in the Kingston area (down stream of Lock 3).

2.6 SUMMARY OF AQUIFER TEST RESULTS

The primary conclusion from the aquifer tests relevant to this project is that the Lower Loxton Sands aquifer can behave as a semi–confined aquifer. Leakage occurs either downward from the Upper Loxton Sands aquifer or upward from the Lower Loxton Clays. It is reasonable to expect a semi-confined response given that the screen intervals on the observation wells are generally small (6–9 m) in comparison to the saturated thickness of the Loxton Sands aquifer (a unit with variable lithology). Hydraulic conductivity values within the range of ~1 to ~5 m/d for the Lower Loxton Sands aquifer would seem representative (REM-Aquaterra, 2005).

There have been at least 37 aquifer tests in the Loxton–Bookpurnong area floodplain aquifer. Howles and Smith (2005) reported on the Monoman Sands aquifer parameters (on the three major floodplains adjacent to Loxton):

- Transmissivity values (generally) of 50–600 m^2/d, with the most common value 100–200 m^2/d, however there may be ancient channels where the transmissivity may be much higher.
- Hydraulic conductivity values of 10 to 120 m/d, with the most common value 30–40 m/d.
- Confined storage coefficient values of 1.0×10^{-4} to 1.4×10^{-3}, with the most common value 4×10^{-4} to 8×10^{-4}, although there are areas where the storage coefficient may be higher.

2.7 GROUNDWATER SALINITY

All available field salinity values (within 3 km from the River Valley) from the Loxton Sands and Monoman Formation aquifers in the Pyap to Kingston area were considered in order to characterise the salinity of groundwater entering the River Murray and its anabranches.

The model flow budget zone boundaries were created based on the irrigation zones, groundwater flow zones and salinity zones. The salinity values applied for calculation of salt load to the River Murray have been reviewed during the project. The product of the modelled fluxes and salinity has then been reported as calculated salt loads. Figure 4 shows the derived model flow budget zones and the salinities that were applied in the calculation of the salt loads for the Pyap to Kingston area.

A statistical analysis and frequency distribution on the available salinity data (Section 7.2) identified the presence of two distinct salinity populations:

- Irrigation return seepage water with TDS less than 5000 mg/L.
- Native groundwater ranging up to in excess of 30 000 mg/L TDS.

This was more noticeable in the Kingston area where a groundwater mound consisting of relatively fresh irrigation drainage water has formed.

A sensitivity analysis has been completed (Section 6.1.3) that compares salt loads calculated from various statistically derived salinity inputs.

There are few groundwater salinity values for the Murray Group Limestone aquifer, but they show a wide range in salinity from 5 000 to greater than 20 000 mg/L TDS.

2.8 REGIONAL HYDROLOGY

Where shallow hydraulic gradients exist towards groundwater discharge points in the form of surface water features, it is obvious that surface water elevations play a critical role in determining how much groundwater will be discharged. Therefore a thorough understanding of the regional hydrology is required of the study area.

The weirs at Locks 3, 4, 5 and 6 provide the primary controls on the water level in the main river channel in the model domain. The elevation between the upper weir pool at Lock 6 and the upper weir pool at Lock 3 ranges from 19.2–9.8 m AHD.

Surface water control structures are in place on some anabranches. Some floodplain areas are filled with a complex network of anabranches and lagoons.

3. MODEL CONSTRUCTION

3.1 MODFLOW AND VISUAL MODFLOW

MODFLOW is a three-dimensional finite difference mathematical code that was developed by the US Geological Survey (McDonald and Harbaugh 1988). Visual MODFLOW Version 4.1.0.145 was developed by Waterloo Hydrogeologic Inc. in recent years and is a pre-processor for quick generation of data files for MODFLOW.

Visual MODFLOW was used as a tool for generating MODFLOW model grids, boundary conditions, observation well data and zones for aquifer hydraulic parameters. The software was also used for establishing settings to run the model, and to obtain quick and convenient output results. The PCG2 solver was used for all steady state and transient modelling runs.

3.2 MODEL DOMAIN AND GRID

The model domain simulates an area 75 km (east-west) by 78.3 km (north-south). The bounding AMG coordinates of the model domain are (southwest) E425122 N6160180 and (northeast) E500122 N6238500 (GDA 1994) (see Figs 8 and 9).

The selection of a large model domain that incorporates the smaller study area is consistent with good modelling practice. The model domain boundaries are set at a sufficient distance from the study area such that they do not influence the behaviour of the aquifer system in the study area.

The rectangular model grid was divided into 491 columns and 472 rows. The minimum grid size is 125 x 125 m in the Pyap to Kingston area and other irrigation areas (Berri–Renmark, Pike–Murtho and Loxton–Bookpurnong). The maximum grid size is 250 x 250 m in the remaining model area (Fig. 10).

3.3 MODEL LAYERS IN PYAP TO KINGSTON AREAS

After the model was transferred back from Aquaterra et.al (2006), no changes were made to any of the model layers or structure contours.

MODFLOW layer options are given in Table 3.

To summarise the discussion below, the regional aquifer system in the Pyap to Kingston area was conceptualised as a five layer model, including four aquifer layers and one aquitard layer (Fig. 10, Table 4). The model grid was applied to the five layers resulting in 1 158 760 finite difference cells.

Simplifying model geometry by reducing the number of model layers can reduce the input data set requirements, helping to avoid complications, reduce numerical errors, and speed up the model calculation process. According to McDonald and Harbaugh (1988), aquitards can be simulated as actual layers between aquifers when calculating vertical leakage, or simulated as vertical leakage between aquifers without an actual layer in the model (provided

Table 3. MODFLOW layer types

Layer type	Aquifer type	Aquifer hydraulic parameters
Type-0	Confined	Transmissivity and storage coefficient (specific storage, SS) are constant.
Type-1	Unconfined	Transmissivity varies and is calculated from saturated thickness and hydraulic conductivity. The storage coefficient (specific yield, SY) is constant. Type-1 is only valid for the uppermost layer of a model.
Type-2	Confined/ Unconfined	Transmissivity is constant - the storage coefficient may alternate between values applicable to the confined (SS) or unconfined (SY) states.
Type-3	Confined/ unconfined	Transmissivity varies and is calculated from the saturated thickness and hydraulic conductivity. The storage coefficient may alternate between values applicable to the confined (SS) or unconfined (SY) state.

Table 4. Model layer aquifers and aquitards

Layer number	Hydrogeological unit	Aquifer/ aquitard	MODFLOW layer
1	Loxton Sands, Monoman Formation	Aquifer	Type-1
2	Lower Loxton Clay and Shells, Bookpurnong Formation	Aquitard	Type-3
3	Pata Formation	Aquifer	Type-3
–	Winnambool Formation	Aquitard	Simulated as leakage
4	Glenforslan Formation	Aquifer	Type-0
–	Finnis Formation	Aquitard	Simulated as leakage
5	Mannum Formation	Aquifer	Type-0

storage in the aquitards is not important). Without an aquitard layer, the vertical leakage will be calculated using the vertical hydraulic conductivity values, and thickness of the overlying and underlying layers. The method of using vertical leakage to simulate aquitards can be used where the aquitard layers are relatively thin and uniformly distributed.

In the model area, the Winnambool Formation aquitard is only ~3 m thick, and the Finnis Formation aquitard is uniformly less than 5 m in thickness. These aquitards can be merged into the underlying/overlying aquifers, and vertical hydraulic conductivity values in the aquifer layers can be used to control the vertical leakage between the aquifers.

According to the modelled and observed data reported in Yan et al. (2005), the head difference between the Upper Mannum Formation and Lower Mannum Formation is very small in the project area. As there are three aquifers (Glenforslan Formation, Pata Formation and Monoman Formation) in the vertical profile between the Mannum Formation and the River Murray, upward leakage from the Mannum Formation will be very similar if the upper and lower units of the Mannum Formation are merged into one layer in the model.

3.3.1 GROUND SURFACE

The Department of Environment and Heritage (DEH) provided the regional elevation data for the groundwater model. Ground surface elevation is given in Figure 11. The elevation of the floodplain is ~10–15 m AHD and the elevation of the highland is ~40–50 m AHD in the project area.

3.3.2 LAYER 1: LOXTON SANDS, MONOMAN FORMATION AQUIFER AND PART PATA FORMATION

Layer 1 represents the Loxton Sands unconfined/semi-unconfined aquifer, the Monoman Formation semi-unconfined/semi-confined aquifer and part Pata Formation unconfined aquifer between downstream of Loxton and upstream Pyap (Yan et al 2005):

1. In the highland area, the unconfined aquifer is represented by the Loxton Sands. The base of Layer 1 is the base of the Loxton Sands.
2. The Monoman Formation represents the bulk of the unconfined aquifer in the River Murray floodplain. In reality, the Monoman Formation occurs in the unconfined/semi-confined state depending on the thickness and competence of the overlying Coonambidgal Formation (which is not represented in this model).
3. Base elevations were determined from geological and geophysical logs and extrapolation of these values. The elevation of the base of Layer 1 (top of Layer 2) occurs from between -30 and 45 m AHD in the model domain (Fig. 12).
4. In an area between downstream of Loxton and upstream of Pyap, the Pata Formation comes into communication with the River Murray and forms the unconfined aquifer. Special hydraulic parameters were used in layer 1 (Kh=Kv=0.5 m/d) in the area to simulate the Pata Formation (see section 3.4).
5. The Blanchetown Clay has not been modelled as the effect of this aquitard and subsequent perching of water is accounted for by controlling the time lag and recharge rate to the Loxton Sands groundwater table (refer to section 3.6).

3.3.3 LAYER 2: BOOKPURNONG FORMATION AQUITARD AND PART PATA FORMATION

Layer 2 represents the Bookpurnong Formation aquitard and part of the Pata Formation semi-confined aquifer:

1. In the highland area, Layer 2 represents the Bookpurnong Formation. The base of Layer 2 is the base of the Bookpurnong Formation.
2. In the River Murray valley, Layer 2 represents the Pata formation where the Bookpurnong Formation is presumed to be absent (see areas of Kv = 0.5m/d in section 3.4). The base of Layer 2 is the base of the Bookpurnong Formation.
3. Base elevations were interpreted from geological and geophysical logs and the extrapolation of these values. Layer 2 has a thickness of ~5 m. The base elevation of Layer 2 (top of Layer 3) occurs between -5 and 0 m AHD in the model domain (Fig. 13).

3.3.4 LAYER 3: PATA FORMATION AQUIFER

Layer 3 represents the regionally distributed Pata Formation, which is modelled as a semi-confined low permeability aquifer. The base elevation of Layer 3 was interpreted from geological and geophysical logs, extrapolation of these values, and by examination of the cross-sections given in Figure 3. Layer 3 has a thickness of 2–10 m. The base elevation of

Layer 3 (top of Layer 4) occurs between -10 and -5 m AHD in the Pyap to Kingston area (Fig. 14).

3.3.5 WINNAMBOOL FORMATION AQUITARD

The Winnambool Formation vertical hydraulic conductivity was applied to the Pata Formation (layer 3) and the upper part of the Glenforslan Formation (layer 4) to allow calculation of the leakage between these aquifers. This modelling method simulates the effect of the Winnambool Formation.

3.3.6 LAYER 4: GLENFORSLAN FORMATION AQUIFER

Layer 4 represents the regionally distributed Glenforslan Formation, which is a semi-confined, low permeability aquifer. Thickness of Layer 4 (~25 m) was taken from AWE (2003). The base elevation of Layer 4 (top of layer 5) occurs between -35 and -30 m AHD in the model domain (Fig. 15).

3.3.7 FINNIS FORMATION AQUITARD

The Finnis Formation vertical hydraulic conductivity was applied to the Glenforslan Formation (layer 4), and is combined with the specified vertical hydraulic conductivity of the Mannum Formation (layer 5), to allow calculation of the leakage between these aquifers. This modelling method simulates the effect of mainly vertical flow through the Finnis Formation.

3.3.8 LAYER 5: MANNUM FORMATION AQUIFER

Layer 5 represents the regionally distributed Mannum Formation confined moderate permeability aquifer. Layer 5 has a thickness of 80 m, taken from AWE (2003). The base elevation of layer 5 occurs around -110 m AHD in the Pyap to Kingston area (Fig. 16).

3.4 MODEL HYDRAULIC PARAMETERS

In order to constrain the model calibration, a physically realistic range of aquifer and aquitard hydraulic parameters were derived from previous reports, and referenced to previous pumping tests.

Spatial variability in aquifer hydraulic properties was modified in specific areas during both steady state and transient calibration to achieve the final values required for accurate calibration. The final aquifer and aquitard hydraulic parameters are given in Table 5, with their spatial distribution within each layer given in Figures 17–22. Note that the aquifer distributions for layers 2 to 5 are unchanged from the model described in the Yan et al. (2006) report. Layer 1 (Loxton Sands and Monoman formation) aquifer parameters have been updated for the Pyap to Kingston area to achieve a better calibration in the project area.

Table 5. Calibrated aquifer and aquitard hydraulic parameters in the project area (Pyap to Kingston)

Aquifer/aquitard	Layer	Hydraulic conductivity		Storage	
		Kh (m/d)	**Kv** (m/d)	**Sy** (-)	**Ss** (/m)
Loxton Sands[1]	1	0.5–5	0.1	0.15–0.2	
Monoman Formation	1	15	0.15	0.15	
Bookpurnong Formation	2	0.006	0.002		$1x10^{-4}$
Pata Formation	1, 2, 3	0.5	$5x10^{-5}$ – $1x10^{-4}$		$1x10^{-4}$
Winnambool Formation			*		
Glenforslan Formation	4	1.5–2	$5x10^{-4}$ – $2x10^{-4}$		$1x10^{-4}$
Finnis Formation			*		
Mannum Formation	5	1–2	0.2		$5x10^{-5}$

1 Loxton Sands Aquifer Parameters for the Pyap to Kingston area only (west side of river). Please refer to Yan et al 2006 for aquifer parameters on the south side of the river.

* Vertical leakance calculated by the model for each cell.

3.4.1 AQUIFER HYDRAULIC PARAMETERS

Aquifer hydraulic parameters in the Pyap to Kingston area, as refined by further calibration, include:

1. A horizontal hydraulic conductivity of 15 m/d, and a specific yield of 0.15 for the Monoman Formation. Horizontal hydraulic conductivity values remain very close to (and within the same order of magnitude) as values determined from pumping tests (20–40 m/d). Due to the representation of the Monoman Formation in the model as an unconfined aquifer, confined storage coefficient values determined from pumping tests are not applicable.
2. Horizontal hydraulic conductivities of 0.5–5 m/d, and a specific yield of 0.15 for the Loxton Sands resulted in the best fit to the observed (historic) potentiometric head data. The range of horizontal hydraulic conductivity values are well within the range determined from previous pumping tests.
3. Pata and Glenforslan Formation aquifer hydraulic parameters are unchanged from the previous modelling report by Yan et al (2006).

3.4.2 AQUITARD HYDRAULIC PARAMETERS

Aquitard hydraulic parameters were applied to control the upward and downward leakage between the Loxton Sands, Monoman Formation, and the Pata Formation:

Due to the relative scarcity of data in the project area, layer parameters were adopted from pumping tests done in the Loxton-Bookpurnong and Pike-Murtho project areas and nearby areas.

1. Bookpurnong Formation vertical hydraulic conductivity was obtained from reference to pumping tests (vertical hydraulic conductivity range 1×10^{-3} to 5×10^{-3} m/d) in the Loxton area.

2. Winnambool Formation vertical hydraulic conductivity was obtained from reference to pumping tests (vertical hydraulic conductivity range 1 x 10^{-5} to 1 x 10^{-3} m/d) in the Loxton area.
3. Finnis Formation parameters were adopted from Yan et al. (2005). The pumping tests were undertaken in the Loxton area (vertical hydraulic conductivity range 1 x 10^{-5} to 1 x 10^{-4} m/d).

3.5 MODEL BOUNDARIES

The five-layer model has a complex structure, and different boundary conditions were applied to simulate the aquifer system, River Murray, and their hydraulic communication.

3.5.1 LAYER 1: LOXTON SANDS AND MONOMAN FORMATION

The regional groundwater flow in the project (Pyap to Kingston) area is generally from the western model edge to the River Murray with groundwater flux discharging to the River Murray. Where the aquifers are laterally continuous, groundwater flows from the Loxton Sands into the Monoman Formation, and then discharges to the river. The following boundary conditions were applied to layer 1 (Fig. 23):

1. No-flow boundaries where groundwater flow is parallel to the model edge.
2. General head (head dependent flow) boundaries simulate groundwater flow on the model edges where flow occurs into and out of the model.
3. Constant head boundary cells simulate the River Murray (river stage AHD):
    a. 19.2 m AHD upstream Lock 6
    b. 16.3 m AHD Lock 6 to Lock 5
    c. 13.2 m AHD Lock 5 to Lock 4
    d. 9.8 m AHD Lock 4 to Lock 3
    e. 6.1 m AHD downstream Lock 3.
4. In the project area, model river cells simulate lagoons on the floodplain (stage of 9.8 m AHD) (Up stream Lock 3).
5. River cells simulate Lake Bonney (stage height of 9.8 m AHD).
6. In the project area, model drainage cells simulate groundwater seepage discharges from the interface between the highland and the floodplain.

3.5.2 LAYER 2: BOOKPURNONG FORMATION

Very small volumes of water move laterally into and out of this layer due to its low permeability. The following boundary conditions were applied to layer 2 (Fig. 24).

1. No-flow boundaries were used at the model edges.
2. Some constant head boundaries were used in the western area (different project area) of the model where the River Murray is assumed to be in hydraulic connection with the Pata Formation.

3.5.3 LAYER 3: PATA FORMATION

Regional groundwater flow is from the model edge to the River Murray within the model domain. The following boundary conditions were applied to layer 3 (Fig. 25).

1. No-flow boundaries where groundwater flow is parallel to the model edge.
2. General head boundaries were used at the model edges to simulate groundwater flow into the model.
3. Constant head boundaries were used in the western area of the model where the River Murray is assumed to be in hydraulic connection with the Pata Formation. The following Constant head boundary cell elevations simulate the River Murray (river stage):
   a. 9.8 m AHD upstream Lock 3
   b. 6.1 m AHD downstream Lock 3.

3.5.4 LAYER 4: GLENFORSLAN FORMATION

Regional groundwater flow is from the model edge to the River Murray within the model domain. The following boundary conditions were applied to layer 4 (Fig. 26).

1. No-flow boundaries where groundwater flow is parallel to the model edge.
2. General head boundaries were used at the model edges to simulate groundwater flow into and out of the model.
3. Constant head boundaries were used in the western area of the model where the River Murray is assumed to be in hydraulic connection with the Glenforslan Formation. The following Constant head boundary cells simulate the River Murray (river stage):
   a. 9.8 m AHD upstream Lock 3
   b. 6.1 m AHD downstream Lock 3.

3.5.5 LAYER 5: MANNUM FORMATION

Regional groundwater flow is from the model edge to the River Murray within the model domain. The following boundary conditions were applied to layer 5 (Fig. 27).

1. No-flow boundaries where groundwater flow is parallel to the model edge.
2. General head boundaries were used at the model edges to simulate groundwater flow into the model.
3. Constant head boundaries (6.1 m AHD) were used in the western area of the model where the River Murray is assumed to be in hydraulic connection with the Mannum Formation.

3.6 MODEL RECHARGE

The Pyap to Kingston area has a semi-arid climate with hot dry summers and winter dominant rainfall. The average rainfall is ~300 mm/y with a pan evaporation of ~2000 mm/y.

Prior to clearance of the native vegetation on the highland, vertical recharge to the water table aquifer resulting from rainfall infiltration is believed to have been as low as 0.07–0.1 mm/y (Allison et al. 1990). A recharge rate of 0.07–0.1 mm/y was applied in the steady state model, and to the non-cleared and non-irrigated areas in the transient model.

3.6.1 RECHARGE DUE TO MALLEE CLEARANCE

The widespread clearance of native vegetation in the dryland region of the project area has resulted in an increased rate of rainfall drainage past the root zone to the water table aquifer.

In the model domain, recharge zones (41 zones) and rates (from 0.1 up to 11 mm/y) for mallee clearance areas have been supplied by Department of Environment and Heritage. The zones and rates (Fig. 28, App. A–1) were based on recent studies by CSIRO (Cook et al. 2004) and DEH using SIMRAT and SIMPACT models. Time lags and recharge rates to the water table aquifer were estimated using information on soil type, depth to groundwater and thickness of Blanchetown Clay. The Mallee clearance was assumed to have started in 1920.

3.6.2 REGIONAL ASSUMPTIONS ON RECHARGE DUE TO IRRIGATION

The recharge zones and recharge rates due to irrigation were initially set up using the following information:

- The irrigation recharge analysis began with consideration of GIS information provided by Matt Miles (DEH) and the areas irrigated at specific milestones (1880, 1920, 1940, 1956, 1960, 1970, 1988, 1995, 1997, 1999, 2001, 2003 and 2005). The pattern of irrigation areas and starting years are indicated in Figures 29–32. This identified the areas that could potentially have specified recharge rates applied to the model.
- Recharge rates for irrigation districts have been estimated based on known application volumes and estimated irrigation efficiencies (AWE 1998). Application rates were sourced from various irrigation trusts, indicating the amount of water diverted from the River Murray over time. The water diverted was then assumed to be applied uniformly at a rate per hectare across the irrigation districts.
- An assumption of root zone drainage for all time periods has been made, since it is believed to effectively integrate water use efficiency improvements and farm management practises appropriately on a regional scale.
- The specification of the recharge flux to the water table is dependant on the applicable time lag between irrigation application to the land and the root zone drainage to the water table. Matt Miles (DEH) provided initial estimates of time lags under irrigation areas from the SIMRAT model assuming a 120 mm/y recharge rate. The lags were zoned and applied to the numerical model.

Recharge due to irrigation is complex to define because there is considerable uncertainty relating to commencement time of irrigation flux to the surface and the time for the flux to reach the water table (lag time). It is accepted that the values reported by DWLBC, AWE and DEH involve the application of professional judgement in their derivation.

These recharge zones and rates have been further modified for the Pyap (Fig. 29), New Residence (Fig. 30), Moorook (Fig. 31) and Kingston (Fig. 32) areas during the latest calibration process. This has helped to obtain a better match of modelled water levels to the observed potentiometric heads throughout the aquifer system.

3.6.3 RECHARGE IN THE PYAP TO KINGSTON AREA

3.6.3.1 Recharge in the Pyap area

It is believed that earliest area irrigated in the Pyap area was in 1920. The Pyap area has lag times ranging between 10 to 40 years due to the topography of the area, where elevations can be greater than 50 m AHD and the depth to the watertable can be greater than 40 m.

Specified Model Recharge (before late 1990s): Modelled recharge rates were high before the 1970s, with initial recharge rates generally between 400–500 mm/y. From the mid 1970s, the water supply method used to supply irrigators, increased in frequency from a monthly to a weekly schedule. Irrigators were thus less likely to ‘flood’ their crops, as the new schedule guaranteed weekly water, as opposed to delivery every four weeks (pers comm. Ken Smith August 2006). The specified model recharge rate was thus decreased from 400–500 mm/y to between 300–400 mm/y in this period. Further reduction to the modelled recharge rate was applied from the late 1990s onwards, due to new infrastructure being implemented such as sprinkler systems and drip irrigation techniques (pers comm. Ken Smith). This reduced the modelled recharge by a further 100 mm/y.

3.6.3.2 Recharge in the New Residence area

Irrigation commenced in the 1960s in the area based on the GIS information supplied by DEH. The topography is ~40 m AHD resulting in modelled lag times of around 30 years.

Specified Model Recharge (from 1960-2006): Since no long term monitoring bore data exists in the New Residence irrigation area, recharge rates were based on calibrated rates from the adjacent New Residence irrigation areas. The timing of groundwater recharge was originally based on DEH’s estimation of irrigation start time, with a lag time of 20–40 years. Small changes have been made to this range during the calibration process. Modelled recharge rates commenced at ~200 mm/y in the 1970s, decreasing to a range of 50–110 mm/y after the year 2000 to achieve model calibration.

3.6.3.3 Recharge in the Moorook area

Major irrigation development is assumed to have begun as early as 1880 in the Moorook area. Relatively short lag times (20 years) were applied to the low-lying area of Moorook adjacent to the floodplain, where depths to the water table are shallow and thus travel times are short. Several recharge zones in the highland were assumed to have lag times of 30–55 years. Recharge onset time, based on irrigation start time and lag time from DEH, compared well with observation data and water table responses to recharge. Initial recharge rate estimates were decreased slightly to further improve calibration, especially improving the declining trend observed in the hydrographs from the late 1990s onwards.

Specified Model Recharge: Modelled recharge rates were typically high prior to the 1980s. Initial recharge rates decreased from 500 mm/y to 200 mm/y by 1987 (to achieve calibration), which is due to irrigation expansions. Calibration indicated that the rate of irrigation recharge decreased to as low as 100 mm/y in the Moorook area after the year 2000.

3.6.3.4 Recharge in the Kingston area

The Kingston irrigation area is located west of Lock 3. It is believed to have begun in the 1880s with major expansion towards the north in the 1970s and towards the west after around 1997. The total area under irrigation has grown to about 1000 ha by 2003 (DEH 2005). The oldest irrigation areas at Kingston are located on low-lying topography adjacent to the floodplain and thus are in areas with a short lag time (20 years). The expansion of the Kingston irrigation area to the west and north with time is associated with increasing lag times up to a maximum of 40 years due to the area changing from low-lying topographic relief to highland areas where the depth to the water table is much greater.

Specified Model Recharge: Modelled recharge rates were typically high (500 mm/y) prior to the 1960s. The recharge rates decreased to around 350 mm/y by 1995 (to achieve calibration), which is due to both improvements to irrigation efficiencies and farm management practices. Calibration indicated that the rate of irrigation recharge decreased to around 320 mm/y in the Kingston area by the year 2000.

3.6.4 RECHARGE APPLIED FOR PREDICTIVE MODELLING

Based on the calibrated model, five future scenarios were developed to predict salt loads to the River Murray as a result of various accountable irrigation actions. Further details of the recharge zones and rates in the scenarios are included later in this report (Section 5, Model Scenarios and Predictions).

The following groundwater recharge assumptions were made to predict salt loads to the River Murray under five irrigation scenarios:

- **Scenario-3A**, Pre-1988 irrigation without improved irrigation practices (IIP) or rehabilitation (RH):
  a. Used only recharge zones that represent irrigation that commenced prior to 1st January 1988.
  b. Recharge rates for prediction (after 1988) correspond with the adopted 1988 irrigation rates.
  c. The discontinuing of the use of drainage bores is assumed to be part of the IIP and thus drainage bores are activated for this scenario.
- **Scenario-3B**, Pre-1988 irrigation with IIP but without RH:
  a. Used only recharge zones that represent irrigation that commenced prior to 1st January 1988.
  b. Recharge rates for prediction (after 1988) reduce to 1995 irrigation rates at Pyap to Kingston, assuming an improvement from 15%+ irrigation efficiency.
  c. Drainage bores are deactivated.
- **Scenario-3C**, Pre-1988 irrigation with IIP and with RH:
  a. Used only recharge zones that represent irrigation that commenced prior to 1st January 1988.
  b. Recharge rates for prediction (after 1988) reduce to 2006 irrigation rates for all regions, assuming an improvement from 15%+ irrigation efficiency and RH, i.e. same as the calibrated rates. (history match of observed groundwater hydrographs).
  c. Drainage wells are deactivated.

- **Scenario-4**, Current Irrigation:
  a. Used all recharge zones that represent irrigation that occurred in 2005 (DEH 2006).
  b. All recharge decreases to 100 mm/y (or less if indicated by calibration) due to IIP during the mid 1990s. The timing of this reduction depends upon lag times.
- **Scenario-5**, Future Development Irrigation:
  a. Same recharge condition as Scenario-4 (current irrigation) with the addition of predicted future irrigation zones.
  b. Additional recharge zones for future development irrigation areas were based on the land and water management plan (Fig. 33).
  c. A recharge rate of 100 mm/y was assumed for future irrigation areas and lag time was applied according to DEH's information.

3.7 MODEL DRAINAGE BORES

There were ~15 drainage bores located in the Pyap to Kingston area. Observation data (groundwater level) has shown some evidence of injecting water (may from CDS) into the Loxton Sands aquifer. The bores were simulated in the model as injection wells during their known period of operation.

3.8 MODEL EVAPOTRANSPIRATION

Evapotranspiration was simulated using the ground surface as a control point. Evapotranspiration rates of 200–250 mm/y and 1.5 m extinction depth were used in the model (Holland et al., 2001). Evapotranspiration is most likely to occur on the floodplains and in some lowland areas where a shallow groundwater table exists.

3.9 MODEL GROUNDWATER ALLOCATION AND USE

There is no allocation of groundwater or known groundwater use in the Pyap to Kingston area.

3.10 MODEL STRESS PERIODS

Two transient models were used to simulate the historical period and future predictions. First transient model was from 1880–1960 with stress period of five years. Second transient model was from 1960–2106 with stress period of one year.

4. MODEL CALIBRATION

4.1 STEADY STATE MODELS, TRANSIENT MODELS AND CALIBRATION

Steady state models are used to model equilibrium hydrologic conditions and/or conditions when changes in storage are insignificant. Transient models are used to model time dependent stresses and/or where water is released from, or taken into storage.

Calibration ("history matching") of the model with existing data must be conducted in order to have confidence in predictive modelling. Calibration is necessary to demonstrate that the model can replicate the behaviour of the aquifer system for at least the historical set of conditions. A sensitivity analysis should also be undertaken to determine the relative importance of model parameters (i.e. the system drivers) in achieving calibration.

4.2 STEADY STATE MODEL CALIBRATION

Steady state calibration is undertaken to develop a broad-scale hydraulic conductivity distribution by matching modelled to observed potentiometric heads. Steady state calibration was performed by adjusting hydraulic conductivities (within reasonable limits) and model boundary conditions until a reasonable fit with observed heads was obtained. Dynamic stresses and storage effects are excluded from steady state calibration.

Due to the absence of pre-irrigation development potentiometric head data, the steady state model was calibrated using a potentiometric surface developed by Barnett (Per comm. Barnett 2004) that represents pre-irrigation development and pre river regulation conditions. This is believed to represent Pre-European equilibrium hydraulic conditions in the area (note that this is the only available data for this purpose).

A regional modelled potentiometric surface was achieved that matches the constructed potentiometric surface (Fig. 34). The modelled surface closely matches the estimated Loxton Sands regional surface most area. However, in some areas, there is a discrepancy between the modelled and estimated surfaces. This is thought to be due to uncertainties in the estimation of the historic (pre river regulation) surface.

4.3 TRANSIENT MODEL CALIBRATION

Transient calibration is undertaken on an iterative basis by adjusting hydraulic parameters, recharge rates and boundary conditions until a satisfactory match with observed data is obtained. The potentiometric surface output from the steady state model was used as the starting point for transient model runs up to 2006. Each time a change to the boundary conditions and aquifer hydraulic parameters was made in the transient model, the steady state model was altered and rerun, with the output being used as the starting point for further transient model calibration.

Model calibration was achieved by the following actions, in accordance with the Groundwater Flow Modelling Guideline (MDBC 2001):

1. Qualitative comparison between modelled and observed potentiometric heads (contours and hydrographs).
2. Quantative assessments of the (scaled RMS) Iteration residual error.
3. Quantative confirmation that the Water Balance Criteria is <1% for all times.
4. Confirmation (as a water balance cross check) using:
   a. Total ‘Run of River’ salt load into the River Murray.
   b. Comparison of Recharge Volumes.
   c. Comparison between Model Results and In-River Nanotem.

In the Pyap to Kingston project area, salt loads in to the River Murray occur mainly from lateral groundwater flux through the Loxton Sands and Monoman Formation as a result of irrigation water mounding. Therefore matching observed trends in the Loxton sands was considered imperative during calibration. The head level in the Murray Group Limestone has also been considered in the calibration, due to the potential for upward leakage from the underlying aquifers driven by these heads and connection beneath the River Valley.

4.3.1 QUALITATIVE COMPARISON OF POTENTIOMETRIC HEADS (CONTOURS)

Initial qualitative calibration of the transient model was undertaken by trying to closely match the 2006 regional observed potentiometric heads. The modelled and observed potentiometric heads from 2006 were compared to determine the accuracy of the calibration.

4.3.1.1 Layer 1: Loxton Sands and Monoman Formation

Qualitative comparison between the modelled (Fig. 35) and observed potentiometric head contours of the Loxton Sands and Monoman Formation in the Pyap to Kingston area indicates that the modelled distribution closely represents the shape and form of the observed distribution, particularly the groundwater mound in the New Residence, Moorook and Kingston areas. Where data exists in the other areas, the modelled surface matches reasonably with the level and distribution of the observed surface.

There are some discrepancies between the modelled and observed surfaces at the edges of the observed surface and in the Pyap area due to a lack of observed water level control points.

4.3.1.2 Murray Group Limestone

Calibration of potentiometric heads in the Pata Formation (layer 3), Glenforslan Formation (layer 4) and Mannum Formation (layer 5) was limited by the lack of observation data for each individual layer. The three layers have been calibrated using a single MGL surface that was interpreted from a published hydrogeological map (Barnett 1991). Figure 36 shows a reasonable match between modelled and observed potentiometric contours in the eastern part of the model domain (model layer 5 is shown – Mannum Formation). Differences between modelled and observed surfaces in the area are due to the observed surface being a combination of three layers. For example, the observed influence of the river (10 m contour) can be seen in the modelled layer 3 Pata surface but not in the layer 5 Mannum surface.

4.3.2 QUALITATIVE COMPARISON OF POTENTIOMETRIC HEADS (HYDROGRAPHS)

Quantitative calibration focused on the Loxton Sands (layer 1) and Murray Group Limestone, as the major aquifers that contribute salt load into the River Murray. The locations of wells used in the calibration are shown in Figures 37. The associated hydrographs were chosen as they contain reliable long-term historical observation data.

Comparison between modelled and observed (historical) potentiometric heads indicates a close match in most wells (Figs 38–42) in terms of actual levels and trends.

4.3.3 QUANTATIVE ASSESSMENT OF THE ITERATION RESIDUAL ERROR

The iteration residual error between modelled and observed potentiometric heads of the Loxton Sands and Murray Group Limestone in the Pyap to Kingston area was calculated using data from 1969, 1982, 1993, 1999, and 2003 (years in which more data was available). The calculations (Figs 43–47) indicate a scaled root mean squared value (SRMS) for the whole project area of:

- 4.0% in 1969
- 4.9% in 1982
- 3.8% in 1993
- 4.9% in 1999
- 5.7% in 2003.

Most of these values are less than the 5% SRMS range recommended by the Groundwater Flow Modelling Guidelines (MDBC 2001) and indicate a good fit between modelled and observation data over the time period considered in the analyses.

4.4 QUANTATIVE CONFIRMATION (WATER BALANCE)

The model water balance error is less than 0.15% for all times. This is within the criteria defined in the MDBC groundwater flow modelling guidelines (<1%).

4.5 TRANSIENT MODEL CONFIRMATION

4.5.1 COMPARISON BETWEEN MODEL RESULTS AND RUN OF RIVER SALT LOAD

Salt load entering the River Murray in the Pyap to Kingston area was calculated using the modelled groundwater flux and groundwater salinity in each model flow budget zone. The salinity for each zone and the resulting calculations of the salt load are given in Figure 4 and Appendix B.

In the Pyap to Kingston area, it is believed that the majority of the salt load entering the River Murray is attributed to increased hydraulic gradients that have developed under the Pyap, New Residence, Moorook and Kingston irrigation areas. Previous reports (Yan et al. 2007) calculated the total modelled salt load from the eastern side of the river to be ~2 t/d in the Pyap to New Residence area and zero salt load in Moorook to Kingston area. The latter is believed to be due to the large extent of floodplain between highland and the River Murray in that area.

Table 6 shows the comparison between modelled salt load and measured (Run of the River) results. Most results show a good match in general but Run of River results are greater or less than modelled salt load in some years due to variations in river flow conditions which are not simulated in the model.

Table 6. Comparison between modelled and Run-of-River Survey Results (River km from 487 to 439)

Location (km)	**2002**		**2003**		**2004**		**2005**		**2006**	
	Modelled (t/d)	*ROR (t/d)*	*Modelled (t/d)*	*ROR (t/d)*	*Modelled (t/d)*	*ROR (t/d)*	*Modelled (t/d)*	*ROR (t/d)*	*Modelled (t/d)*	*ROR (t/d)*
Pyap (472–487)	8.0	8.4*	7.3	2.4*	6.9	5.4*	6.6	2.2*	6.4	6.8*
New Residence (455–471)	10.5	13.3	10.4	6.4	10.4	8.2	10.4	6.8	10.3	14.4
Moorook (440–454)	10.6	14.8	10.4	3.8	10.1	11.4	10.0	3	9.7	11.5
Kingston (432–439)	8.2	27.91	8.1	9.21	7.9	28.32	7.8	3.62	7.6	9.77

* The Run of River data in the Pyap area was from River km 472–480. This is because a large proportion of the salt load between River km 481–487 comes from the Loxton area and the north/west side of the River Murray (Katarapko Island) and should not be included in the comparison.

4.5.2 COMPARISON OF RECHARGE VOLUMES

There are not enough detailed historical data to compare model recharge values (in each area) with actual irrigation drainage accession water into the aquifer. The report from AWE 1998 indicated some estimated accession volumes in each sub-zone (different from the zones in this report) from 1990–2000. A comparison (Fig. 48) shows a close match between total estimated accession water (in the whole Pyap to Kingston area, AWE 1989) and model input values.

4.5.3 COMPARISON BETWEEN MODEL RESULTS AND IN-RIVER NANOTEM

The modelling results suggest that the majority of the salt-load entering the River Murray enters from the western-side of the River and mainly from cliff face areas where there is no floodplain between the highland and the river). The In-River NanoTEM (Berens et al. 2004) data presented in Figure 2 supports the modelling results.

5. MODEL SCENARIOS AND PREDICTIONS

The calibrated transient model provides a useful predictive tool to quantify future fluxes of saline groundwater, and the potential impacts of specific stresses on potentiometric heads, over periods that may range from tens to hundreds of years.

Note that all predictions for this project are salt loads from the western side of the River Murray and anabranches.

5.1 SCENARIOS

The modelling scenarios are summarised in Table 7, and are discussed in detail below. The scenario structure has been developed progressively in response to requests by the State (DWLBC) and the MDBC to:

1. Evaluate the impact of various accountable actions, to be recorded on the MDBC salinity registers ‘A’ and ‘B’, including:
   a. Impact of the various pre and post-1988 actions on the groundwater flux and salt load entering the River Murray.
   b. Impact of improved irrigation practices (IIP), the rehabilitation (RH) of distribution systems.
   c. Assess the decision about SIS.
2. Determine the State and Federal responsibility for cost sharing.
3. Satisfy the reporting requirements of:
   a. Schedule ‘C’ of the Murray-Darling Basin Agreement 1992.
   b. Basin Salinity Management Strategy Operational Protocols 2003.

Table 7. Summary of modelled scenarios and conditions adopted for Pyap to Kingston

Scenario	Name	Model Run	Irrigation development area	IIP	RH	SIS
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

The scenarios include the application of the following important conditions:

Pre-1988 irrigation — Irrigation development area and recharge that occurred prior to 01/01/1988

Post-1988 irrigation — Irrigation development area and recharge that occurred between 01/01/1988 and end of calendar year 2005.

Future Development — Future irrigation development area and recharge (assuming recharge of 100 mm/y in the highland area and calibrated rates in some areas) resulting from activation of already allocated (prior commitment) water that is assumed to occur in 2015.

Mallee Clearance — Clearance of natural vegetation assumed to commence from the 1920s, resulting in increased recharge to the groundwater table in dry-land areas. It is assumed that no major clearing of native vegetation occurred after 1988.

Improved Irrigation Practices (IIP) Advancements in irrigation efficiency include the use of sprinkler and drip systems (replacing flood irrigation via earth channels) and the greatly improved technology, monitoring and management of irrigation systems (from circa1995). These measures have resulted in improvements in efficiency (from ~70% to ~85%) and reduced recharge to the groundwater table. Caissons are assumed to be apart of IIP.

Rehabilitation (RH) — Replacement of leaky concrete water distribution channels with pipelines (e.g. in Cobdogla area RH commenced in the mid 1990s) resulting in reduced conveyance losses, which are reflected by reduced recharge to the water table. Note: RH only occurs in the Moorook area in 1993.

SIS — Salt Interception Schemes designed to intercept the (maximum) groundwater flux and salt load resulting from the pre-1988, post-1988 and future development irrigation. There are no existing SIS or concept SIS in the Pyap to Kingston areas.

5.2 SCENARIO-1: NATURAL CONDITION

The Steady State Scenario-1 models the base groundwater flux and salt load entering the River Murray post-river regulation but prior to irrigation development.

The following conditions are applied to the steady state model (PK_SST):

- Post-regulation of the River Murray (i.e. with weir pool stage elevations modelled).
- Pre-irrigation development.
- Model mode is steady state.

The results given in Table 8 indicate the modelled flux and salt load entering the River Murray from the western side of the river in the Pyap to Kingston area for scenario-1.

Table 8. Modelled groundwater flux and salt load in the Pyap to Kingston area (Scenario-1 Natural Condition)

	Pyap	New Residence	Moorook	Kingston
Flux (m^3/d)	260	35	162	2820
Saltload (t/d)	0.3	0.3	0.8	0.3

5.3 SCENARIO-2: MALLEE CLEARANCE

Transient Scenario-2 models the hydrological changes, groundwater flux and salt load entering the River Murray that would be expected to occur due to the clearance of the native mallee vegetation (by comparison with Scenario-1) and the subsequent increase in recharge rates.

The following conditions are applied to the transient model (PK_S2):

- Post-regulation of the River Murray.
- No irrigation development.
- Mallee clearance commencing in 1920.
- Within the Mallee clearance zones, application of recharge rates >= 0.1 mm/y, increasing in some areas to ~11 mm/y after a period of 200 years, with changes (representing lag times) occurring every 10 years (data provided by DEH see App. A).
- Outside the Mallee clearance zones, application of a recharge rate of 0.1 mm/y.
- Time period from 1920–2106.

The results given in Table 9 summarises the predicted flux and salt load entering the River Murray from the western side of the river in the Pyap to Kingston area. Complete results of the predicted flux of saline groundwater and salt load are given in Appendix B.

Table 9. Predicted groundwater flux and salt load (Scenario-2: Mallee clearance)

	Year				
	1988	**2000**	**2006**	**2050**	**2106**
Pyap Area					
Flux (m3/d)	331	350	364	518	738
Saltload (t/d)	2.6	2.7	2.8	3.9	5.4
New Residence Area					
Flux (m3/d)	87	106	121	229	357
Saltload (t/d)	0.8	0.9	1.1	2.2	3.4
Moorook Area					
Flux (m3/d)	219	232	244	313	367
Saltload (t/d)	1.0	1.1	1.2	1.6	2.0
Kingston Area					
Flux (m3/d)	44	46	48	56	62
Saltload (t/d)	0.5	0.5	0.5	0.6	0.6

5.4 SCENARIO-3A: PRE-1988, NO IIP, NO RH

Transient Scenario–3A predicts the hydrological changes, groundwater flux and salt load entering the River Murray that would be expected to occur between 1988–2106 assuming pre-1988 irrigation development with no mitigation in terms of improvements to irrigation practices (IIP) and rehabilitation (RH).

The following conditions are applied to the transient model (PK_S3a):

- The potentiometric head distribution output from the historical model at 1960 used as the starting point for the prediction run until 2106.
- Pre-1988 irrigation development area applied from 1988–2106.
- IIP (recharge rates decreasing in accordance with calibrated IIP) was not applied. This assumes no irrigation efficiency has been applied.
- No RH (recharge rates decrease from the 1993s) was applied in Moorook area.
- Drainage wells are activated between 1995–2106.
- Time period is from 1960–2106.
- Detailed recharge values applied in the Scenario 3a are listed in Appendix A (model inputs).

The results given in Table 10 summarises the predicted flux and salt load entering the River Murray from the western side of the river in the Pyap to Kingston area. Complete results of the predicted flux of saline groundwater and salt load are given in Appendix B.

Table 10. Predicted groundwater flux and salt load (Scenario-3A: pre-1988, no IIP, no RH)

	Year				
	1988	**2000**	**2006**	**2050**	**2106**
Pyap Area					
Flux (m3/d)	1002	1446	1175	1528	1560
Saltload (t/d)	7.1	9.6	7.6	9.5	9.7
New Residence Area					
Flux (m3/d)	1022	1102	1105	1056	1067
Saltload (t/d)	9.9	10.8	10.8	10.1	10.2
Moorook Area					
Flux (m3/d)	3495	2963	2710	1770	1771
Saltload (t/d)	13.8	11.7	11.7	7.2	7.2
Kingston Area					
Flux (m3/d)	986	878	797	468	468
Saltload (t/d)	9.5	8.5	7.6	4.5	4.5

5.5 SCENARIO-3B: PRE-1988, WITH IIP, NO RH

Transient Scenario-3B predicts the hydrological changes, groundwater flux and salt load entering the River Murray that would be expected to occur between 1988–2106 assuming pre-1988 irrigation development with improvements in irrigation practices (IIP). This scenario evaluates the reduction in salt load (by comparison with Scenario–3A) resulting from the implementation of IIP.

The following conditions are applied to the transient model (PK_S3b):

- The potentiometric head distribution output from the historical model at 1960 used as the starting point for the prediction run until 2106.
- Pre-1988 irrigation development area applied from 1988–2106.

- IIP - Recharge rates decreasing from the mid 1990s to the early 2000s, in accordance with calibrated IIP. This assumes a further increase in irrigation efficiency of 15%.
- No RH (recharge rates decrease from the 1993s) was applied in Moorook area.
- Drainage wells are deactivated between 1995–2106.
- Time period is from 1960–2106.
- Detailed recharge values applied in the Scenario 3b are listed in Appendix A (model inputs).

The results given in Table 11 summarises the predicted flux and salt load entering the River Murray from the western side of the river in the Pyap to Kingston area. Complete results of the predicted flux of saline groundwater and salt load are given in Appendix B.

Table 11. Predicted groundwater flux and salt load (Scenario-3B: pre-1988, with IIP, no RH)

	Year				
	1988	**2000**	**2006**	**2050**	**2106**
Pyap Area					
Flux (m3/d)	1002	1196	1446	921	913
Saltload (t/d)	7.1	9.6	6.4	5.9	5.9
New Residence Area					
Flux (m3/d)	1022	1086	1054	701	691
Saltload (t/d)	9.9	10.7	10.3	6.6	6.5
Moorook Area					
Flux (m3/d)	3495	2883	2518	974	973
Saltload (t/d)	13.8	11.3	9.9	4.0	4.0
Kingston Area					
Flux (m3/d)	986	877	795	246	246
Saltload (t/d)	9.5	8.4	7.6	2.4	2.4

5.6 SCENARIO-3C: PRE-1988, WITH IIP AND WITH RH

This scenario tests the reduction in salt load (by comparison with Scenario-3B) resulting from the implementation of rehabilitation (RH). No rehabilitation has occurred in the Moorook area hence Scenario-3C results are identical to Scenario-3B for the other area.

The following conditions are applied to the transient model (PK_S3c):

- The potentiometric head distribution output from the historical model at 1960 used as the starting point for the prediction run until 2106.
- Pre-1988 irrigation development area applied from 1988–2106.
- IIP - Recharge rates decreasing from the mid 1990s to the early 2000s, in accordance with calibrated IIP. This assumes a further increase in irrigation efficiency of 15%.
- RH - Recharge rates decrease even further from the 1993s in Moorook area.
- Drainage wells are deactivated between 1995–2106.
- Time period is from 1960–2106.

- Detailed recharge values applied in the scenario 3c are listed in Appendix A (model inputs).

The results given in Table 12 summarises the predicted flux and salt load entering the River Murray from the western side of the river in the Pyap to Kingston area. Complete results of the predicted flux of saline groundwater and salt load are given in Appendix B.

Table 12a. Predicted groundwater flux and salt load (Scenario-3C: pre-1988, with IIP and with RH)

	Year				
	1988	**2000**	**2006**	**2050**	**2106**
Pyap Area					
Flux (m3/d)	1002	1446	969	921	913
Saltload (t/d)	7.1	9.6	6.4	5.9	5.9
New Residence Area					
Flux (m3/d)	1022	1086	1054	699	689
Saltload (t/d)	9.9	10.7	10.3	6.6	6.5
Moorook Area					
Flux (m3/d)	3495	2871	2472	805	804
Saltload (t/d)	13.8	11.3	9.7	3.4	3.4
Kingston Area					
Flux (m3/d)	986	877	794	241	240
Saltload (t/d)	9.5	8.4	7.6	2.3	2.3

5.7 SCENARIO-4: CURRENT IRRIGATION

Transient Scenario-4 predicts the hydrological changes, groundwater flux and salt load entering the River Murray that would be expected to occur between 2006–2106 assuming the current irrigation condition (pre-1988 plus post-1988 irrigation development with IIP and RH). This scenario predicts the likely future salt load if the current conditions remain unchanged in the future, based on the historical events up until the end of calendar year 2005.

The following conditions are applied to the transient model (PK_S4):

- The potentiometric head distribution output from the historical model at 1960 used as the starting point for the prediction run until 2106.
- Pre-1988 + post-1988 irrigation development area applied from 2006–2106.
- IIP - Recharge rates decreasing from the mid 1990s to the early 2000s, in accordance with calibrated IIP. This assumes a further increase in irrigation efficiency of 15%.
- RH - Recharge rates decrease even further from the 1993s in Moorook area.
- Drainage wells are deactivated between 1995–2106.
- Time period is from 1960–2106.
- Detailed recharge values applied in the scenario 4 are listed in Appendix A (model inputs).

The results given in Table 13 summarises the predicted flux and salt load entering the River Murray from the western side of the river in the Pyap to Kingston area. Complete results of the predicted flux of saline groundwater and salt load are given in Appendix B.

Table 13a. Predicted groundwater flux and salt load (Scenario–4: Current irrigation)

	Year				
	1988	**2000**	**2006**	**2050**	**2106**
Pyap Area					
Flux (m3/d)	1002	1446	969	1435	1727
Saltload (t/d)	7.1	9.6	6.4	9.3	11.1
New Residence Area					
Flux (m3/d)	1022	1086	1054	1189	1357
Saltload (t/d)	9.9	10.7	10.3	11.1	12.4
Moorook Area					
Flux (m3/d)	3495	2871	2472	1133	1154
Saltload (t/d)	13.8	11.3	9.7	4.9	5.0
Kingston Area					
Flux (m3/d)	986	877	794	331	342
Saltload (t/d)	9.5	8.4	7.6	3.3	3.4

5.8 SCENARIO-5: CURRENT PLUS FUTURE IRRIGATION

Transient Scenario-5 predicts the hydrological changes, and the (maximum) groundwater flux and salt load entering the River Murray that would be expected to occur between 2006–2106 assuming the current irrigation (pre-1988 plus post-1988 irrigation development with IIP and RH) plus future irrigation growth. This scenario tests the increases in salt load (by comparison with Scenario-4) resulting from future irrigation development.

The following conditions are applied to the transient model (PK_S5):

- The potentiometric head distribution output from the historical model at 1960 used as the starting point for the prediction run until 2106.
- Pre-1988 + post-1988 + future irrigation development area applied from 2006–2106.
- IIP - Recharge rates decreasing from the mid 1990s to the early 2000s, in accordance with calibrated IIP. This assumes an increase in irrigation efficiency of 15%.
- RH - Recharge rates decrease even further from the 1993s, in Moorook area.
- Recharge from prior commitment areas operating from 2015 (with DEH estimated lag time) to 2106, assuming ~85% efficiency.
- Drainage wells are activated between 1995–2106.
- Time period is from 1960–2106.
- Detailed recharge values applied in the scenario 5 are listed in Appendix A (model inputs).

The results given in Table 14 summarises the predicted maximum flux and salt load entering the River Murray from the northern side of the river in the Pyap to Kingston area. Complete results of the predicted flux of saline groundwater and salt load are given in Appendix B.

Table 14. Predicted groundwater flux and salt load (Scenario-5: Current plus future irrigation)

	Year				
	1988	**2000**	**2006**	**2050**	**2106**
Pyap Area					
Flux (m3/d)	1002	1446	969	1437	1737
Saltload (t/d)	7.1	9.6	6.4	9.3	11.1
New Residence Area					
Flux (m3/d)	1022	1086	1054	1200	1474
Saltload (t/d)	9.9	10.7	10.3	11.2	13.5
Moorook Area					
Flux (m3/d)	3495	2871	2472	1153	1210
Saltload (t/d)	13.8	11.3	9.7	5.0	5.4
Kingston Area					
Flux (m3/d)	986	877	794	336	347
Saltload (t/d)	9.5	8.4	7.6	3.3	3.4

5.9 COMPARISON OF SALT LOADS ENTERING THE RIVER MURRAY FOR ALL SCENARIOS

The model-predicted salt loads entering the River Murray in 2006 are shown in Figure 49 and the trends of salt load for all scenarios in the Pyap to Kingston area are shown in Figures 50–53. Details of model results (flux and salt load) for all scenarios are listed in Appendix B-1.

6. SENSITIVITY ANALYSIS

6.1 PREDICTIVE UNCERTAINTY

Predictive uncertainty is evaluated by running a sensitivity analysis to quantify the impact of an incremental variation in aquifer hydraulic parameters, or a stress, on the modelled aquifer response. The purpose of the sensitivity analysis is to quantify the change in the predicted salt load at 2106 due to the uncertainty involved in applying selected parameter values in the model.

The transient model has been calibrated for aquifer hydraulic parameters and recharge, and requires sensitivity testing for issues of major concern, and to comply with the Murray Darling Basin Modelling Guideline, MDBC (2001).

Scenario-5 was selected for all sensitivity tests, as it is a worst-case (full development) scenario of existing irrigation area, plus full future irrigation development in the Pyap to Kingston area.

6.1.1 SENSITIVITY TEST-1: LOXTON SANDS PARAMETERS

This test evaluates the impact of variations in the aquifer hydraulic parameters of the Loxton Sands (specific yield Sy and horizontal conductivity Kh) on the magnitude of salt load from the Loxton Sands to the River Murray or to the Monoman Formation (floodplain) then to the river at the modelled year of 2106 (ie. by running the model 100 years into the future).

Testing was conducted by varying the Loxton Sands component of layer 1 aquifer hydraulic parameters by ±15% from the calibrated hydraulic conductivity and specific yield.

Test results (Table 15) indicate that:

1. Changes of ±15% to the calibrated Loxton Sands hydraulic conductivity results in a predicted maximum 1.2 t/d change in the salt load entering the River Murray 100 years into the future, which is considered small in comparison to the predicted total salt load of 33.46 t/d (a 3.6% change). Figure 54 shows the model sensitivity to changes in horizontal conductivity.

2. Changes of ±15% to the calibrated Loxton Sands specific yield results in a predicted maximum 0.16 t/d change in the salt load entering the Monoman Formation and River Murray 100 years into the future, which is considered insignificant in comparison to the predicted total salt load of 33.46 t/d (a 0.48% change). Figure 55 shows the model sensitivity to changes in specific yield.

The results given in Table 15 indicate that the salt load into the River Murray is only slightly affected by changes in aquifer hydraulic parameters, and this provides confidence in using the calibrated values.

Table 15. Results of sensitivity testing by variation in aquifer and aquitard hydraulic parameters - predicted salt load entering River Murray at 2106

Parameter value	**Kh** (m/d) Loxton Sands			**Sy** Loxton Sands			**Kv** (m/d) Bookpurnong Formation		
	-15%	**Calibrated**	**+15%**	**-15%**	**Calibrated**	**+15%**	**-15%**	**Calibrated**	**+15%**
Pyap Area									
Predicted salt load (t/d)	10.6	11.13	11.59	11.23	11.13	11.01	11.13	11.13	11.13
Difference (t/d)	-0.53	–	+0.46	+0.1	–	-0.12	0	–	0
New Residence Area									
Predicted salt load (t/d)	13.11	13.51	13.85	13.54	13.51	13.47	13.51	13.51	13.51
Difference (t/d)	-0.4	–	+ 0.34	+0.03	–	-0.04	0	–	0
Moorook Area									
Predicted salt load (t/d)	5.25	5.38	5.5	5.38	5.38	5.38	5.36	5.38	5.39
Difference (t/d)	-0.13	–	+ 0.12	0	–	0	-0.02	–	+ 0.01
Kingston Area									
Predicted salt load (t/d)	3.3	3.44	3.55	3.44	3.44	3.44	3.44	3.44	3.44
Difference (t/d)	-0.14	–	+ 0.11	0	–	0	0	–	0
Total Pyap to Kingston Area									
Predicted salt load (t/d)	32.26	33.46	34.49	33.59	33.46	33.3	33.44	33.46	33.47
Difference (t/d)	-1.2	–	+1.03	+0.13	–	-0.16	-0.02	–	+0.01

6.1.2 SENSITIVITY TEST-2: MURRAY GROUP LEAKAGE

In the Pyap to Kingston project area, vertical flux from the Murray Group Limestone aquifer to the river is considered less than the lateral flux from the Loxton Sands aquifer. In order to comply with the MDBC Guideline (2001), the sensitivity to upward leakage by variation of the Kv of the Bookpurnong Formation (layer 2) was tested and the results are included in this report.

Note: Vertical flux contributes a maximum salt load of 12.78 t/d at 2106 (for the worst case scenario – Scenario 5) in the entire Pyap to Kingston area, and represents 38.2% of the total salt load (33.46 t/d). This is based on groundwater salinity values applied of 10 000–20 000 mg/L for the Murray Group Limestone.

This sensitivity testing was conducted by varying the vertical hydraulic conductivity of the Bookpurnong Formation (layer 2) by ±15% of the calibrated value of $2x10^{-3}$ m/d and running the model 100 years into the future.

Test results (Table 15) indicate that:

Changes of ±15% to the calibrated vertical hydraulic conductivity (Kv) for the Bookpurnong Formation result in a predicted maximum change of 0.02 t/d in the salt load entering the River Murray. This change is calculated at 100 years into the future, over the whole Pyap to Kingston area. This result is insignificant, when compared to the predicted salt load of 33.46 t/d in the year 2106. Figure 56 shows the model sensitivity to changes in Bookpurnong Formation vertical conductivity.

The comparison of the above three parameters tested (model sensitivity) in the Pyap to Kingston area are shown Figure 57.

6.1.3 UNCERTANTY TEST (TEST-3): VARIATION OF SALINITY

This test is designed to investigate the uncertainty of the model results (salt loads) to changes in salinity values applied to the model flux zones (Fig. 4). The test is done outside of the modelling interface, that is, the model conditions and fluxes do not change, only the applied salinity values are altered.

A comprehensive analysis of all salinity data in the region has been completed and is detailed in Appendix C. All available salinity values from the Loxton Sands, Monoman Formation and Murray Group aquifers in a zone extending approximately 3Km to the west of the River Murray in each Reach were analysed. Mean and median salinity values were determined for each flow budget zone (for details see App. C).

Testing consists of applying 3 different salinities to each of the designated zones:

- Mean salinity value.
- Median salinity value.
- Applied salinity value presented in this report.

The various salt loads derived through applying the mean, median and “applied” (presented in this report) salinity values to each model budget zone are presented in Table 16.

Table 16. Uncertainty Test Results

Area	Calculated 2106 Salt load		
	Mean	Median	Applied
Pyap	9.65	7.91	11.13
New Residence	14.79	9.57	13.51
Moorook	5.18	5.06	5.38
Kingston	1.27	1.27	3.44
Total	30.89	23.81	33.46

Results show that if the Mean salinity values presented in Appendix C were used, the 2106 salt load would have been 30.89 t/d as opposed to the 33.46 t/d (model result in Scenario 5). This shows that the maximum difference (2.57 t/d) which is not considered to be significant given that these results have been generated for a worst case (scenario 5 for the year 2106). This represents only a change in salt load of 7.68%, which provides confidence in the salinity values adopted for this report.

The salt load derived from the application of the Median salinity values, presents a slightly different outcome however. A total salt load of 23.81 t/d is calculated for 2106, which is some 9.65 t/d less than the report value 33.46 t/d (model result in Scenario 5). This represents a change of 28.84% in the total salt load as calculated for the year 2106. The relatively bigger change is believed to be due to the application of the median function with limited data sets, with non Gaussian distribution. That is, there is a larger frequency of low salinity values (possibly influenced by irrigation return flows resulting from previous low efficiency irrigation practices) as compared with higher salinity values. This often presents a median salinity value, which is much less than the mean.

The distribution of salinity values throughout the area, as illustrated in Figures 58 and 59 clearly show this bias towards lower vales with a clear two-population distribution in all data sets plotted.

7. MODEL UNCERTAINTY

The following factors are considered to be the most important in terms of model accuracy and uncertainty in results (salt loads).

7.1 FLOODPLAIN PROCESSES

The hydrogeology of the highland and floodplain areas is considered to be reasonably well understood and well represented in the model, which gives confidence to the estimates of fluxes passing from the highland irrigation areas to the edge of the floodplain. However, the detailed salt movement processes through the floodplains are less well known and were not modelled. Although there is high confidence regarding the model representation of the floodplain hydrogeology, the transmission of salt loads from the floodplain to the river is not considered to be modelled with a high level of confidence. This is because salt is intercepted and accumulated in floodplains between floods, making discharge of salt from floodplains to the River Murray on a daily basis difficult to predict.

7.2 GROUNDWATER SALINITY

The groundwater salinity values, and the zones which have been applied in the calculation of salt load, represent the best current understanding (as explained in section 2.6) of the groundwater salinity distribution derived from the analysis of all existing available data and understanding of the local groundwater system.

All available observed salinity values from a zone extending ~3 km to the west of the River Murray in the Pyap to Kingston reach were analysed. Mean and median groundwater salinity values in both Loxton Sand aquifer and Murray Group Limestone aquifer were calculated for each model flux budget zone and details are given in Appendix C.

The test results (uncertainty test in Section 6.1.3) indicate that compared to the reported value, a maximum 8% difference is estimated using mean salinity values and 28% if using median salinity values.

7.3 RECHARGE DUE TO IRRIGATION

Model recharge rates and irrigation areas in the future are considered to be key contributors to model uncertainty.

There is reasonably high confidence in the recharge rates used for the historical modelling. The recharge rates applied took account of calculated accession volumes (ie based on district diversion) but were adjusted to achieve improved calibrations of observed hydrographs.

There is less confidence in the recharge values used in the predictive modelling beyond 2006. The SIMPACT model predicted recharge rate of 100 mm/yr was used for the 'future development' predictions in the highland areas at Pyap to Kingston. It is highly likely that there will be changes in irrigation efficiency (that will affect recharge-accession) and irrigated area and therefore deviations from the assumed development sequence in the future.

7.4 HYDRAULIC PARAMETERS

As an attempt to quantify the uncertainty associated with the Loxton Sands and Murray Group Limestone hydraulic parameters, the sensitivity analyses in section 6 were conducted. The percentage change in the model salt loads that is attributable to variations in aquifer and aquitard hydraulic parameters, are shown graphically in Figures 54–56. The comparative sensitivity to the parameters is shown in Figure 57.

It should be noted that the aquifer and aquitard hydraulic parameters are considered to be reasonable, and considered as high confidence parameters in comparison to the other parameters discussed above.

8. MODEL LIMITATIONS

The Murray Darling Basin Commission (MDBC, 2001) Groundwater Modelling Guideline state that: *It is important to recognise that there is no such thing as a perfect model, and all models should be regarded as works in progress of continuous improvement as hydrogeological understanding and data availability improves. By definition, model limitations comprise relatively negative statements, and they should not necessarily be viewed as serious flaws that affect the fitness for purpose of the model, but rather as a guide to where improvements should be made during work.*

The above model uncertainties serve as a guide for where improvements could be made in the future with the availability of additional data or with the improvement of hydrogeological understanding.

The following limitations may be considered to introduce a component of uncertainty which may be considered to limit the use of predictive modelling results:

1. The Border to Lock 3 model is a regional groundwater flow model for the purpose listed in early sections. Simplifications and assumptions are made for development of the model. Therefore the model results and the model should not be used to answer detailed questions at small scale.
2. The model layers are a simplified representation of the thickness and hydraulic parameters of the natural aquifers and aquitards, and may not reflect the natural conditions with sufficient accuracy in small scale and real world conditions.
3. According to MDBC requirements, daily pool level fluctuations were not simulated in the model, which results in average values of salt load entering the River Murray.
4. Flood events were not required by the MDBC to be simulated in the model.
5. Floodplain processes of salt storage and release process were not modelled.
6. Groundwater salinities are assumed to remain constant when predicting future salt loads entering the river. However, groundwater salinity will most likely change in the future in response to accessions from brackish irrigation drainage.
7. Model recharge zones and rates are likely to be different in the future to those used in predictive modelling.

9. CONCLUSIONS

9.1 MODEL IMPROVEMENTS

DWLBC has significantly revised and further calibrated the Border to Lock 3 numerical groundwater flow model in the Pyap to Kingston area. This model is an 'impact assessment model of moderate complexity' in the terminology of the MDBC (2001). The model accommodates the Pyap to Kingston area within a broad regional context, notably including the aquifer parameters (but not irrigation recharge processes) for the Loxton–Bookpurnong Pike–Murtho and Renmark–Berri areas. The model has been accurately calibrated for the Pyap to Kingston area using observed (historical) potentiometric heads. Sensitivity/ Uncertainty analysis, as specified by the Guidelines (MDBC, 2001), has been undertaken for transient conditions.

9.2 MODELLING RESULTS

The modelling work has resulted in an improved understanding of the hydrogeology of the aquifer system in the Pyap to Kingston area. The model has been used to predict the flux of saline groundwater (salt load) entering the River Murray under different irrigation practices and development scenarios. Model results (salt loads) can be seen in Figures 49–53 and in Tables 17 and 20.

Table 17. Summary of predicted salt load (t/d) entering the River Murray – Pyap Area

Pyap Area	Year				
	1988	2000	2006	2050	2106
S–1	2.3	2.3	2.3	2.3	2.3
S–2	2.6	2.7	2.8	3.8	5.4
S–3A	7.1	9.6	7.7	9.5	9.7
S–3B	7.1	9.6	6.4	5.9	5.9
S–3C	7.1	9.6	6.4	5.9	5.9
S–4	7.1	9.6	6.4	9.3	11.1
S–5	7.1	9.6	6.4	9.3	11.1

Table 18. Summary of predicted salt load (t/d) entering the River Murray – New Residence Area

New Residence Area	Year				
	1988	2000	2006	2050	2106
S–1	0.3	0.3	0.3	0.3	0.3
S–2	0.7	0.9	1.1	2.1	3.4
S–3A	9.9	10.8	10.8	10.1	10.2
S–3B	9.9	10.7	10.3	6.6	6.5

New Residence Area	Year				
	1988	2000	2006	2050	2106
S–3C	9.9	10.7	10.3	6.6	6.5
S–4	9.9	10.6	10.3	11.0	12.4
S–5	9.9	10.7	10.3	11.2	13.5

Table 19. Summary of predicted salt load (t/d) entering the River Murray – Moorook Area

Moorook Area	Year				
	1988	2000	2006	2050	2106
S–1	0.8	0.8	0.8	0.8	0.8
S–2	1.0	1.1	1.2	1.6	2.0
S–3A	13.8	11.7	10.7	7.2	7.2
S–3B	13.8	11.3	9.9	4.0	4.0
S–3C	13.8	11.3	9.7	3.4	3.4
S–4	13.8	11.3	9.7	4.9	5.0
S–5	13.8	11.3	9.7	5.0	5.4

Table 20. Summary of predicted salt load (t/d) entering the River Murray – Kingston Area

Kingston Area	Year				
	1988	2000	2006	2050	2106
S–1	0.3	0.3	0.3	0.3	0.3
S–2	0.5	0.5	0.5	0.6	0.6
S–3A	9.5	8.5	7.6	4.5	4.5
S–3B	9.5	8.4	7.6	2.4	2.4
S–3C	9.5	8.4	7.6	2.3	2.3
S–4	9.5	8.4	7.6	3.3	3.4
S–5	9.5	8.4	7.6	3.3	3.4

9.3 GROUNDWATER MANAGEMENT SCHEMES

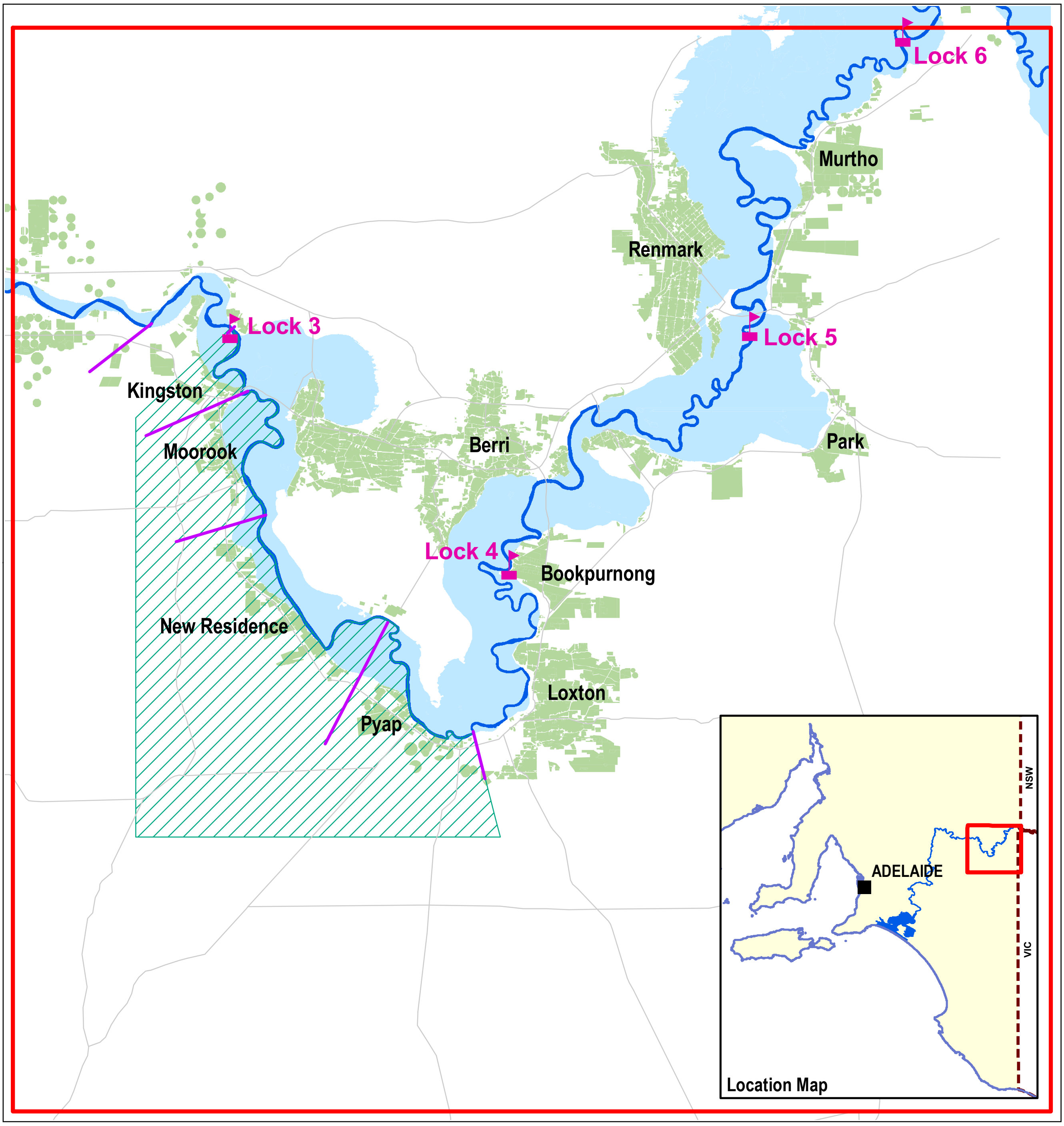
At the time of writing, SIS in the Pyap to Kingston area is not considered.

9.4 RECOMMENDATIONS

The following work is recommended before next MDBC review:

1. Review salinity data when new information is obtained.
2. Validate current model when more groundwater level data becomes available and new information for the area where data is absent or sparse.
3. Improve understanding of the conceptual hydrogeological model.
4. Improve the model report (consistent with other reports at the time of next review).

FIGURES



PRODUCED BY: Resource Information Group, DWLBC
MAP PROJECTION: MGA Zone 54
MAP DATUM: Geocentric Datum of Australia 1994
DATE: January 2008

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Figure 1 Project site map and model domain

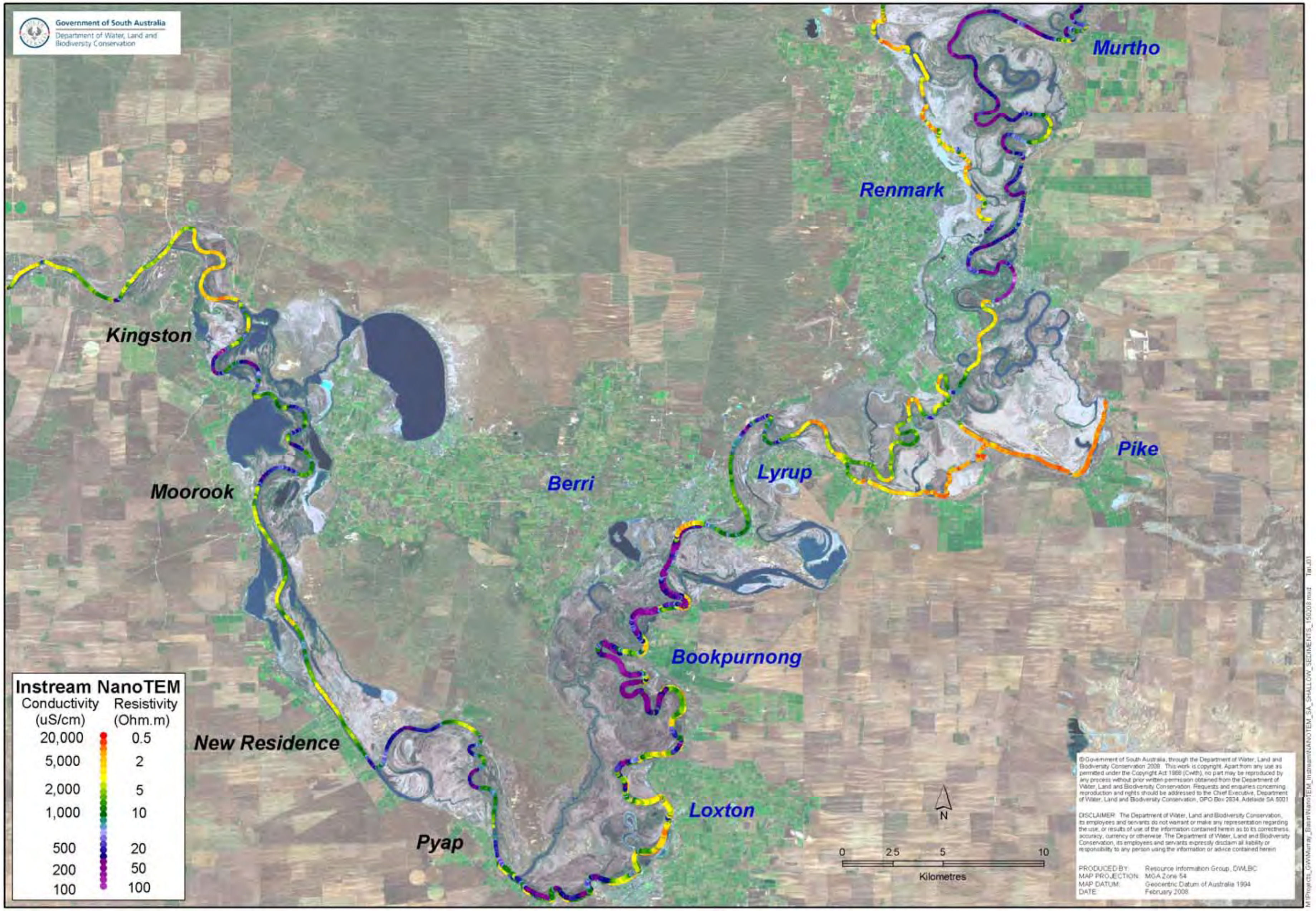


Figure 2. Aerial photography and NanoTEM results from Lock 6 to Lock 3 (2005 survey)

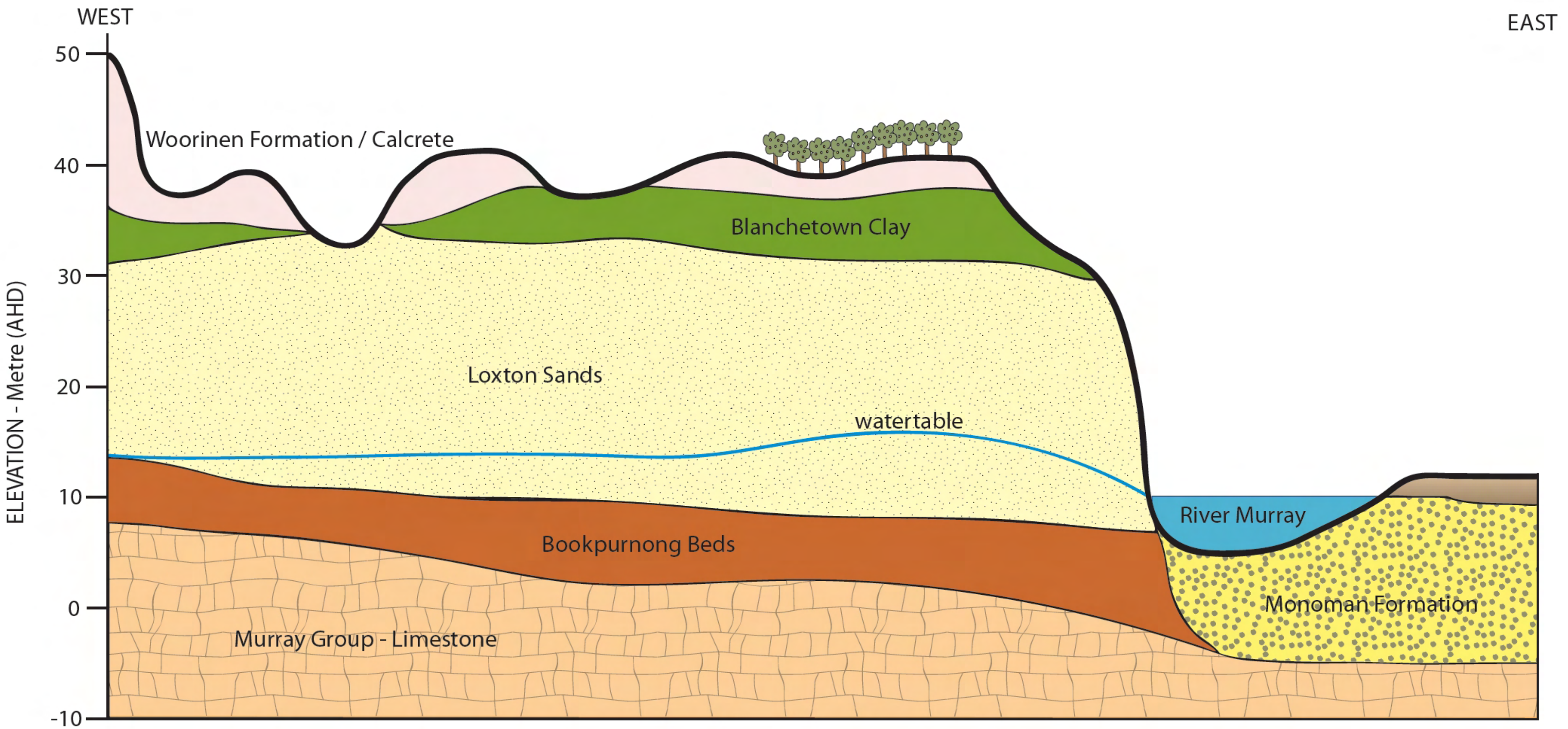


Figure 3. **Hydrogeological cross-section A-A' (see Fig. 1 for line of section) (AWE 1998)**

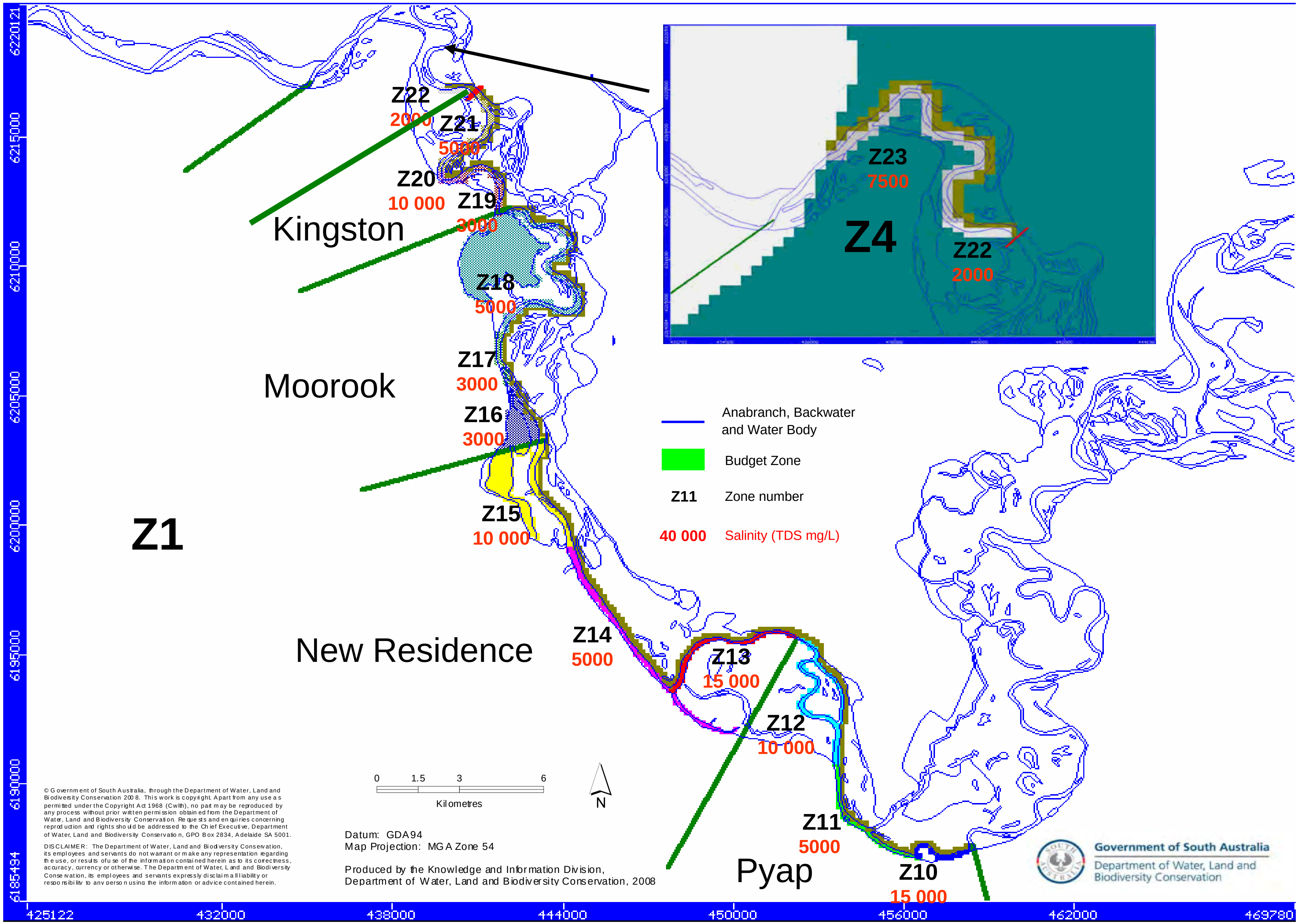


Figure 4. Flow budget zones (model layer 1) and adopted groundwater salinity values (TDS mg/L) in the Pyap to Kingston Area

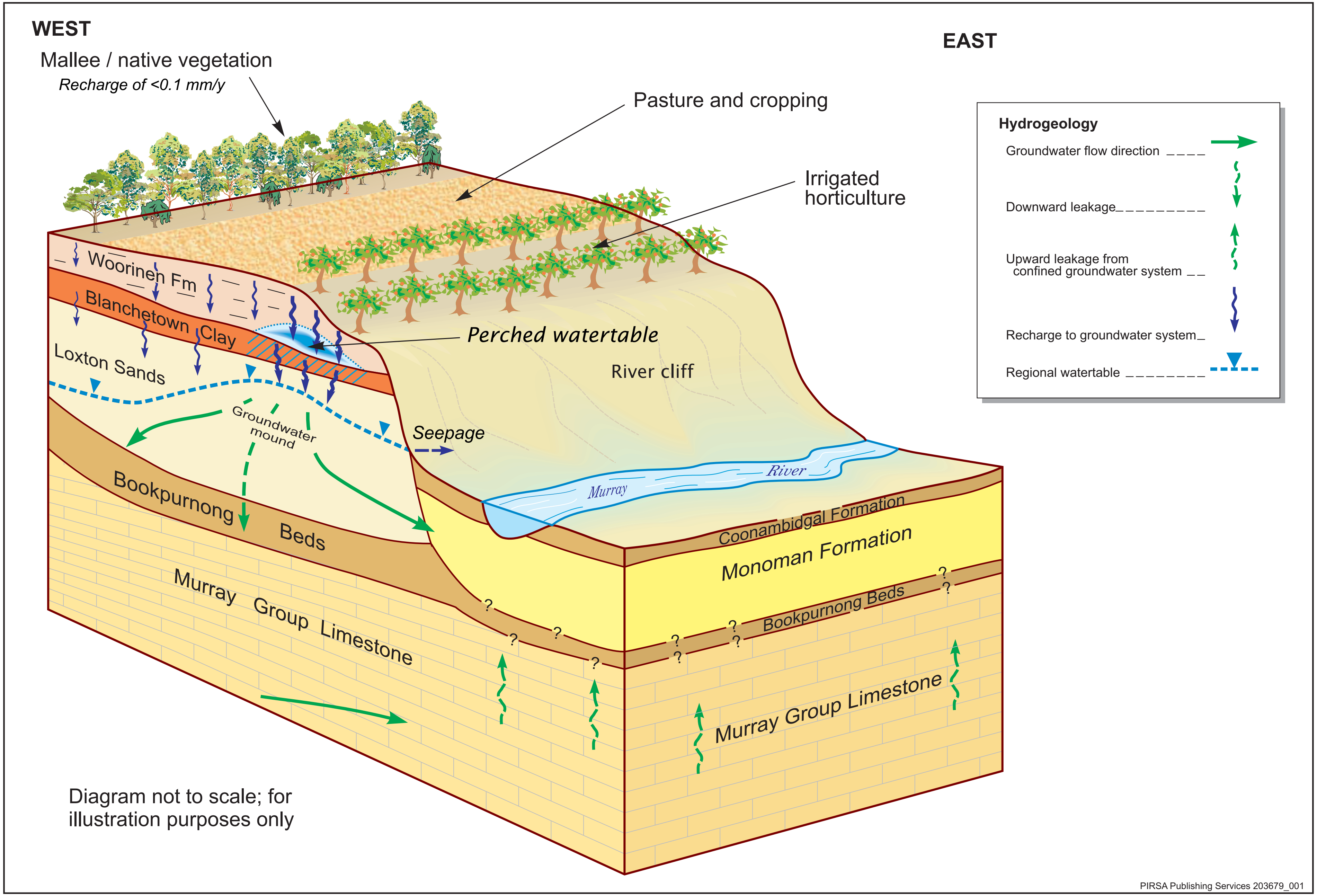
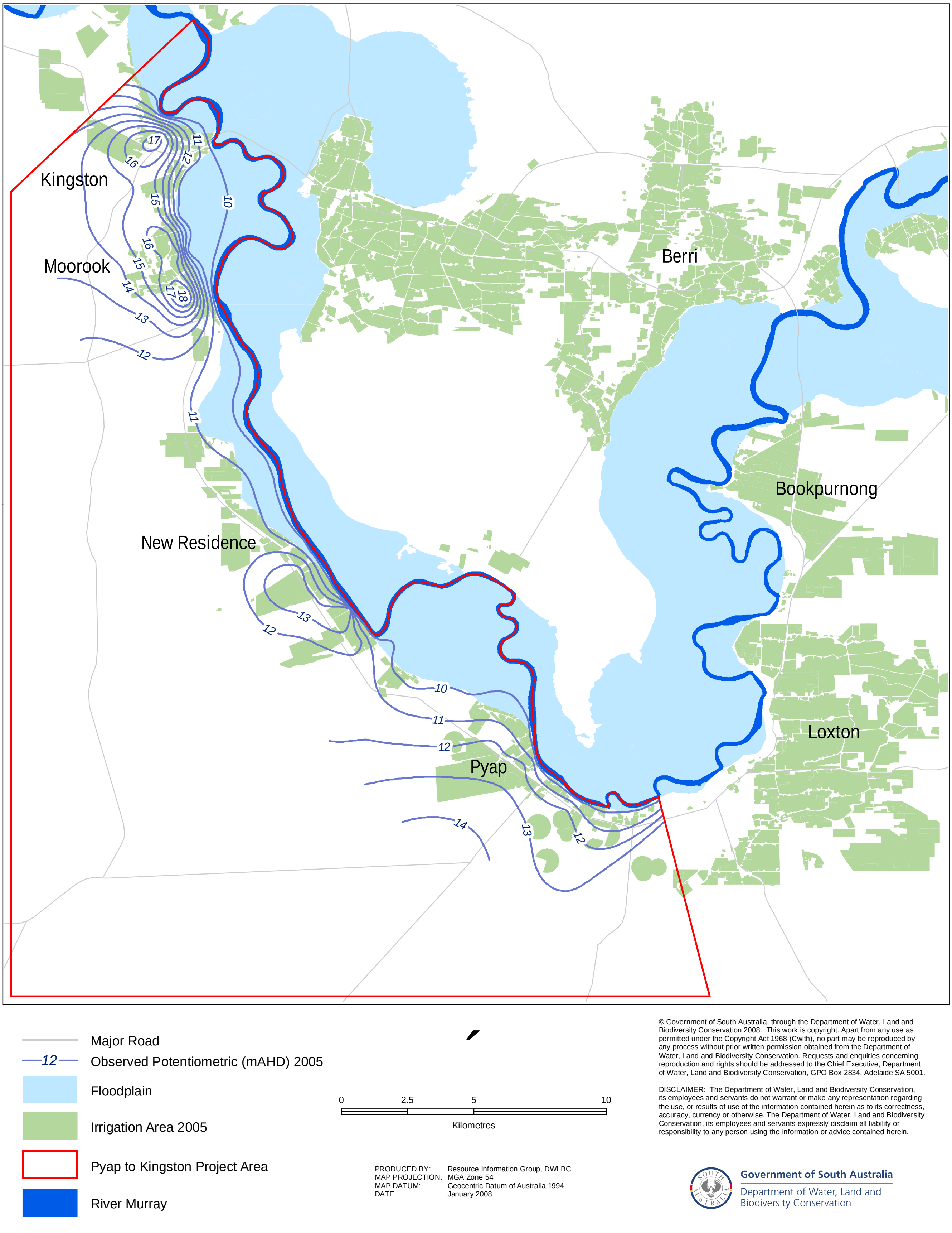


Figure 5. Elementary conceptual hydrogeological model and numerical model structure (after Yan et al 2006)



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MAP DATUM: Geocentric Datum of Australia 1994
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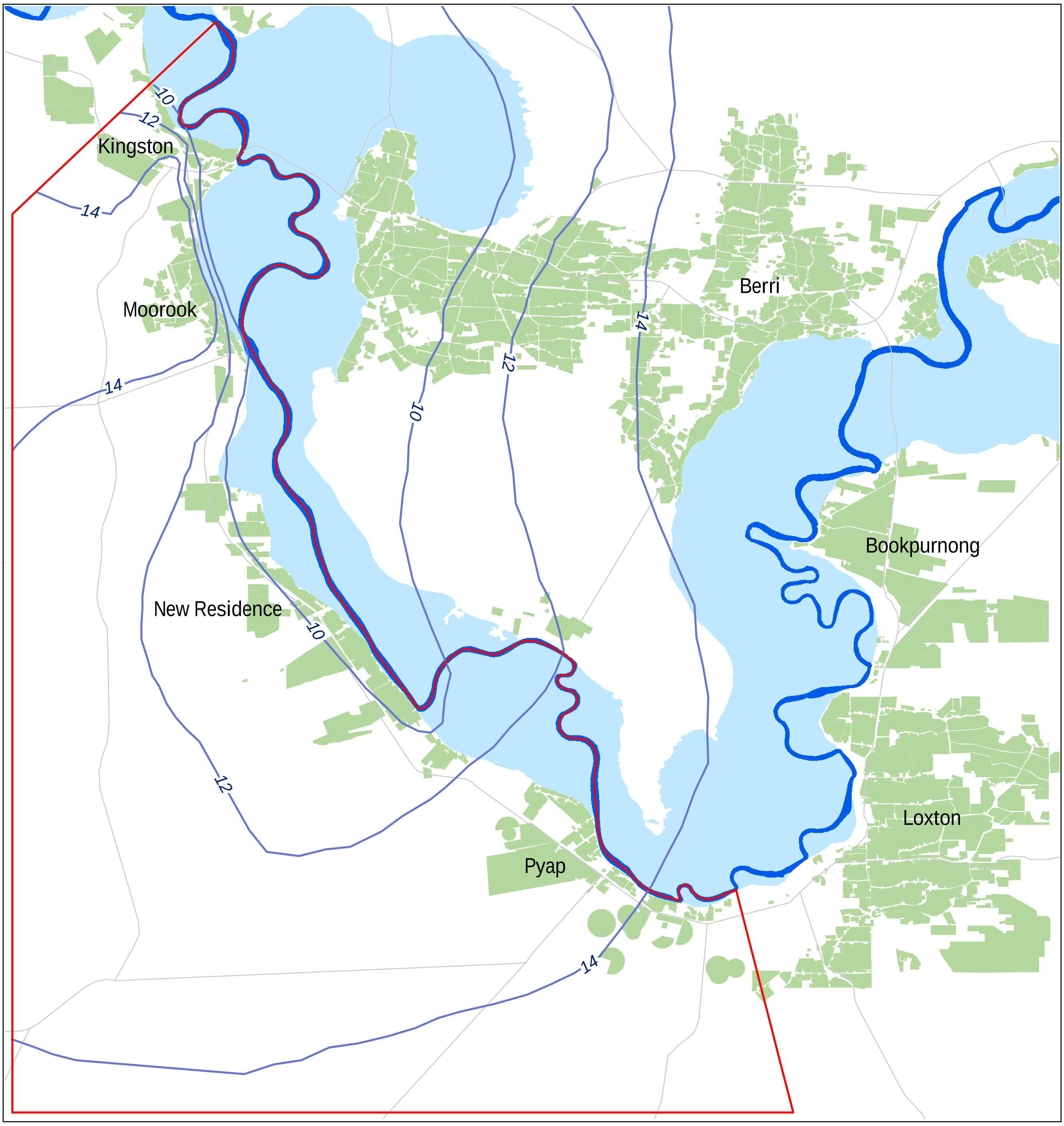
Figure 6 Loxton Sands and Monoman Formation potentiometric surface 2005



Major Road

12 Observed Potentiometric (mAHD) 1995

Floodplain

Irrigation Area 2005

Pyap to Kingston Project Area

River Murray

0 2.5 5 10
Kilometres

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MAP PROJECTION: MGA Zone 54
MAP DATUM: Geocentric Datum of Australia 1994
DATE: January 2008

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Figure 7 Murray Group Limestone potentiometric surface

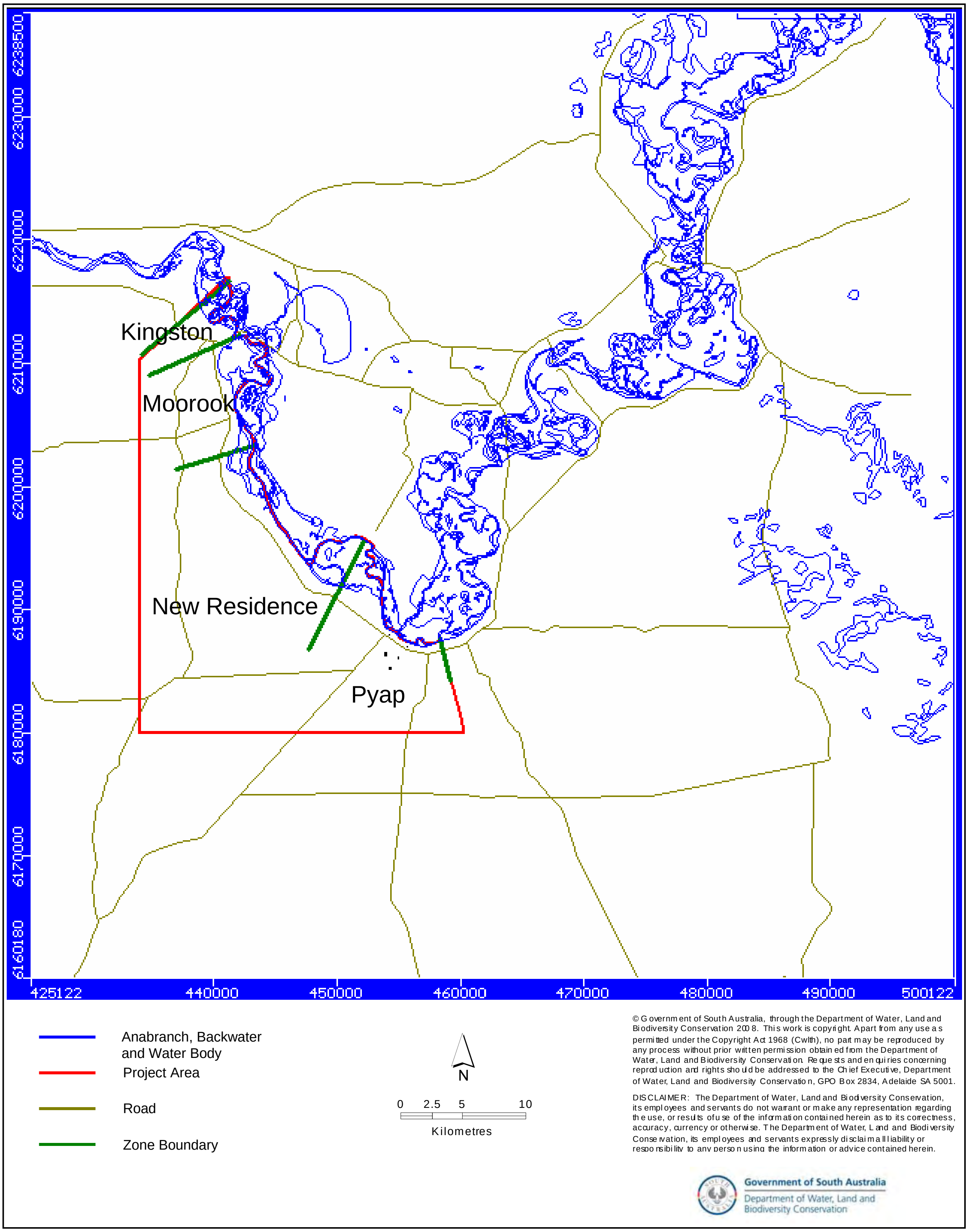

Figure 8. Regional model domain and project area

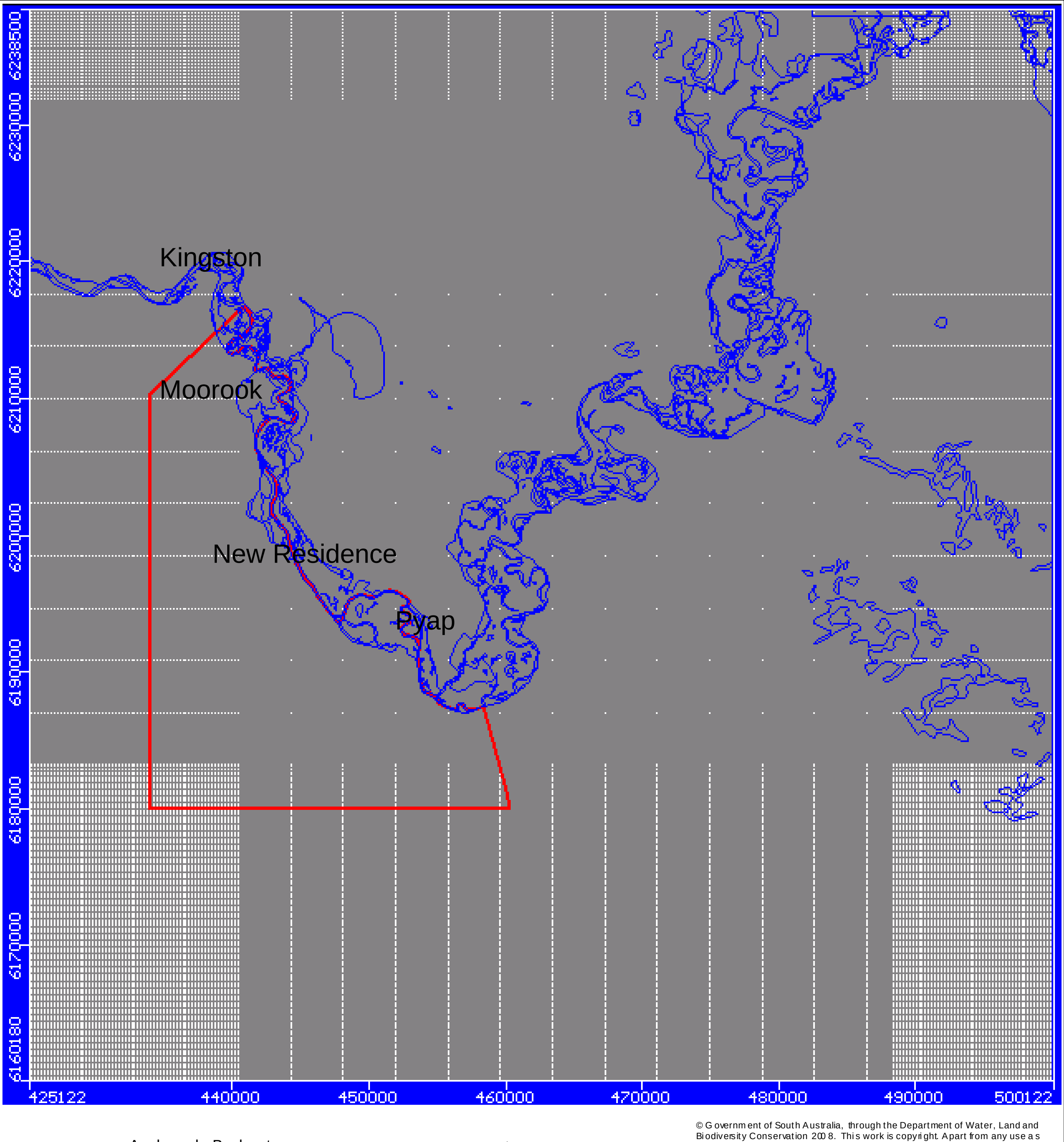

Figure 9. Model grid

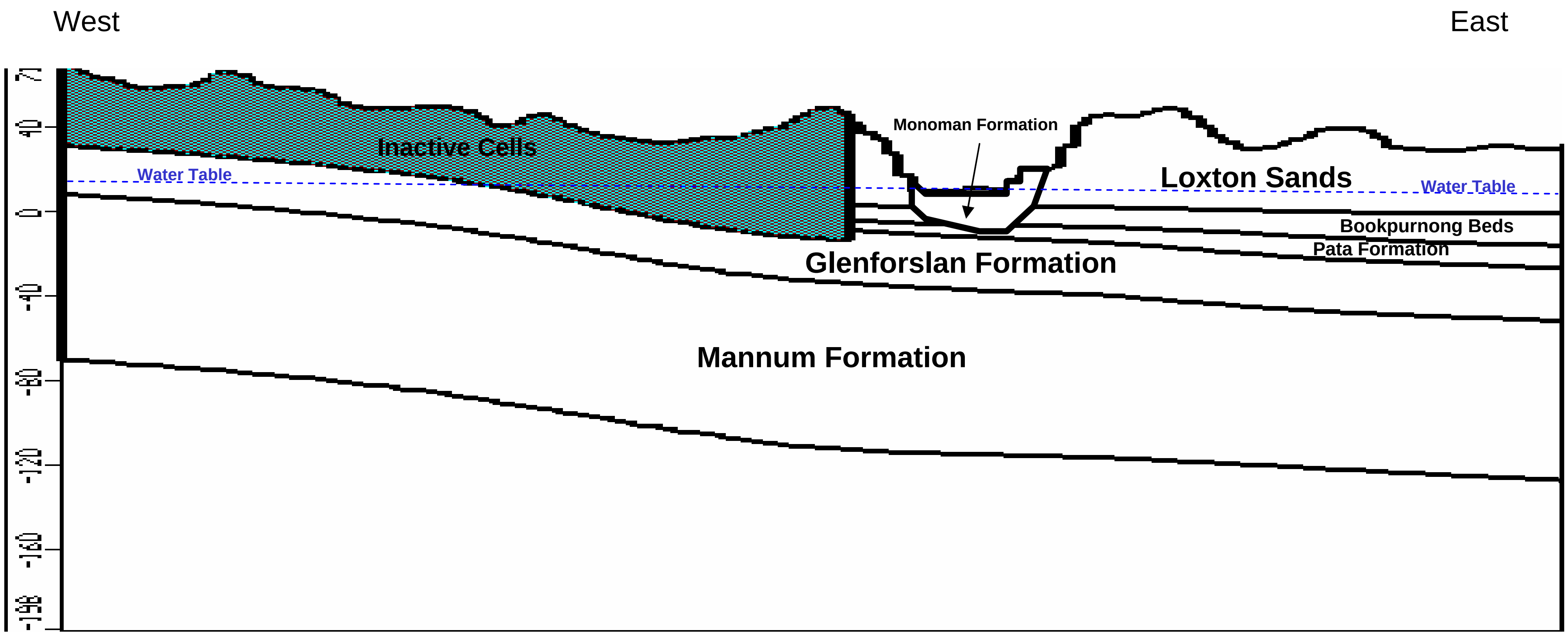

Figure 10. Model layers (Cross section through model row 3, approx. N 6204700)

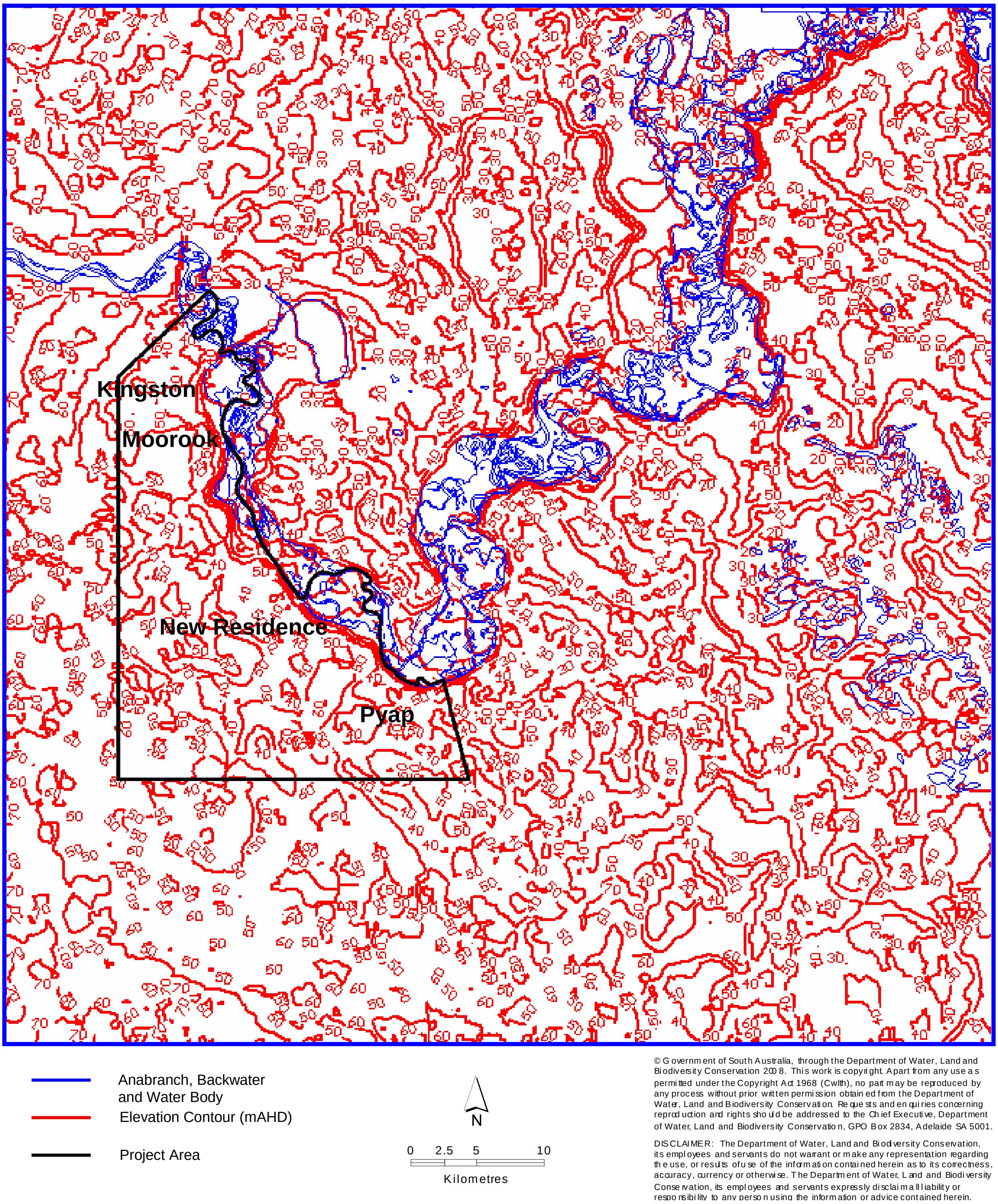

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Figure 11. Ground surface elevation contours (m AHD)

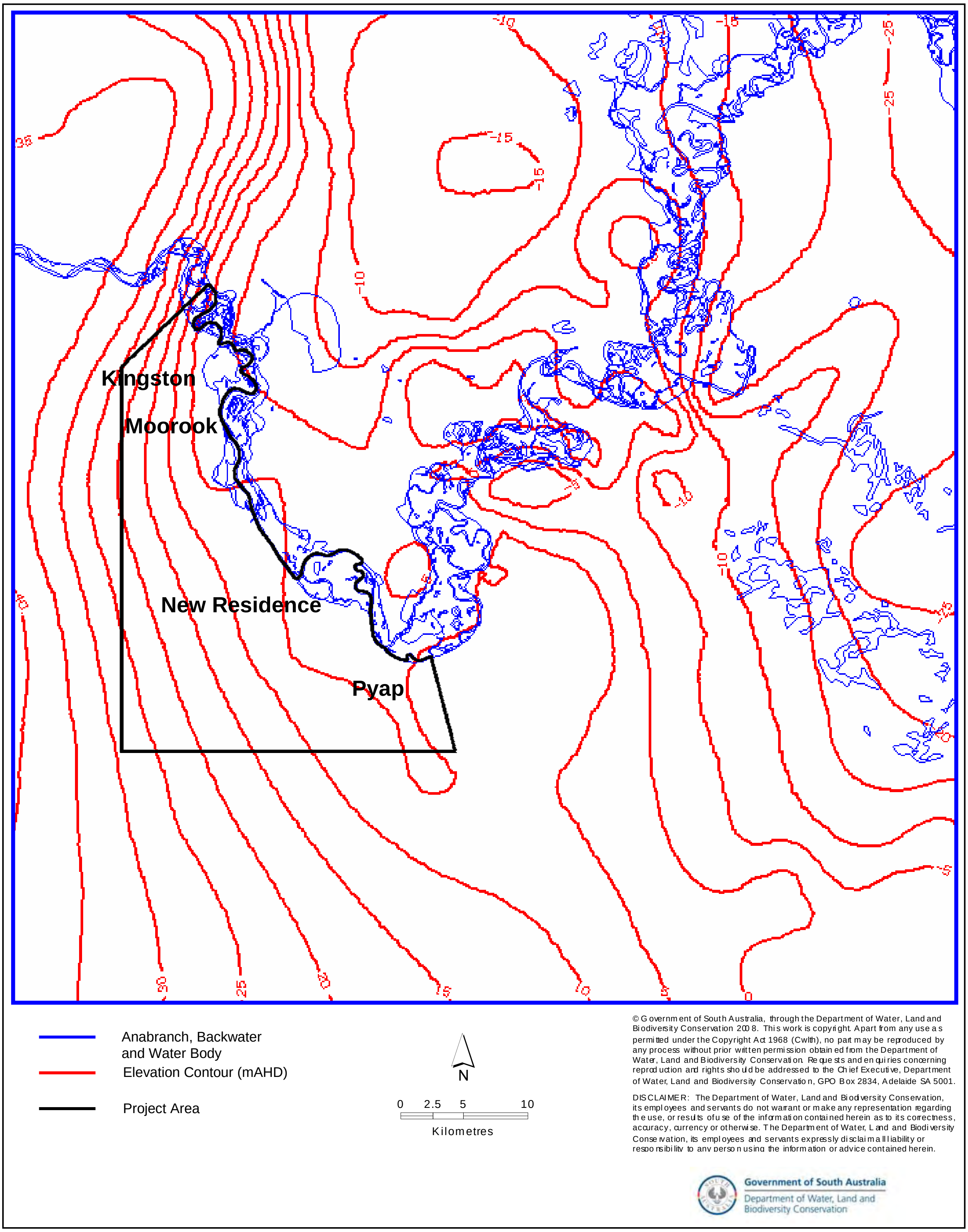

Figure 12. Top of model layer 2 elevation contours (m AHD)

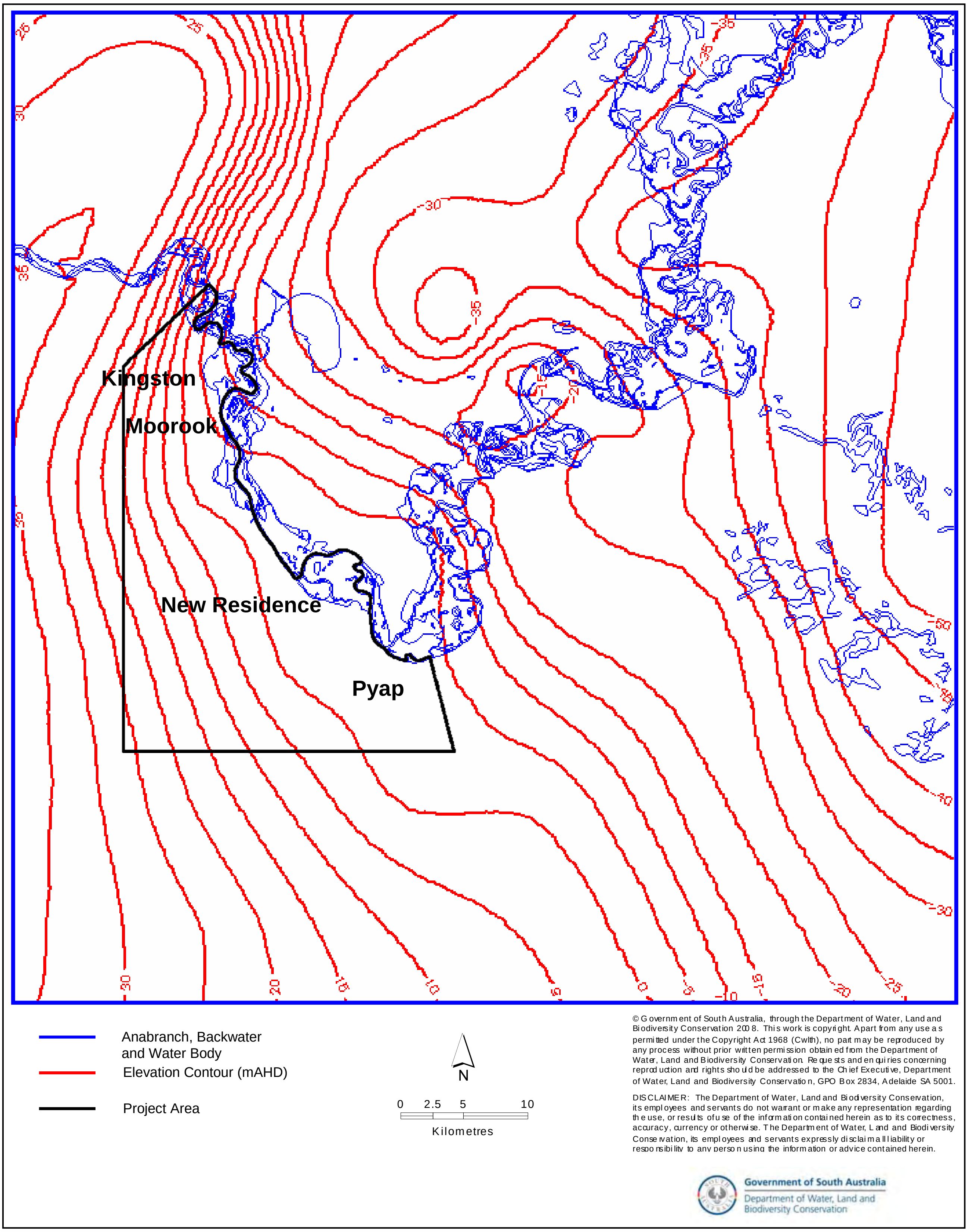

Figure 13. Top of model layer 3 elevation contours (m AHD)

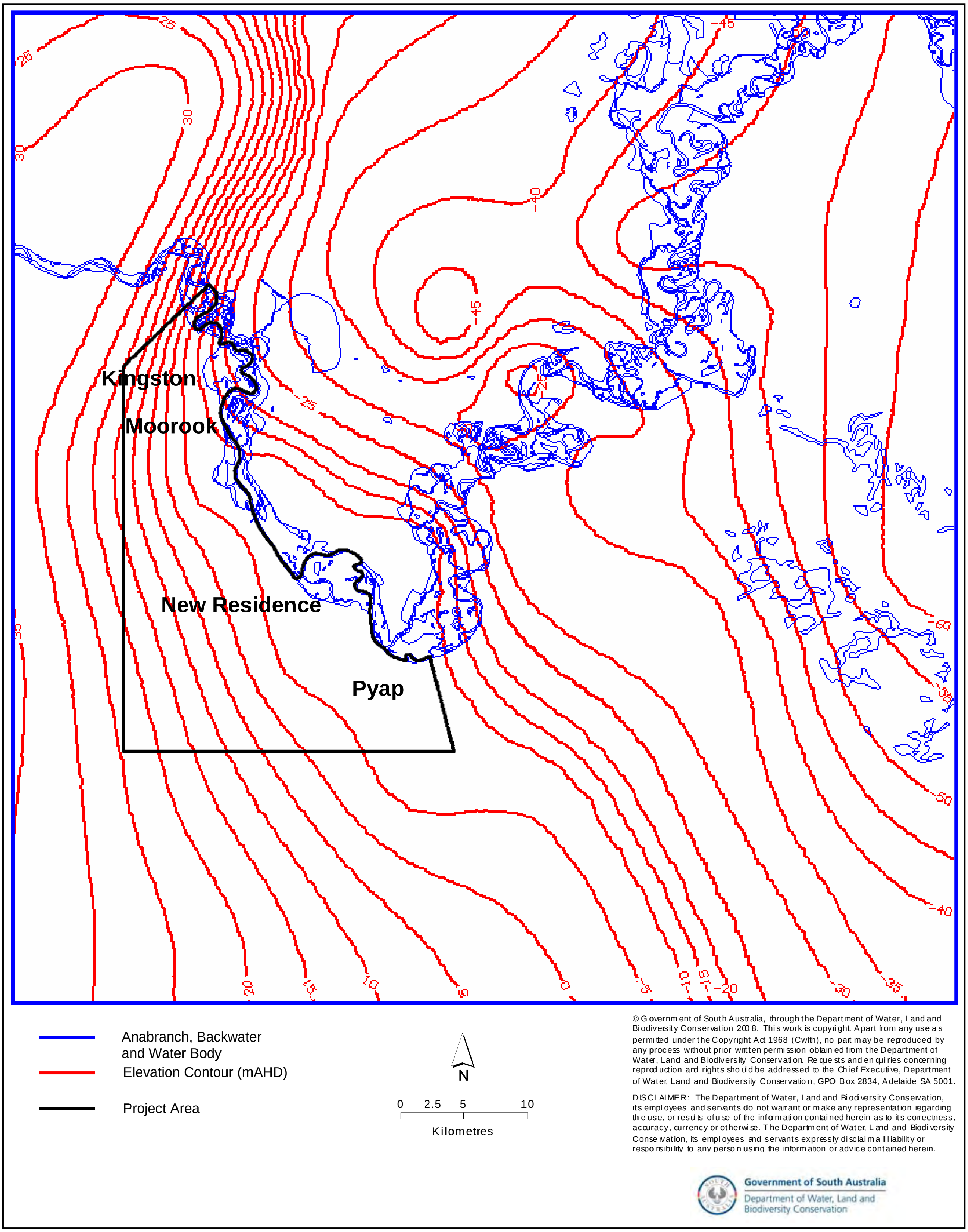

Figure 14. Top of model layer 4 elevation contours (m AHD)

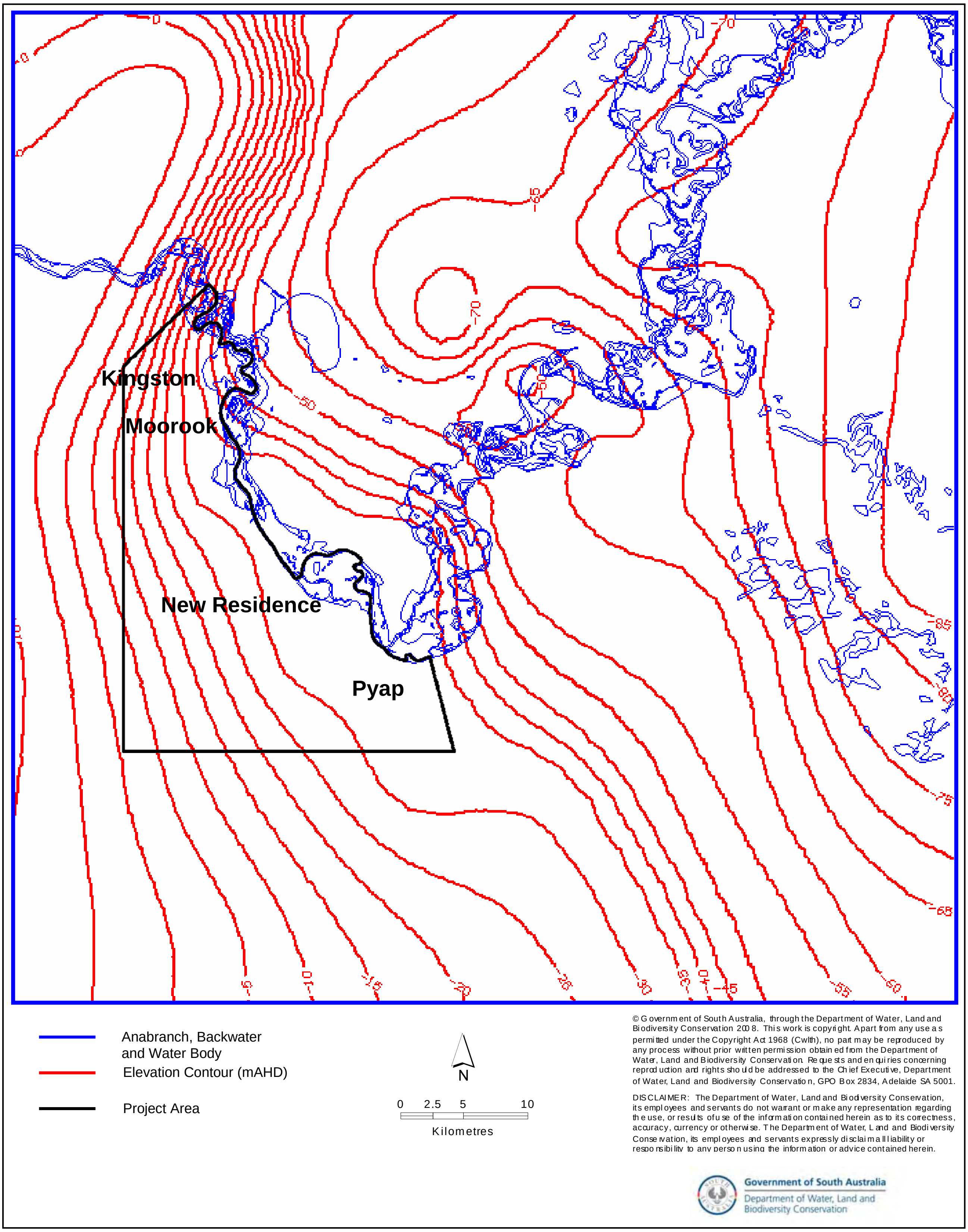

Figure 15. Top of model layer 5 elevation contours (m AHD)

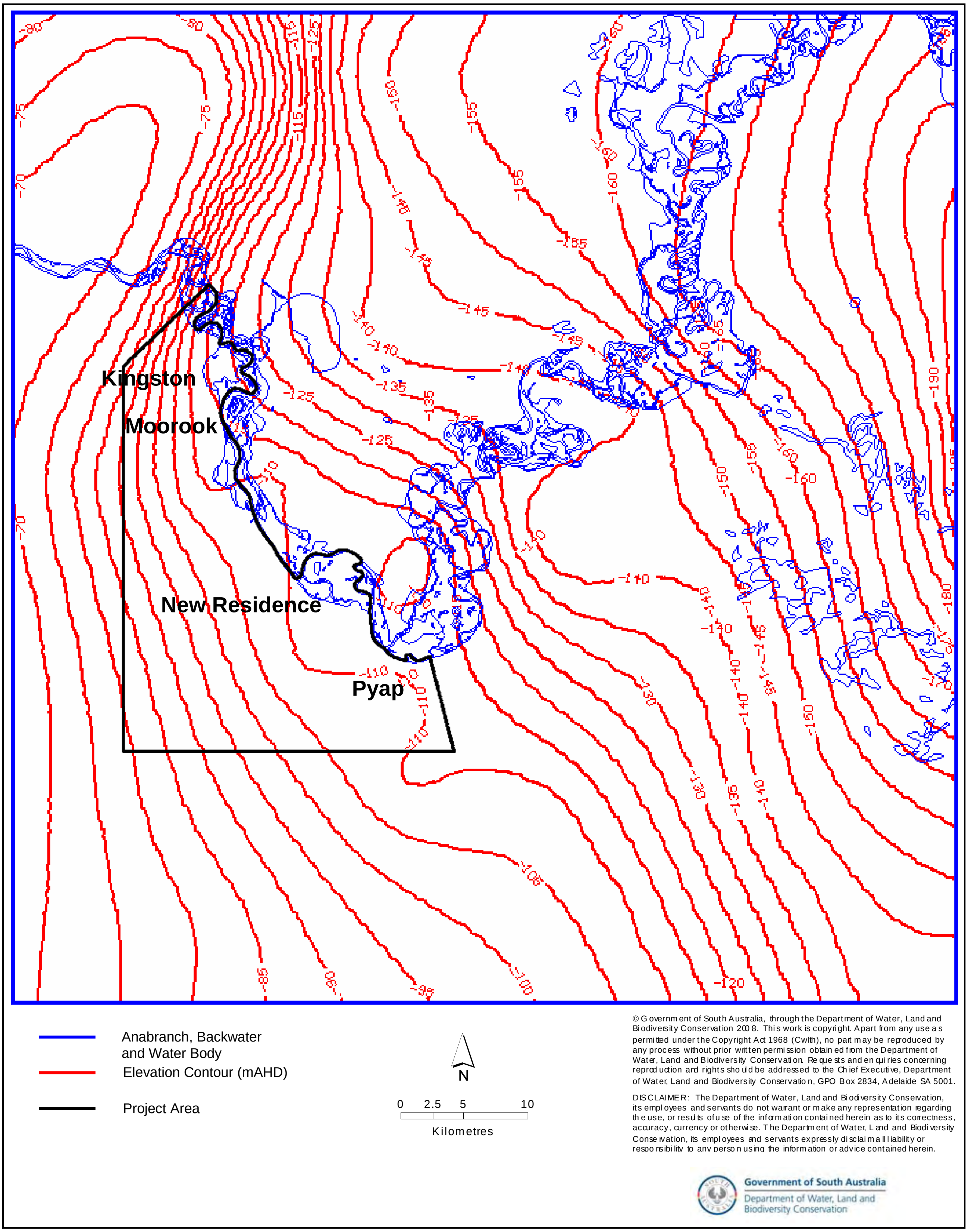

Figure 16. Base of model layer 5 elevation contours (m AHD)

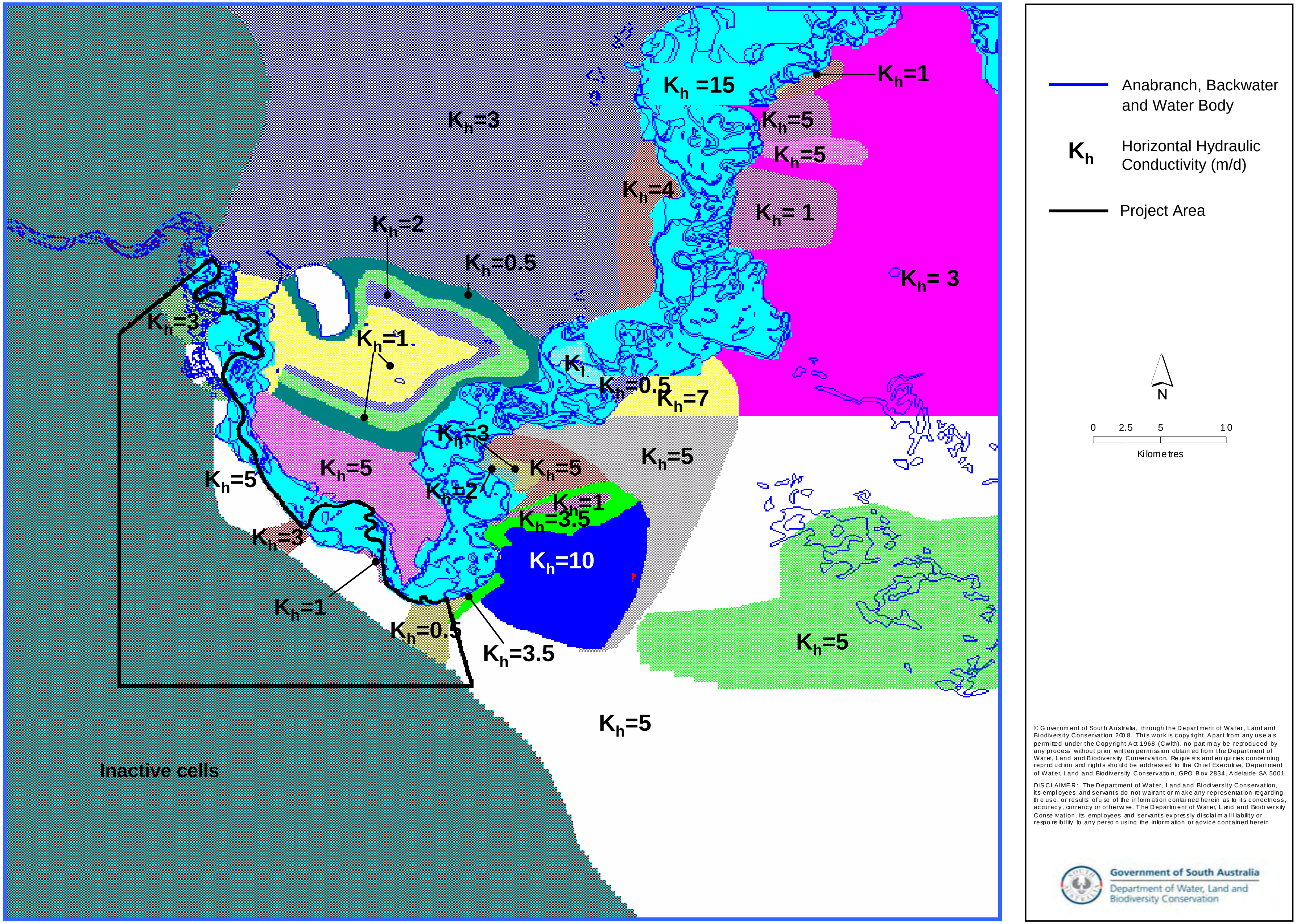

Figure 17. Model hydraulic conductivity zones and values (layer 1)

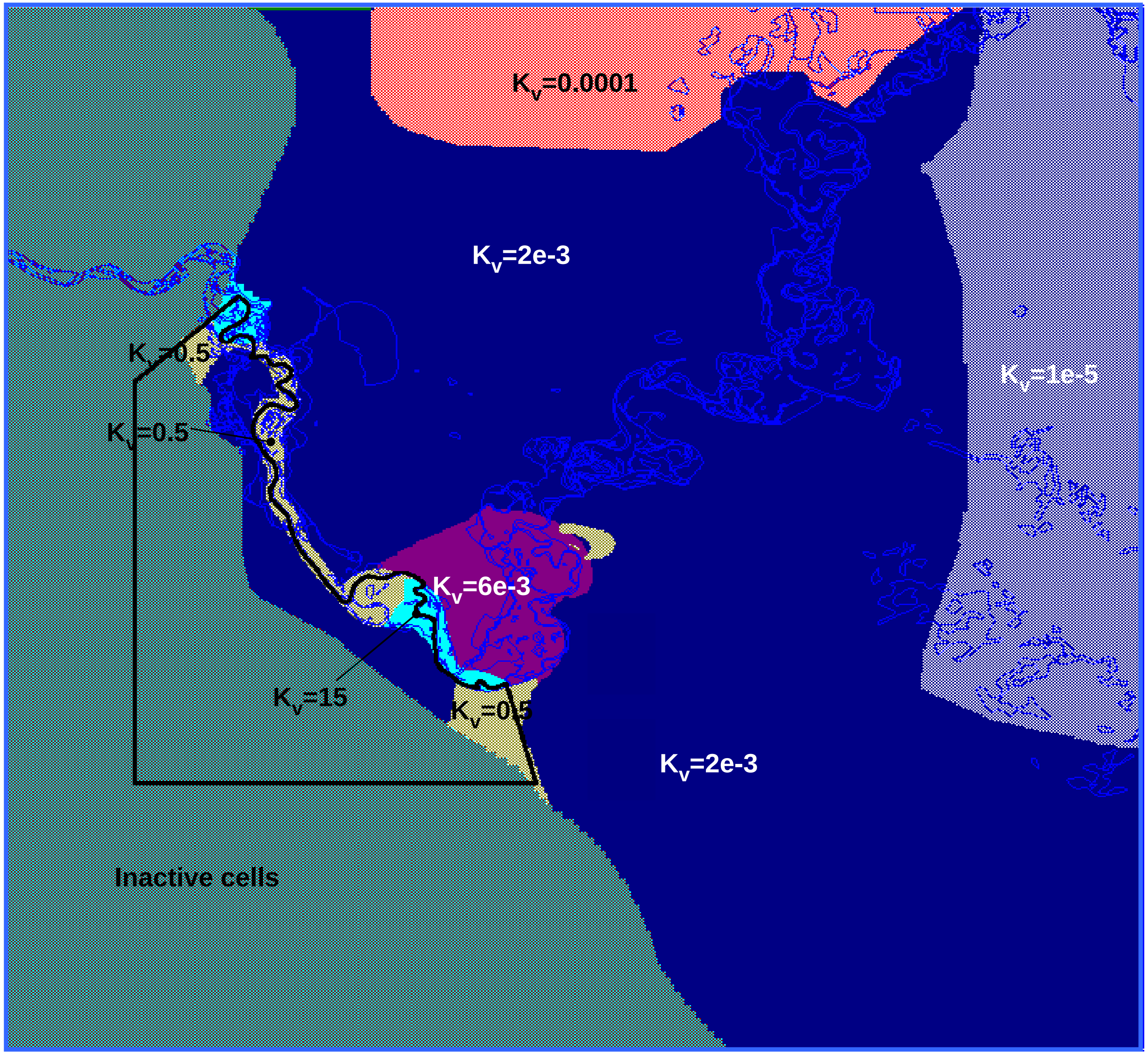

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Figure 18. Model hydraulic conductivity zones and values (layer 2)

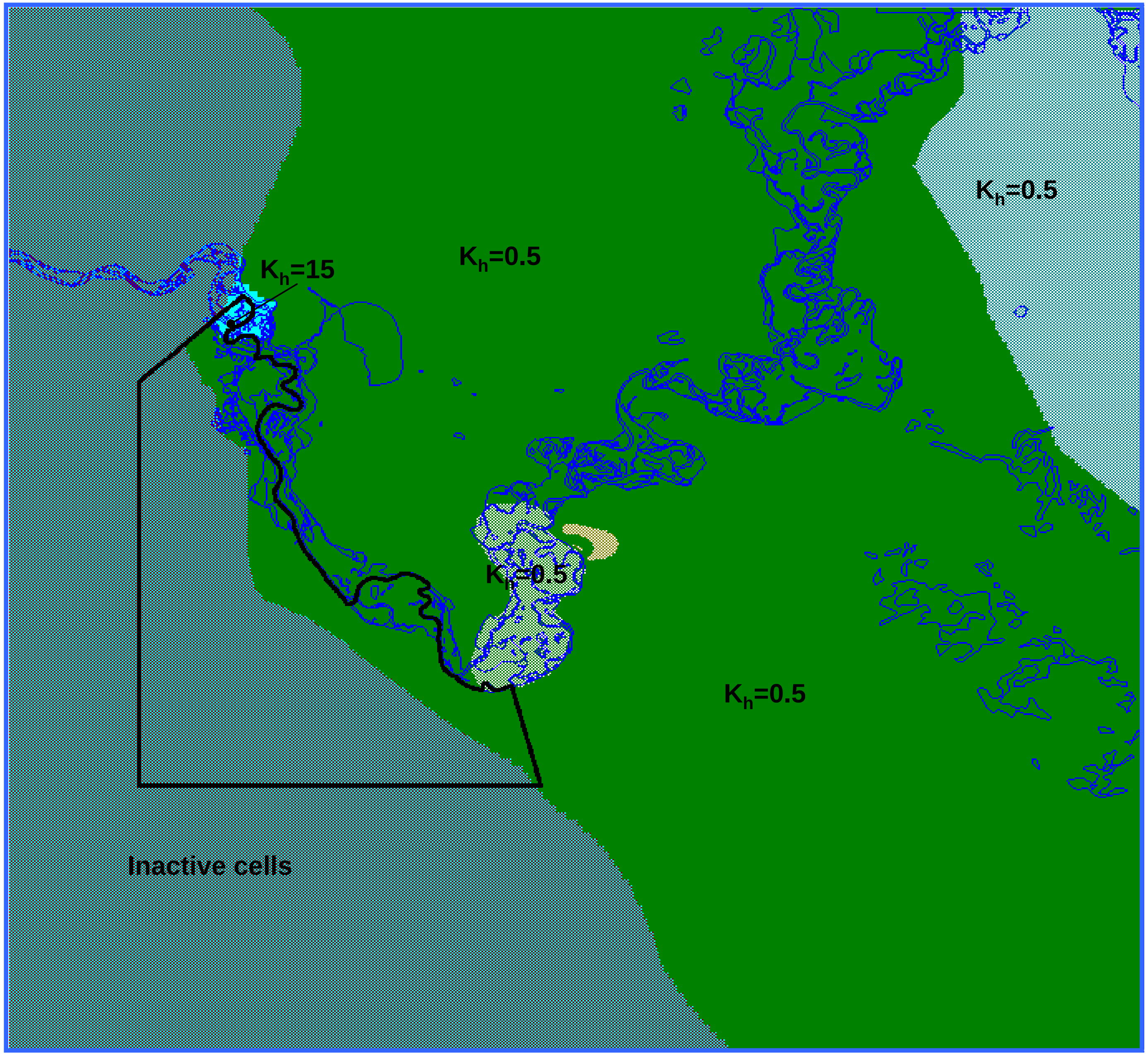


Figure 19. Model hydraulic conductivity zones and values (layer 3)

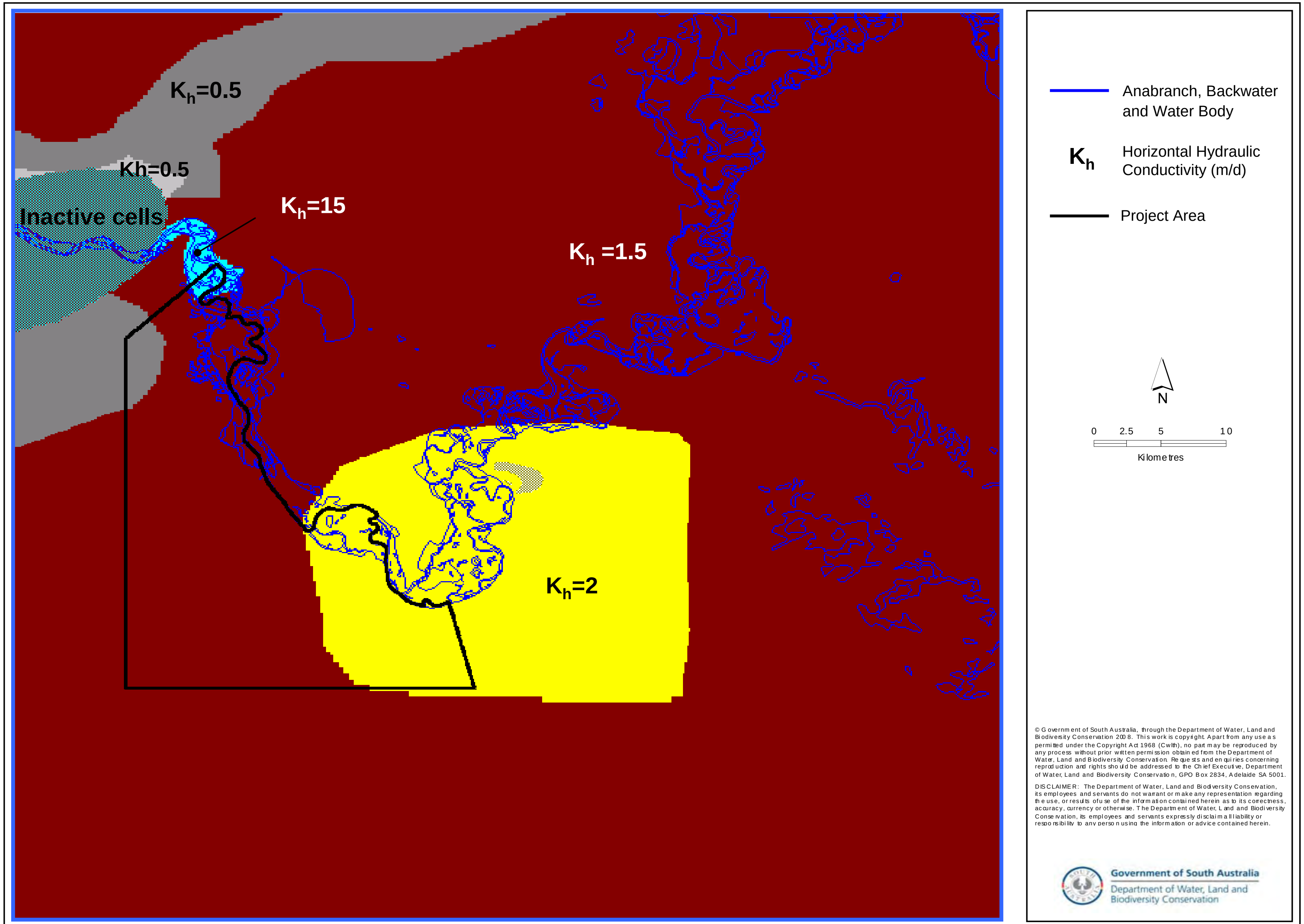


Figure 20. Model hydraulic conductivity zones and values (layer 4)

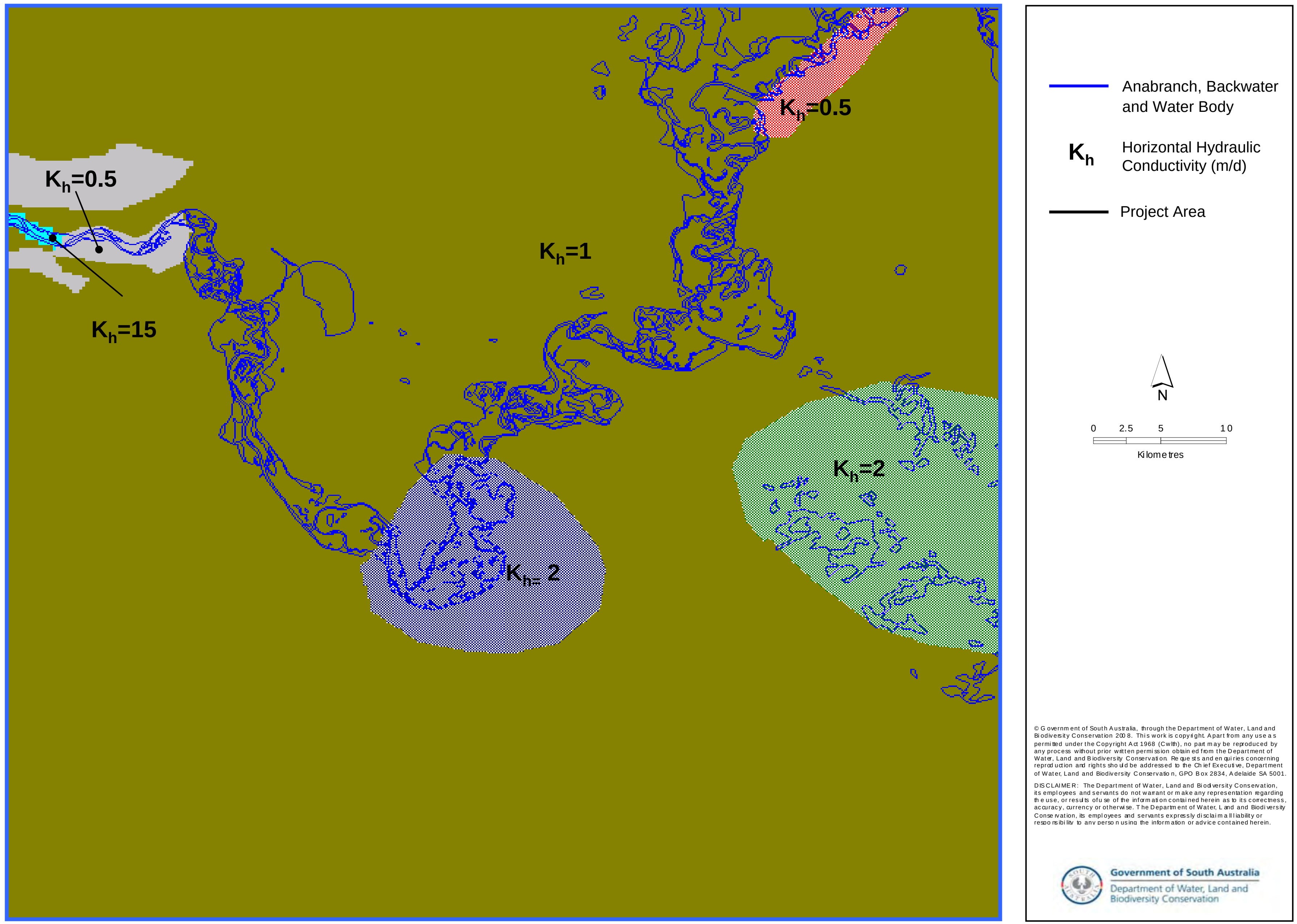
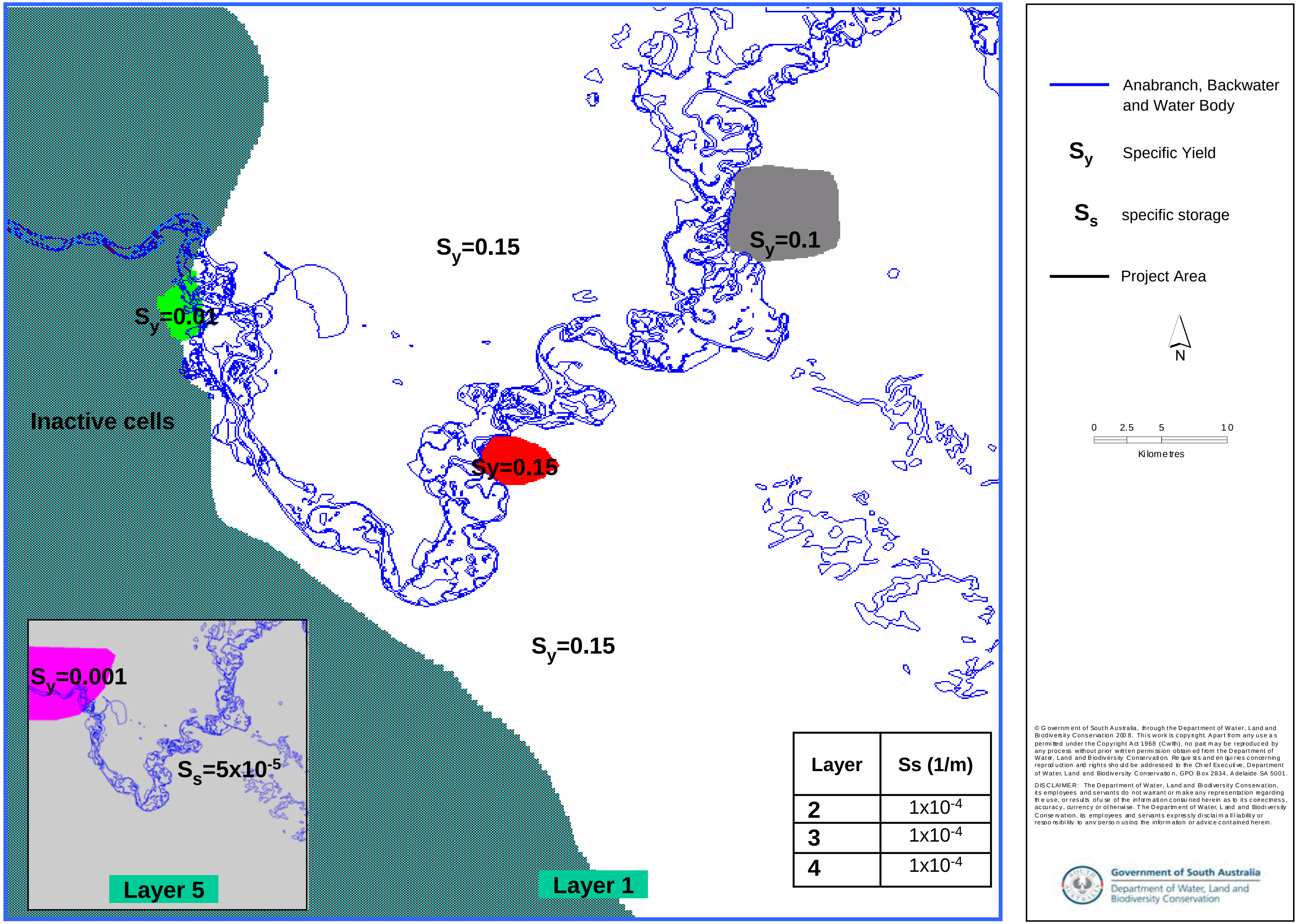


Figure 21. Model hydraulic conductivity zones and values (layer 5)



Layer	Ss (1/m)
2	1×10^{-4}
3	1×10^{-4}
4	1×10^{-4}

Figure 22. Model Sy and Ss zones and values in Layer 1 (main picture) and in Layer 5 (small picture on left corner) (Table gives Specific Storage [Ss] in other layers)

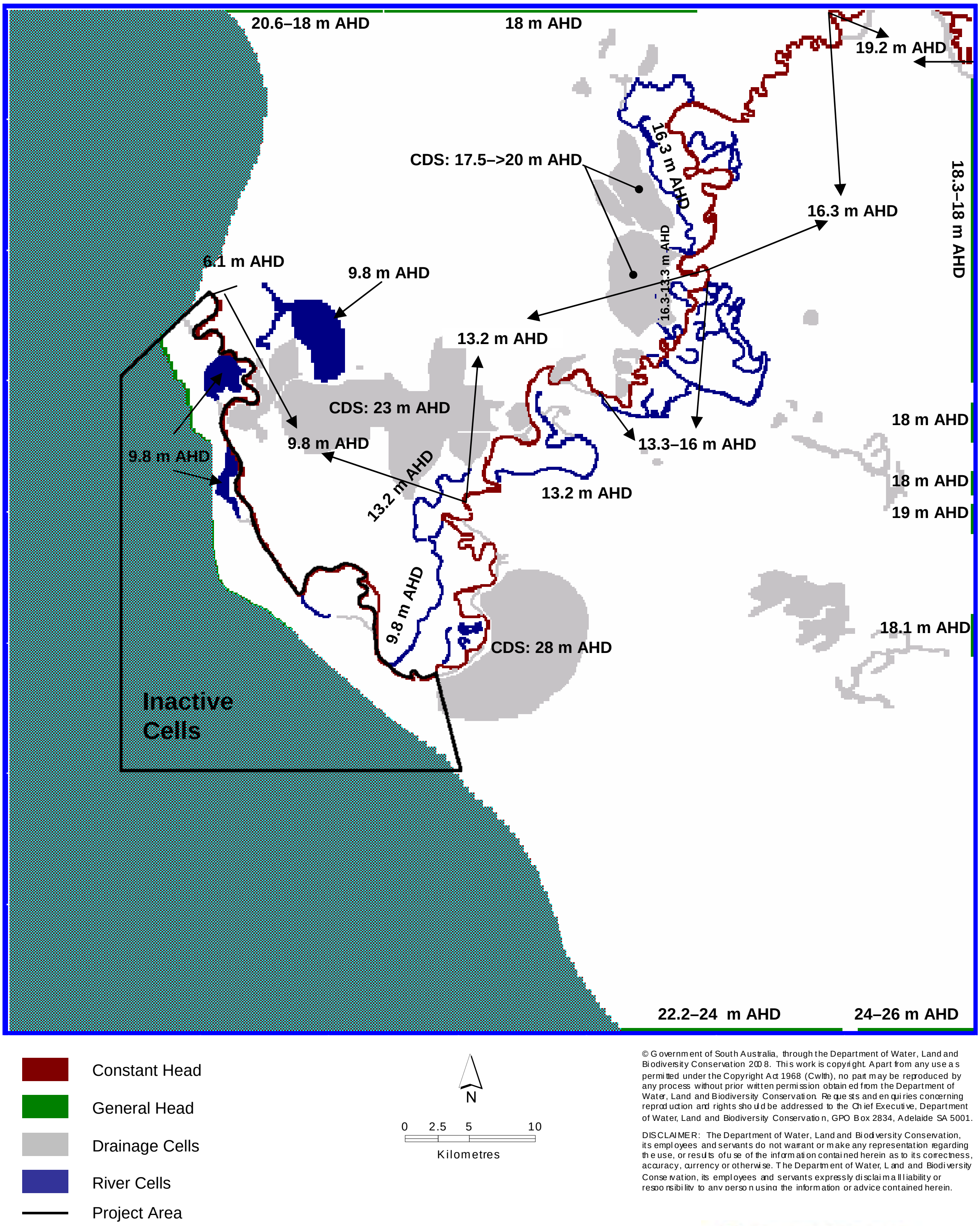


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Figure 23. Model boundary conditions (layer 1)

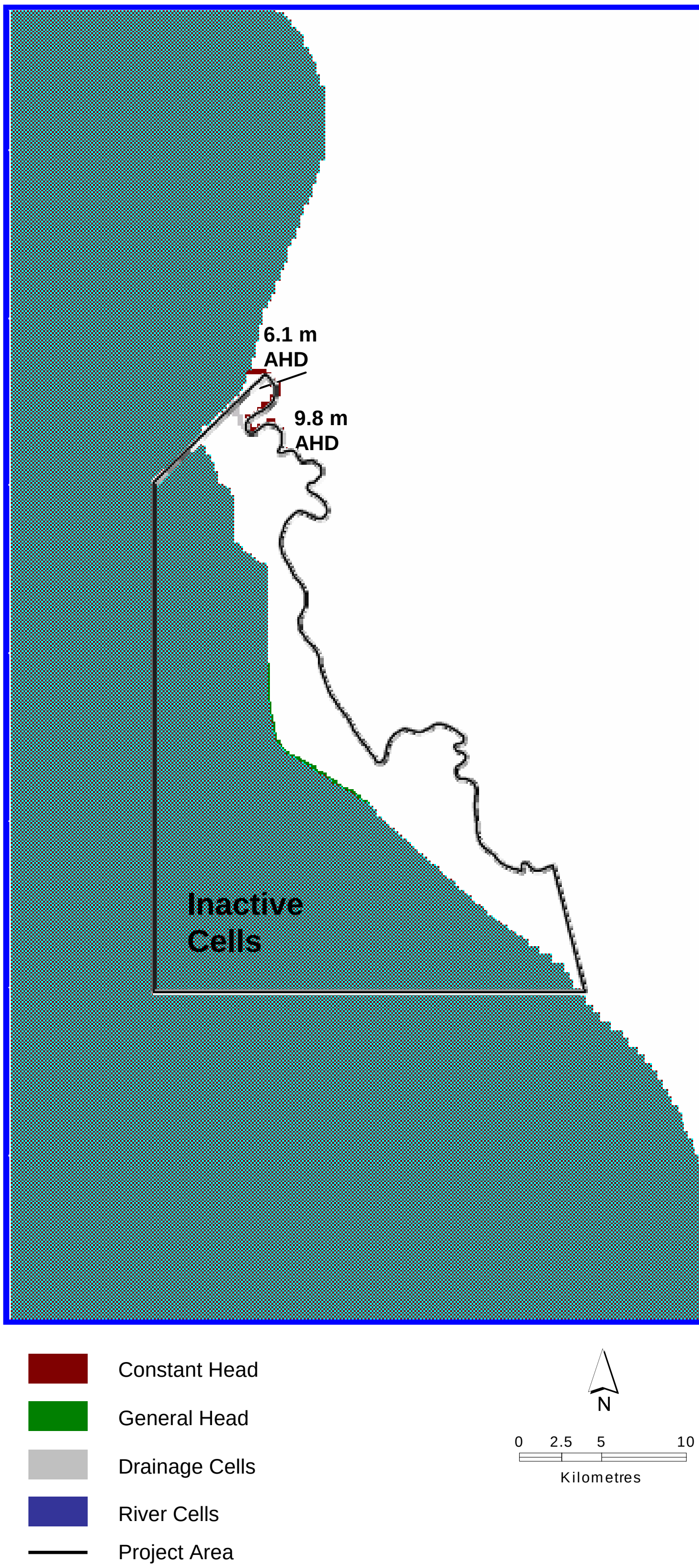

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Figure 24: Model boundary conditions (layer 2)

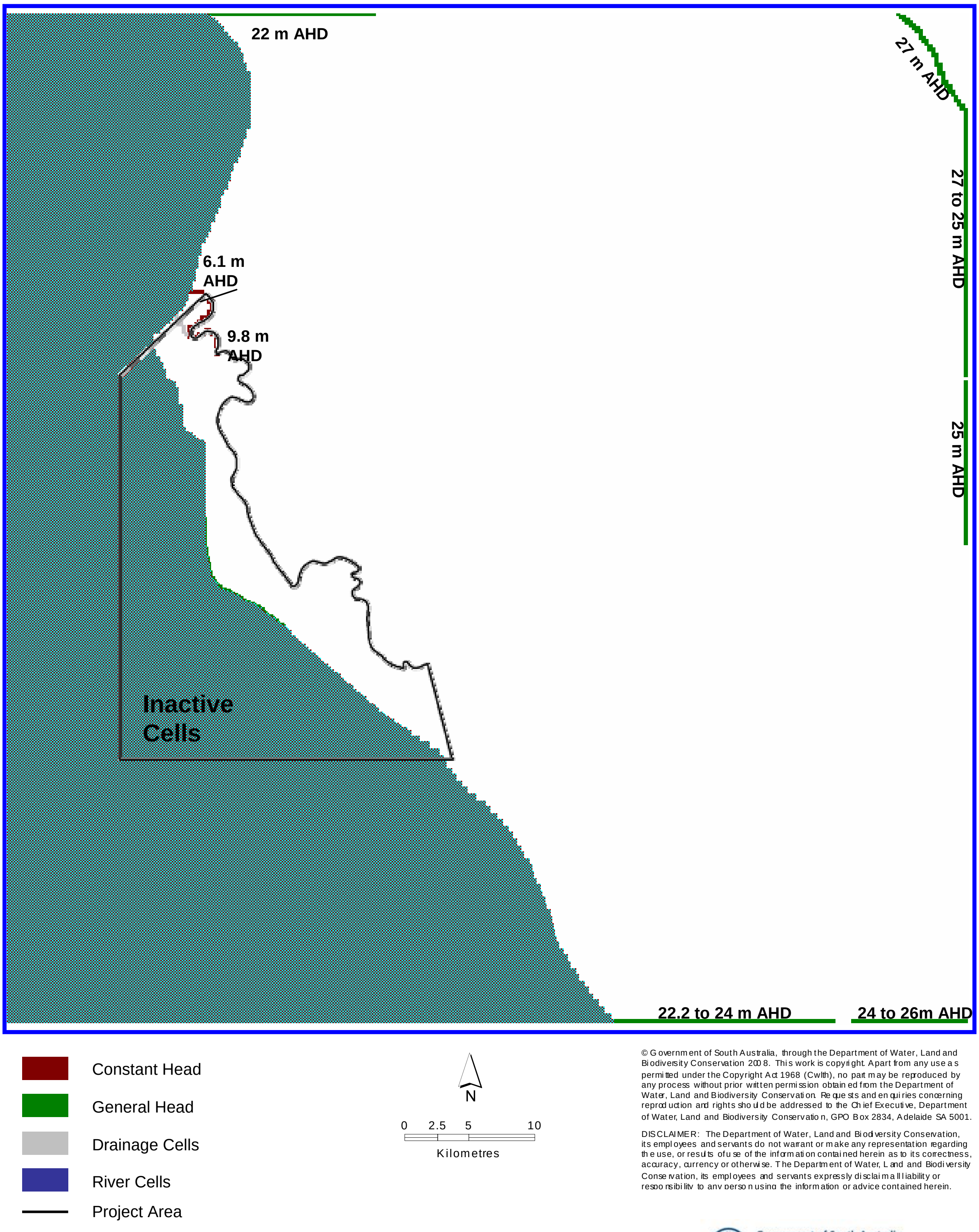

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Figure 25: Model boundary conditions (layer 3)

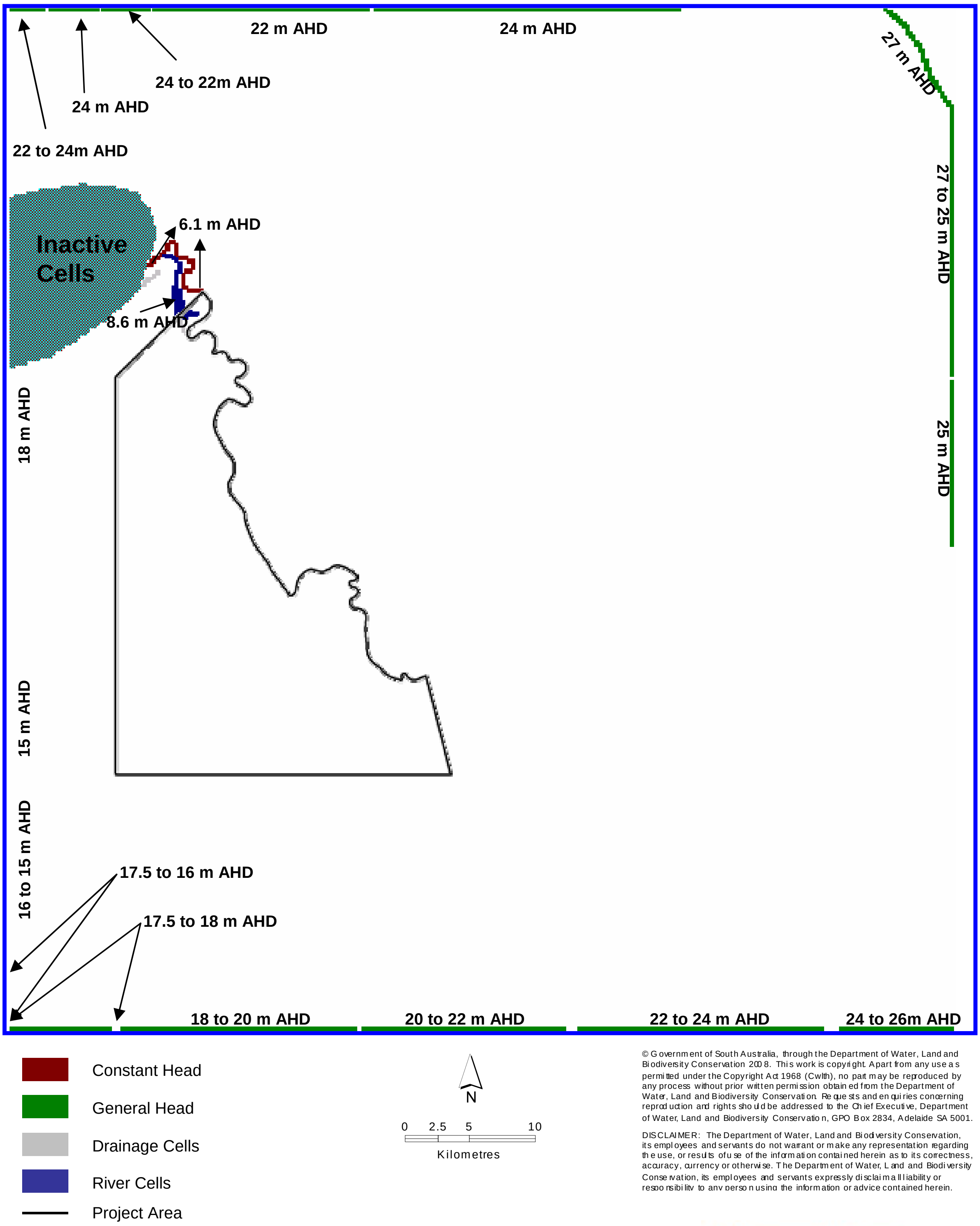

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Figure 26: Model boundary conditions (layer 4)

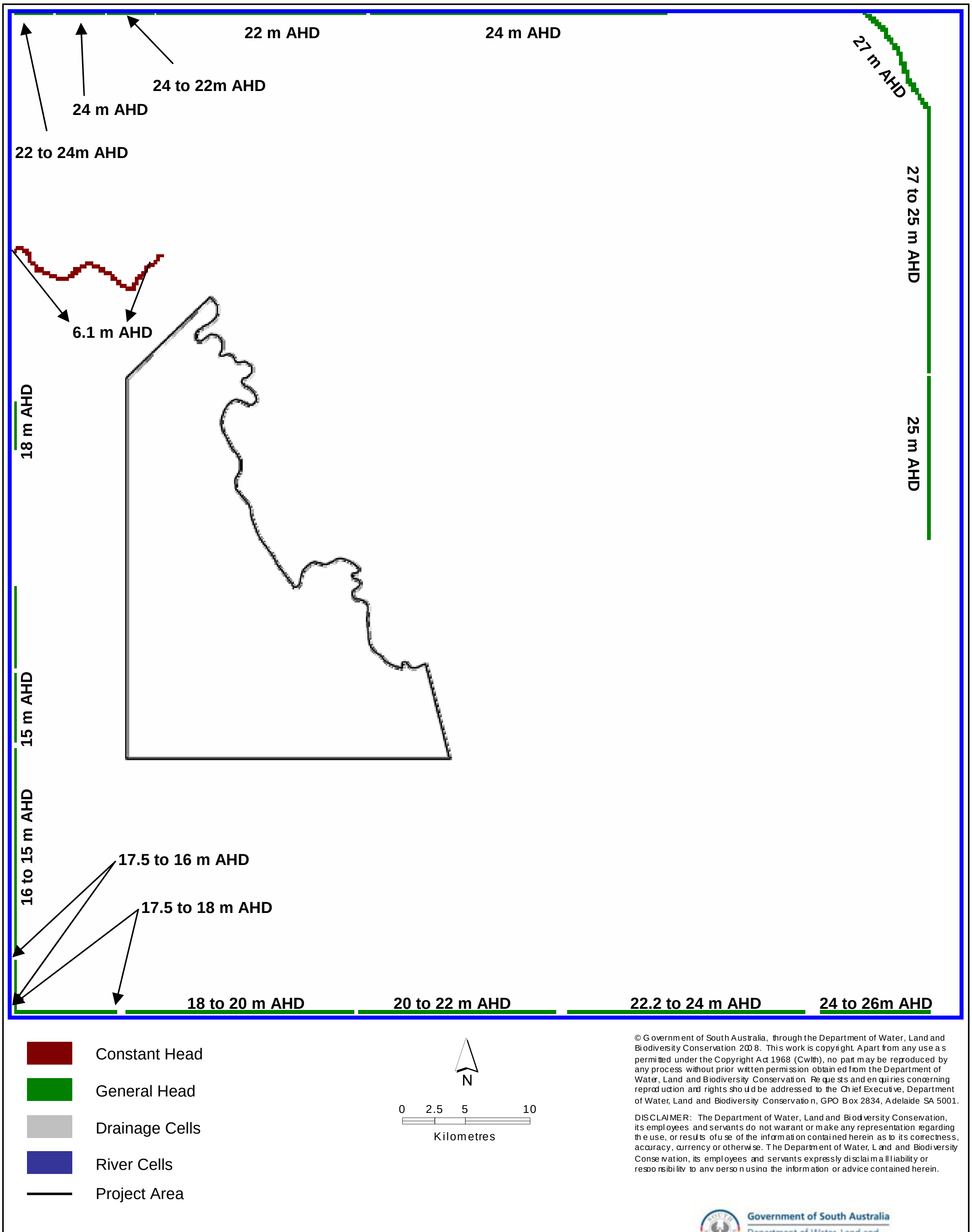
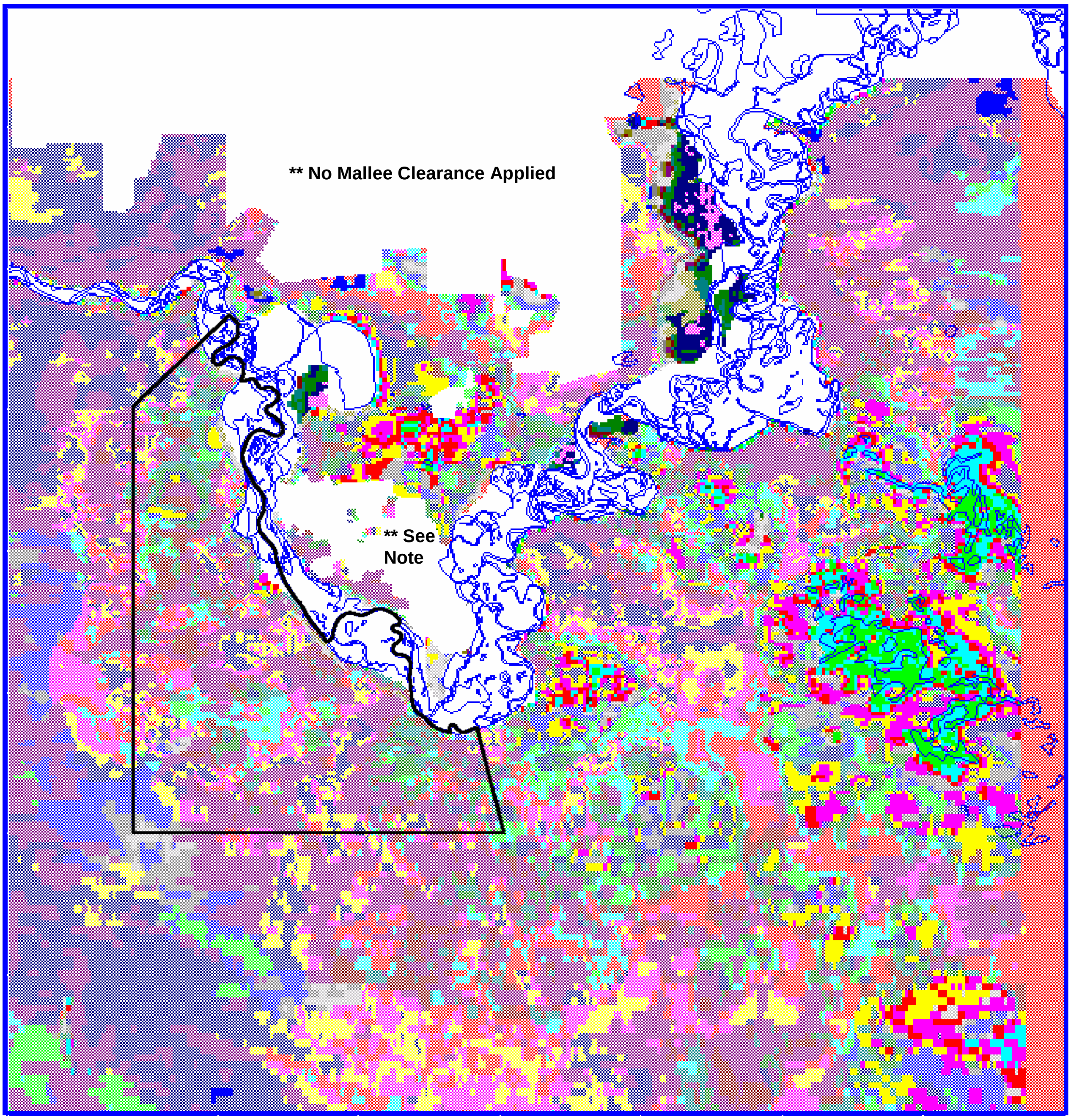


Figure 27: Model boundary conditions (layer 5)



Anabranch, Backwater and Water Body

Project Area

Recharge Zone

N

0 2.5 5 10

Kilometres

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Figure 28. Mallee Clearance recharge zones (41 zones). Recharge rates given in Appendix A-1.

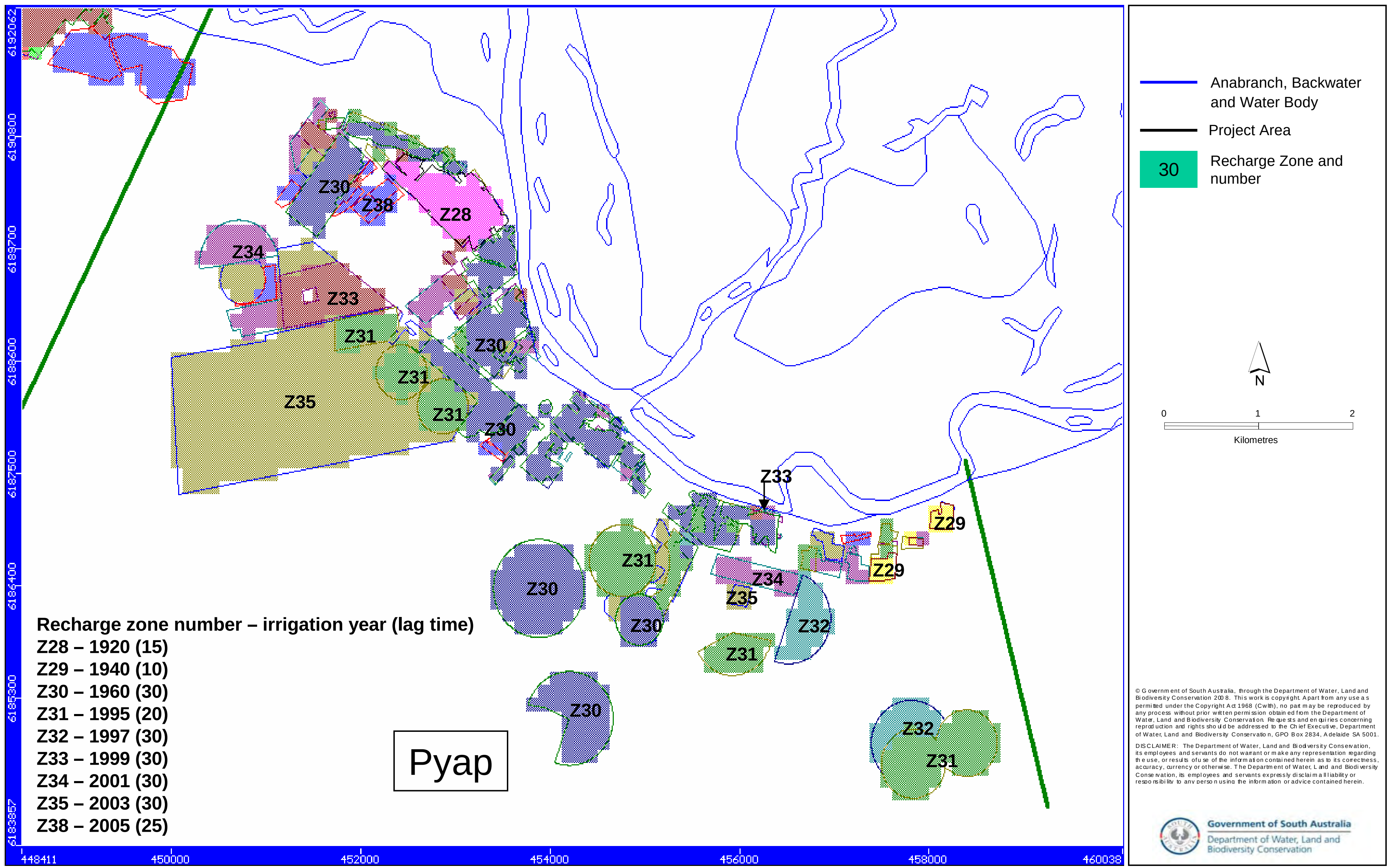

Figure 29. Model recharge zones in Pyap areas (recharge rates in each zone against time are listed in App. A)

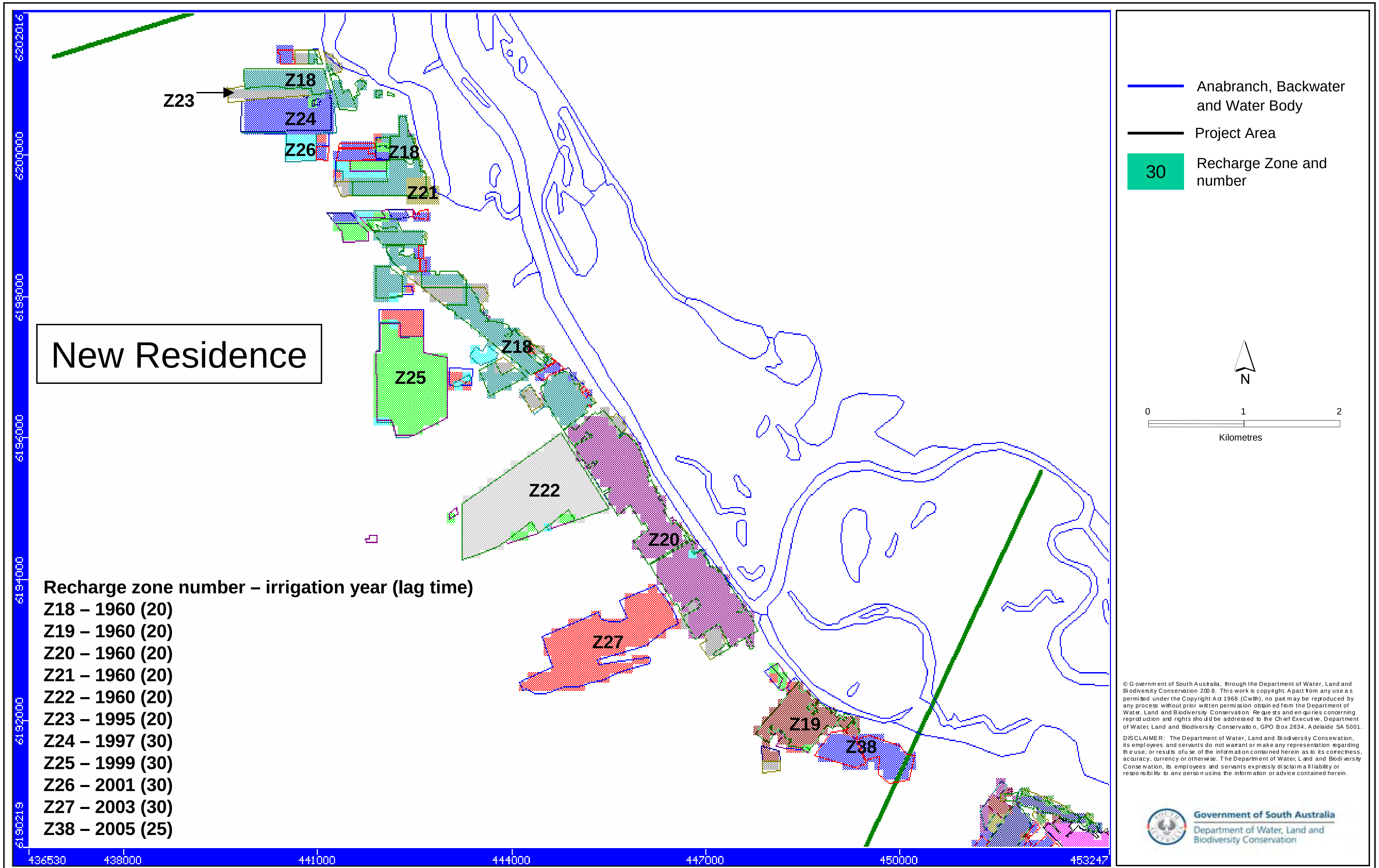

Figure 30. Model recharge zones in New Residence areas (recharge rates in each zone against time are listed in App. A)

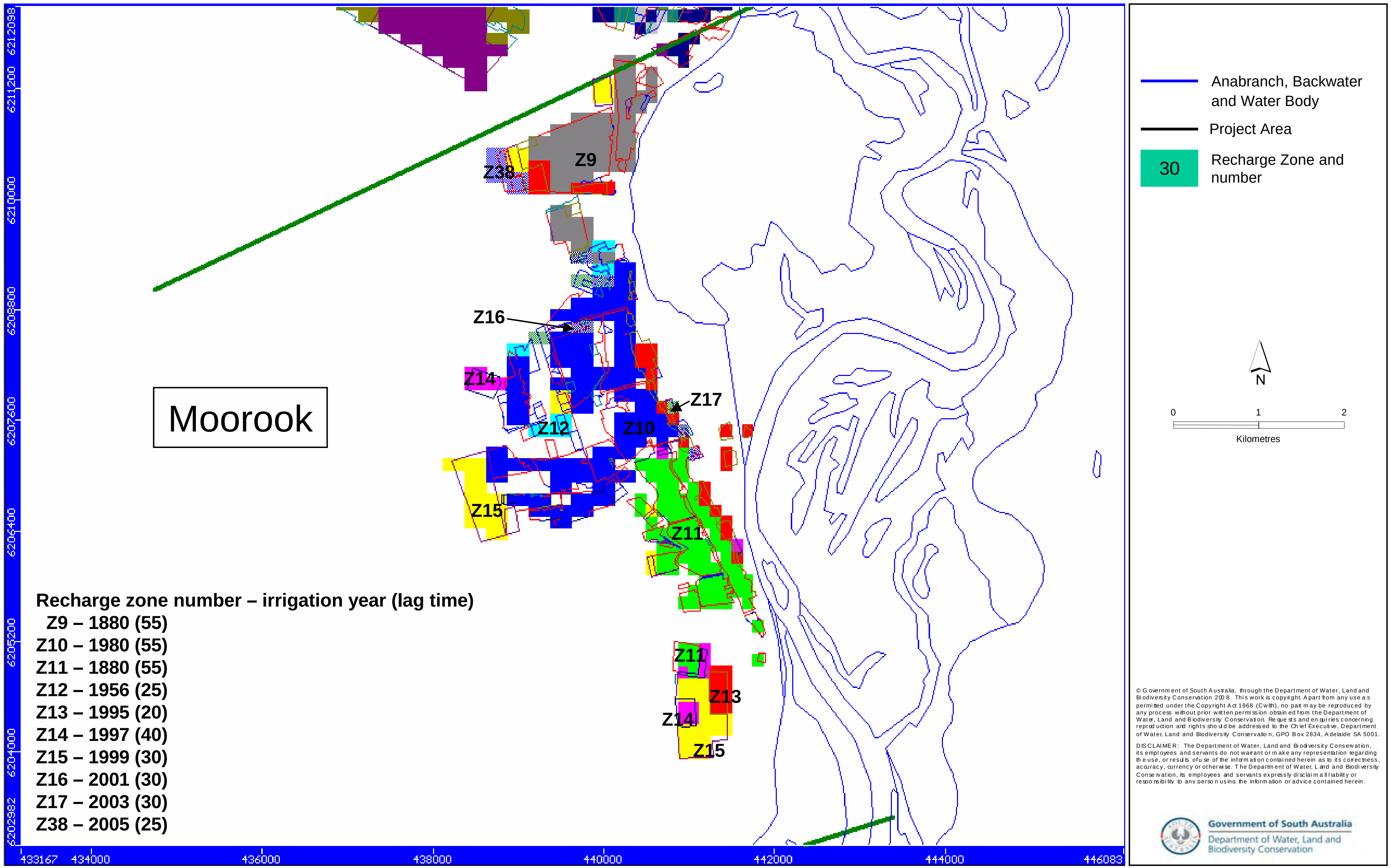

Figure 31. Model recharge zones in Moorook areas (recharge rates in each zone against time are listed in App. A)

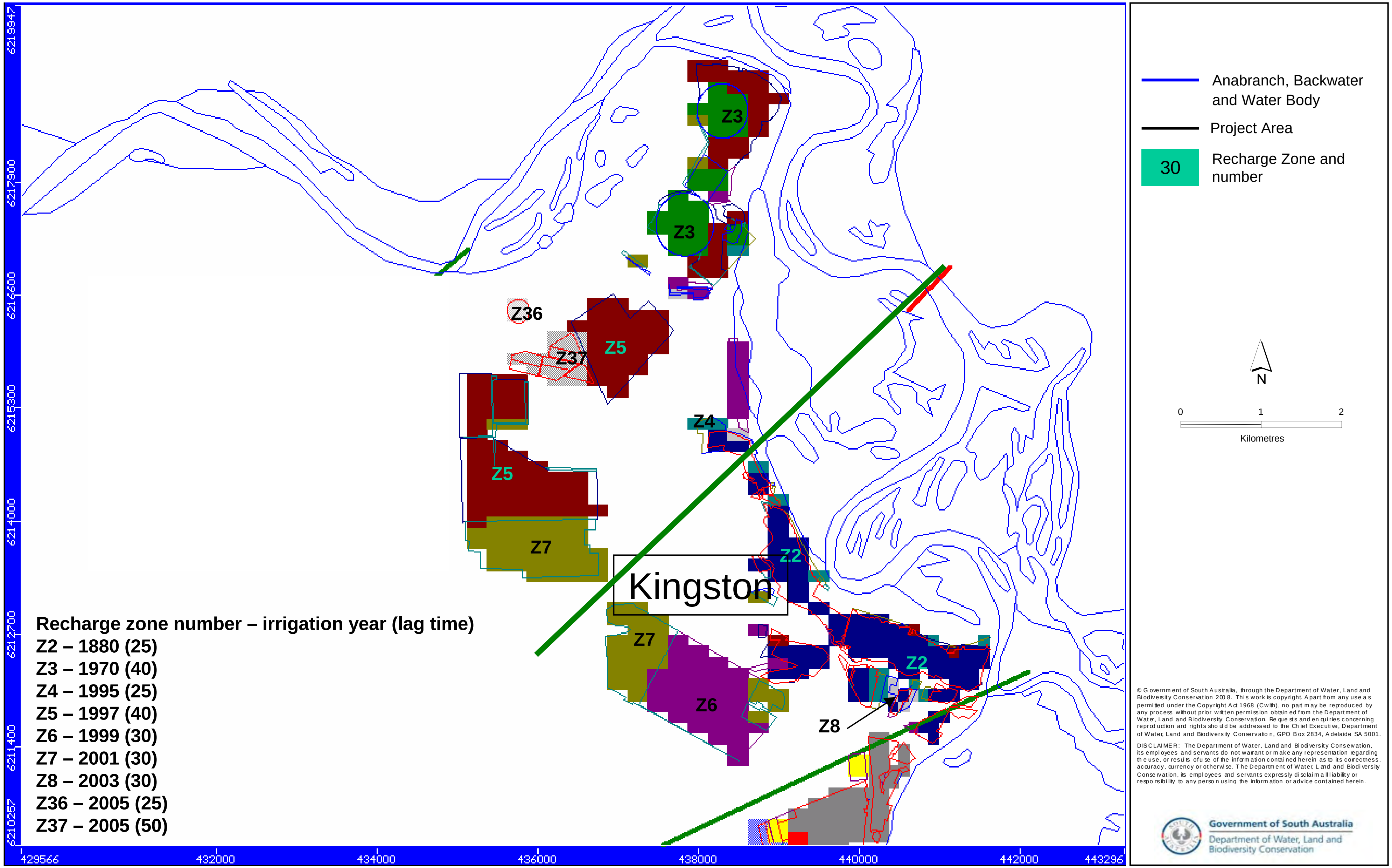

Figure 32. Model recharge zones in Kingston areas (recharge rates in each zone against time are listed in App. A)

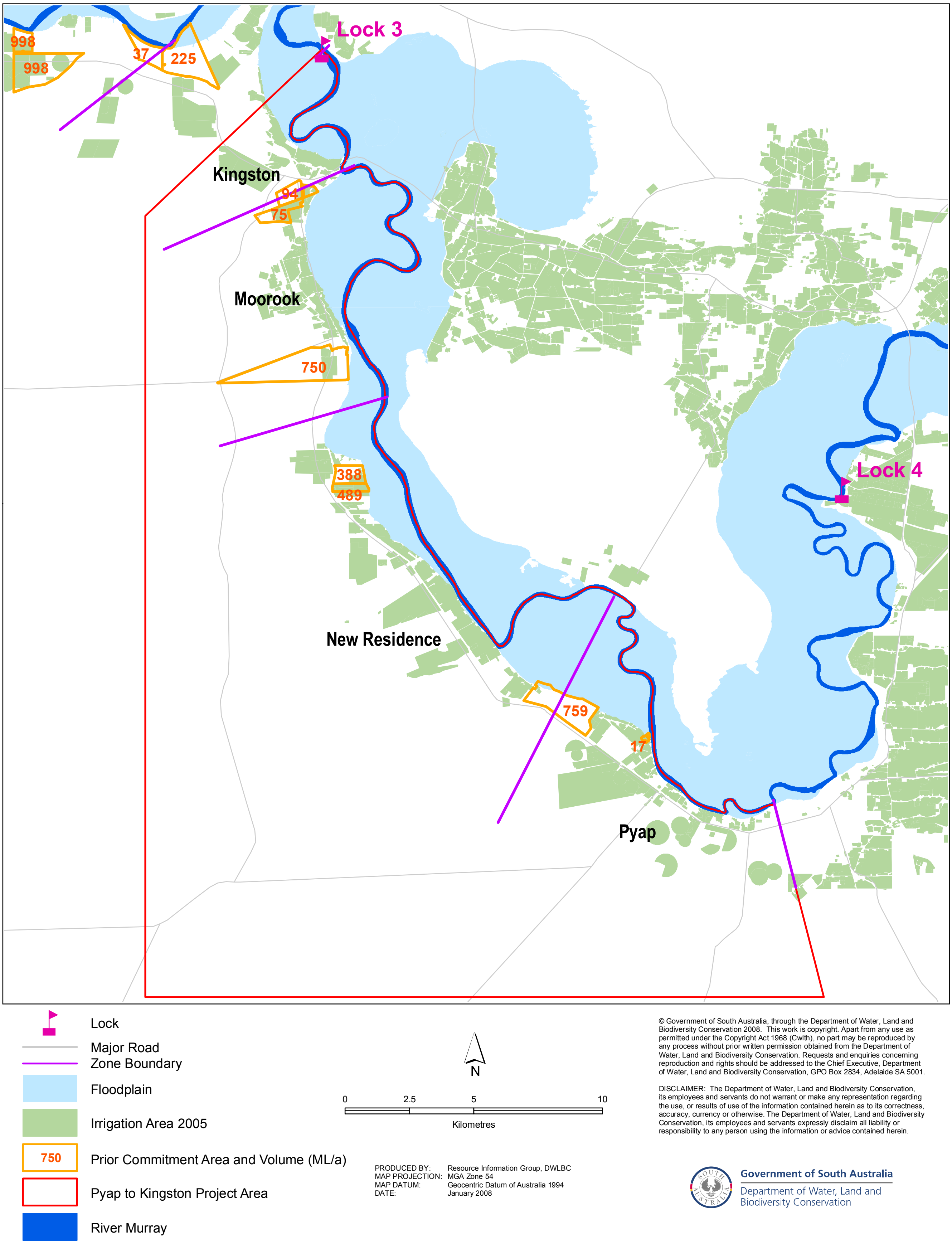

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Figure 33 Location of prior commitment irrigation areas and volume (ML/a)

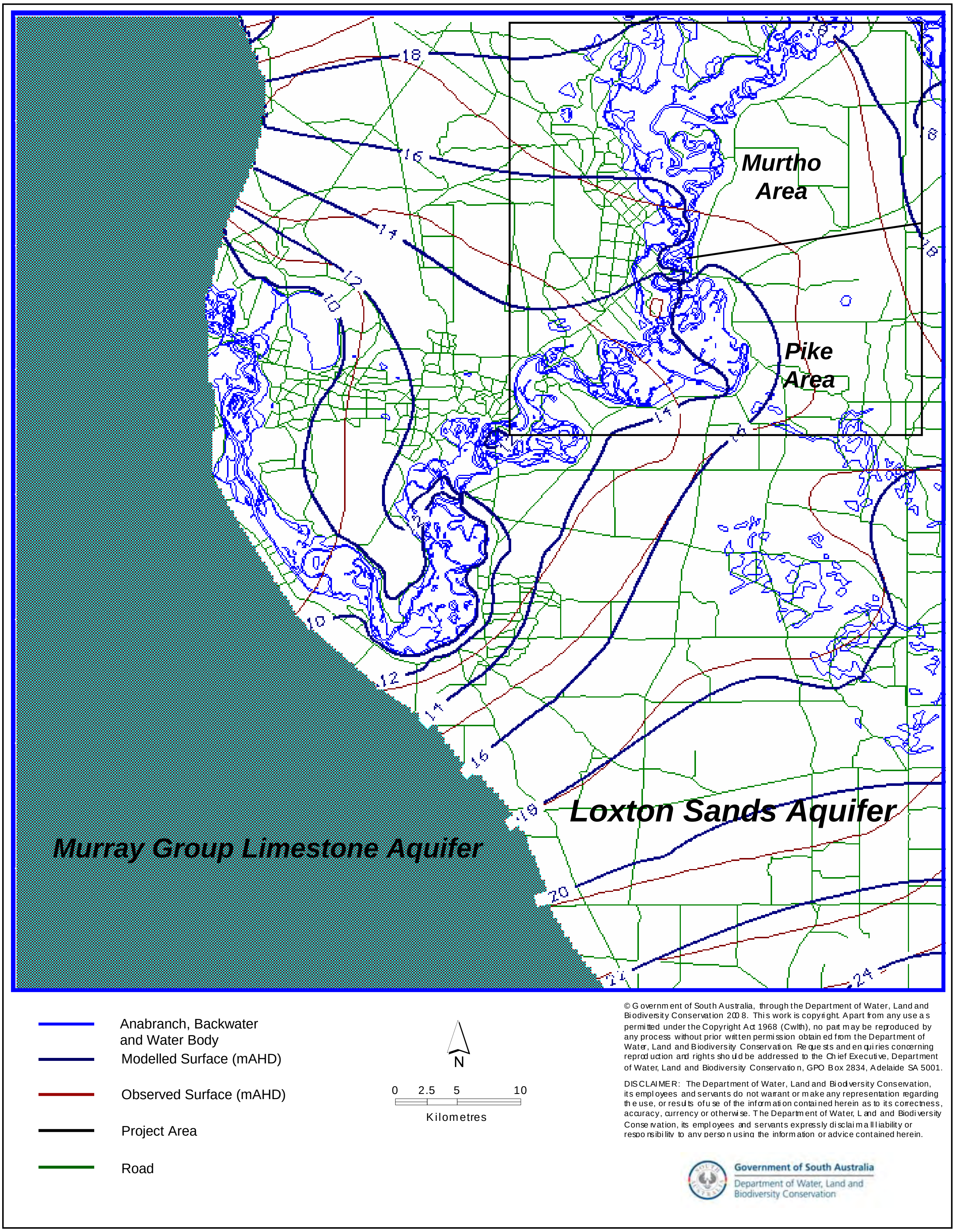
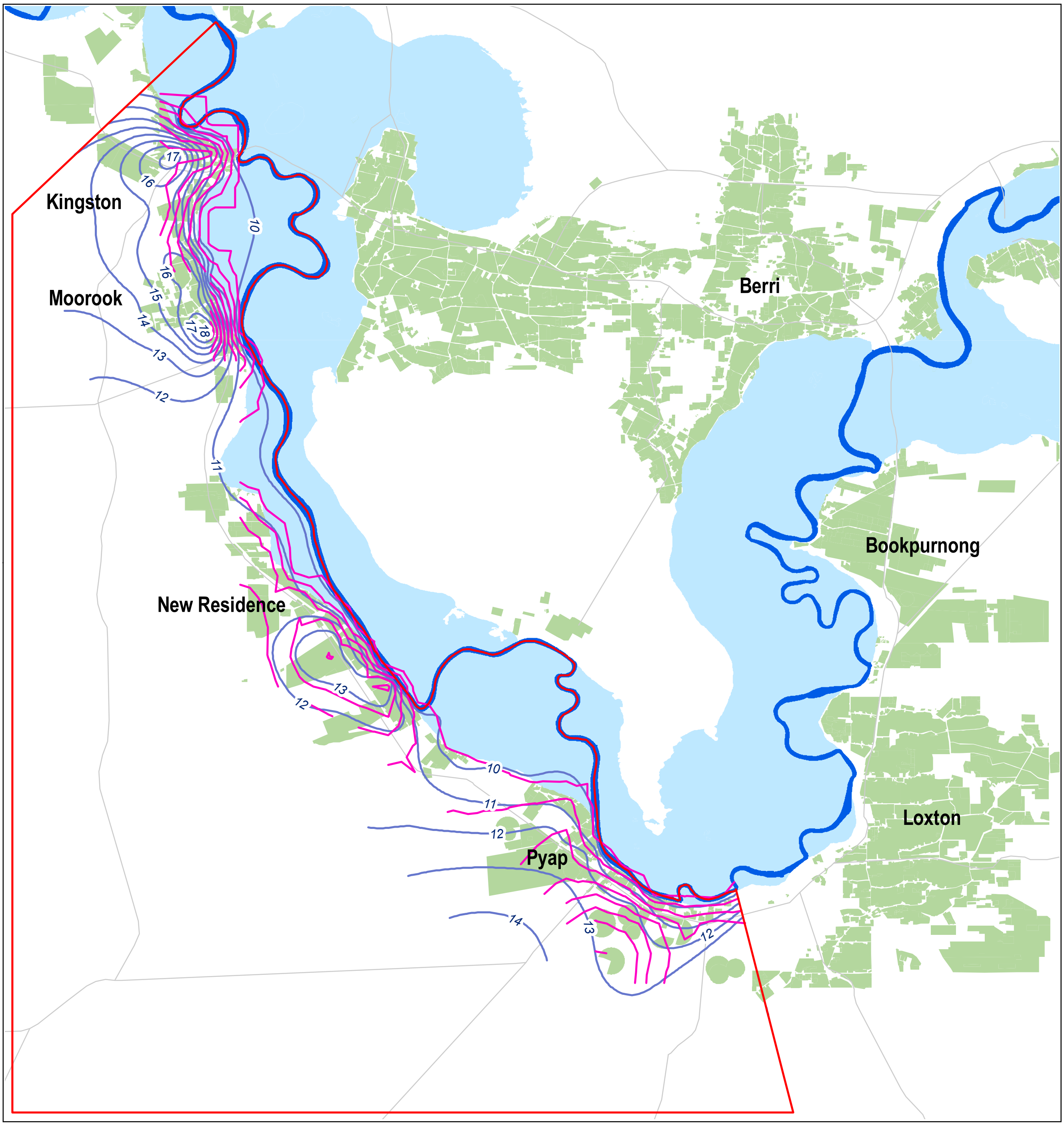


Figure 34. Comparison between pre-Irrigation development potentiometric surface (Per comm. Barnett 2004) and modelled post-regulation (of River level) and pre Irrigation potentiometric surface of layer 1



Major Road
Modelled Potentiometric (mAHD)
12 Observed Potentiometric (mAHD) 2005
Floodplain
Irrigation Area 2005
Pyap to Kingston Project Area
River Murray

N

0 2.5 5 10
Kilometres

PRODUCED BY: Resource Information Group, DWLBC
MAP PROJECTION: MGA Zone 54
MAP DATUM: Geocentric Datum of Australia 1994
DATE: January 2008

Government of South Australia
Department of Water, Land and Biodiversity Conservation

Figure 35 Comparison observed and modelled 2005 potentiometric surface in project area (Layer 1 Loxton Sand and Monoman Formation)

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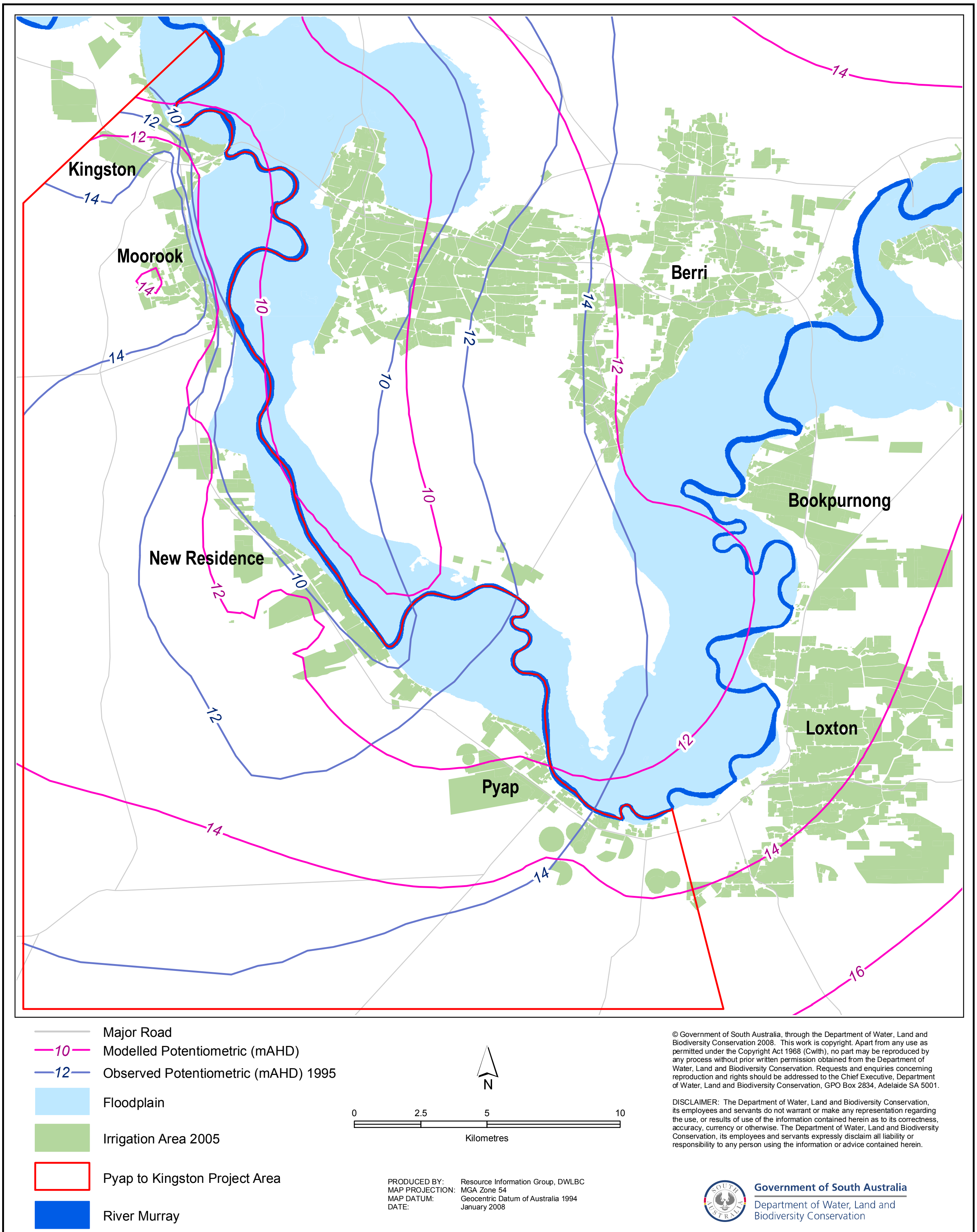

Figure 36 Comparison observed and modelled 2005 potentiometric surface in project area (Layer 5 Mannume Formation)

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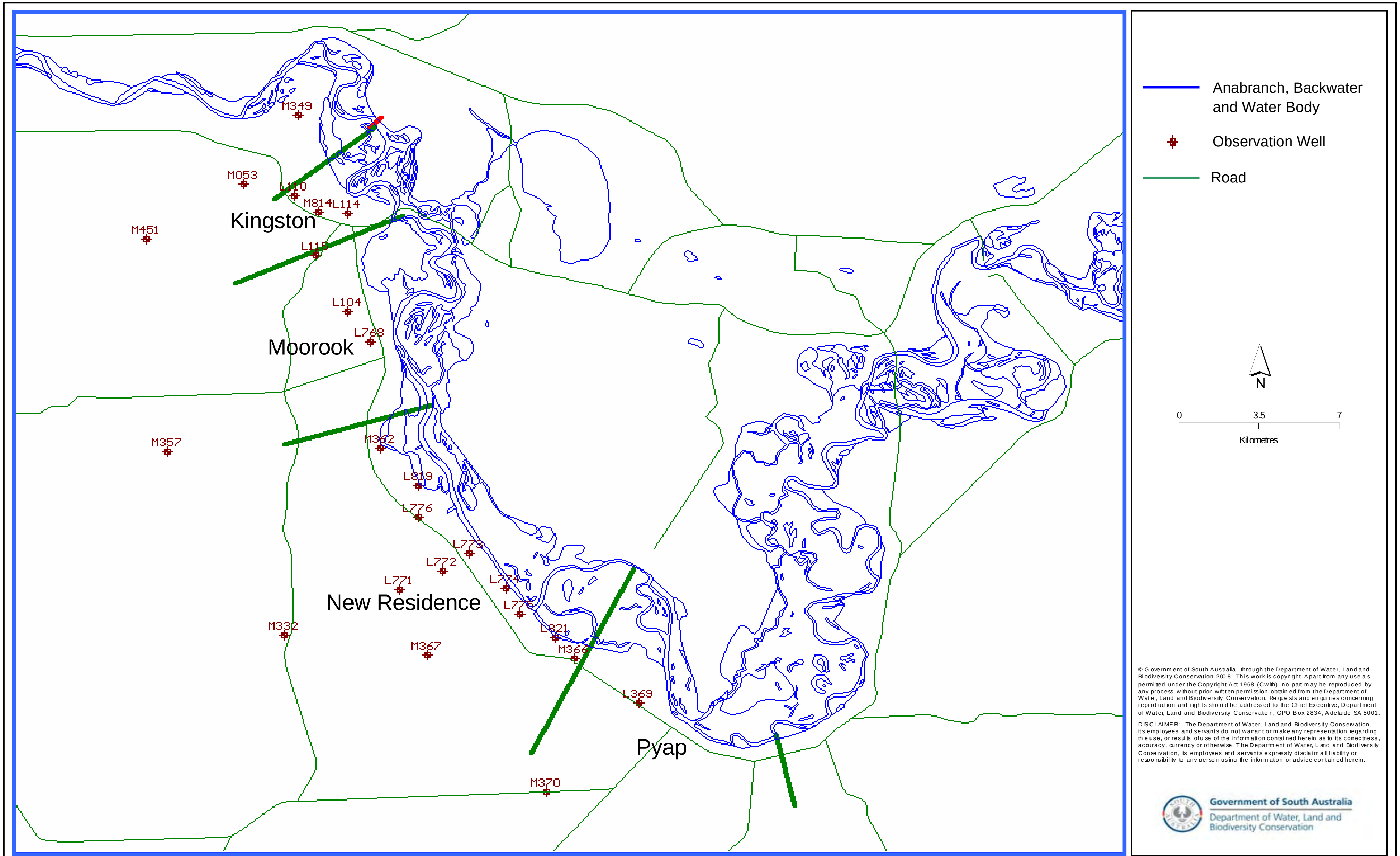


Figure 37. Location of monitored observation wells in the Pyap to Kingston project area (M - Murray Group Limestone, L - Loxton Sands)

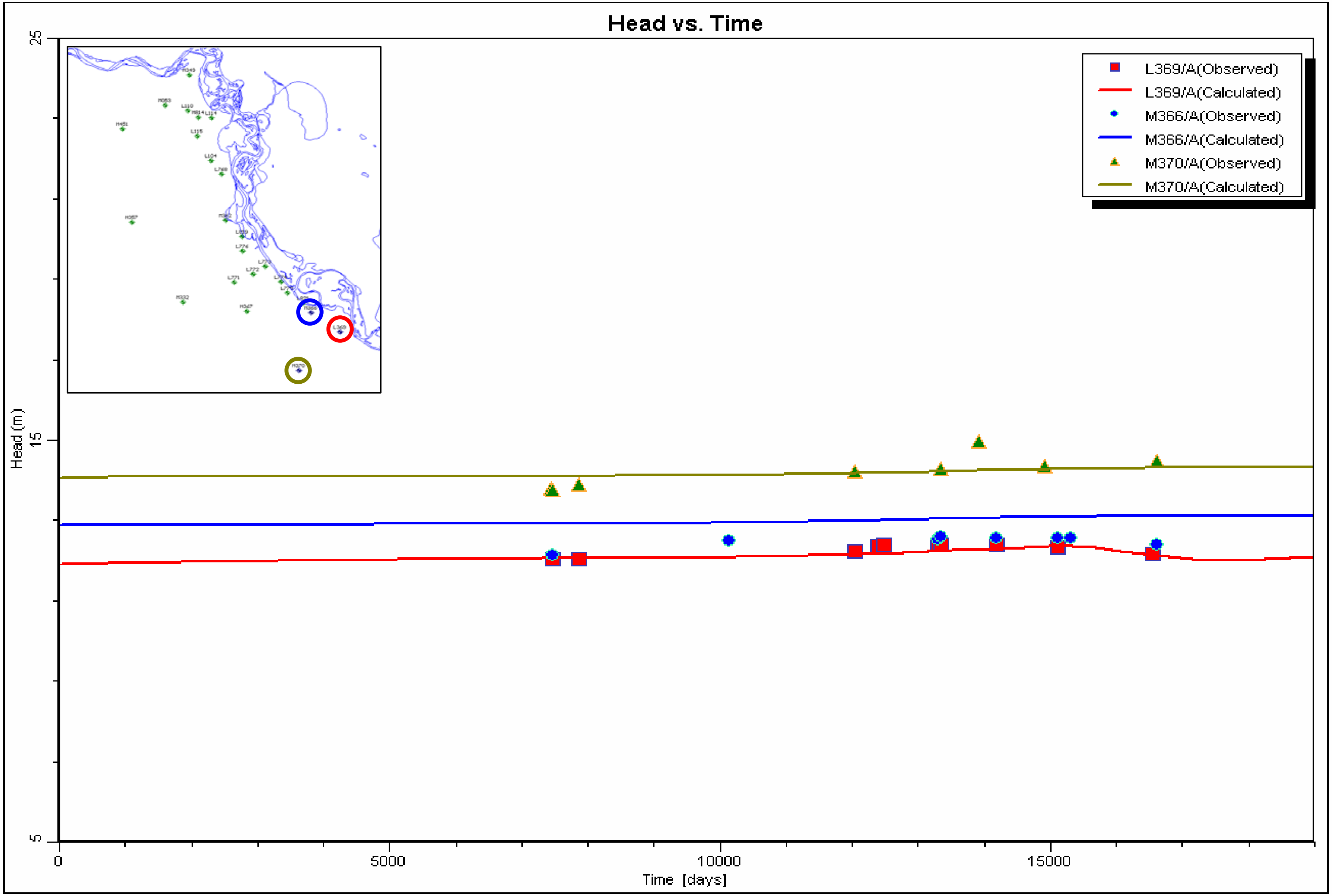


Figure 38. Pyap Calibration Results – Modelled and observed potentiometric heads (Observation wells L369, M366 and M370)

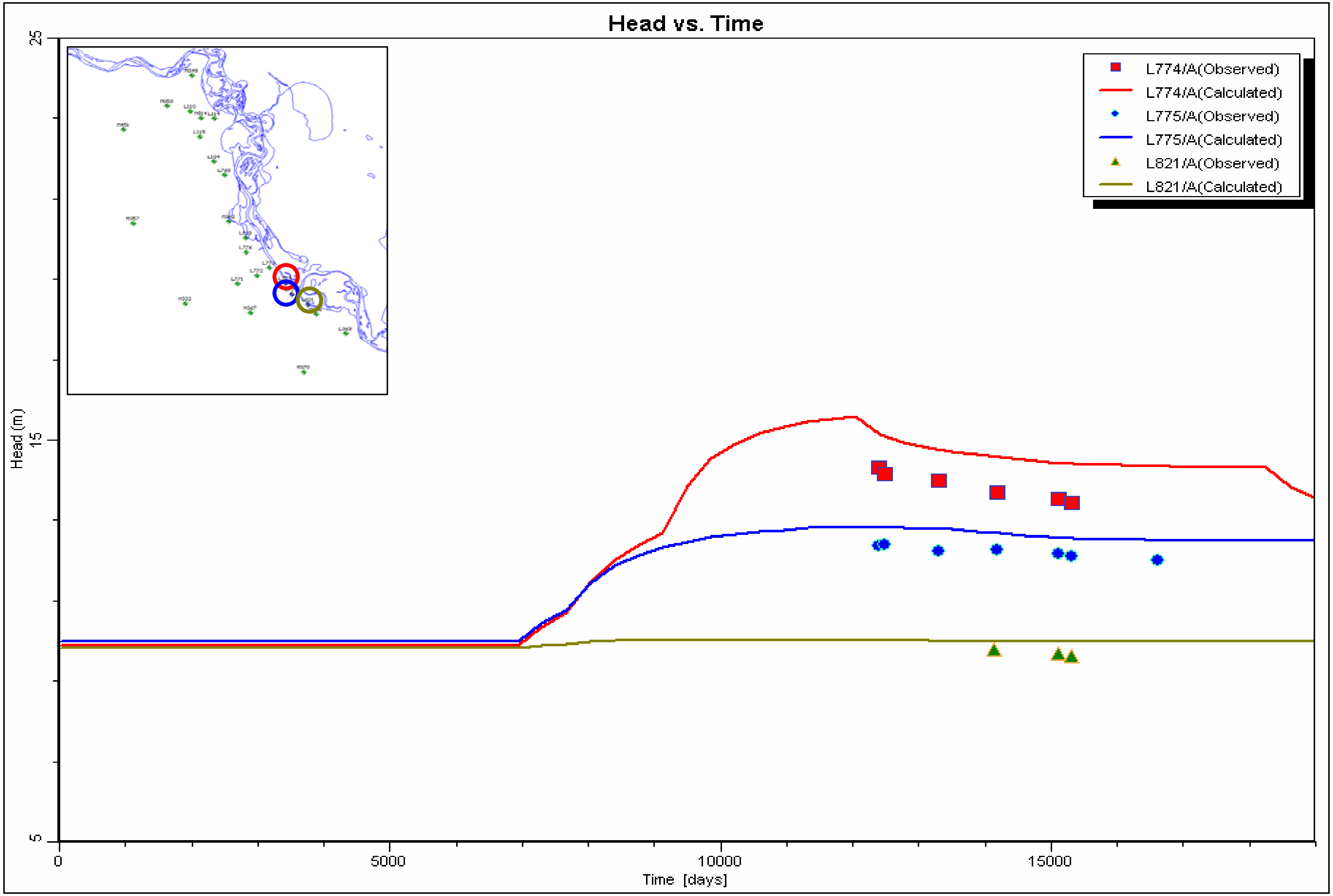


Figure 39a. New Residence Calibration Results – Modelled and observed potentiometric heads (Observation wells L774, L775 and L821)

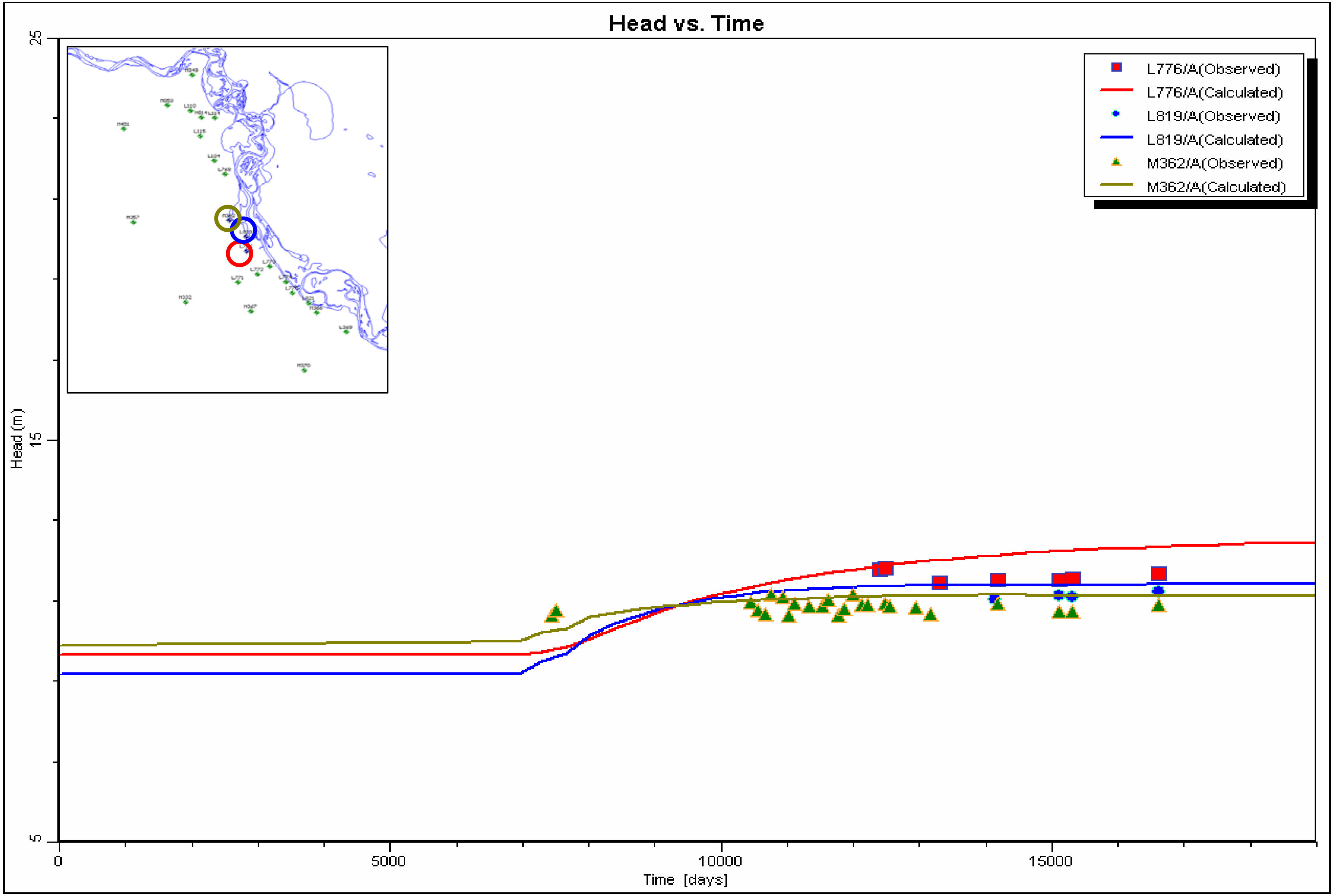


Figure 39b. New Residence Calibration Results – Modelled and observed potentiometric heads (Observation wells L776, L819 and M362)

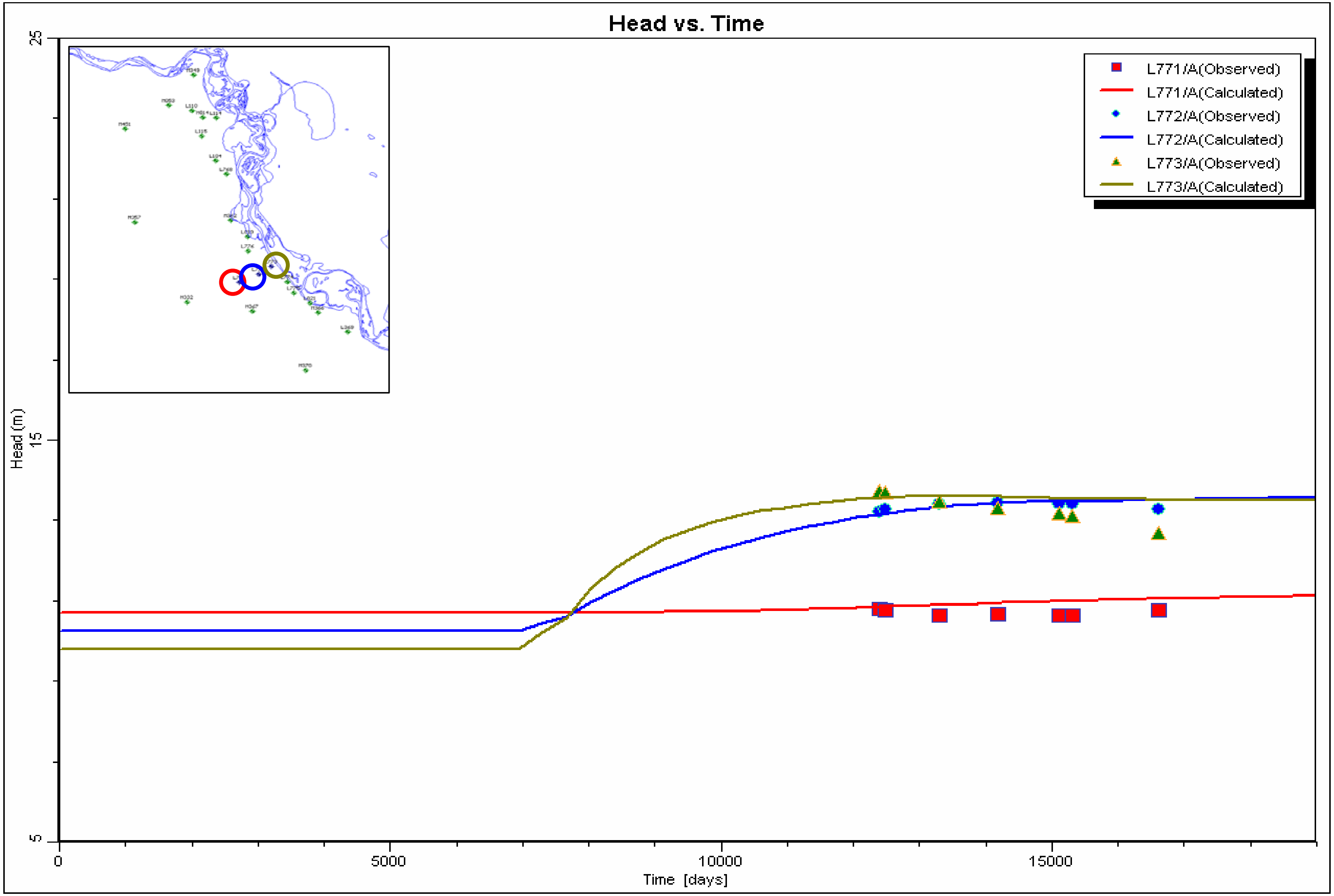


Figure 39c. New Residence Calibration Results – Modelled and observed potentiometric heads (Observation wells L771, L772 and L773)

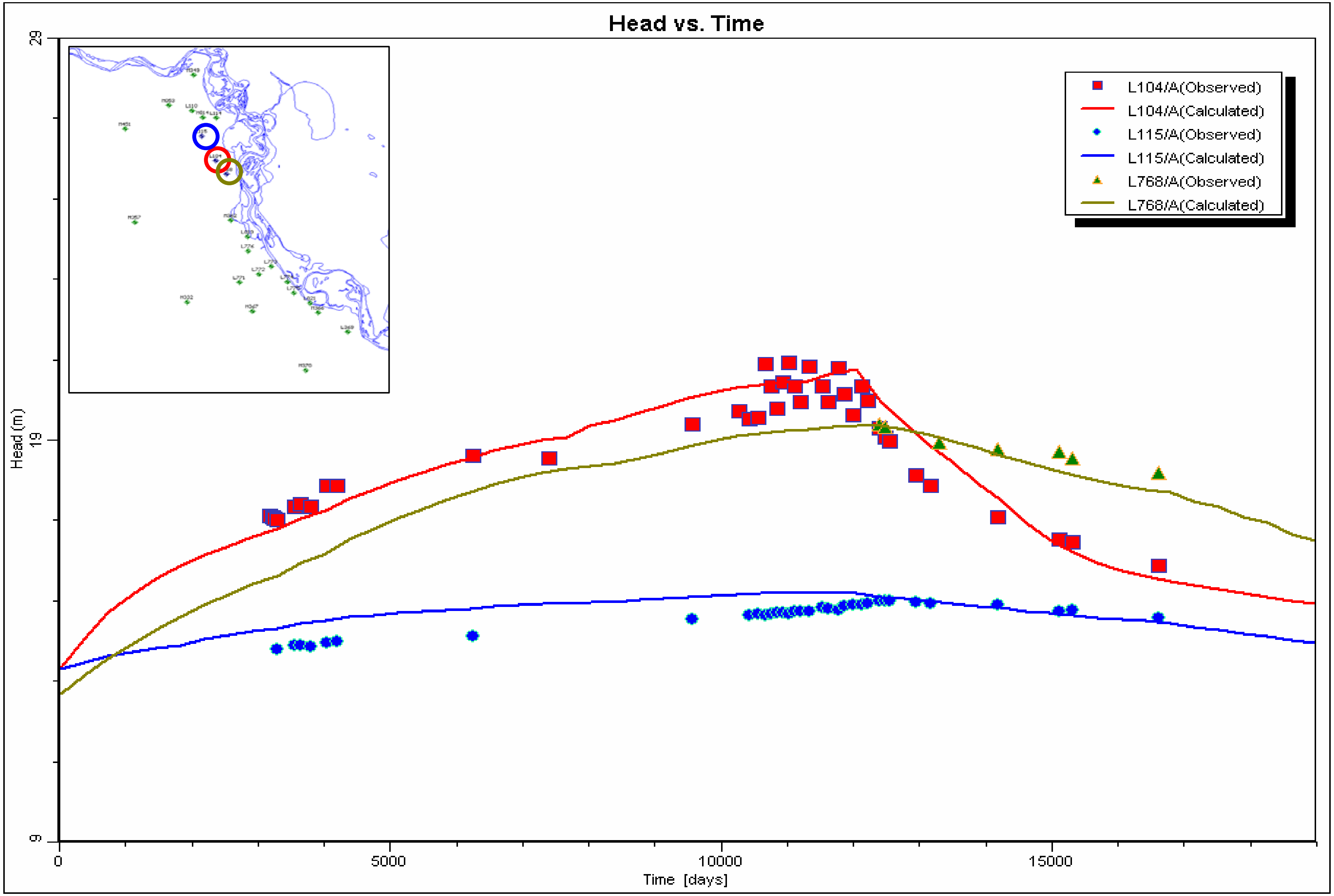


Figure 40. Moorook Calibration Results – Modelled and observed potentiometric heads (Observation wells L104, L115 and L768)

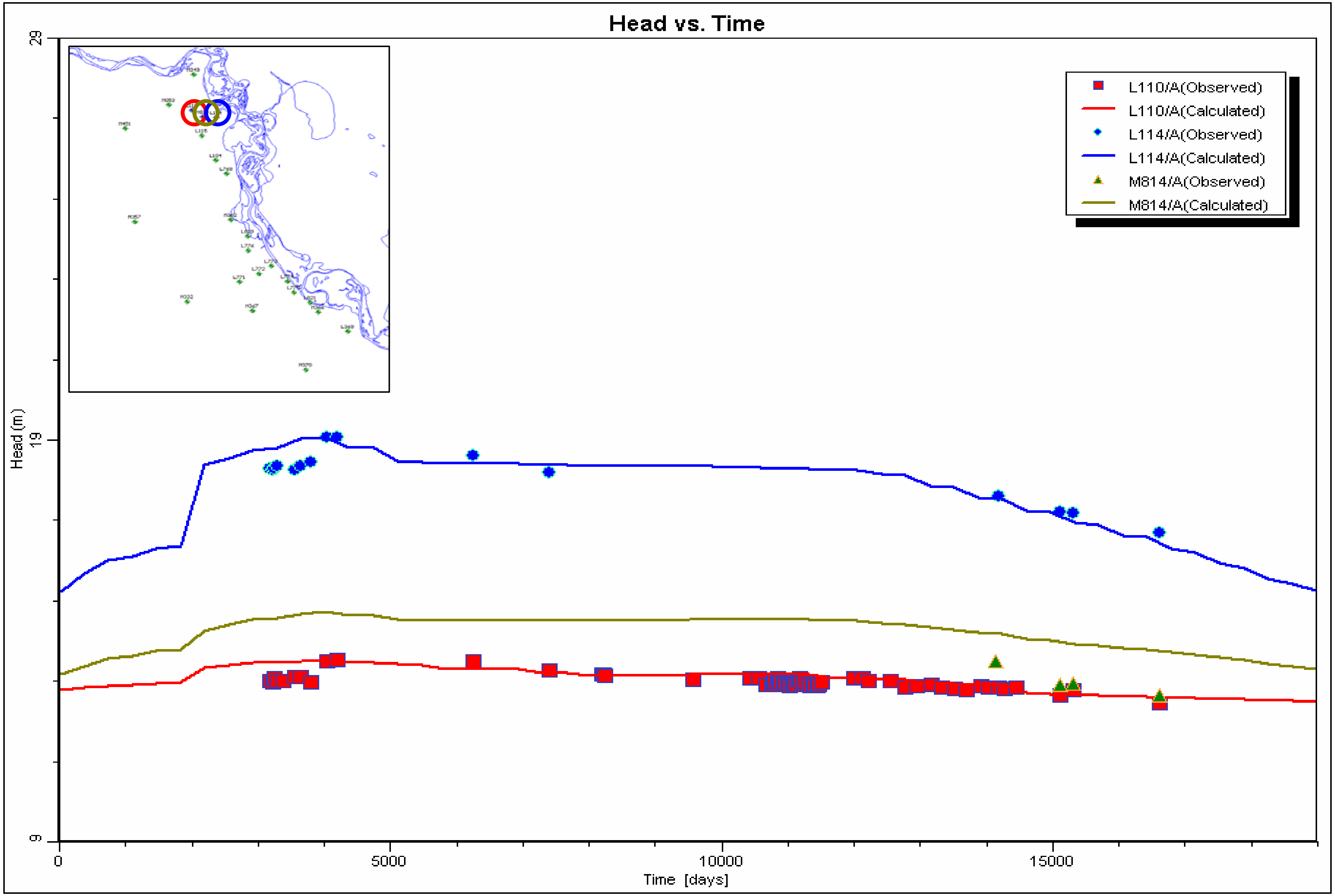


Figure 41a. Kingston Calibration Results – Modelled and observed potentiometric heads (Observation wells L110, L114 and M814)

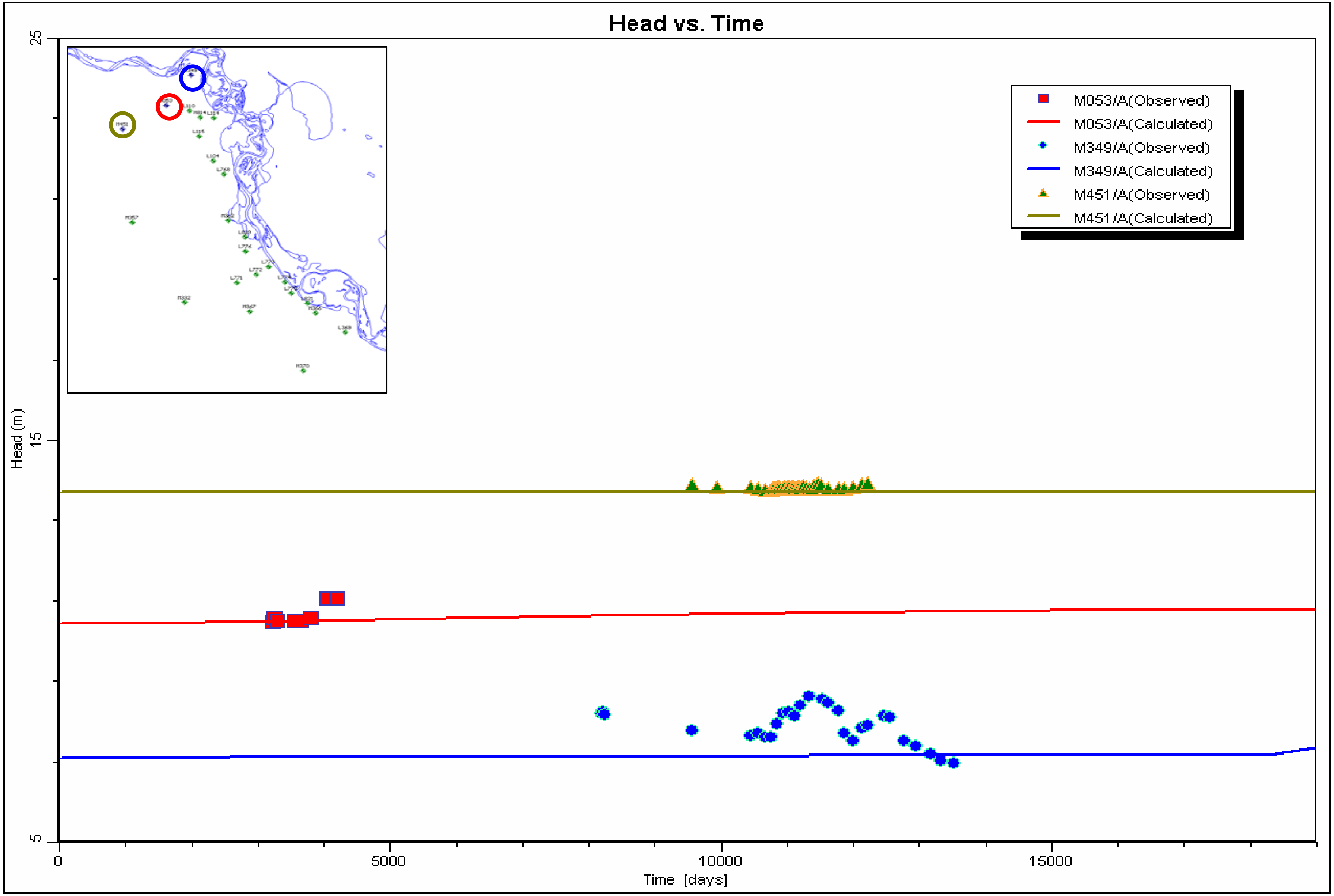


Figure 41b. Kingston Calibration Results – Modelled and observed potentiometric heads (Observation wells M053, M349 and M451)

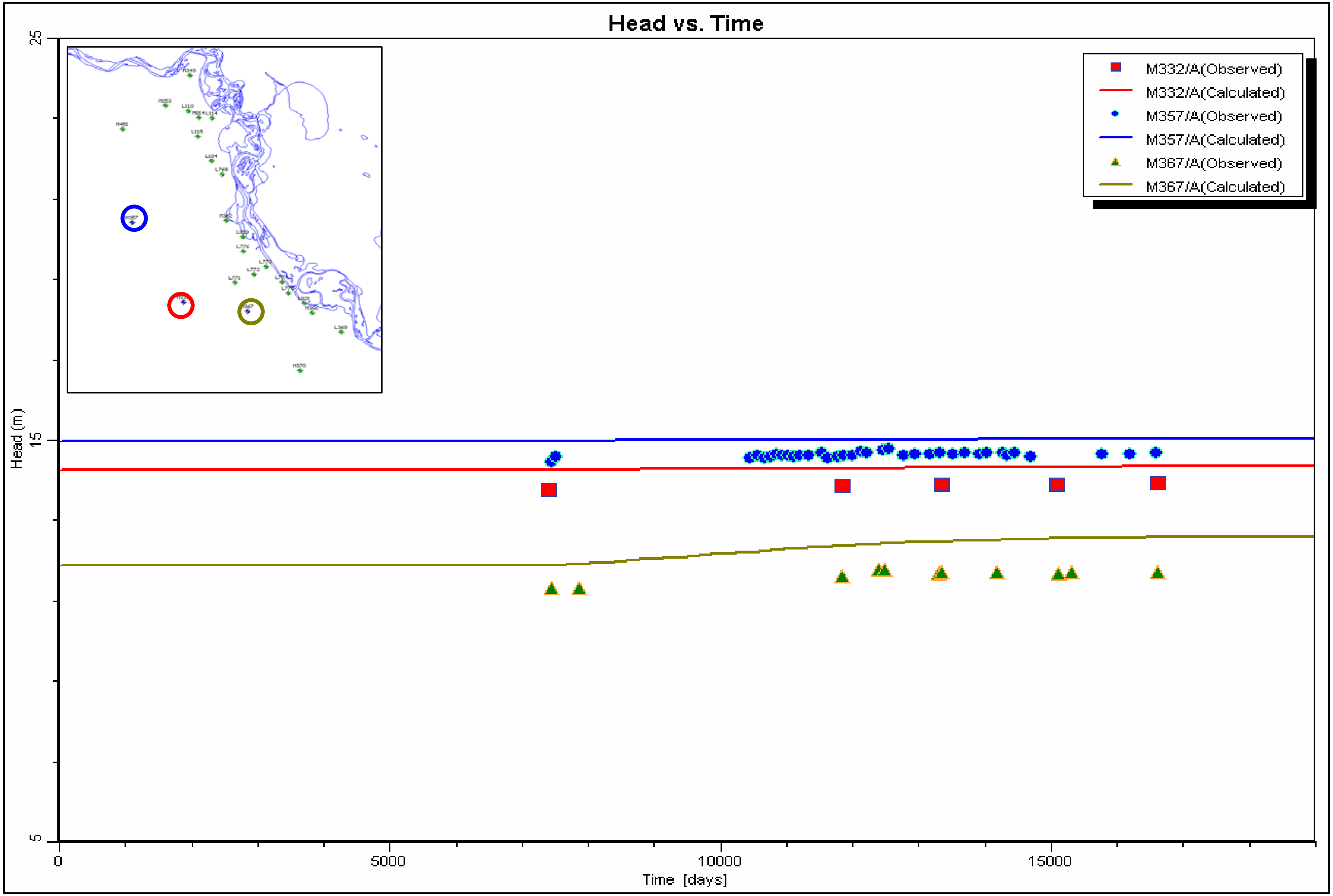


Figure 42. Regional Calibration Results – Modelled and observed potentiometric heads (Observation wells M332, M357 and M367)

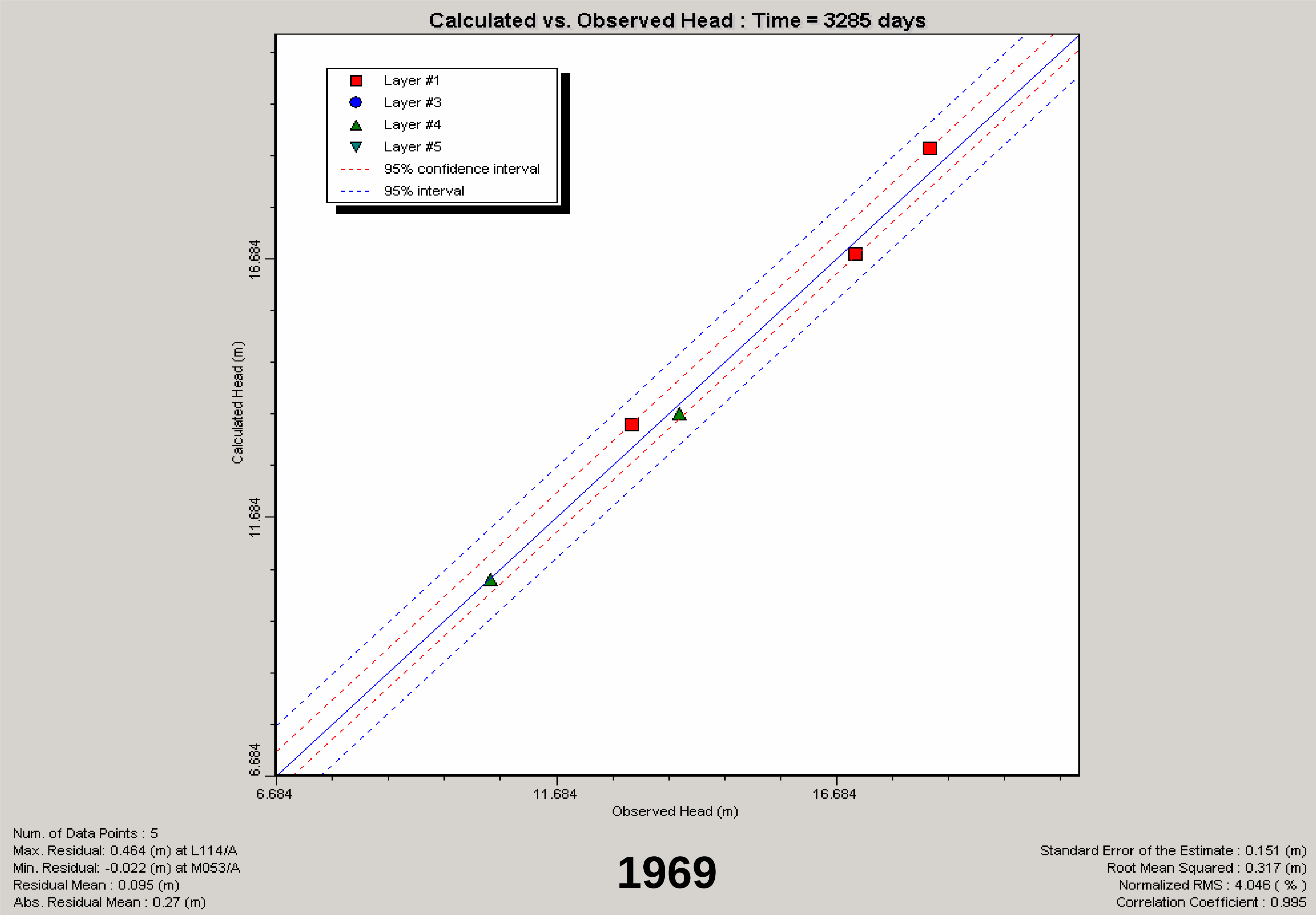


Figure 43. Pyap to Kingston calibration results (1969)

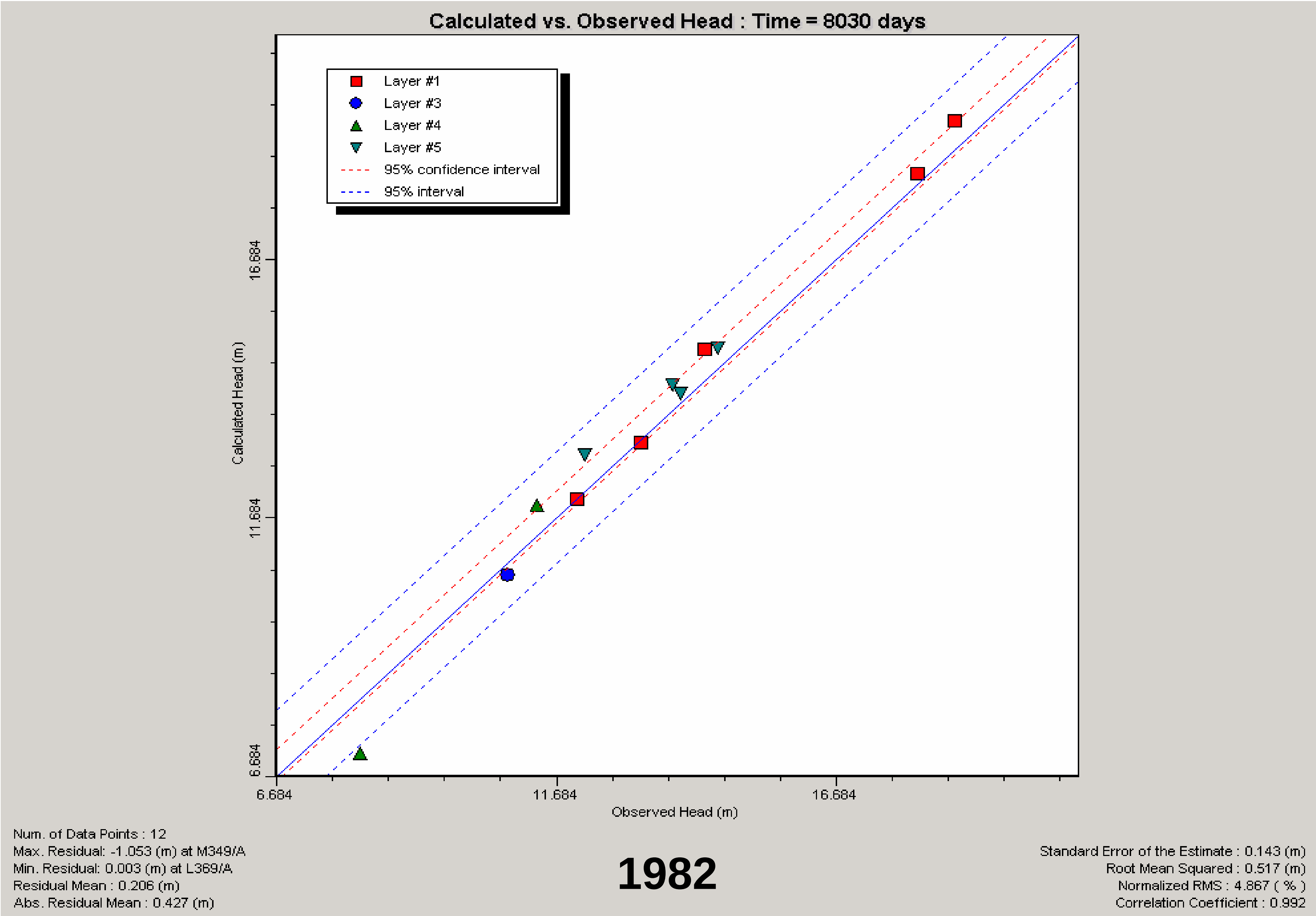


Figure 44. Pyap to Kingston calibration results (1982)

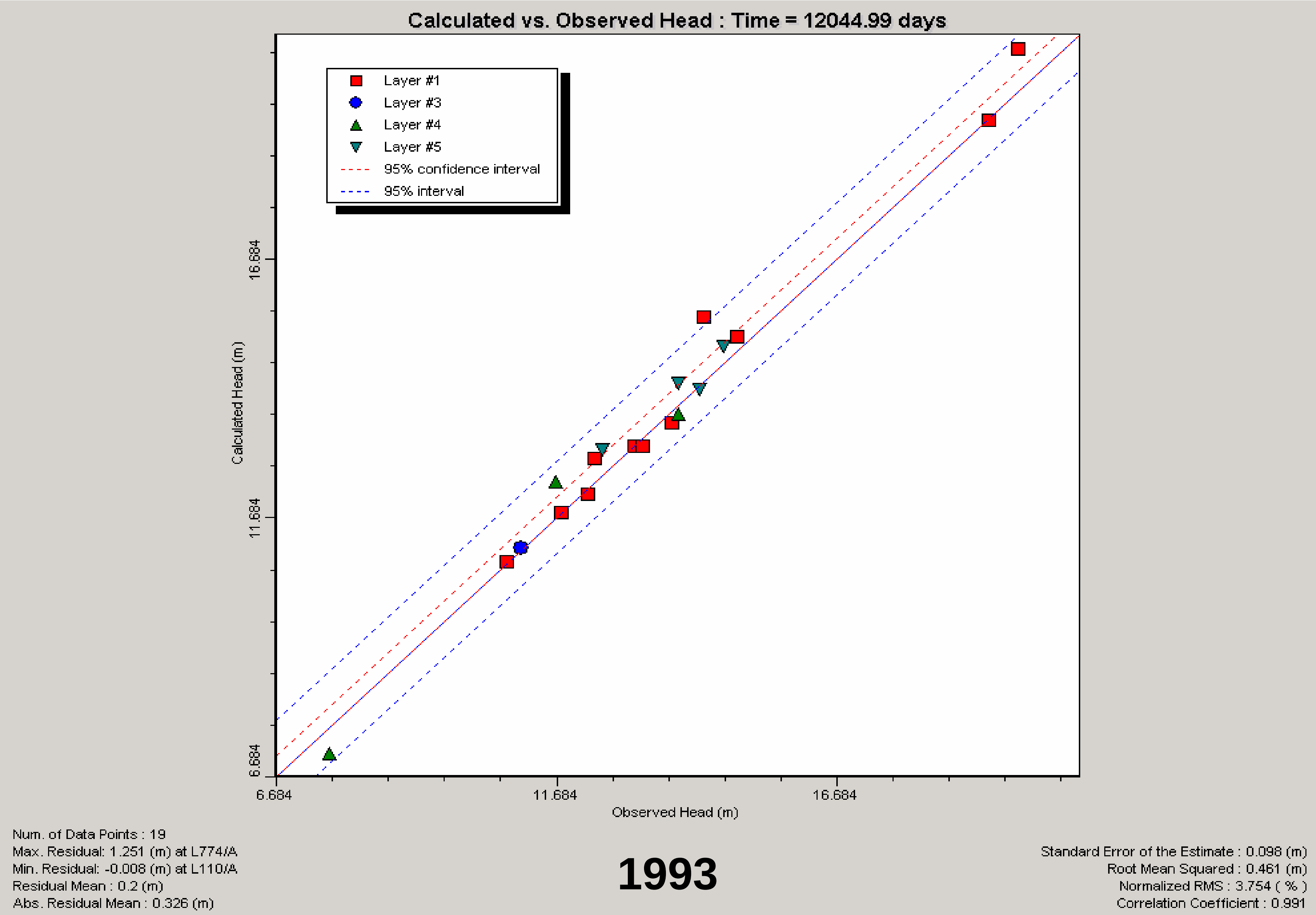


Figure 45. Pyap to Kingston calibration results (1993)

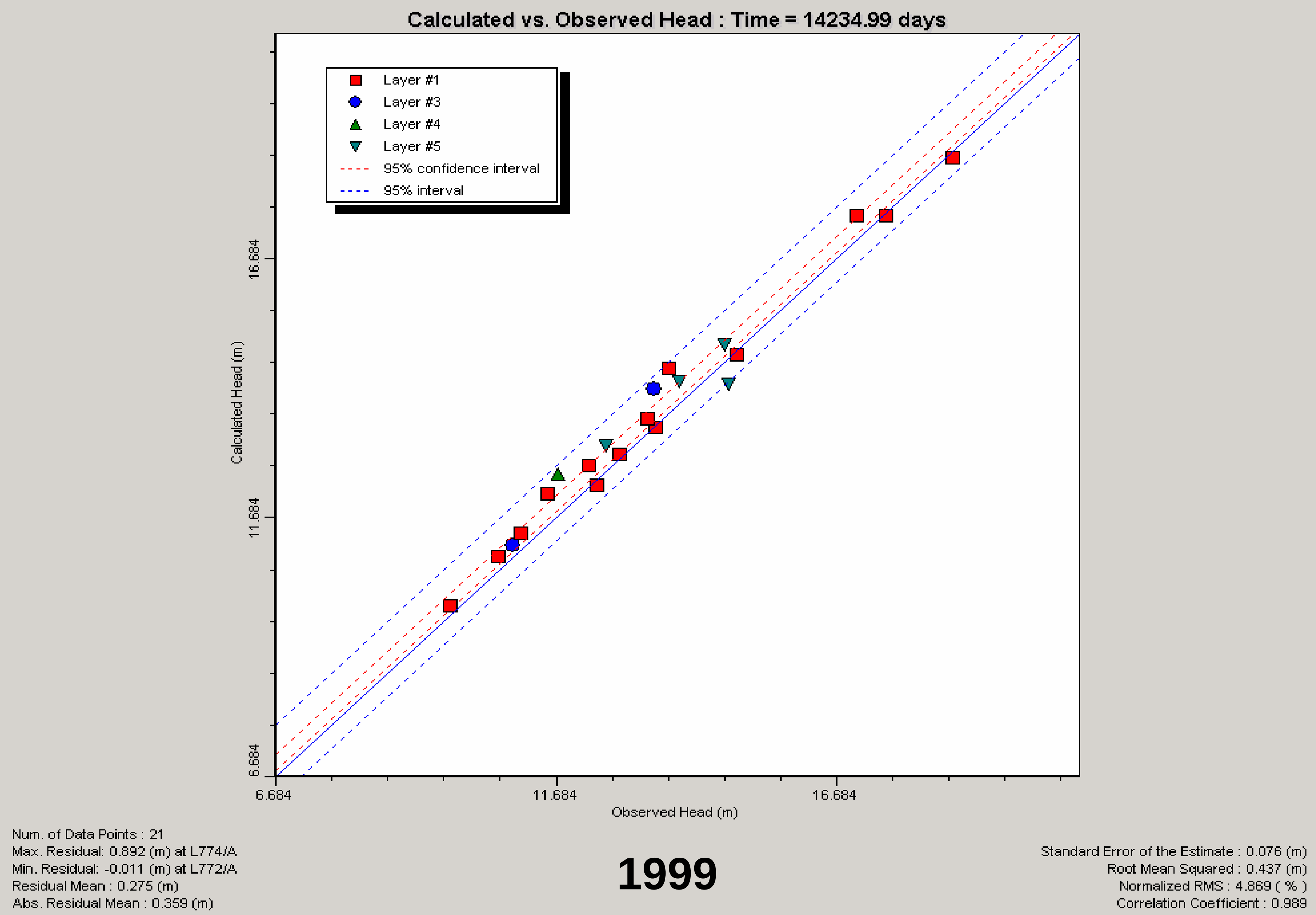


Figure 46. Pyap to Kingston calibration results (1999)

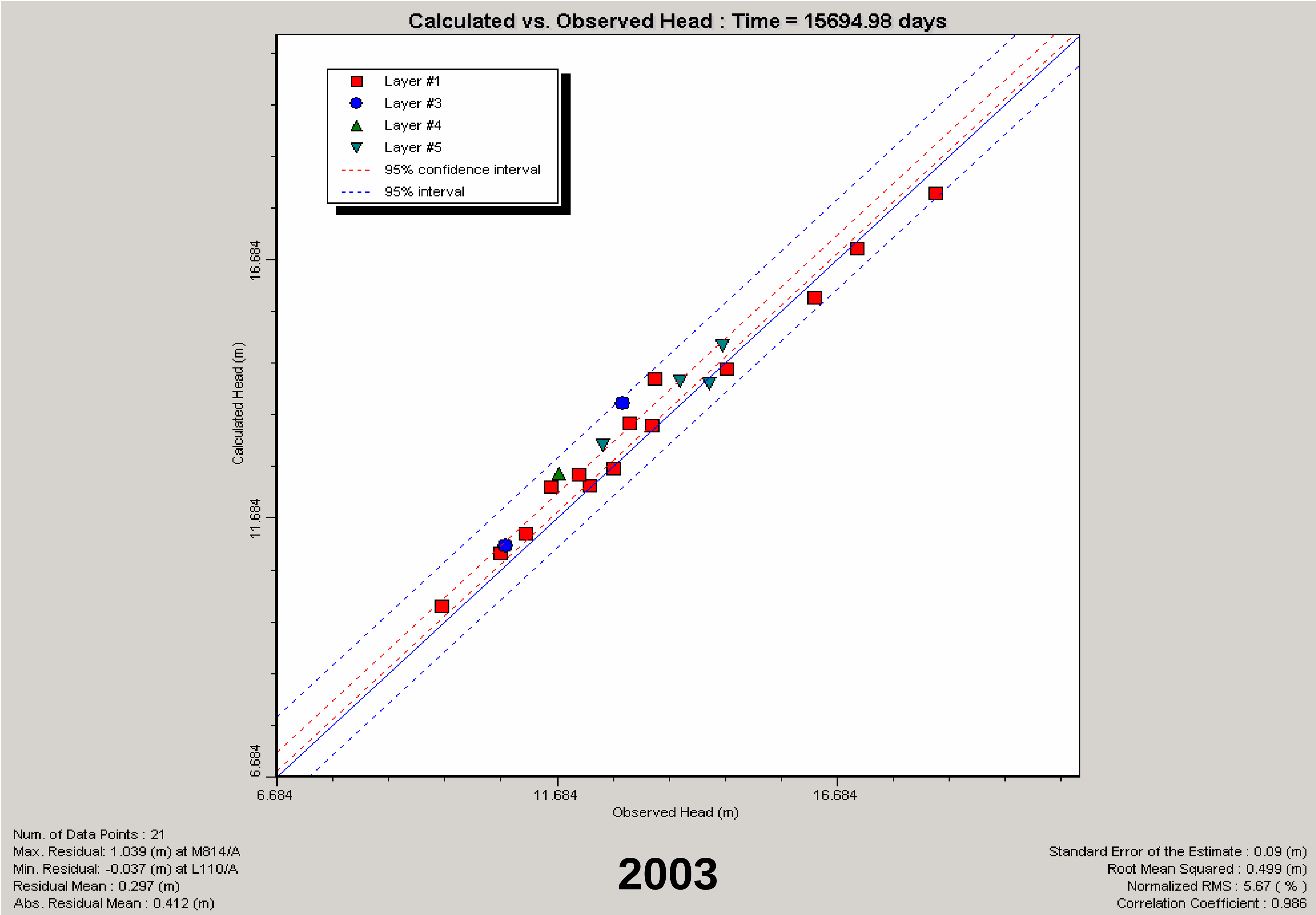


Figure 47. Pyap to Kingston calibration results (2003)

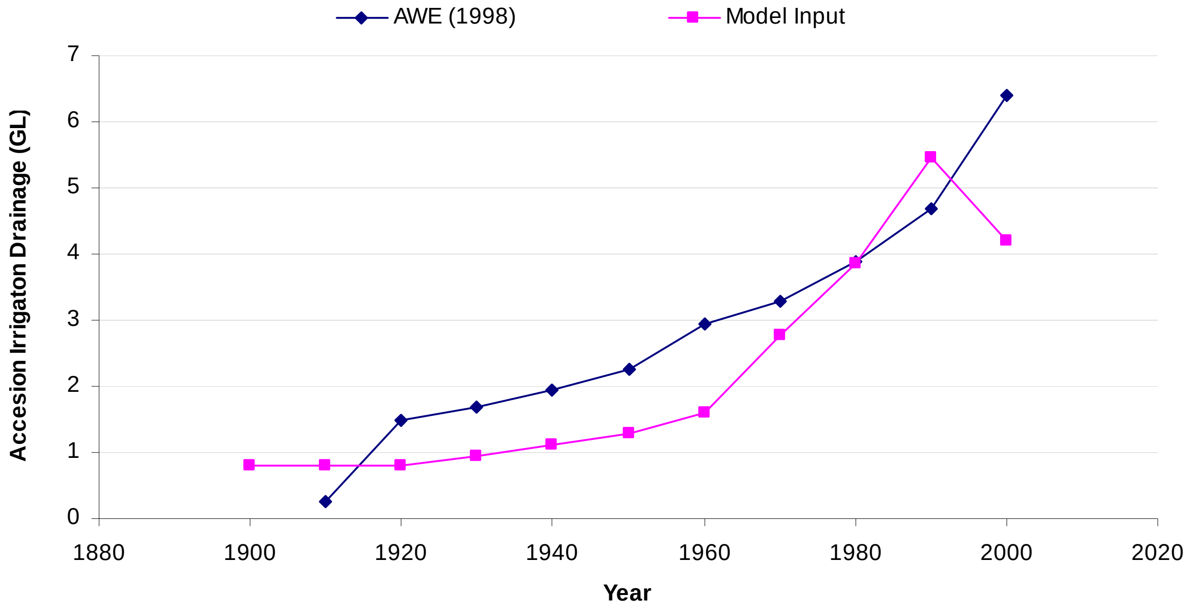


Figure 48. Comparison of modelled (calibrated) total recharge volume vs calculated accession (AWE 1998)

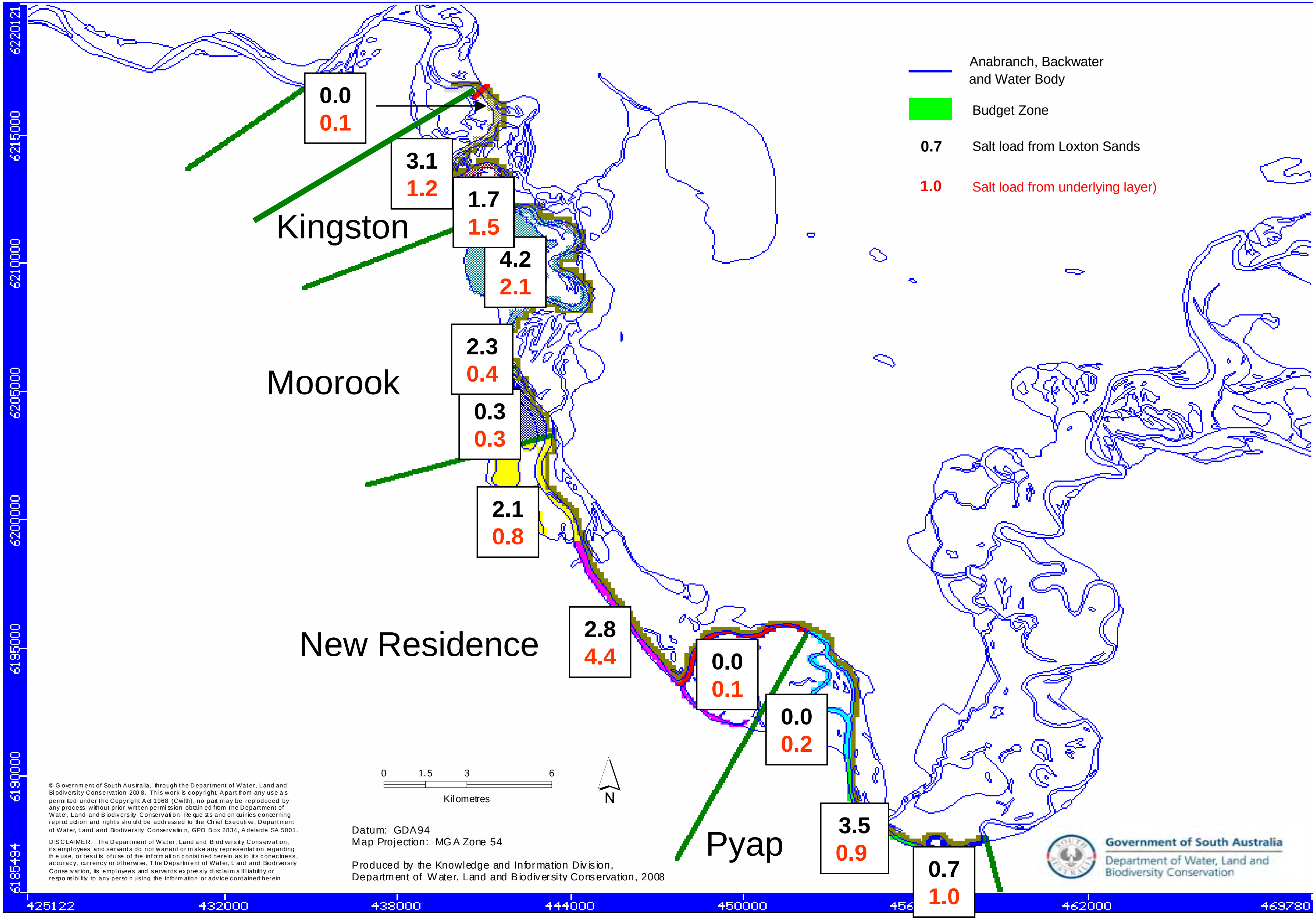
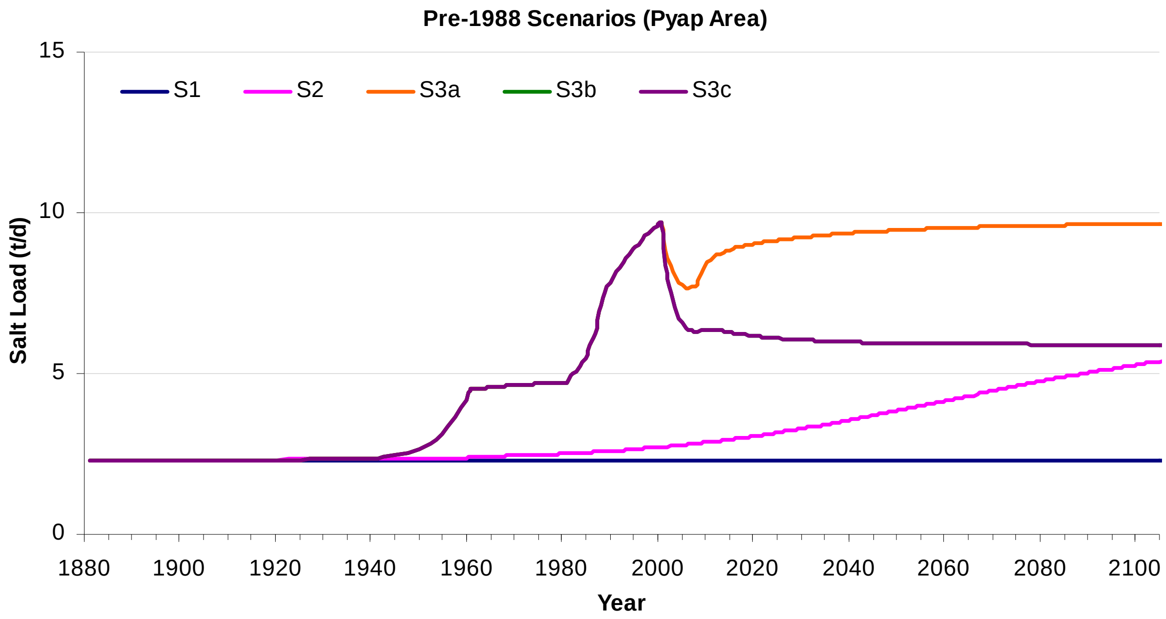


Figure 49. Model flow budget zones and modelled salt load at 2006 (t/d) in Pyap to Kingston area



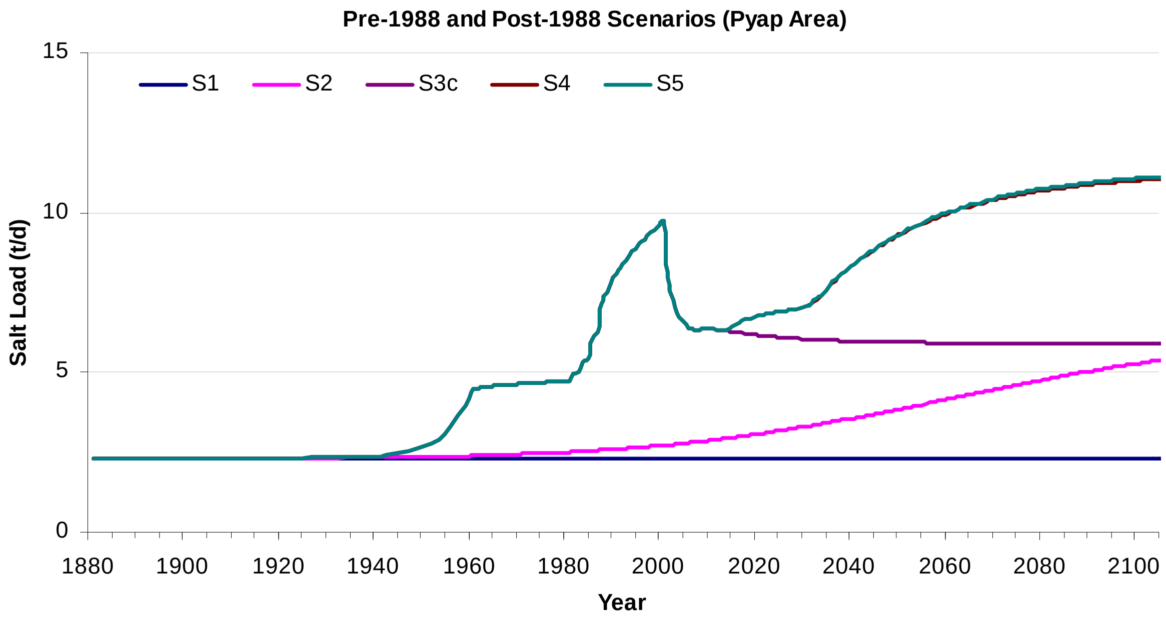
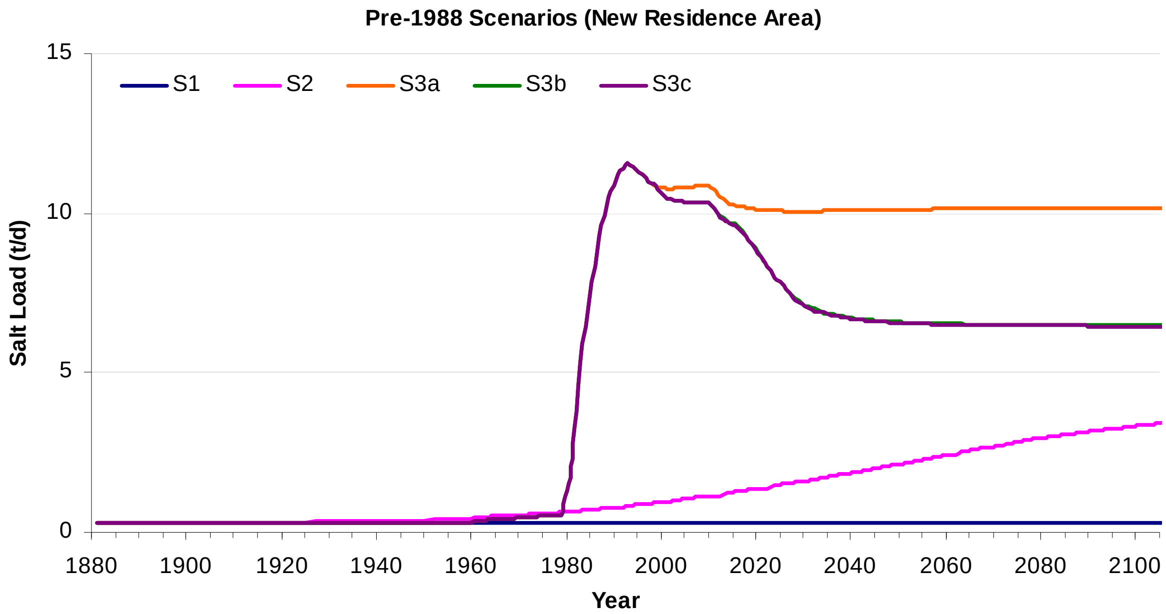


Figure 50. Predicted total salt loads entering the River Murray from Pyap Area for all scenarios



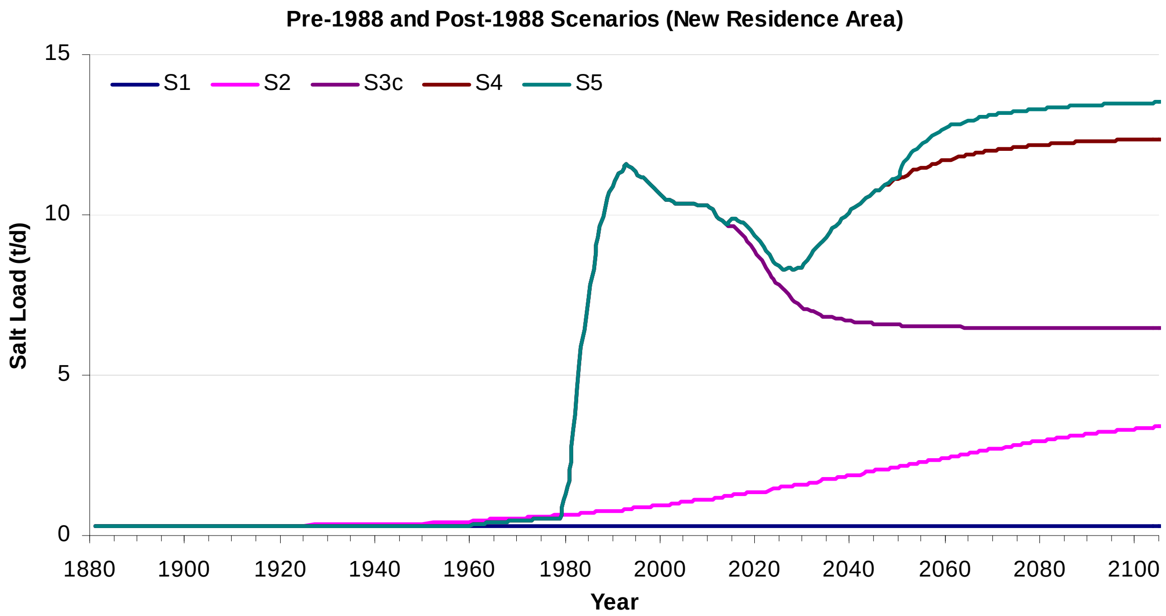


Figure 51. Predicted total salt loads entering the River Murray from New Residence Area for all scenarios

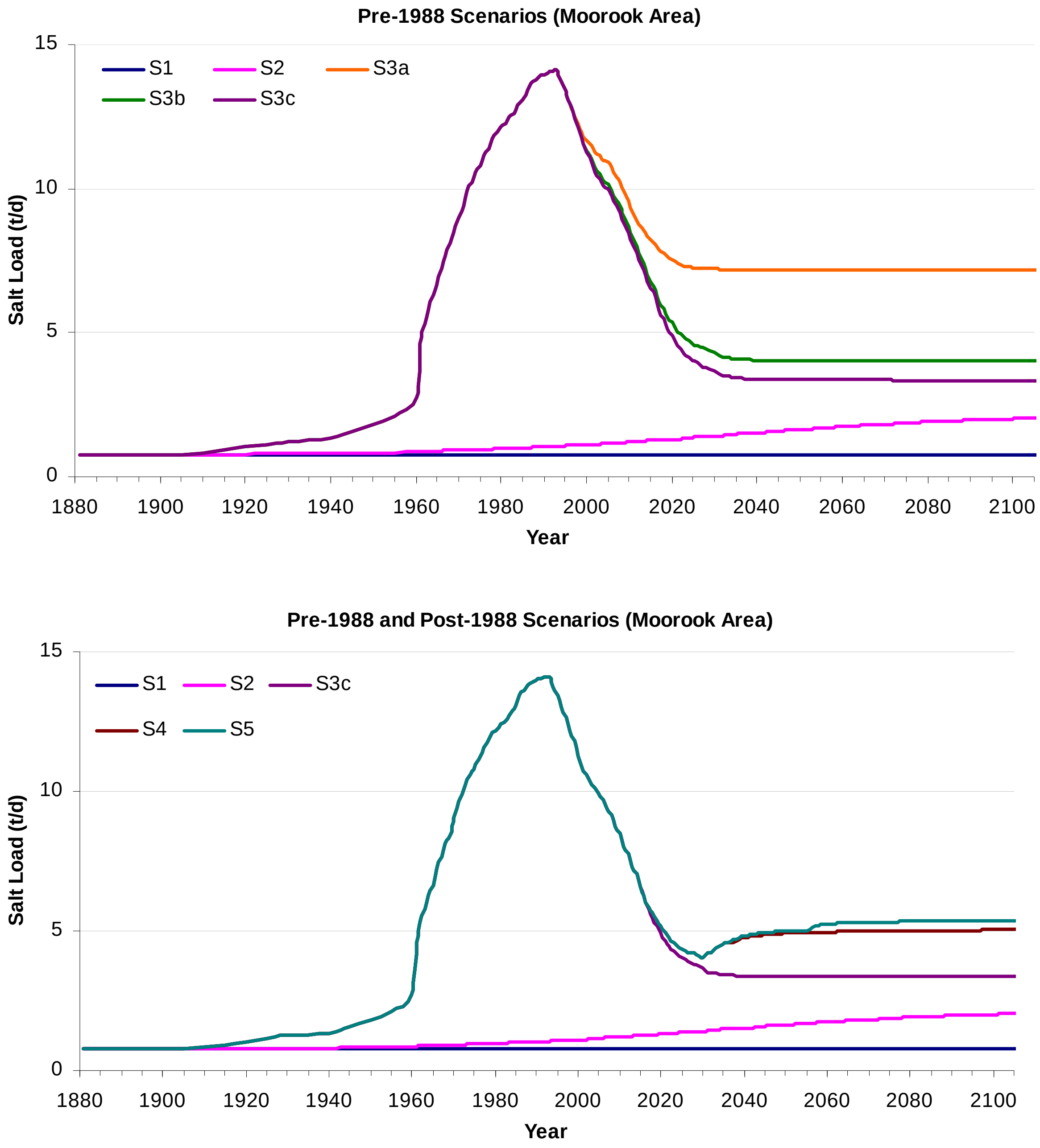


Figure 52. Predicted total salt loads entering the River Murray from Moorook Area for all scenarios

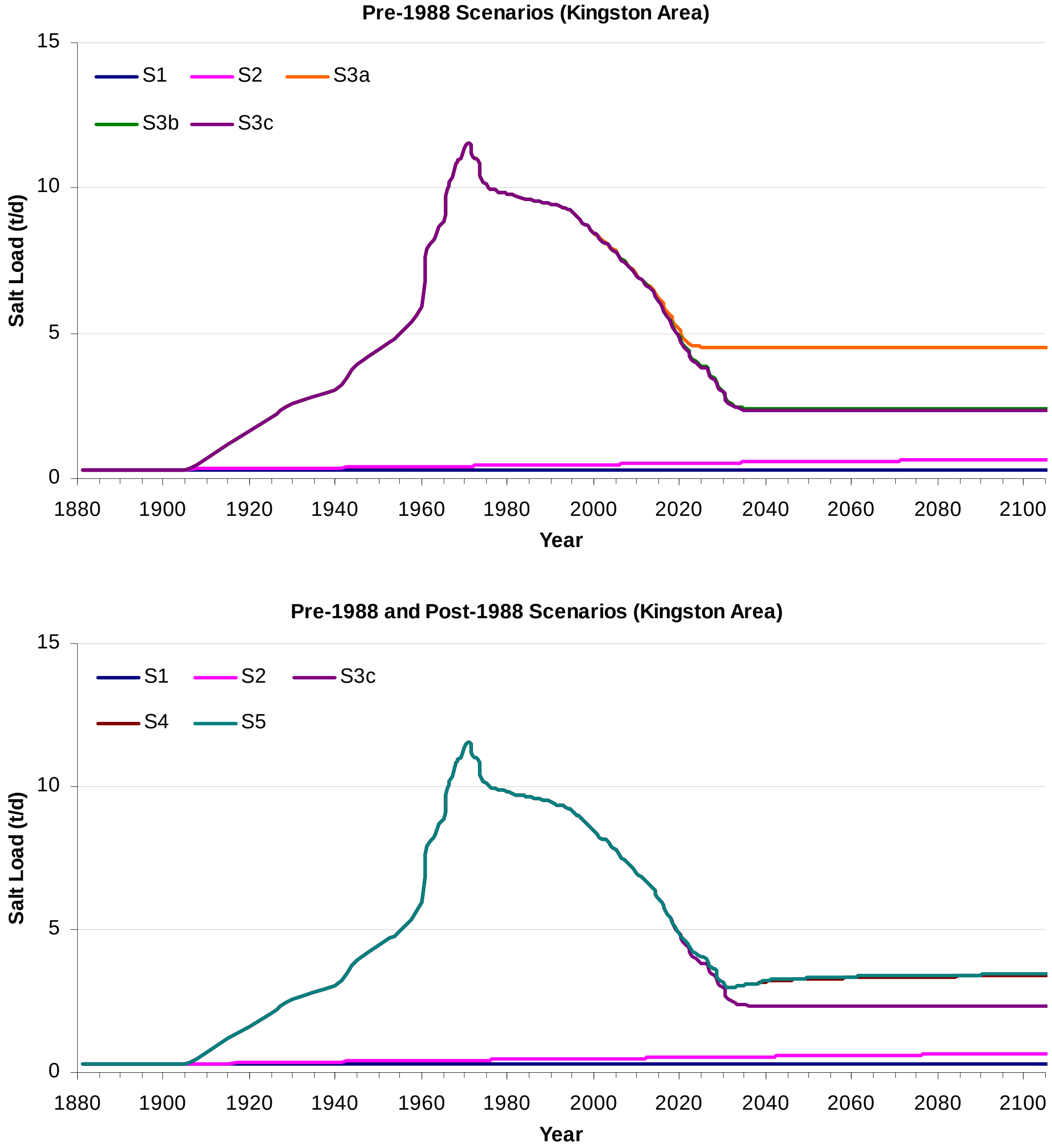


Figure 53. Predicted total salt loads entering the River Murray from Kingston Area for all scenarios

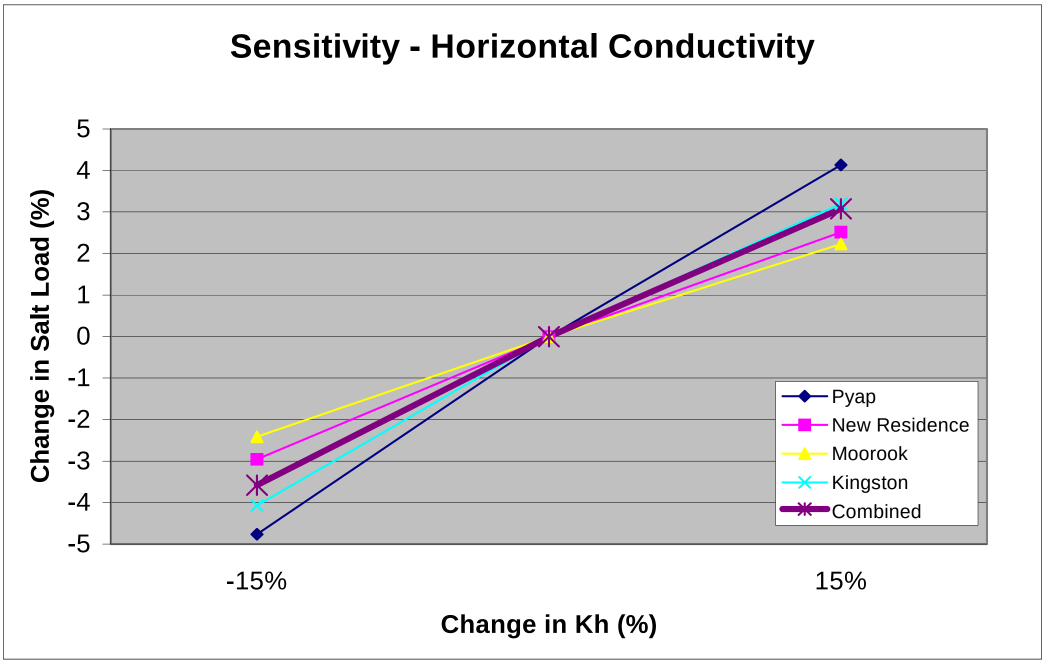


Figure 54. Model sensitivity to hydraulic conductivity of Loxton Sands aquifer

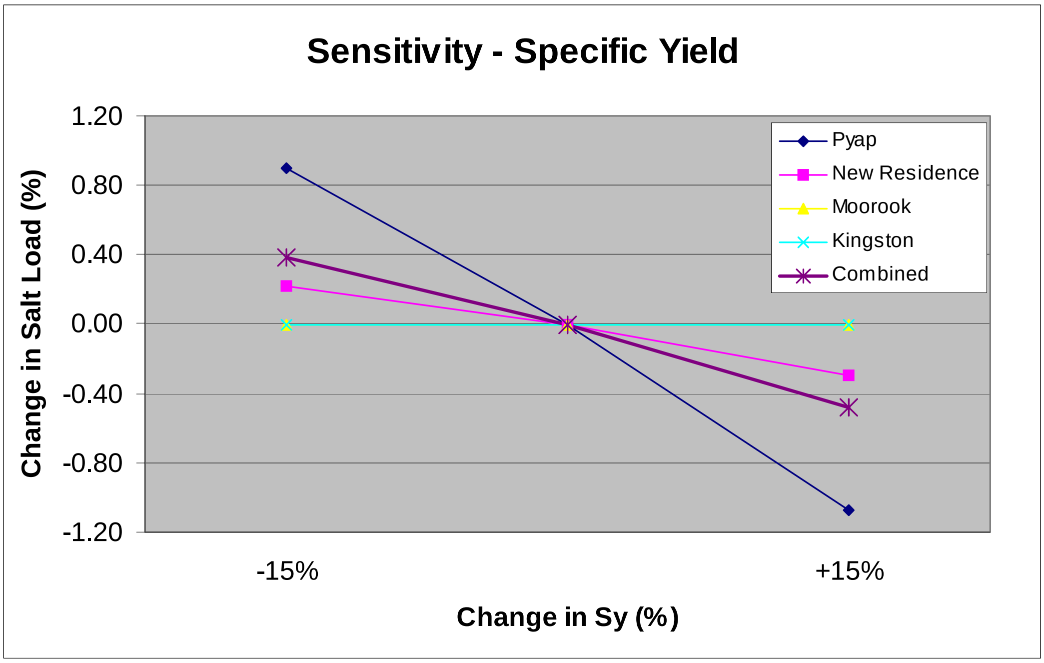


Figure 55. Model sensitivity to specific yield of Loxton Sands aquifer

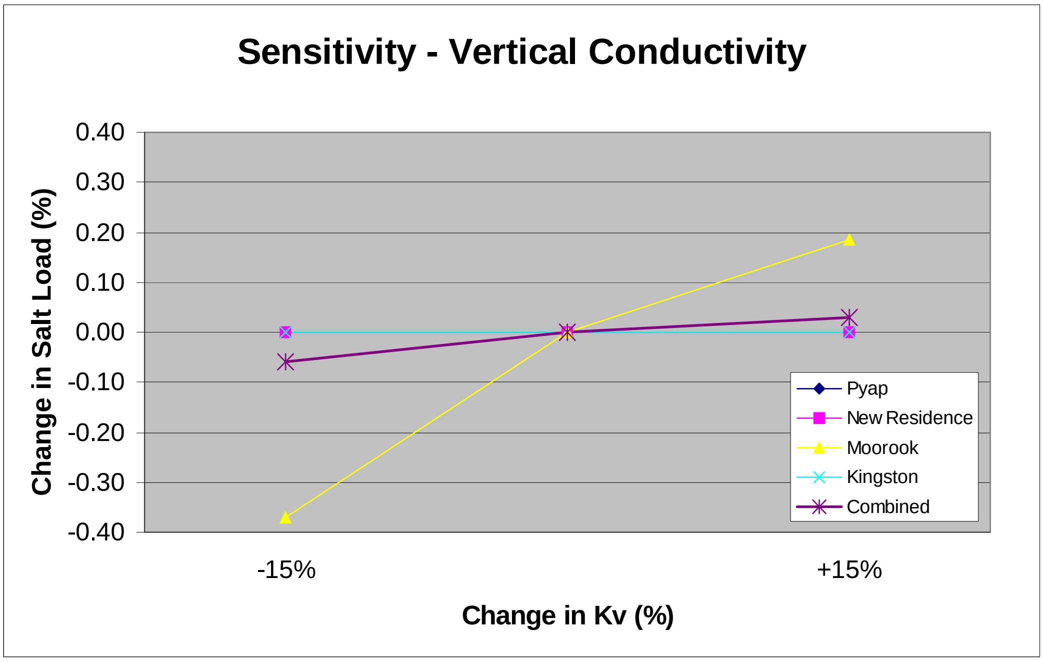


Figure 56. Model sensitivity to vertical hydraulic conductivity of Bookpurnong Beds

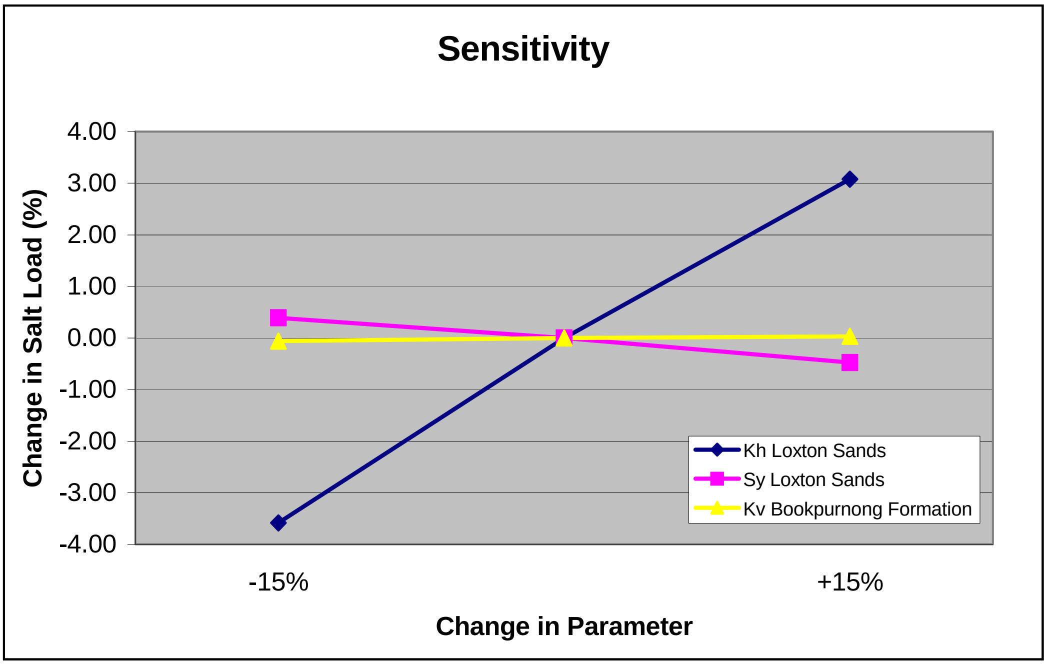


Figure 57. Comparative model sensitivity of the three parameters tested

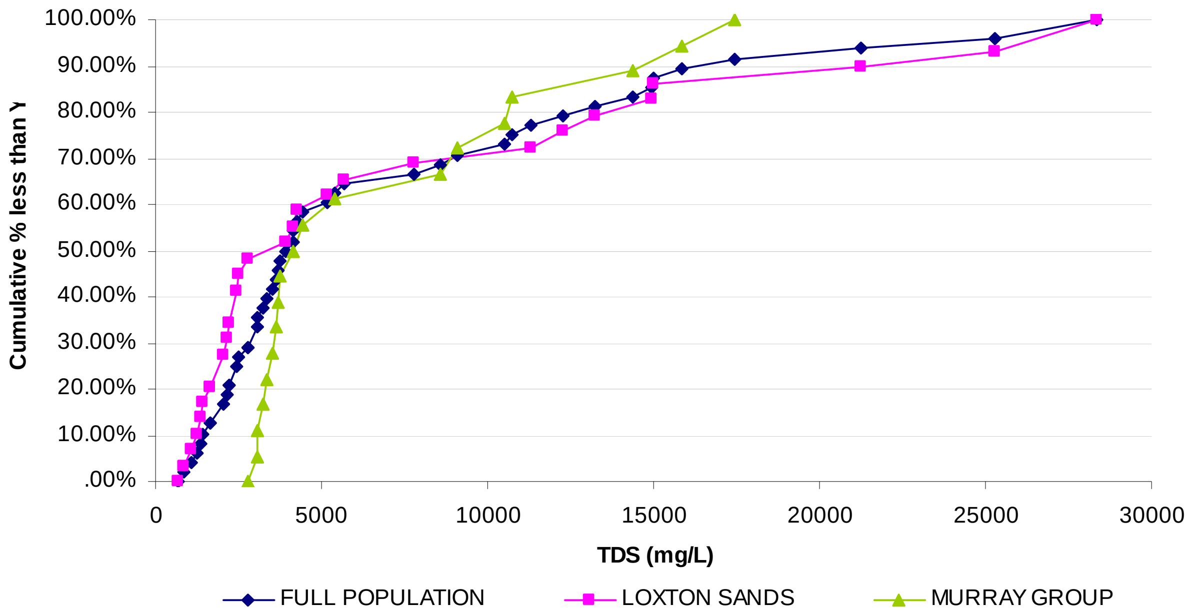


Figure 58. Cumulative frequency of groundwater salinity values in Pyap to Kingston area

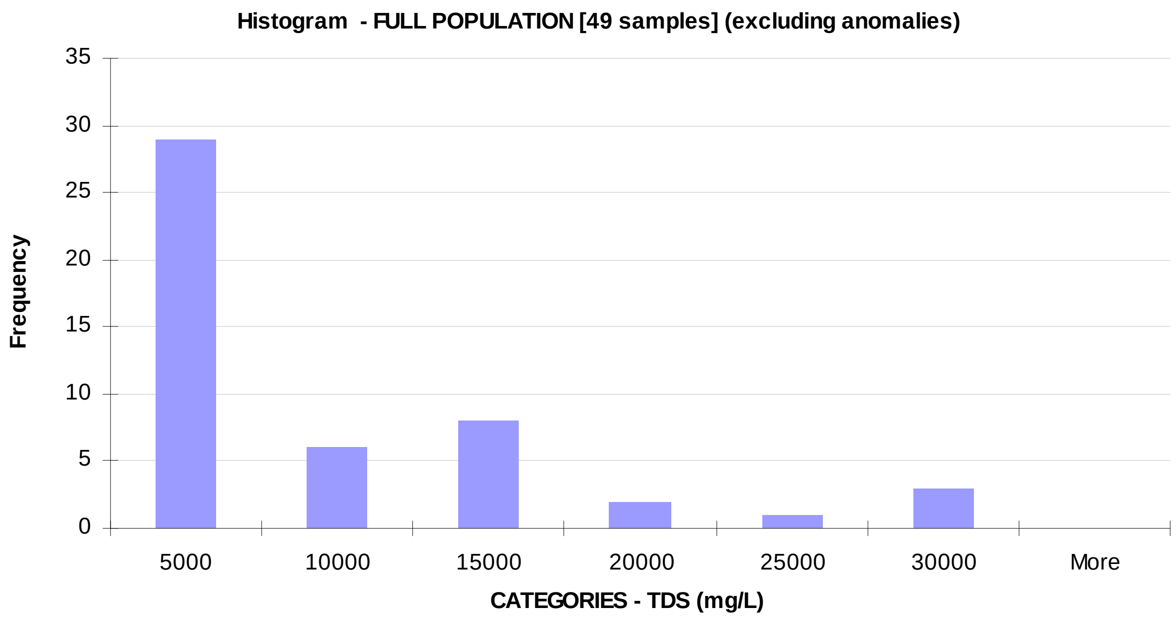


Figure 59. Distribution histogram of relevant groundwater salinity values from the Pyap to Kingston area (49 samples)

UNITS OF MEASUREMENT

Units of measurement commonly used (SI and non-SI Australian legal)

Name of unit	Symbol	Definition in terms of other metric units	Quantity
day	d	24 h	time interval
gigalitre	GL	10^6 m^3	volume
gram	g	10^{-3} kg	mass
hectare	ha	10^4 m^2	area
hour	h	60 min	time interval
kilogram	kg	base unit	mass
kilolitre	kL	1 m^3	volume
kilometre	km	10^3 m	length
litre	L	10^{-3} m^3	volume
megalitre	ML	10^3 m^3	volume
metre	m	base unit	length
microgram	µg	10^{-6} g	mass
microlitre	µL	10^{-9} m^3	volume
milligram	mg	10^{-3} g	mass
millilitre	mL	10^{-6} m^3	volume
millimetre	mm	10^{-3} m	length
minute	min	60 s	time interval
second	s	base unit	time interval
tonne	t	1000 kg	mass
year	y	365 or 366 days	time interval

Shortened forms

~	approximately equal to
EC	electrical conductivity (µS/cm)
pH	acidity
TDS	total dissolved solids (mg/L)

GLOSSARY

Act (the) — In this document, refers to the *Natural Resources Management (SA) Act 2004,* which supercedes the *Water Resources (SA) Act 1997*

Anabranch — A branch of a river that leaves the main channel

Aquifer — An underground layer of rock or sediment that holds water and allows water to percolate through

Aquifer, confined — Aquifer in which the upper surface is impervious (see 'confining layer') and the water is held at greater than atmospheric pressure; water in a penetrating well will rise above the surface of the aquifer

Aquifer test — A hydrological test performed on a well, aimed to increase the understanding of the aquifer properties, including any interference between wells, and to more accurately estimate the sustainable use of the water resources available for development from the well

Aquifer, unconfined — Aquifer in which the upper surface has free connection to the ground surface and the water surface is at atmospheric pressure

Aquitard — A layer in the geological profile that separates two aquifers and restricts the flow between them

Artesian — An aquifer in which the water surface is bounded by an impervious rock formation; the water surface is at greater than atmospheric pressure, and hence rises in any well which penetrates the overlying confining aquifer

Basin — The area drained by a major river and its tributaries

Benchmark condition — Points of reference from which change can be measured

Bore — See 'well'

EC — Electrical conductivity; 1 EC unit = 1 micro-Siemen per centimetre (µS/cm) measured at 25°C; commonly used as a measure of water salinity as it is quicker and easier than measurement by TDS

Erosion — Natural breakdown and movement of soil and rock by water, wind or ice. The process may be accelerated by human activities.

Evapotranspiration — The total loss of water as a result of transpiration from plants and evaporation from land, and surface water bodies

Floodplain — Of a watercourse means: (1) floodplain (if any) of the watercourse identified in a catchment water management plan or a local water management plan; adopted under the Act; or (2) where (1) does not apply — the floodplain (if any) of the watercourse identified in a development plan under the *Development (SA) Act 1993*; or (3) where neither (1) nor (2) applies — the land adjoining the watercourse that is periodically subject to flooding from the watercourse

Future irrigation Development — Future irrigation development area and recharge (assuming recharge of 100 mm/y) resulting from activation of already allocated water that is assumed to occur after the current year

GIS — Geographic Information System; computer software linking geographic data (for example land parcels) to textual data (soil type, land value, ownership). It allows for a range of features, from simple map production to complex data analysis

Groundwater — Water occurring naturally below ground level or water pumped, diverted and released into a well for storage underground; see also 'underground water'

Hydrogeology — The study of groundwater, which includes its occurrence, recharge and discharge processes, and the properties of aquifers; see also 'hydrology'

Hydrology — The study of the characteristics, occurrence, movement and utilisation of water on and below the Earth's surface and within its atmosphere; see also 'hydrogeology'

Improved Irrigation Practices (IIP) — Commencing in the mid 1990s when flood irrigation via earth channels was replaced by sprinkler and drip irrigation systems, thus increasing irrigation efficiency (70–85%) and reducing recharge to the groundwater table

Infrastructure — Artificial lakes; dams or reservoirs; embankments, walls, channels or other works; buildings or structures; or pipes, machinery or other equipment

Irrigation — Watering land by any means for the purpose of growing plants

Irrigation season — The period in which major irrigation diversions occur, usually starting in August–September and ending in April–May

Lag time — Time (years) taken for recharge to reach the groundwater table. Lag time is affected by depth to groundwater table and the presence and properties of aquitards

Lake — A natural lake, pond, lagoon, wetland or spring (whether modified or not) that includes part of a lake and a body of water declared by regulation to be a lake. A reference to a lake is a reference to either the bed, banks and shores of the lake or the water for the time being held by the bed, banks and shores of the lake, or both, depending on the context.

Land — Whether under water or not, and includes an interest in land and any building or structure fixed to the land

Licence — A licence to take water in accordance with the Act; see also 'water licence'

Mallee Clearance — Clearance of natural vegetation

MDBC — Murray–Darling Basin Commission

Model — A conceptual or mathematical means of understanding elements of the real world that allows for predictions of outcomes given certain conditions. Examples include estimating storm run-off, assessing the impacts of dams or predicting ecological response to environmental change

Modelled result — Output from the calibrated model (e.g. a potentiometric head distribution) that can be compared to observed data

Natural recharge — The infiltration of water into an aquifer from the surface (rainfall, streamflow, irrigation etc). See also recharge area, artificial recharge

Occupier of land — A person who has, or is entitled to, possession or control of the land

Percentile — A way of describing sets of data by ranking the dataset and establishing the value for each percentage of the total number of data records. The 90th percentile of the distribution is the value such that 90% of the observations fall at or below it.

Permeability — A measure of the ease with which water flows through an aquifer or aquitard, measured in m^2/d

PIRSA — Primary Industries and Resources South Australia (Government of South Australia)

Post-1988 irrigation — Irrigation development area and recharge that occurred between 01/01/1988 and the current year

Pre – Committed Water — Water allocation that has been approved but is not yet being used

Pre-1988 irrigation — Irrigation development area and recharge that occurred prior to 01/01/1988

Predicted result — Output from the prediction model has been used to determine the future result of a particular scenario

Prescribed water resource — A water resource declared by the Governor to be prescribed under the Act, and includes underground water to which access is obtained by prescribed wells. Prescription of a water resource requires that future management of the resource be regulated via a licensing system.

Recharge — Irrigation drainage and/or rainfall infiltration reaching the groundwater table

Recharge area — The area of land from which water from the surface (rainfall, streamflow, irrigation, etc.) infiltrates into an aquifer. See also artificial recharge, natural recharge

Rehabilitation (RH) — Replacement of leaky concrete water distribution channels with pipelines resulting in reduced transportation losses, which are reflected by reduced recharge to the groundwater table

SIS — Salt Interception Scheme designed to intercept the (maximum) groundwater flux and salt load resulting from the pre-1988, post-1988 and future irrigation development

Surface water — (a) water flowing over land (except in a watercourse), (i) after having fallen as rain or hail or having precipitated in any another manner, (ii) or after rising to the surface naturally from underground; (b) water of the kind referred to in paragraph (a) that has been collected in a dam or reservoir

Underground water (groundwater) — Water occurring naturally below ground level or water pumped, diverted or released into a well for storage underground

Water body — Includes watercourses, riparian zones, floodplains, wetlands, estuaries, lakes and groundwater aquifers

Water licence — A licence granted under the Act entitling the holder to take water from a prescribed watercourse, lake or well or to take surface water from a surface water prescribed area; this grants the licensee a right to take an allocation of water specified on the licence, which may also include conditions on the taking and use of that water; a water licence confers a property right on the holder of the licence and this right is separate from land title

Water table — The saturated **-** unsaturated interface within the ground

Watercourse — A river, creek or other natural watercourse (whether modified or not) and includes: a dam or reservoir that collects water flowing in a watercourse; a lake through which water flows; a channel (but not a channel declared by regulation to be excluded from the this definition) into which the water of a watercourse has been diverted; and part of a watercourse

Well — (1) An opening in the ground excavated for the purpose of obtaining access to underground water. (2) An opening in the ground excavated for some other purpose but that gives access to underground water. (3) A natural opening in the ground that gives access to underground water

REFERENCES

Allison GB, Cook PG, Barnett SR, Walker GR, Jolly ID, & Hughes MW, 1990, *Land clearance and river salinisation in the western Murray Basin, Australia,* Journal of Hydrology, 119:1-20.

Aquaterra, REM and AWE, 2006, *Hydrogeological Investigations of Irrigation Trust Areas at Renmark, Chaffey, Berri and Cobdogla.* Prepared by Aquaterra Simulations for DWLBC, May 2006

AWE, 1998, *Pyap to Kingston Area, Drainage Reconnaissance Study Stage 3,* For Loxton to Bookpurnong Local Action Planning Committee, December 1998.

AWE, 2003, *Loxton and Bookpurnong Salt Interception Schemes Groundwater Model, October 2002–February 2003* (Not Published).

Barnett SR, 1991, *Renmark Hydrogeological Map (1:250 000 scale),* Department of Mines and Energy.

Berens V, Hatch M, James-Smith J, & Love A, 2004, *In-stream geophysics aiding the hydrogeological investigation for the Loxton salt interception scheme, SA,* In Proceedings: Inaugural Australasian Hydrogeology Research Conference, November 2003, Melbourne. 3 p.

Bureau of Meteorology 2006, Commonwealth of Australia, viewed 18 September 2006, <http://www.bom.gov.au>

Cook PG, Leaney FW, & Miles M, 2004, *Groundwater Recharge in the North-East Mallee Region, South Australia,* CSRIO Land and Water Technical Report No 25/04.

DWLBC, 2003, Bookpurnong and Loxton Salt Interception Schemes, Joint Works/State Action Approval Submission to the Murray–Darling Basin Commission High Inter-Jurisdictional Working Group on Salt Interception, February 2003.

Evans WR, & Kellet JR, 1989, *The hydrogeology of the Murray Basin, southeastern Australia,* BMR Journal of Australian Geology and Geophysics, 11: 147 – 166.

Holland K, Jolly ID, Tyerman S, Mansforth L, Telfer A, & Walker GR, 2001, *Interception of groundwater discharge by floodplain in the lower River Murray: Implications for river salinity,* 8th Murray Darling Basin Groundwater Workshop 2001.

Howles SR, & Smith AG, 2005, *Loxton Salt Interception Scheme Aquifer Testing and Well Hydraulics,* DWLBC Report 2005/20, Government of South Australia, through Department of Water, Land and Biodiversity Conservation, Adelaide

Lisdon Associates, 2006, *Summary Review Of "Berri–Renmark Numerical Groundwater Model 2006"*

McDonald MG, & Harbaugh AW, 1988, *A modular three-dimensional finite-difference groundwater flow model,* Techniques of Water-Resources Investigations of the United State Geological Survey. Modelling Techniques Book 6.

Murray Darling Basin Commission, 2001, *Groundwater Flow Modelling Guideline,* August 2001.

Porter B, 2001, *Run of River Salinity Surveys – A Method of Measuring salt Load Accessions to the River Murray on a Kilometre by Kilometre basis,* Proceedings of 8th Murray Darling Basin Groundwater Workshop 2001

REM-Aquaterra, 2005, Salt Interception Scheme Concept Design Murtho and Pike River, Hydrogeology and Proposed Groundwater Modelling Approach, Prepared for Department of Water, Land and Biodiversity Conservation, August 2005.

Salient Solutions 2005, *Review of Three South Australian Groundwater Models, Morgan to Lock3, South Australian Dryland Clearing and Pike–Murtho,* Report prepared for MDBC.

Yan W, Howles S, Howe B, & Hill T, 2005, *Loxton–Bookpurnong Numerical Groundwater Model 2005,* DWLBC Report 2005/17, Government of South Australia, through Department of Water, Land and Biodiversity Conservation, Adelaide

Yan W, Howe B, Hodgkin T & Stadter M, 2006, *Pike – Murtho Numerical Groundwater Model 2006,* DWLBC Report 2006/26, Government of South Australia, through Department of Water, Land and Biodiversity Conservation, Adelaide

Yan W, 2007, *Berri–Renmark Numerical Groundwater Model 2007,* Government of South Australia, through Department of Water, Land and Biodiversity Conservation, Adelaide (In prep)

DWLBC REPORT

Pyap to Kingston Numerical Groundwater Model 2008

Volume 2 - Appendices

2008/19

Government of South Australia
Department of Water, Land and Biodiversity Conservation

Pyap to Kingston Numerical Groundwater Model 2008

Volume 2 – Appendices

Wei Yan and Michael Stadter

Knowledge and Information Division
Department of Water, Land and Biodiversity Conservation

June 2008

Report DWLBC 2008/19

Government of South Australia
Department of Water, Land and Biodiversity Conservation

Knowledge and Information Division

Department of Water, Land and Biodiversity Conservation

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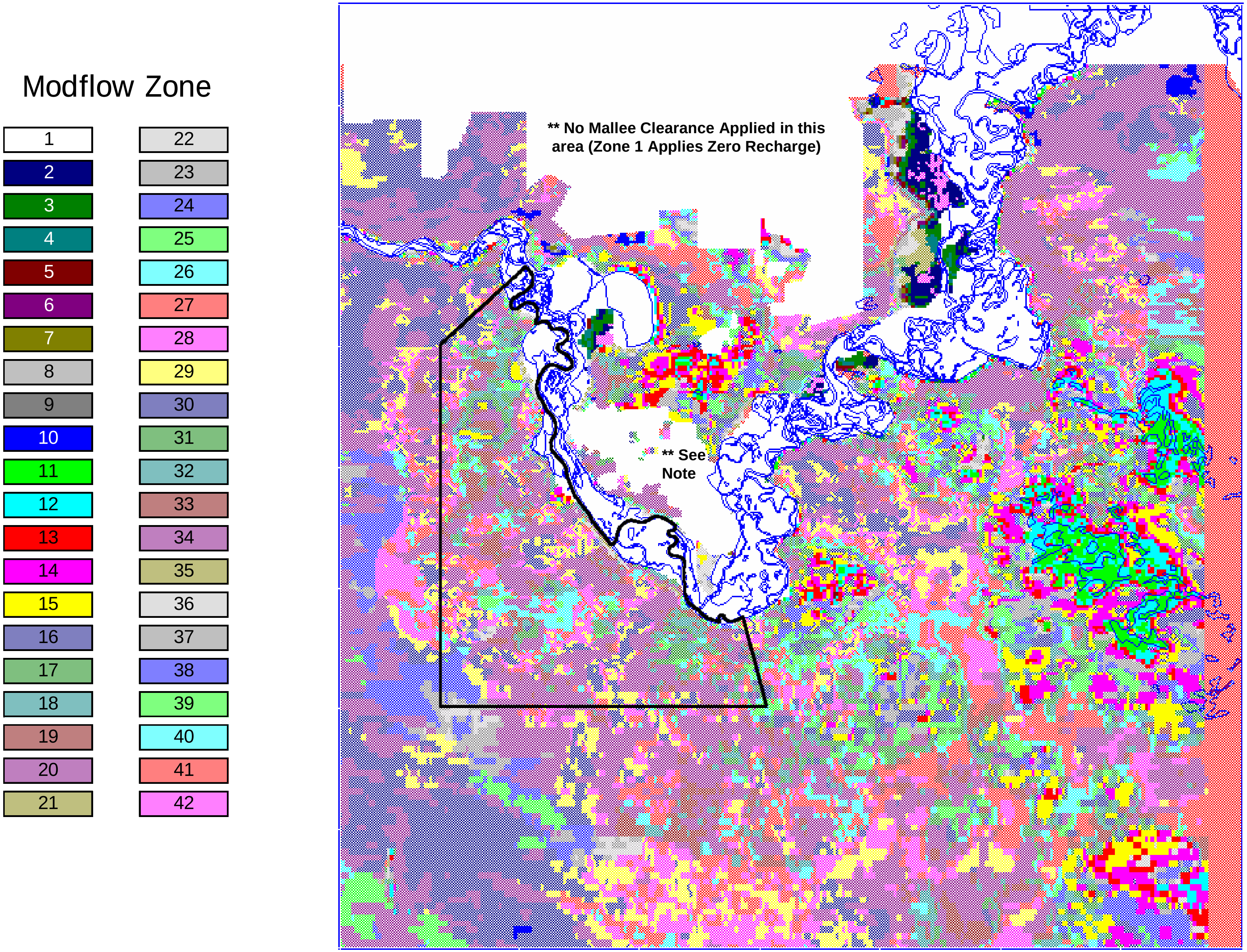
A-1. MODEL INPUT – MALLEE CLEARANCE

- Model recharge zones
- Zone number and recharge rates (mm/y)



A-1-1. Mallee Clearance recharge zones applied in the Pyap to Kingston Area (42 zones).

Modflow Recharge Zone				41	42	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DEH Zone No.				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Start Year	Stop Year	Start Day	Stop Day																					
1920	**1930**	***0***	***3650***	0.07	0.18	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.33	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1930	**1940**	***3650***	***7300***	0.07	0.65	0.16	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	2.12	0.39	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1940	**1950**	***7300***	***10950***	0.07	0.71	0.48	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	2.16	1.56	0.09	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1950	**1960**	***10950***	***14600***	0.07	0.71	0.67	0.18	0.07	0.07	0.07	0.07	0.07	0.07	0.07	2.16	2.37	0.62	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1960	**1970**	***14600***	***18250***	0.07	0.71	0.70	0.43	0.09	0.07	0.07	0.07	0.07	0.07	0.07	2.16	2.52	1.98	0.15	0.07	0.07	0.07	0.07	0.07	0.07
1970	**1980**	***18250***	***21900***	0.07	0.71	0.70	0.59	0.23	0.07	0.07	0.07	0.07	0.07	0.08	2.16	2.53	2.98	0.71	0.10	0.07	0.07	0.07	0.07	0.07
1980	**1990**	***21900***	***25550***	0.07	0.71	0.70	0.63	0.43	0.12	0.07	0.07	0.07	0.07	0.11	2.16	2.53	3.30	1.83	0.35	0.08	0.07	0.07	0.07	0.07
1990	**2000**	***25550***	***29200***	0.07	0.71	0.70	0.64	0.56	0.25	0.08	0.07	0.07	0.07	0.12	2.16	2.53	3.35	2.79	1.06	0.15	0.07	0.07	0.07	0.07
2000	**2010**	***29200***	***32850***	0.07	0.72	0.70	0.64	0.61	0.41	0.14	0.08	0.07	0.07	0.12	2.16	2.53	3.36	3.24	1.97	0.45	0.11	0.07	0.07	0.07
2010	**2020**	***32850***	***36500***	0.07	0.73	0.70	0.64	0.62	0.54	0.25	0.10	0.07	0.07	0.13	2.16	2.53	3.36	3.37	2.66	1.05	0.26	0.08	0.07	0.07
2020	**2030**	***36500***	***40150***	0.09	0.74	0.70	0.64	0.62	0.61	0.38	0.16	0.09	0.07	0.13	2.16	2.53	3.36	3.40	3.00	1.80	0.63	0.15	0.08	0.07
2030	**2040**	***40150***	***43800***	0.19	0.75	0.70	0.64	0.62	0.63	0.49	0.27	0.14	0.08	0.13	2.16	2.53	3.36	3.40	3.13	2.43	1.23	0.35	0.11	0.07
2040	**2050**	***43800***	***47450***	0.48	0.76	0.70	0.64	0.62	0.64	0.56	0.39	0.23	0.11	0.13	2.16	2.53	3.36	3.40	3.17	2.82	1.91	0.75	0.22	0.07
2050	**2060**	***47450***	***51100***	1.10	0.76	0.70	0.64	0.62	0.64	0.59	0.49	0.35	0.17	0.13	2.16	2.53	3.36	3.40	3.18	3.01	2.48	1.29	0.47	0.09
2060	**2070**	***51100***	***54750***	2.06	0.76	0.70	0.64	0.62	0.64	0.60	0.56	0.49	0.26	0.13	2.16	2.53	3.36	3.40	3.18	3.08	2.86	1.88	0.88	0.12
2070	**2080**	***54750***	***58400***	3.20	0.76	0.70	0.64	0.62	0.64	0.61	0.59	0.61	0.37	0.13	2.16	2.53	3.36	3.40	3.18	3.11	3.07	2.39	1.40	0.17
2080	**2090**	***58400***	***62050***	4.32	0.76	0.70	0.64	0.62	0.64	0.61	0.61	0.70	0.48	0.14	2.16	2.53	3.36	3.40	3.18	3.12	3.17	2.76	1.95	0.27
2090	**2100**	***62050***	***65700***	5.22	0.76	0.70	0.64	0.62	0.64	0.61	0.62	0.76	0.57	0.15	2.16	2.53	3.36	3.40	3.18	3.12	3.22	3.00	2.43	0.40
2100	**2110**	***65700***	***69350***	5.86	0.76	0.70	0.64	0.62	0.64	0.61	0.62	0.79	0.64	0.17	2.16	2.53	3.36	3.40	3.18	3.12	3.24	3.13	2.81	0.55
2110	**2120**	***69350***	***73000***	6.25	0.76	0.70	0.64	0.62	0.64	0.61	0.62	0.81	0.69	0.19	2.16	2.53	3.36	3.40	3.18	3.12	3.24	3.19	3.06	0.73
2120	**2145**	***73000***	***82125***	6.25	0.76	0.70	0.64	0.62	0.64	0.61	0.62	0.81	0.69	0.19	2.16	2.53	3.36	3.40	3.18	3.12	3.24	3.19	3.06	0.73

A-1-2. Mallee Clearance recharge rates in mm/yr (Scenario-2)

Modflow Recharge Zone				21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
DEH Zone No.				**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Start Year	Stop Year	Start Day	Stop Day																				
1920	**1930**	***0***	***3650***	2.77	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	2.43	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1930	**1940**	***3650***	***7300***	7.83	0.60	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	10.53	0.87	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1940	**1950**	***7300***	***10950***	8.09	3.63	0.09	0.07	0.07	0.07	0.07	0.07	0.07	0.07	10.90	5.79	0.15	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1950	**1960**	***10950***	***14600***	8.09	6.70	0.97	0.07	0.07	0.07	0.07	0.07	0.07	0.07	10.90	10.15	2.24	0.08	0.07	0.07	0.07	0.07	0.07	0.07
1960	**1970**	***14600***	***18250***	8.09	7.35	3.68	0.35	0.07	0.07	0.07	0.07	0.07	0.07	10.90	10.91	6.82	0.56	0.07	0.07	0.07	0.07	0.07	0.07
1970	**1980**	***18250***	***21900***	8.09	7.38	6.23	1.91	0.13	0.07	0.07	0.07	0.07	0.07	10.90	10.94	9.91	3.12	0.18	0.07	0.07	0.07	0.07	0.07
1980	**1990**	***21900***	***25550***	8.09	7.38	7.16	4.37	0.64	0.09	0.07	0.07	0.07	0.07	10.90	10.94	10.83	6.89	1.07	0.09	0.07	0.07	0.07	0.07
1990	**2000**	***25550***	***29200***	8.09	7.38	7.32	6.08	2.19	0.26	0.08	0.07	0.07	0.07	10.90	10.94	10.97	9.51	3.50	0.26	0.08	0.07	0.07	0.07
2000	**2010**	***29200***	***32850***	8.09	7.38	7.34	6.78	4.34	0.97	0.15	0.07	0.07	0.07	10.90	10.94	10.99	10.62	6.60	1.03	0.18	0.08	0.07	0.07
2010	**2020**	***32850***	***36500***	8.09	7.38	7.34	6.97	6.06	2.44	0.51	0.10	0.07	0.07	10.90	10.94	10.99	10.94	8.93	2.82	0.64	0.13	0.07	0.07
2020	**2030**	***36500***	***40150***	8.09	7.38	7.34	7.01	6.97	4.30	1.41	0.27	0.09	0.07	10.90	10.94	10.99	11.00	10.13	5.29	1.81	0.39	0.10	0.07
2030	**2040**	***40150***	***43800***	8.09	7.38	7.34	7.01	7.32	5.89	2.85	0.74	0.18	0.07	10.90	10.94	10.99	11.01	10.60	7.62	3.72	1.13	0.25	0.08
2040	**2050**	***43800***	***47450***	8.09	7.38	7.34	7.01	7.42	6.89	4.48	1.67	0.45	0.09	10.90	10.94	10.99	11.01	10.76	9.22	5.91	2.53	0.69	0.11
2050	**2060**	***47450***	***51100***	8.09	7.38	7.34	7.01	7.45	7.39	5.85	2.98	1.05	0.15	10.90	10.94	10.99	11.01	10.82	10.08	7.82	4.44	1.66	0.24
2060	**2070**	***51100***	***54750***	8.09	7.38	7.34	7.01	7.46	7.60	6.77	4.39	1.99	0.30	10.90	10.94	10.99	11.01	10.86	10.45	9.15	6.42	3.21	0.54
2070	**2080**	***54750***	***58400***	8.09	7.38	7.34	7.01	7.46	7.67	7.28	5.61	3.18	0.59	10.90	10.94	10.99	11.01	10.89	10.59	9.93	8.07	5.14	1.11
2080	**2090**	***58400***	***62050***	8.09	7.38	7.34	7.01	7.46	7.70	7.53	6.51	4.40	1.06	10.90	10.94	10.99	11.01	10.90	10.64	10.31	9.22	7.11	2.00
2090	**2100**	***62050***	***65700***	8.09	7.38	7.34	7.01	7.46	7.70	7.63	7.06	5.45	1.69	10.90	10.94	10.99	11.01	10.91	10.65	10.48	9.90	8.79	3.17
2100	**2110**	***65700***	***69350***	8.09	7.38	7.34	7.01	7.46	7.70	7.67	7.37	6.23	2.43	10.90	10.94	10.99	11.01	10.92	10.66	10.55	10.27	10.04	4.51
2110	**2120**	***69350***	***73000***	8.09	7.38	7.34	7.01	7.46	7.70	7.69	7.53	6.75	3.21	10.90	10.94	10.99	11.01	10.92	10.66	10.58	10.44	10.87	5.90
2120	**2145**	***73000***	***82125***	8.09	7.38	7.34	7.01	7.46	7.70	7.69	7.53	6.75	3.21	10.90	10.94	10.99	11.01	10.92	10.66	10.58	10.44	10.87	5.90

A-1-2. Mallee Clearance recharge rates in mm/yr (Scenario-2)

A-2. MODEL INPUT – PYAP AREA

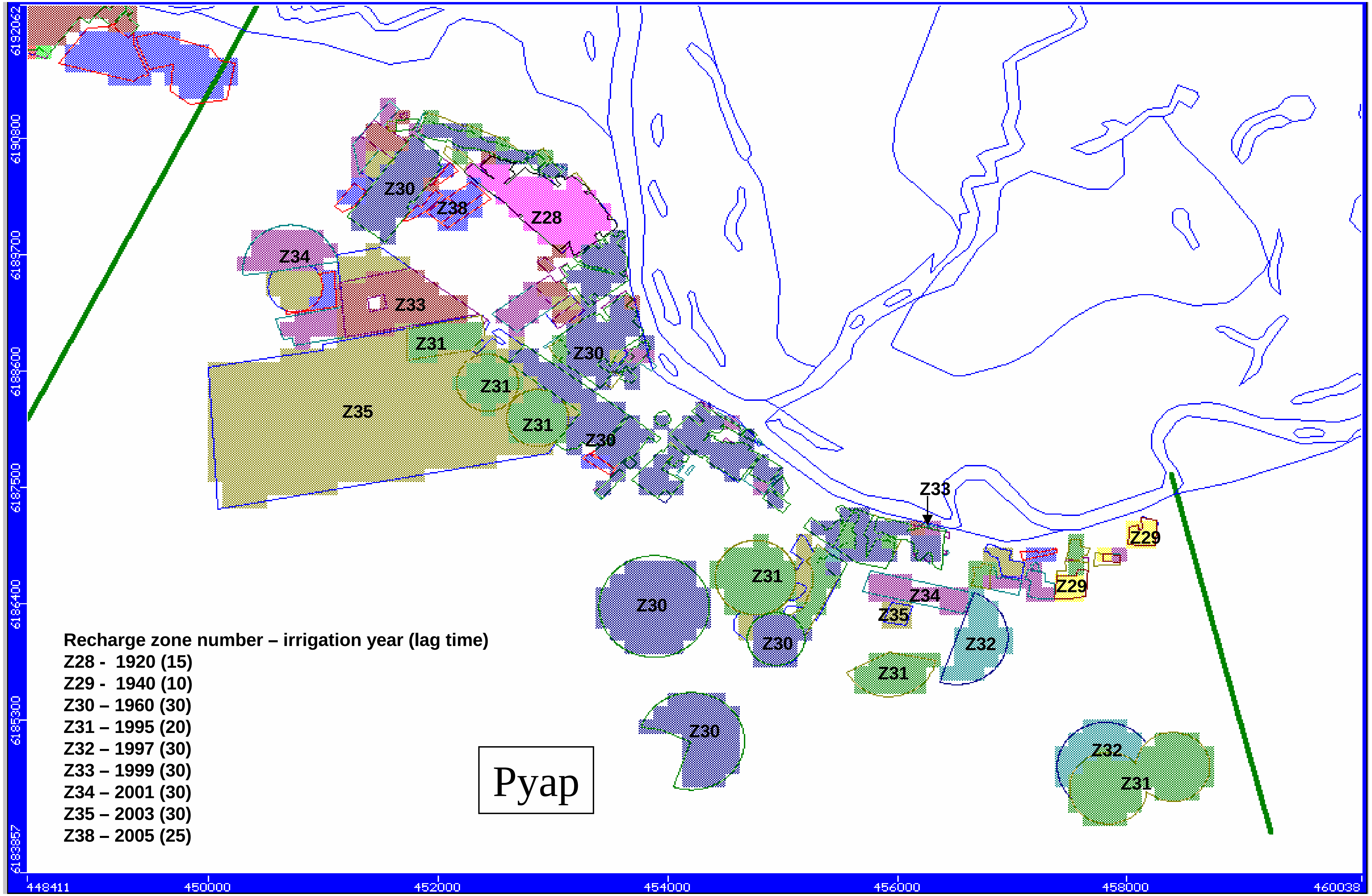
- Model scenario conditions
- Model recharge zones
- Model recharge rates (mm/y)
- Irrigation start year and lag time
- Total model recharge volume

(Scenario-3A, Scenario-3B, Scenario-3C, Scenario-4 and Scenario-5)

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

Note: 1 Improved Irrigation Practices, 2 Rehabilitation, 3 Salt Interception Scheme (see Glossary for definitions)

A-2. Model Scenario conditions



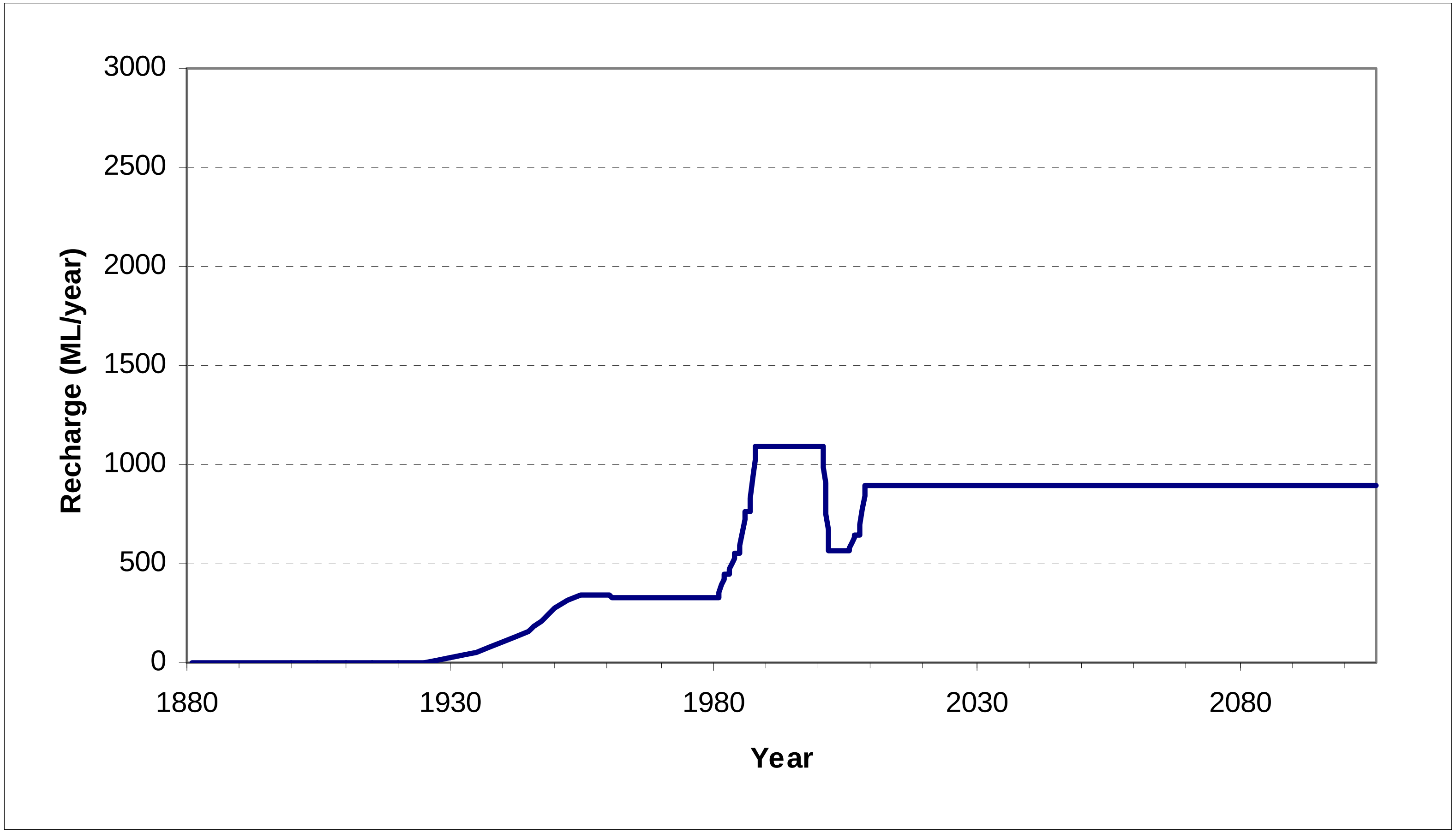
A-2. Model recharge zones in the Pyap area (Scenario-3A, 3B, 3C, 4 and 5)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Dev.
Irrigation Start year				1920	1940	1960	1960	1995	1997	1999	2001	2003	2005	2015
Lag time (yrs)				15	10	45	20	20	30	30	30	30	25	10
Start Date	Stop Date	Start Time	Stop Time	Zone 4	Zone 5									
1880	1900	0	7300	0.1	0.1									
1900	1905	7300	9125	0.1	0.1									
1905	1910	9125	10950	0.1	0.1									
1910	1915	10950	12775	0.1	0.1									
1915	1920	12775	14600	0.1	0.1									
1920	1925	14600	16425	0.1	0.1									
1925	1930	16425	18250	50	0.1									
1930	1935	18250	20075	100	0.1									
1935	1940	20075	21900	200	0.1									
1940	1945	21900	23725	300	0.1									
1945	1950	23725	25550	500	0.1									
1950	1955	25550	27375	500	500									
1955	1960	27375	29200	500	500									
1960	1965	29200	31025	500	500									
Start Date	Stop Date	Start Time	Stop Time	Zone 28	Zone 29	Zone 30	Zone 48	Zone 31	Zone 32	Zone 33	Zone 34	Zone 35	Zone 38	Zone 47
1960	1961	0	365	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	1963	365	1095	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	1965	1095	1825	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	1967	1825	2555	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	1969	2555	3285	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	1971	3285	4015	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	1973	4015	4745	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	1975	4745	5475	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	1977	5475	6205	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	1979	6205	6935	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	1981	6935	7665	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	1983	7665	8395	500	500	0.1	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	1985	8395	9125	500	500	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	1987	9125	9855	500	500	0.1	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	1989	9855	10585	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	1991	10585	11315	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	1993	11315	12045	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	1995	12045	12775	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	1997	12775	13505	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	1999	13505	14235	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	2001	14235	14965	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	2003	14965	15695	200	200	0.1	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	2005	15695	16425	200	200	0.1	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-2(S3A). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 3A)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Dev.*
Irrigation Start year				*1920*	*1940*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**10**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 28**	**Zone 29**	**Zone 30**	**Zone 48**	**Zone 31**	**Zone 32**	**Zone 33**	**Zone 34**	**Zone 35**	**Zone 38**	**Zone 47**
2005	**2006**	16425	16790	200	200	0.1	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	200	200	50	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2060**	32120	36500	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2060	**2106**	36500	53290	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	**2106**	53290	53291	200	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-2(S3A). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 3A)



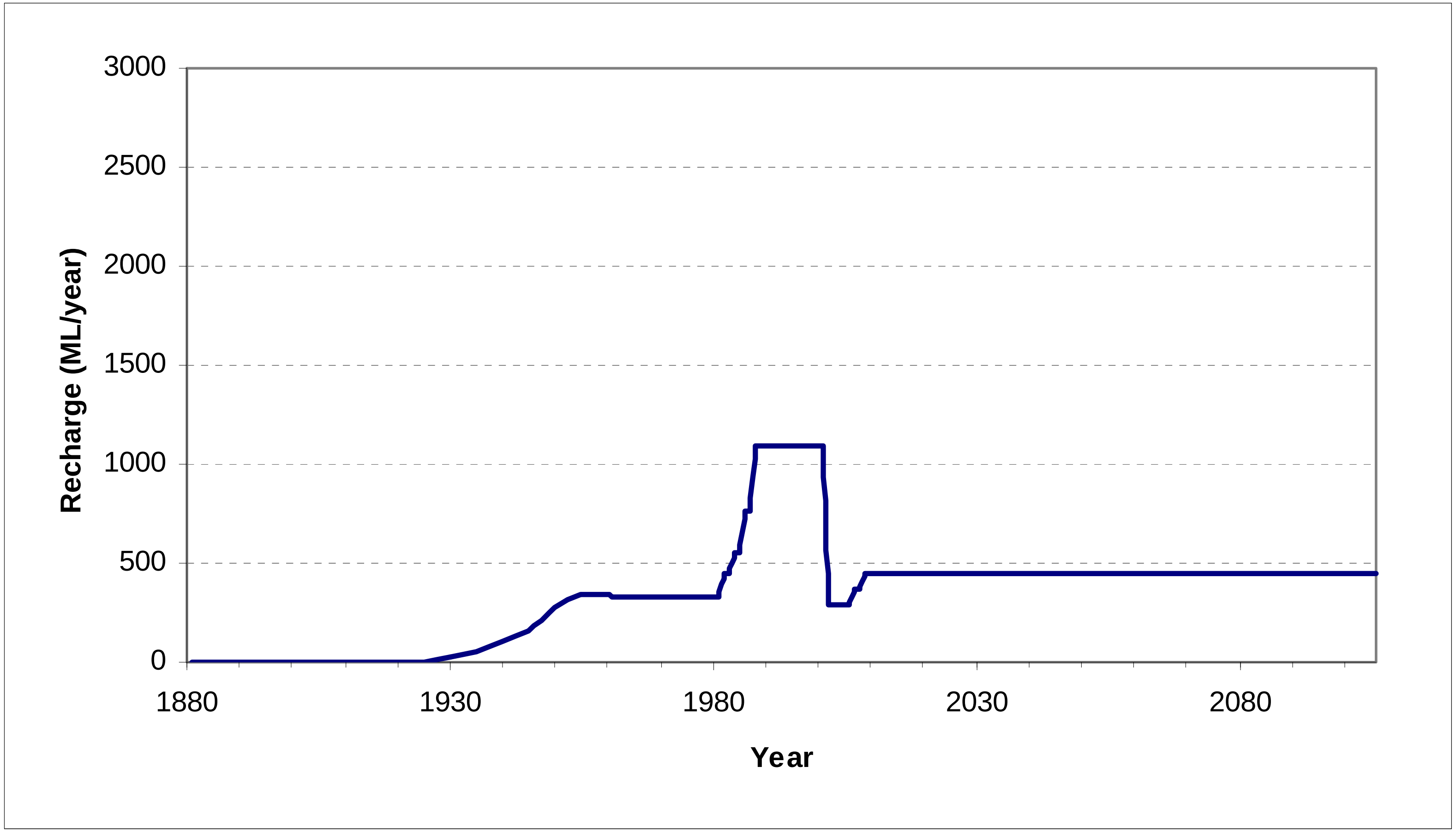
A-2(S3A). Total recharge volume applied in the Pyap Area (Scenario 3A)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Dev.*
Irrigation Start year				*1920*	*1940*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**10**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 4**	**Zone 5**									
1880	**1900**	0	7300	0.1	0.1									
1900	**1905**	7300	9125	0.1	0.1									
1905	**1910**	9125	10950	0.1	0.1									
1910	**1915**	10950	12775	0.1	0.1									
1915	**1920**	12775	14600	0.1	0.1									
1920	**1925**	14600	16425	0.1	0.1									
1925	**1930**	16425	18250	50	0.1									
1930	**1935**	18250	20075	100	0.1									
1935	**1940**	20075	21900	200	0.1									
1940	**1945**	21900	23725	300	0.1									
1945	**1950**	23725	25550	500	0.1									
1950	**1955**	25550	27375	500	500									
1955	**1960**	27375	29200	500	500									
1960	**1965**	29200	31025	500	500									
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 28**	**Zone 29**	**Zone 30**	**Zone 48**	**Zone 31**	**Zone 32**	**Zone 33**	**Zone 34**	**Zone 35**	**Zone 38**	**Zone 47**
1960	**1961**	0	365	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	500	500	0.1	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	500	500	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	0.1	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-2(S3B). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 3B)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Dev.
Irrigation Start year				1920	1940	1960	1960	1995	1997	1999	2001	2003	2005	2015
Lag time (yrs)				15	10	45	20	20	30	30	30	30	25	10
Start Date	Stop Date	Start Time	Stop Time	Zone 28	Zone 29	Zone 30	Zone 48	Zone 31	Zone 32	Zone 33	Zone 34	Zone 35	Zone 38	Zone 47
2005	2006	16425	16790	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	2008	16790	17520	100	100	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	2010	17520	18250	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	2012	18250	18980	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	2014	18980	19710	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	2016	19710	20440	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	2018	20440	21170	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	2020	21170	21900	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	2022	21900	22630	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	2024	22630	23360	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	2026	23360	24090	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	2028	24090	24820	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	2030	24820	25550	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	2032	25550	26280	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	2034	26280	27010	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	2036	27010	27740	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	2038	27740	28470	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	2040	28470	29200	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	2042	29200	29930	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	2044	29930	30660	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	2046	30660	31390	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	2048	31390	32120	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	2060	32120	36500	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2060	2106	36500	53290	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	2106	53290	53291	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-2(S3B). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 3B)



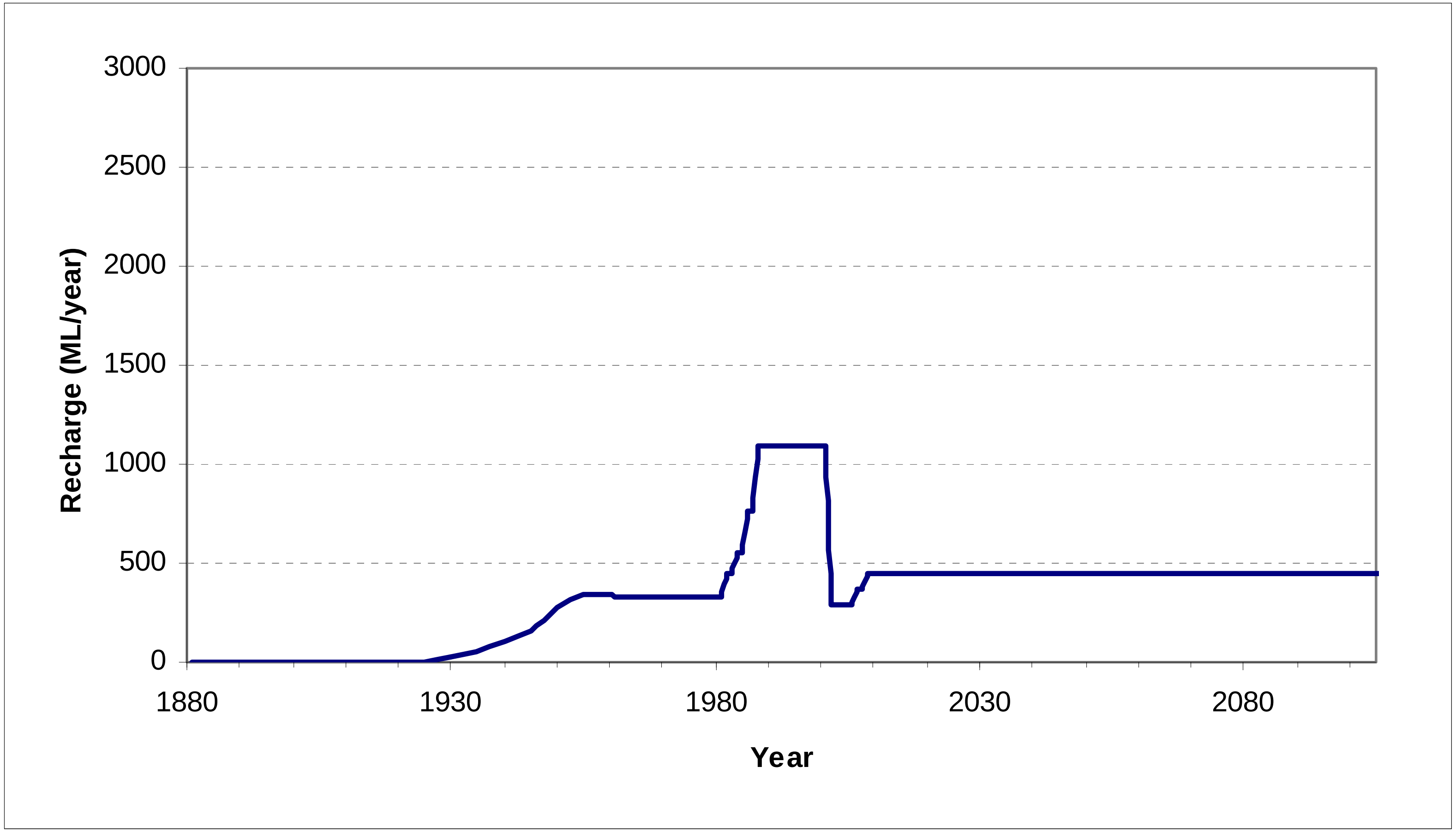
A-2(S3B). Total recharge volume applied in the Pyap Area (Scenario 3B)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Dev.*
Irrigation Start year				***1920***	***1940***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**10**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 4**	**Zone 5**									
1880	**1900**	0	7300	0.1	0.1									
1900	**1905**	7300	9125	0.1	0.1									
1905	**1910**	9125	10950	0.1	0.1									
1910	**1915**	10950	12775	0.1	0.1									
1915	**1920**	12775	14600	0.1	0.1									
1920	**1925**	14600	16425	0.1	0.1									
1925	**1930**	16425	18250	50	0.1									
1930	**1935**	18250	20075	100	0.1									
1935	**1940**	20075	21900	200	0.1									
1940	**1945**	21900	23725	300	0.1									
1945	**1950**	23725	25550	500	0.1									
1950	**1955**	25550	27375	500	500									
1955	**1960**	27375	29200	500	500									
1960	**1965**	29200	31025	500	500									
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 28**	**Zone 29**	**Zone 30**	**Zone 48**	**Zone 31**	**Zone 32**	**Zone 33**	**Zone 34**	**Zone 35**	**Zone 38**	**Zone 47**
1960	**1961**	0	365	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	500	500	0.1	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	500	500	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	0.1	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-2(S3C). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 3C)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Dev.
Irrigation Start year				1920	1940	1960	1960	1995	1997	1999	2001	2003	2005	2015
Lag time (yrs)				15	10	45	20	20	30	30	30	30	25	10
Start Date	Stop Date	Start Time	Stop Time	Zone 28	Zone 29	Zone 30	Zone 48	Zone 31	Zone 32	Zone 33	Zone 34	Zone 35	Zone 38	Zone 47
2005	2006	16425	16790	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	2008	16790	17520	100	100	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	2010	17520	18250	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	2012	18250	18980	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	2014	18980	19710	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	2016	19710	20440	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	2018	20440	21170	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	2020	21170	21900	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	2022	21900	22630	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	2024	22630	23360	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	2026	23360	24090	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	2028	24090	24820	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	2030	24820	25550	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	2032	25550	26280	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	2034	26280	27010	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	2036	27010	27740	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	2038	27740	28470	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	2040	28470	29200	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	2042	29200	29930	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	2044	29930	30660	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	2046	30660	31390	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	2048	31390	32120	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	2060	32120	36500	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2060	2106	36500	53290	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	2106	53290	53291	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-2(S3C). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 3C)



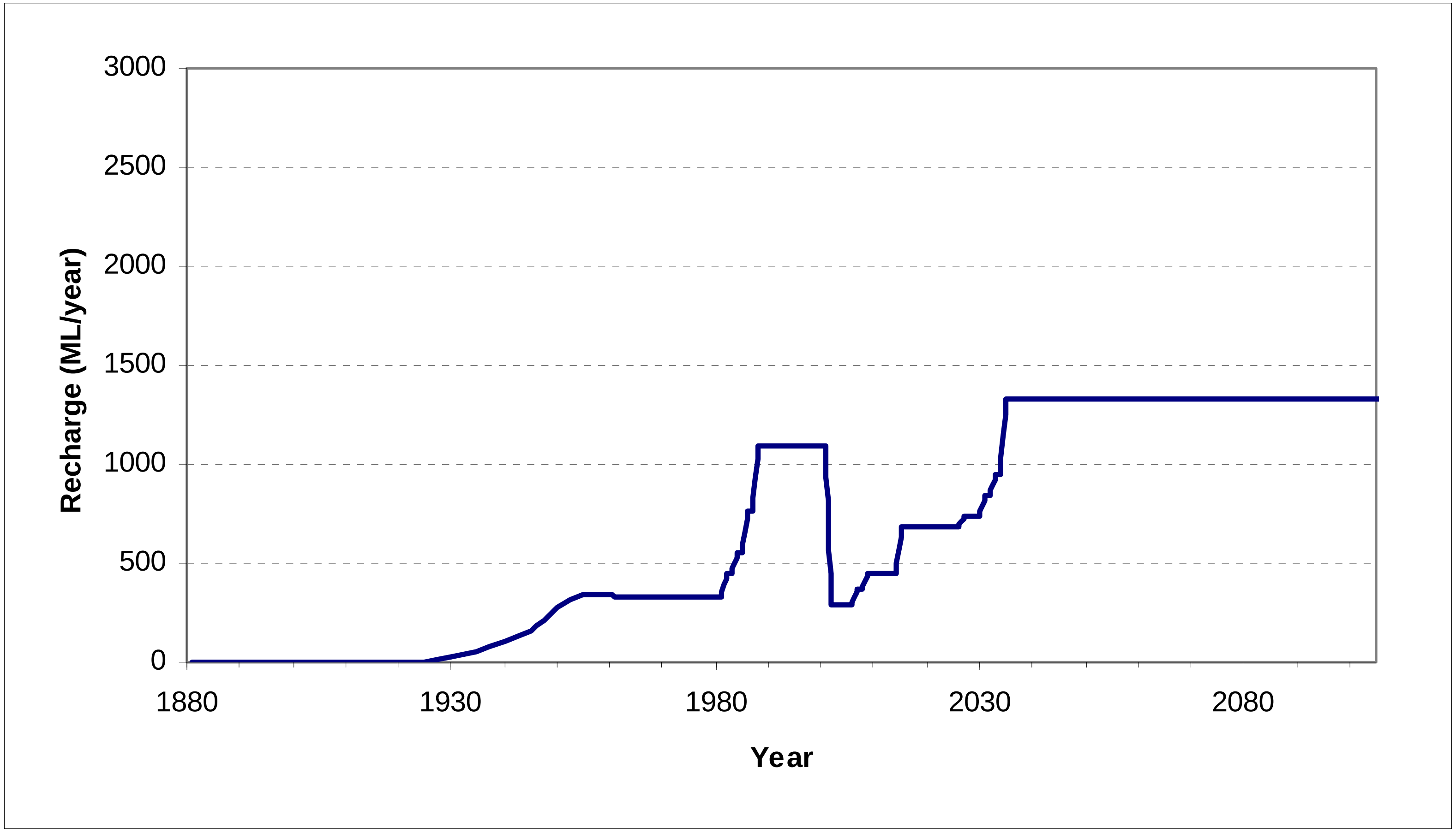
A-2(S3C). Total recharge volume applied in the Pyap Area (Scenario 3C)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Dev.*
Irrigation Start year				*1920*	*1940*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**10**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 4**	**Zone 5**									
1880	**1900**	0	7300	0.1	0.1									
1900	**1905**	7300	9125	0.1	0.1									
1905	**1910**	9125	10950	0.1	0.1									
1910	**1915**	10950	12775	0.1	0.1									
1915	**1920**	12775	14600	0.1	0.1									
1920	**1925**	14600	16425	0.1	0.1									
1925	**1930**	16425	18250	50	0.1									
1930	**1935**	18250	20075	100	0.1									
1935	**1940**	20075	21900	200	0.1									
1940	**1945**	21900	23725	300	0.1									
1945	**1950**	23725	25550	500	0.1									
1950	**1955**	25550	27375	500	500									
1955	**1960**	27375	29200	500	500									
1960	**1965**	29200	31025	500	500									
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 28**	**Zone 29**	**Zone 30**	**Zone 48**	**Zone 31**	**Zone 32**	**Zone 33**	**Zone 34**	**Zone 35**	**Zone 38**	**Zone 47**
1960	**1961**	0	365	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	500	500	0.1	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	500	500	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	0.1	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-2(S4). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 4)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Dev.*
Irrigation Start year				***1920***	***1940***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**10**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 28**	**Zone 29**	**Zone 30**	**Zone 48**	**Zone 31**	**Zone 32**	**Zone 33**	**Zone 34**	**Zone 35**	**Zone 38**	**Zone 47**
2005	**2006**	16425	16790	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	100	100	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	100	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	100	100	100	100	100	100	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	100	100	100	100	100	100	100	100	0.1	100	0.1
2034	**2036**	27010	27740	100	100	100	100	100	100	100	100	100	100	0.1
2036	**2038**	27740	28470	100	100	100	100	100	100	100	100	100	100	0.1
2038	**2040**	28470	29200	100	100	100	100	100	100	100	100	100	100	0.1
2040	**2042**	29200	29930	100	100	100	100	100	100	100	100	100	100	0.1
2042	**2044**	29930	30660	100	100	100	100	100	100	100	100	100	100	0.1
2044	**2046**	30660	31390	100	100	100	100	100	100	100	100	100	100	0.1
2046	**2048**	31390	32120	100	100	100	100	100	100	100	100	100	100	0.1
2048	**2060**	32120	36500	100	100	100	100	100	100	100	100	100	100	0.1
2060	**2106**	36500	53290	100	100	100	100	100	100	100	100	100	100	0.1
2106	**2106**	53290	53291	100	100	100	100	100	100	100	100	100	100	0.1

A-2(S4). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 4)



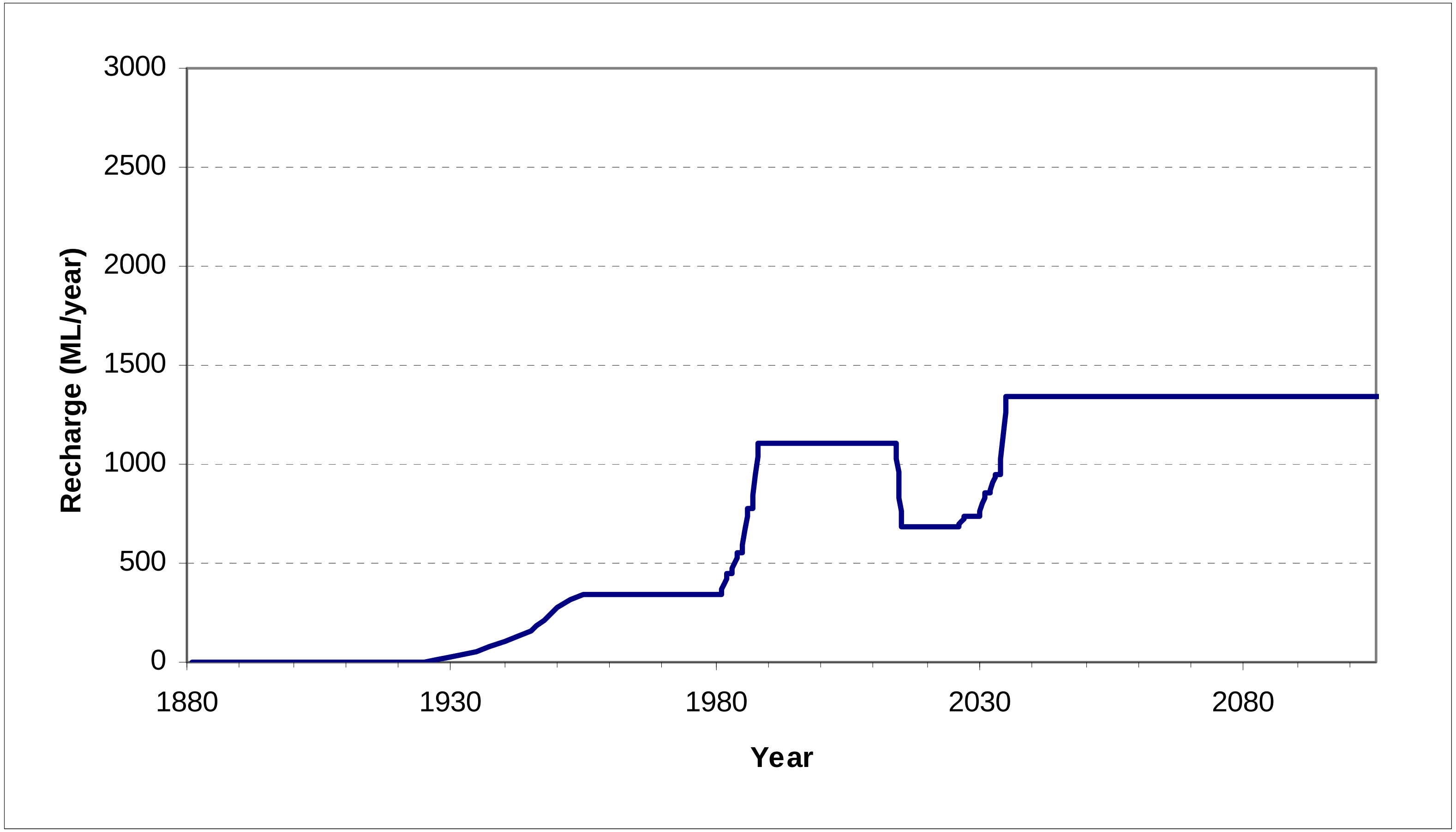
A-2(S4). Total recharge volume applied in the Pyap Area (Scenario 4)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Dev.*
Irrigation Start year				*1920*	*1940*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**10**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 4**	**Zone 5**									
1880	**1900**	0	7300	0.1	0.1									
1900	**1905**	7300	9125	0.1	0.1									
1905	**1910**	9125	10950	0.1	0.1									
1910	**1915**	10950	12775	0.1	0.1									
1915	**1920**	12775	14600	0.1	0.1									
1920	**1925**	14600	16425	0.1	0.1									
1925	**1930**	16425	18250	50	0.1									
1930	**1935**	18250	20075	100	0.1									
1935	**1940**	20075	21900	200	0.1									
1940	**1945**	21900	23725	300	0.1									
1945	**1950**	23725	25550	500	0.1									
1950	**1955**	25550	27375	500	500									
1955	**1960**	27375	29200	500	500									
1960	**1965**	29200	31025	500	500									
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 28**	**Zone 29**	**Zone 30**	**Zone 48**	**Zone 31**	**Zone 32**	**Zone 33**	**Zone 34**	**Zone 35**	**Zone 38**	**Zone 47**
1960	**1961**	0	365	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	500	500	0.1	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	500	500	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	0.1	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	500	500	0.1	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-2(S5). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 5)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Dev.
Irrigation Start year				*1920*	*1940*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*
Lag time (yrs)				15	10	45	20	20	30	30	30	30	25	10
Start Date	Stop Date	Start Time	Stop Time	Zone 28	Zone 29	Zone 30	Zone 48	Zone 31	Zone 32	Zone 33	Zone 34	Zone 35	Zone 38	Zone 47
2005	**2006**	16425	16790	100	100	0.1	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	100	100	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	100	100	100	100	100	0.1	0.1	0.1	0.1	100
2028	**2030**	24820	25550	100	100	100	100	100	100	0.1	0.1	0.1	0.1	100
2030	**2032**	25550	26280	100	100	100	100	100	100	100	0.1	0.1	0.1	100
2032	**2034**	26280	27010	100	100	100	100	100	100	100	100	0.1	100	100
2034	**2036**	27010	27740	100	100	100	100	100	100	100	100	100	100	100
2036	**2038**	27740	28470	100	100	100	100	100	100	100	100	100	100	100
2038	**2040**	28470	29200	100	100	100	100	100	100	100	100	100	100	100
2040	**2042**	29200	29930	100	100	100	100	100	100	100	100	100	100	100
2042	**2044**	29930	30660	100	100	100	100	100	100	100	100	100	100	100
2044	**2046**	30660	31390	100	100	100	100	100	100	100	100	100	100	100
2046	**2048**	31390	32120	100	100	100	100	100	100	100	100	100	100	100
2048	**2060**	32120	36500	100	100	100	100	100	100	100	100	100	100	100
2060	**2106**	36500	53290	100	100	100	100	100	100	100	100	100	100	100
2106	**2106**	53290	53291	100	100	100	100	100	100	100	100	100	100	100

A-2(S5). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Pyap Area (Scenario 5)



A-2(S5). Total recharge volume applied in the Pyap Area (Scenario 5)

A-3. MODEL INPUT – NEW RESIDENCE AREA

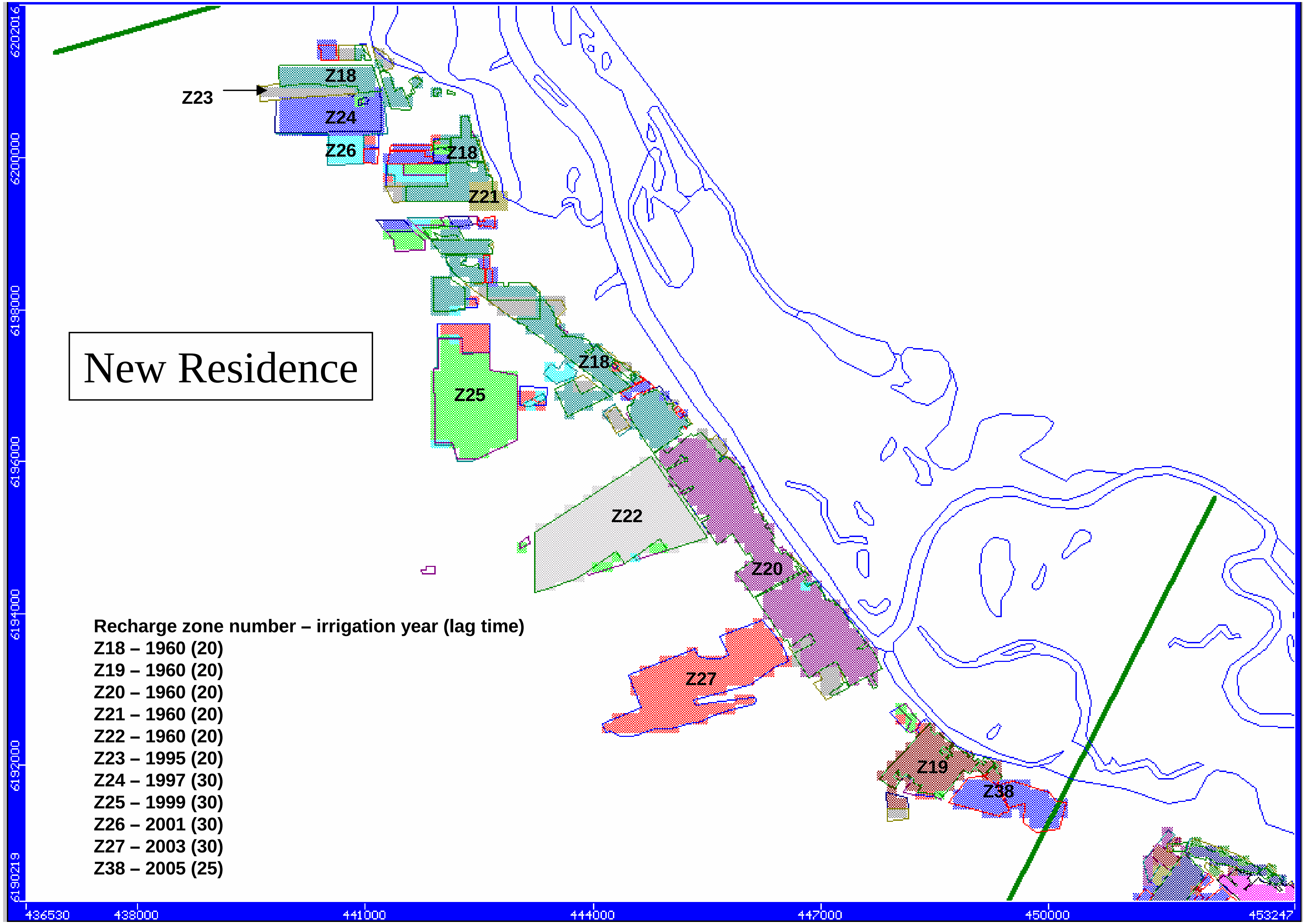
- Model scenario conditions
- Model recharge zones
- Model recharge rates (mm/y)
- Irrigation start year and lag time
- Total model recharge volume

(Scenario-3A, Scenario-3B, Scenario-3C, Scenario-4 and Scenario-5)

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

Note: 1 Improved Irrigation Practices, 2 Rehabilitation, 3 Salt Interception Scheme (see Glossary for definitions)

A-3. Model Scenario conditions



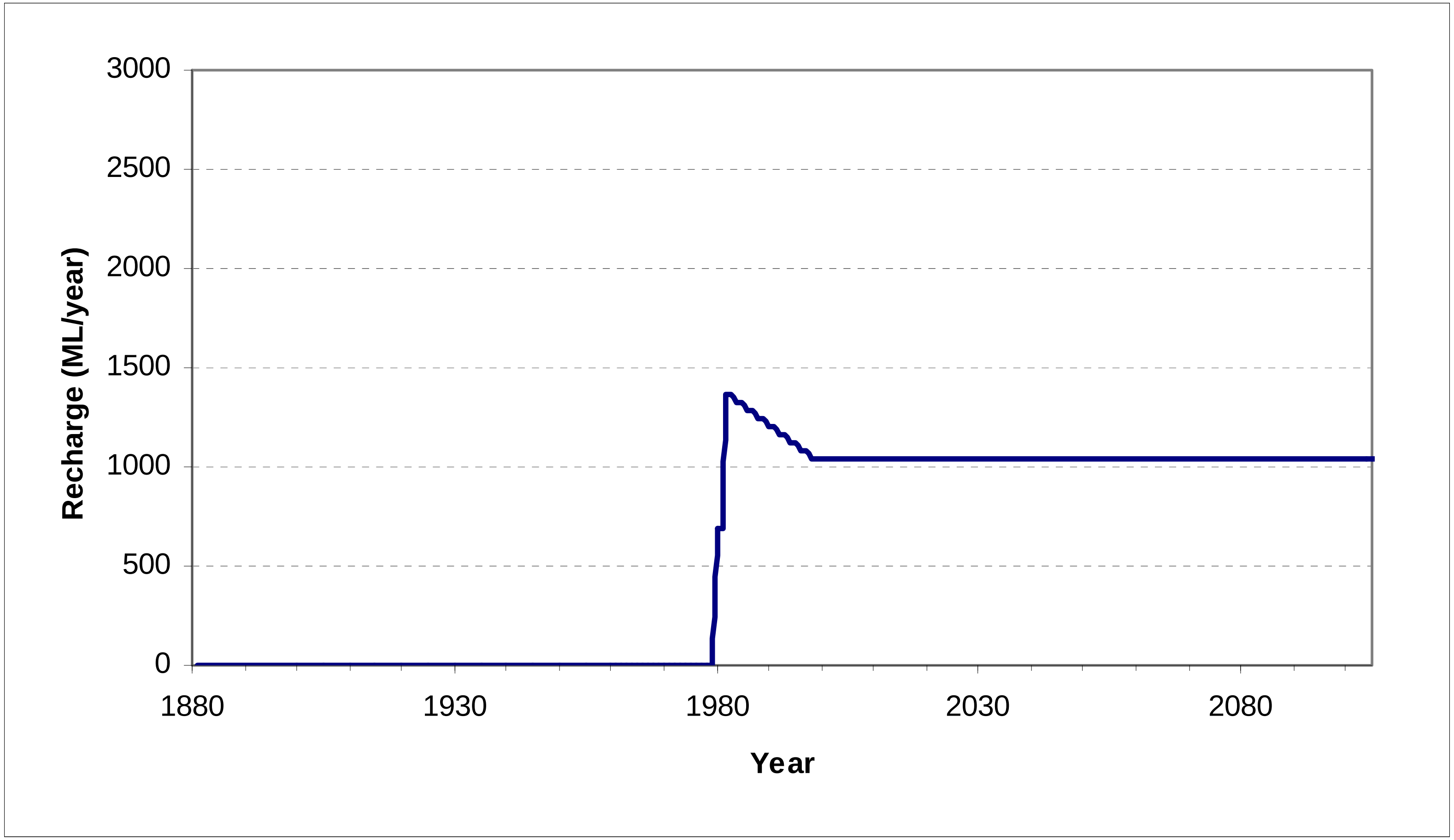
A-3. Model recharge zones in the New Residence area (Scenario-3A, 3B, 3C, 4 and 5)

				Pre 1988 Irrigation					Post 1988 Irrigation						Future Development		
Irrigation Start year				1960	1960	1960	1960	1960	1995	1997	1999	2001	2003	2005	2015	2015	2015
Lag time (yrs)				20	20	20	20	20	20	30	30	30	30	25	35	35	30
Start Date	Stop Date	Start Time	Stop Time	Zone 18	Zone 19	Zone 20	Zone 21	Zone 22	Zone 23	Zone 24	Zone 25	Zone 26	Zone 27	Zone 38	Zone 44	Zone 45	Zone 46
1960	1961	0	365	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	1963	365	1095	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	1965	1095	1825	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	1967	1825	2555	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	1969	2555	3285	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	1971	3285	4015	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	1973	4015	4745	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	1975	4745	5475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	1977	5475	6205	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	1979	6205	6935	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	1981	6935	7665	100	50	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	1983	7665	8395	200	100	200	200	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	1985	8395	9125	200	95	190	190	95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	1987	9125	9855	200	90	180	180	90	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	1989	9855	10585	200	85	170	170	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	1991	10585	11315	200	80	160	160	80	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	1993	11315	12045	200	75	150	150	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	1995	12045	12775	200	70	140	140	70	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	1997	12775	13505	200	65	130	130	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	1999	13505	14235	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	2001	14235	14965	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	2003	14965	15695	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	2005	15695	16425	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2005	2007	16425	16790	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	2008	16790	17520	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	2010	17520	18250	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-3(S3A). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 3A)

				Pre 1988 Irrigation					Post 1988 Irrigation						Future Development		
Irrigation Start year				*1960*	*1960*	*1960*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
2010	**2012**	18250	18980	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2050**	32120	32850	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2050	**2052**	32850	33580	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2052	**2106**	33580	53290	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	**2106**	53290	53291	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-3(S3A). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 3A)



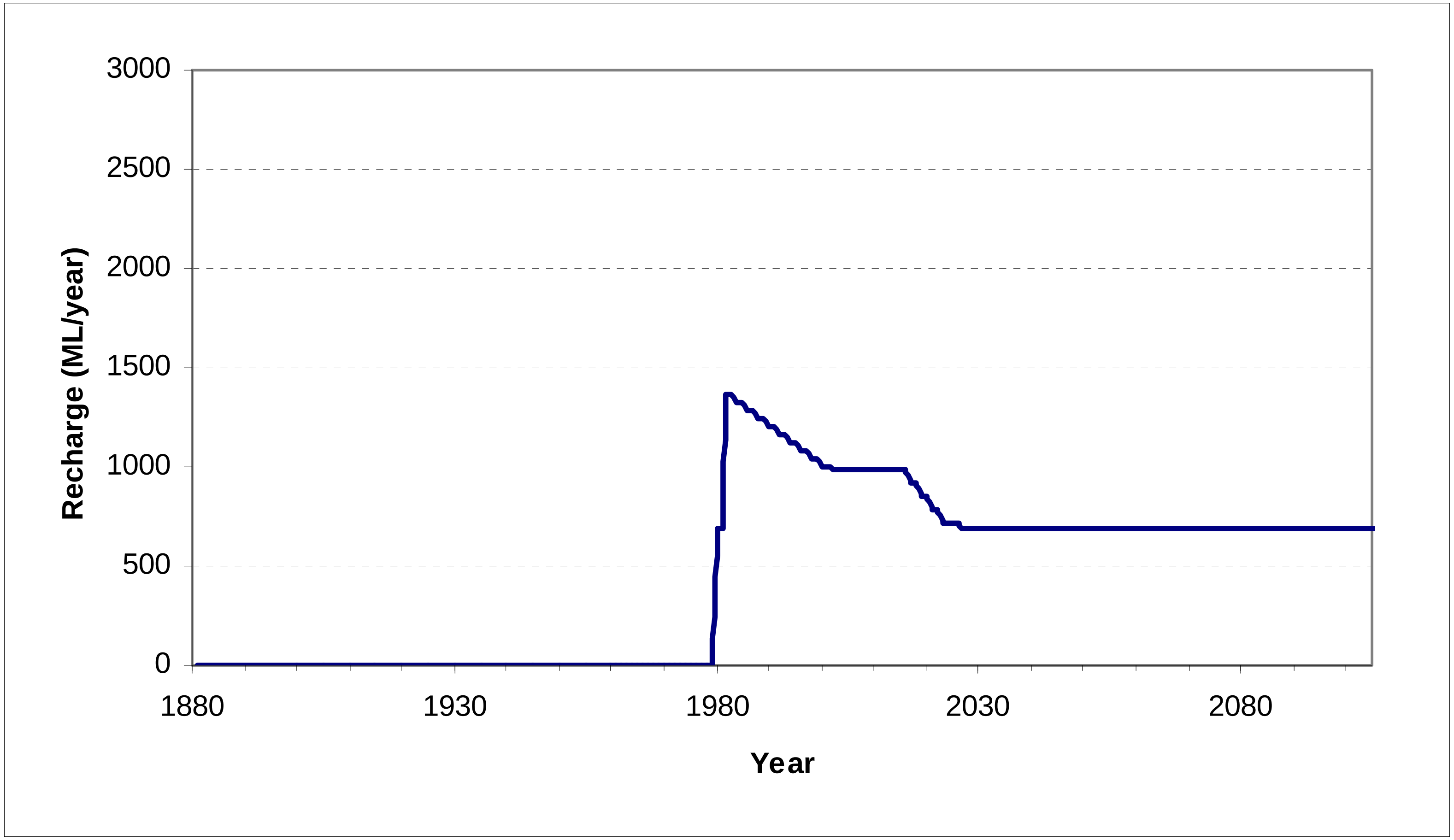
A-3(S3A). Total recharge volume applied in the New Residence Area (Scenario 3A)

				Pre 1988 Irrigation					*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1960***	***1960***	***1960***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
1960	**1961**	0	365	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	100	50	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	200	100	200	200	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	200	95	190	190	95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	200	90	180	180	90	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	200	85	170	170	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	200	80	160	160	80	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	200	75	150	150	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	200	70	140	140	70	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	200	65	130	130	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	200	55	110	110	55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2005	**2007**	16425	16790	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-3(S3B). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 3B)

				Pre 1988 Irrigation					*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1960***	***1960***	***1960***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
2010	**2012**	18250	18980	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	175	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	150	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	125	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2050**	32120	32850	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2050	**2052**	32850	33580	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2052	**2106**	33580	53290	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	**2106**	53290	53291	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-3(S3B). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 3B)



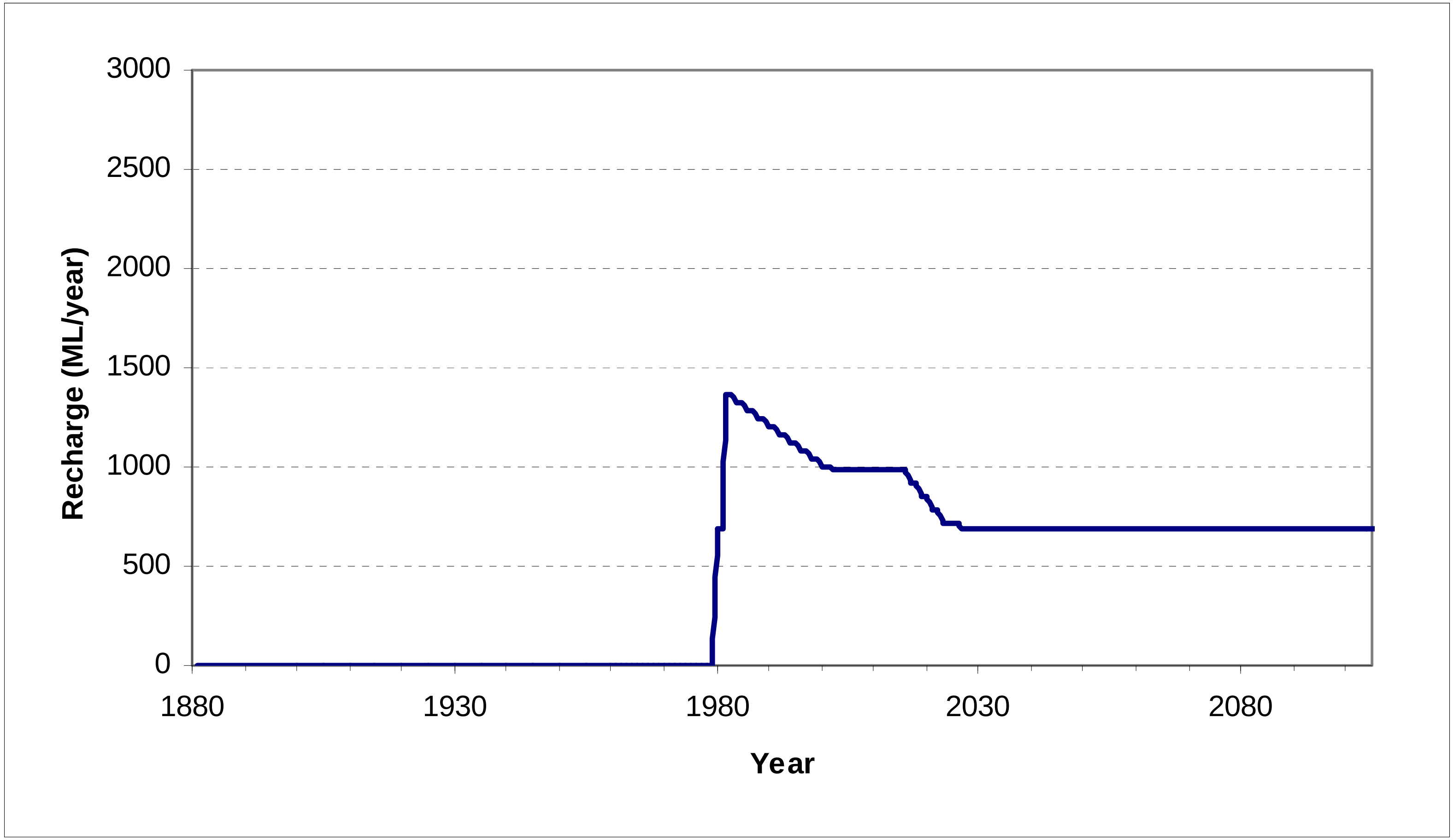
A-3(S3B). Total recharge volume applied in the New Residence Area (Scenario 3B)

				Pre 1988 Irrigation					*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1960***	***1960***	***1960***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
1960	**1961**	0	365	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	100	50	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	200	100	200	200	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	200	95	190	190	95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	200	90	180	180	90	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	200	85	170	170	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	200	80	160	160	80	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	200	75	150	150	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	200	70	140	140	70	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	200	65	130	130	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	200	55	110	110	55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2005	**2007**	16425	16790	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-3(S3C). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 3C)

				Pre 1988 Irrigation					*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1960***	***1960***	***1960***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
2010	**2012**	18250	18980	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	175	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	150	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	125	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2050**	32120	32850	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2050	**2052**	32850	33580	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2052	**2106**	33580	53290	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	**2106**	53290	53291	100	55	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-3(S3C). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 3C)



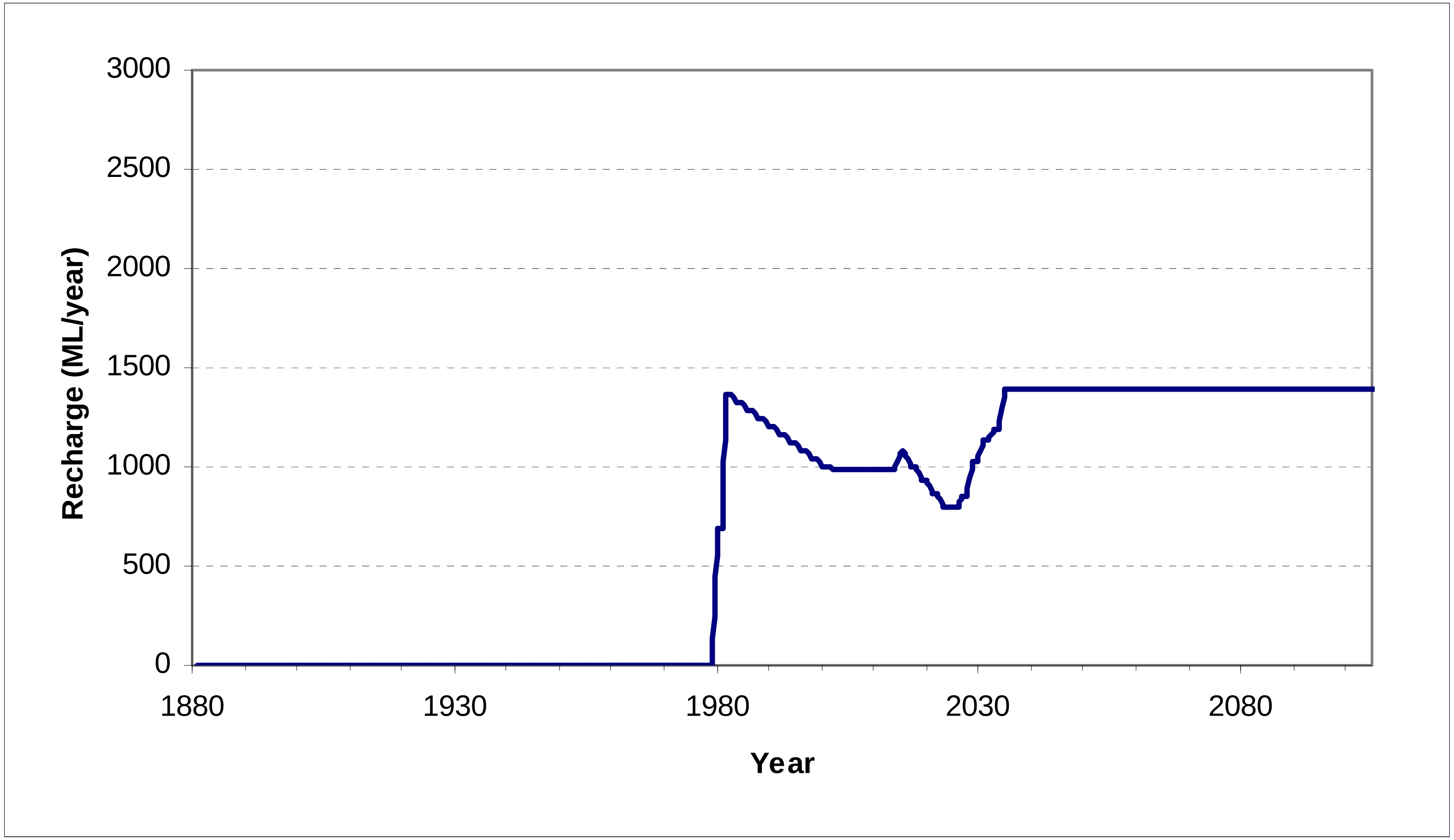
A-3(S3C). Total recharge volume applied in the New Residence Area (Scenario 3C)

				Pre 1988 Irrigation					*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1960***	***1960***	***1960***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
1960	**1961**	0	365	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	100	50	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	200	100	200	200	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	200	95	190	190	95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	200	90	180	180	90	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	200	85	170	170	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	200	80	160	160	80	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	200	75	150	150	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	200	70	140	140	70	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	200	65	130	130	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	200	55	110	110	55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2005	**2007**	16425	16790	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-3(S4). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 4)

				Pre 1988 Irrigation					*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1960***	***1960***	***1960***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
2010	**2012**	18250	18980	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	200	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	175	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	150	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	125	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	55	100	100	50	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	100	55	100	100	50	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	55	100	100	50	100	100	100	0.1	0.1	100	0.1	0.1	0.1
2032	**2034**	26280	27010	100	55	100	100	50	100	100	100	100	0.1	100	0.1	0.1	0.1
2034	**2036**	27010	27740	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2036	**2038**	27740	28470	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2038	**2040**	28470	29200	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2040	**2042**	29200	29930	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2042	**2044**	29930	30660	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2044	**2046**	30660	31390	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2046	**2048**	31390	32120	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2048	**2050**	32120	32850	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2050	**2052**	32850	33580	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2052	**2106**	33580	53290	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2106	**2106**	53290	53291	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1

A-3(S4). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 4)



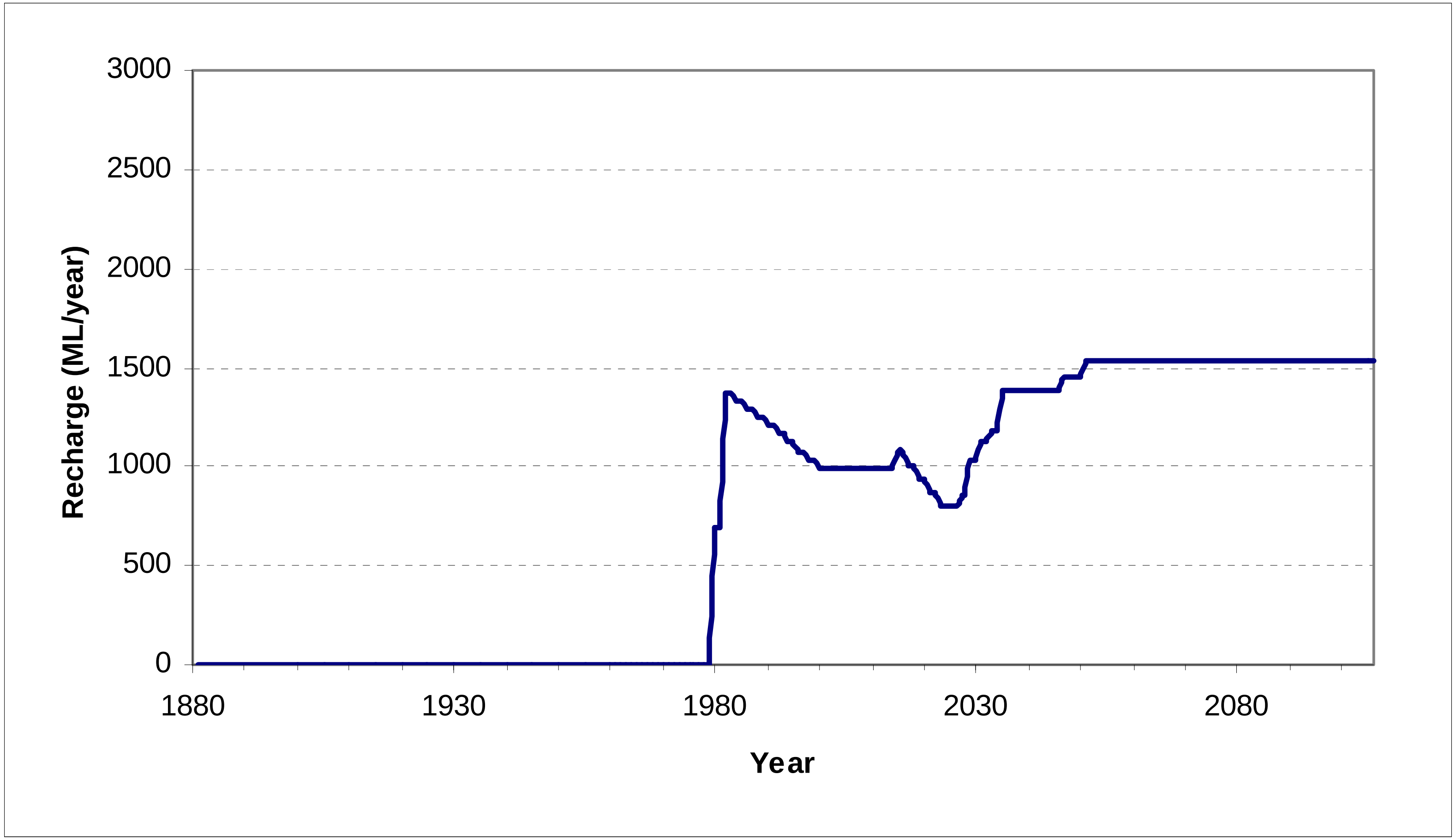
A-3(S4). Total recharge volume applied in the New Residence Area (Scenario 4)

				Pre 1988 Irrigation					*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1960***	***1960***	***1960***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
1960	**1961**	0	365	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	100	50	100	100	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	200	100	200	200	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	200	95	190	190	95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	200	90	180	180	90	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	200	85	170	170	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	200	80	160	160	80	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	200	75	150	150	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	200	70	140	140	70	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	200	65	130	130	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	200	60	120	120	60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	200	55	110	110	55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2005	**2007**	16425	16790	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-3(S5). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 5)

				Pre 1988 Irrigation					*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1960***	***1960***	***1960***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**20**	**20**	**20**	**20**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**35**	**35**	**30**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 18**	**Zone 19**	**Zone 20**	**Zone 21**	**Zone 22**	**Zone 23**	**Zone 24**	**Zone 25**	**Zone 26**	**Zone 27**	**Zone 38**	**Zone 44**	**Zone 45**	**Zone 46**
2010	**2012**	18250	18980	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	55	110	110	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	200	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	175	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	150	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	125	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	55	110	110	50	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	55	100	100	50	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	100	55	100	100	50	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	55	100	100	50	100	100	100	0.1	0.1	100	0.1	0.1	0.1
2032	**2034**	26280	27010	100	55	100	100	50	100	100	100	100	0.1	100	0.1	0.1	0.1
2034	**2036**	27010	27740	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2036	**2038**	27740	28470	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2038	**2040**	28470	29200	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2040	**2042**	29200	29930	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2042	**2044**	29930	30660	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2044	**2046**	30660	31390	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	0.1
2046	**2048**	31390	32120	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	100
2048	**2050**	32120	32850	100	55	100	100	50	100	100	100	100	100	100	0.1	0.1	100
2050	**2052**	32850	33580	100	55	100	100	50	100	100	100	100	100	100	100.0	100	100
2052	**2106**	33580	53290	100	55	100	100	50	100	100	100	100	100	100	100	100	100
2106	**2106**	53290	53291	100	55	100	100	50	100	100	100	100	100	100	100	100	100

A-3(S5). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the New Residence Area (Scenario 5)



A-3(S5). Total recharge volume applied in the New Residence Area (Scenario 5)

A-4. MODEL INPUT – MOOROOK AREA

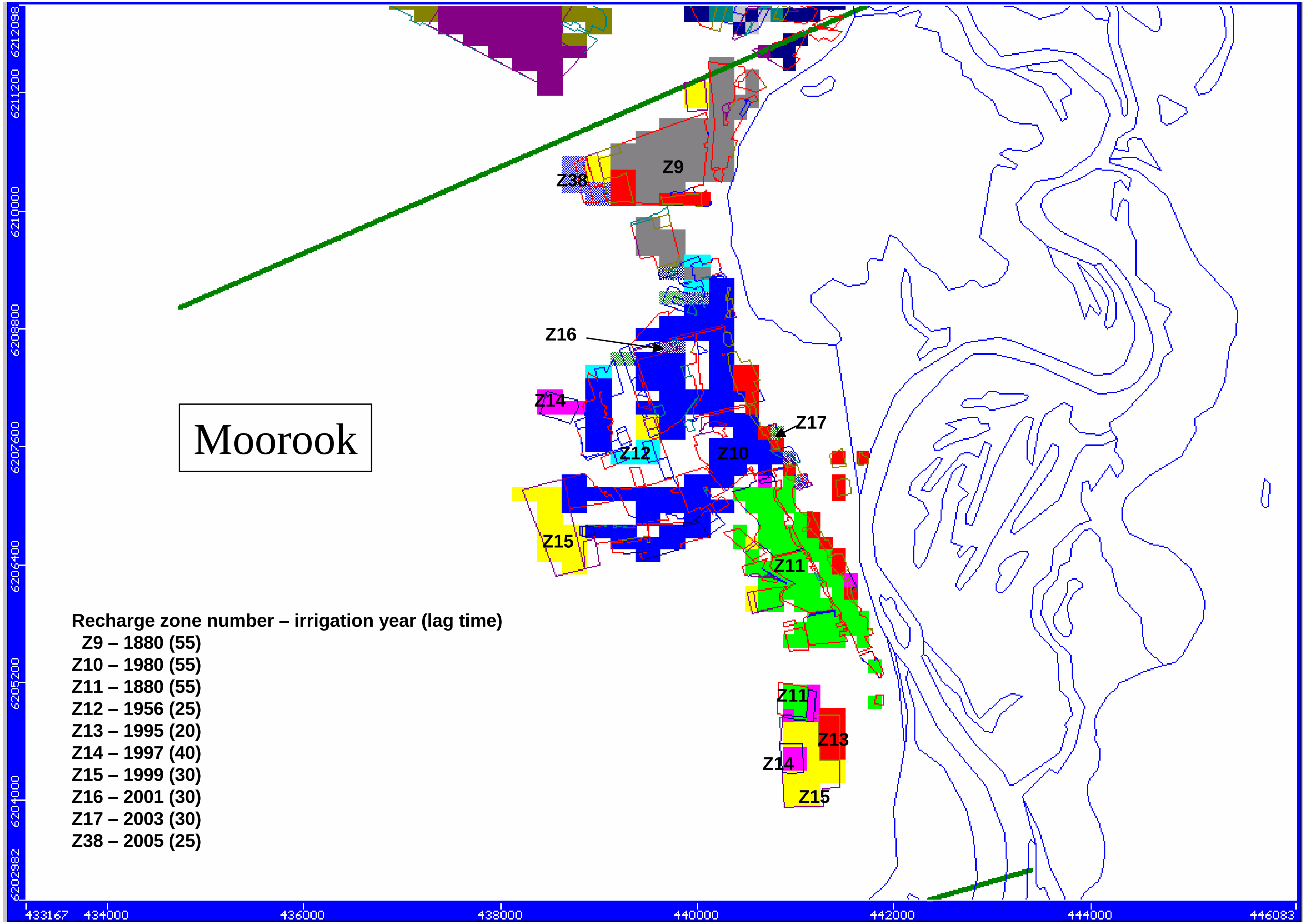
- Model scenario conditions
- Model recharge zones
- Model recharge rates (mm/y)
- Irrigation start year and lag time
- Total model recharge volume

(Scenario-3A, Scenario-3B, Scenario-3C, Scenario-4 and Scenario-5)

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

Note: 1 Improved Irrigation Practices, 2 Rehabilitation, 3 Salt Interception Scheme (see Glossary for definitions)

A-4. Model Scenario conditions



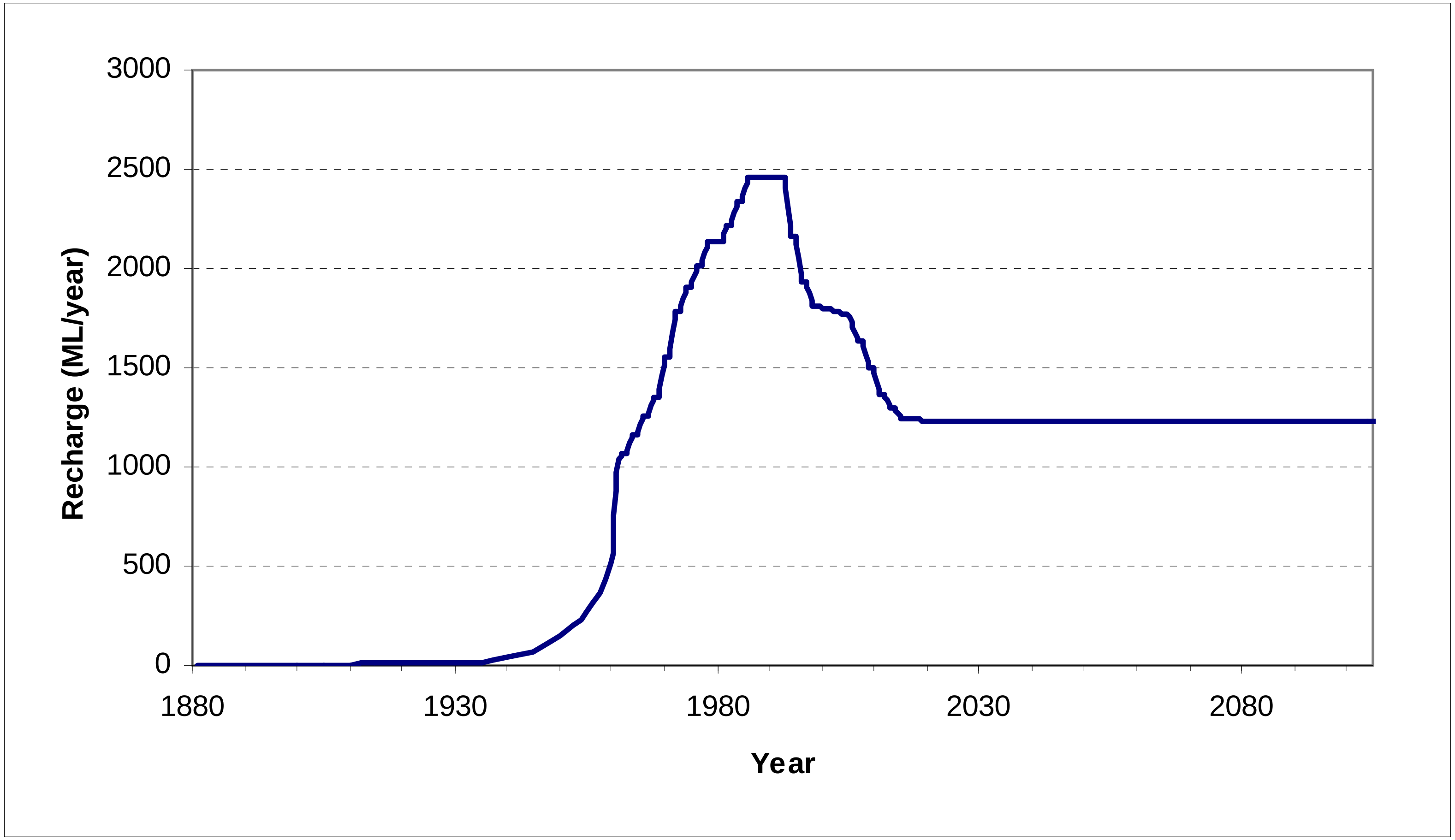
A-4. Model recharge zones in the Moorook area (Scenario-3A, 3B, 3C, 4 and 5)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				*1880*	*1880*	*1880*	*1956*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				**55**	**55**	**55**	**25**	**20**	**40**	**30**	**30**	**30**	**25**	**20**	**20**	**40**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 3**	**Zone 3**	**Zone 3**										
1880	**1900**	0	7300	0.1	0.1	0.1										
1900	**1905**	7300	9125	0.1	0.1	0.1										
1905	**1910**	9125	10950	0.1	0.1	0.1										
1910	**1915**	10950	12775	0.1	0.1	0.1										
1915	**1920**	12775	14600	0.1	0.1	0.1										
1920	**1925**	14600	16425	0.1	0.1	0.1										
1925	**1930**	16425	18250	0.1	0.1	0.1										
1930	**1935**	18250	20075	0.1	0.1	0.1										
1935	**1940**	20075	21900	5	5	5										
1940	**1945**	21900	23725	10	10	10										
1945	**1950**	23725	25550	25	25	25										
1950	**1955**	25550	27375	50	50	50										
1955	**1960**	27375	29200	100	100	100										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
1960	**1961**	0	365	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	220	220	220	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	240	240	240	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	260	260	260	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	280	280	280	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	325	325	325	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	375	375	375	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	400	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	425	425	425	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	450	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	475	475	475	475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	450	400	500	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	440	300	500	440	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	430	250	500	430	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	420	250	500	420	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	410	250	500	410	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	400	250	500	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-4(S3A). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 3A)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Development		
Irrigation Start year				1920	1940	1960	1960	1995	1997	1999	2001	2003	2005	2015	2015	2015
Lag time (yrs)				15	10	45	20	20	30	30	30	30	25	20	20	40
Start Date	Stop Date	Start Time	Stop Time	Zone 9	Zone 10	Zone 11	Zone 12	Zone 13	Zone 14	Zone 15	Zone 16	Zone 17	Zone 38	Zone 41	Zone 42	Zone 43
2005	2006	16425	16790	380	250	500	380	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	2008	16790	17520	350	250	450	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	2010	17520	18250	300	250	400	300	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	2012	18250	18980	250	250	350	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	2014	18980	19710	250	250	300	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	2016	19710	20440	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	2018	20440	21170	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	2020	21170	21900	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	2022	21900	22630	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	2024	22630	23360	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	2026	23360	24090	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	2028	24090	24820	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	2030	24820	25550	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	2032	25550	26280	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	2034	26280	27010	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	2036	27010	27740	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	2038	27740	28470	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	2040	28470	29200	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	2042	29200	29930	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	2044	29930	30660	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	2046	30660	31390	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	2048	31390	32120	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	2050	32120	32850	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2050	2052	32850	33580	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2052	2054	33580	34310	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2054	2056	34310	35040	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2056	2060	35040	36500	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2060	2106	36500	53290	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	2107	53290	53291	250	250	250	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-4(S3A). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 3A)



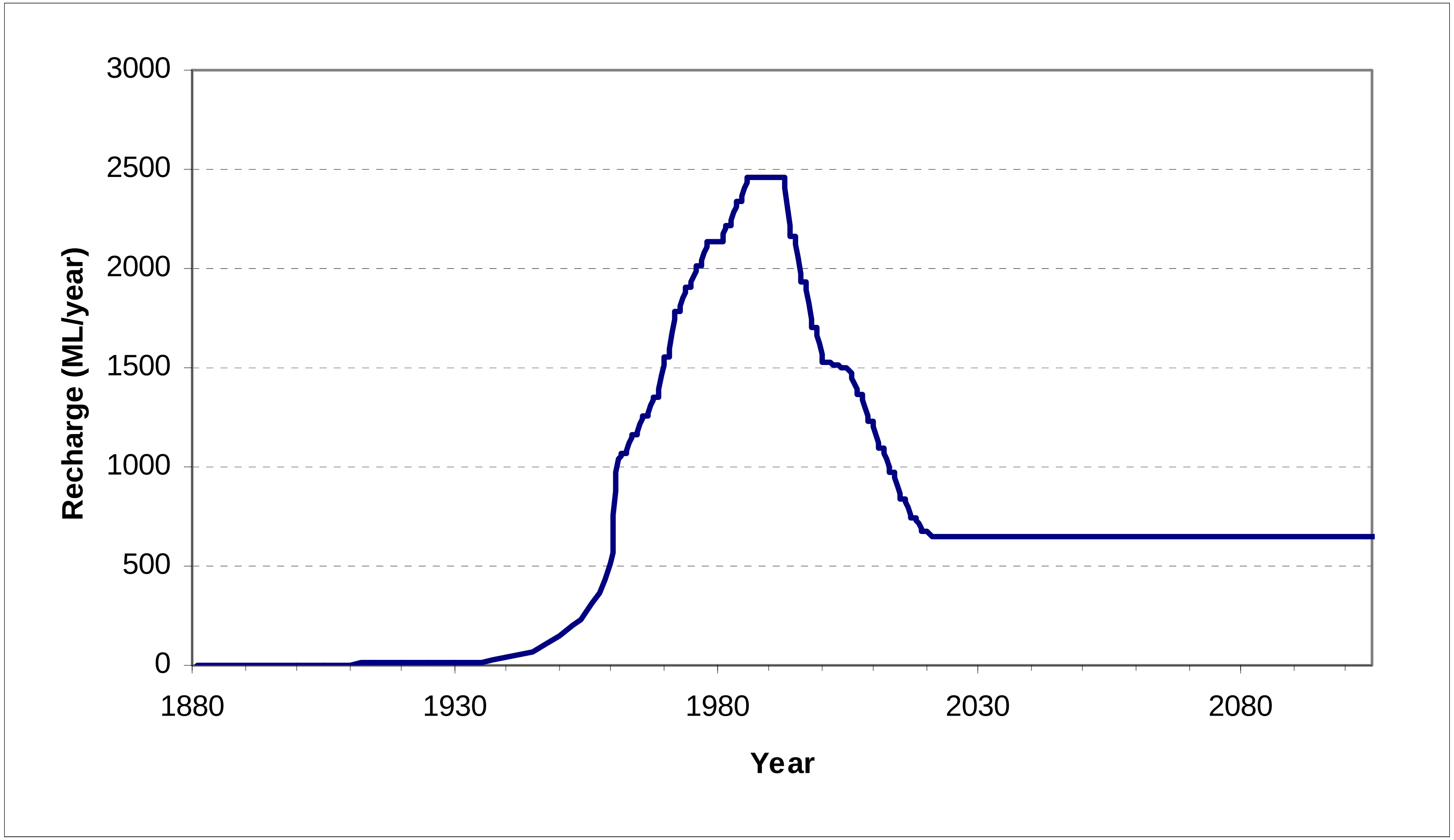
A-4(S3A). Total recharge volume applied in the Moorook Area (Scenario 3A)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				*1880*	*1880*	*1880*	*1956*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				**55**	**55**	**55**	**25**	**20**	**40**	**30**	**30**	**30**	**25**	**20**	**20**	**40**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 3**	**Zone 3**	**Zone 3**										
1880	**1900**	0	7300	0.1	0.1	0.1										
1900	**1905**	7300	9125	0.1	0.1	0.1										
1905	**1910**	9125	10950	0.1	0.1	0.1										
1910	**1915**	10950	12775	0.1	0.1	0.1										
1915	**1920**	12775	14600	0.1	0.1	0.1										
1920	**1925**	14600	16425	0.1	0.1	0.1										
1925	**1930**	16425	18250	0.1	0.1	0.1										
1930	**1935**	18250	20075	0.1	0.1	0.1										
1935	**1940**	20075	21900	5	5	5										
1940	**1945**	21900	23725	10	10	10										
1945	**1950**	23725	25550	25	25	25										
1950	**1955**	25550	27375	50	50	50										
1955	**1960**	27375	29200	100	100	100										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
1960	**1961**	0	365	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	220	220	220	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	240	240	240	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	260	260	260	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	280	280	280	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	325	325	325	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	375	375	375	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	400	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	425	425	425	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	450	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	475	475	475	475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	450	400	500	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	440	300	500	440	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	430	200	500	430	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	420	130	500	420	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	410	130	500	410	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	400	130	500	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-4(S3B). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 3B)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				*1920*	*1940*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**20**	**20**	**40**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
2005	**2006**	16425	16790	380	130	500.0	380	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	350	130	450	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	300	130	400	300	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	250	130	350	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	130	300	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	150	130	250	150	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	130	130	200	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	130	130	150	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2050**	32120	32850	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2050	**2052**	32850	33580	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2052	**2054**	33580	34310	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2054	**2056**	34310	35040	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2056	**2060**	35040	36500	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2060	**2106**	36500	53290	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	**2107**	53290	53291	130	130	130	130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-4(S3B). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 3B)



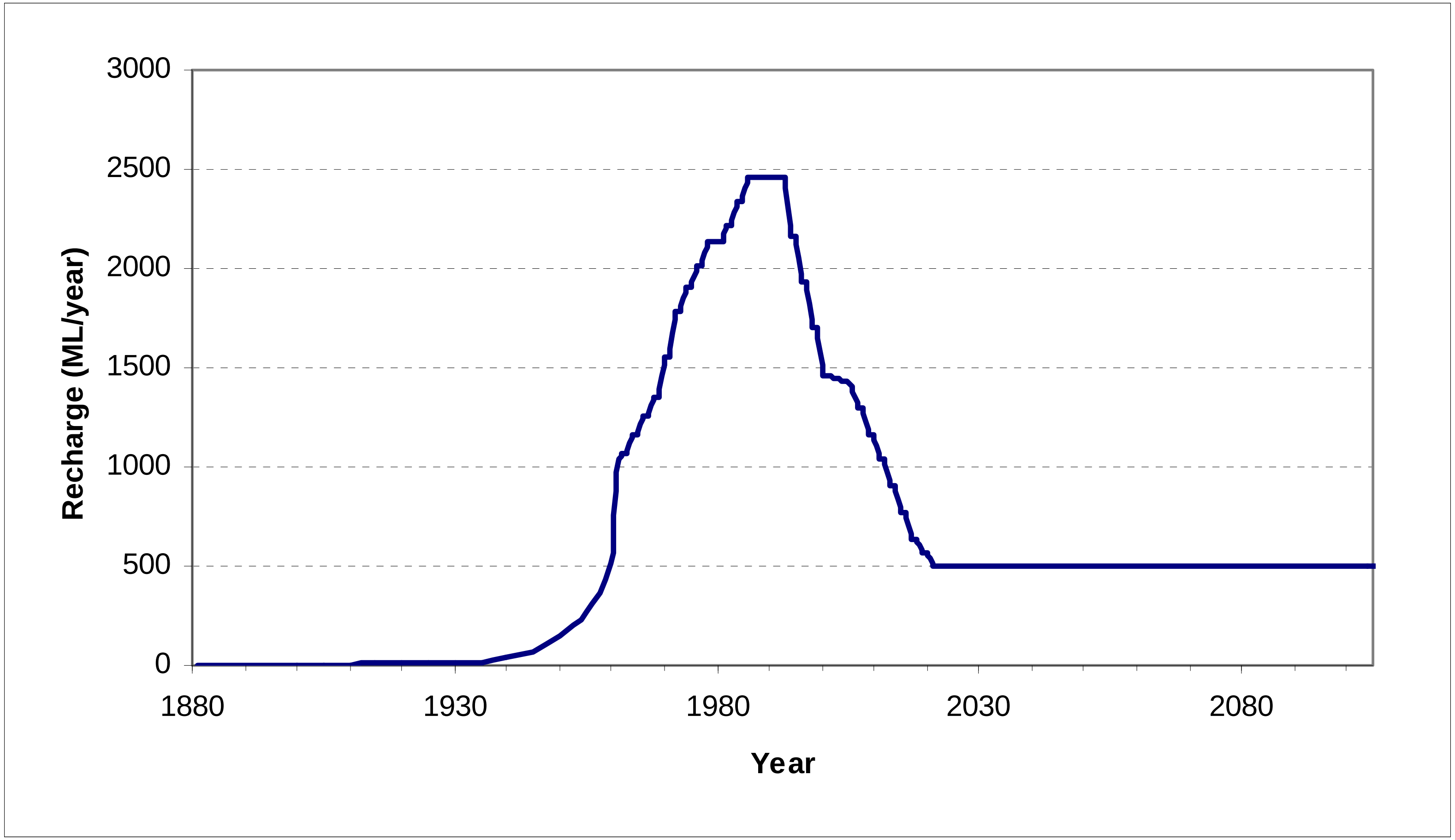
A-4(S3B). Total recharge volume applied in the Moorook Area (Scenario 3B)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Development		
Irrigation Start year				*1880*	*1880*	*1880*	*1956*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				**55**	**55**	**55**	**25**	**20**	**40**	**30**	**30**	**30**	**25**	**20**	**20**	**40**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 3**	**Zone 3**	**Zone 3**										
1880	**1900**	0	7300	0.1	0.1	0.1										
1900	**1905**	7300	9125	0.1	0.1	0.1										
1905	**1910**	9125	10950	0.1	0.1	0.1										
1910	**1915**	10950	12775	0.1	0.1	0.1										
1915	**1920**	12775	14600	0.1	0.1	0.1										
1920	**1925**	14600	16425	0.1	0.1	0.1										
1925	**1930**	16425	18250	0.1	0.1	0.1										
1930	**1935**	18250	20075	0.1	0.1	0.1										
1935	**1940**	20075	21900	5	5	5										
1940	**1945**	21900	23725	10	10	10										
1945	**1950**	23725	25550	25	25	25										
1950	**1955**	25550	27375	50	50	50										
1955	**1960**	27375	29200	100	100	100										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
1960	**1961**	0	365	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	220	220	220	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	240	240	240	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	260	260	260	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	280	280	280	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	325	325	325	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	375	375	375	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	400	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	425	425	425	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	450	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	475	475	475	475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	450	400	500	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	440	300	500	440	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	430	200	500	430	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	420	100	500	420	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	410	100	500	410	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	400	100	500	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-4(S3C). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 3C)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				***1920***	***1940***	***1960***	***1960***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2015***	***2015***	***2015***
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**20**	**20**	**40**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
2005	**2006**	16425	16790	380	100	500	380	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	350	100	450	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	300	100	400	300	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	250	100	350	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	100	300	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	150	100	250	150	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	100	100	200	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	100	100	150	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2050**	32120	32850	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2050	**2052**	32850	33580	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2052	**2054**	33580	34310	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2054	**2056**	34310	35040	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2056	**2060**	35040	36500	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2060	**2106**	36500	53290	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	**2107**	53290	53291	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-4(S3C). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 3C)



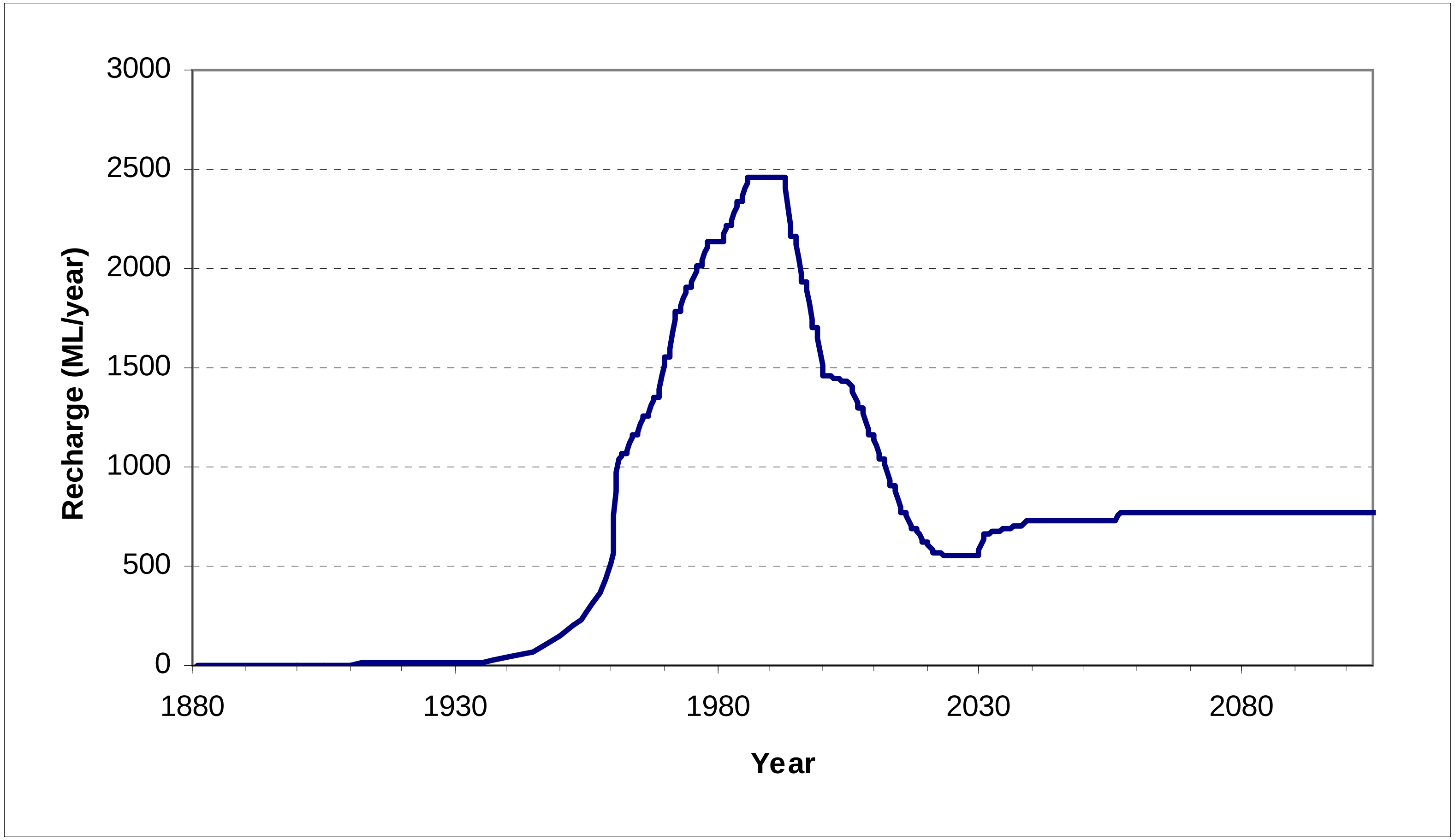
A-4(S3C). Total recharge volume applied in the Moorook Area (Scenario 3C)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Development		
Irrigation Start year				*1880*	*1880*	*1880*	*1956*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				55	55	55	25	20	40	30	30	30	25	20	20	40
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 3**	**Zone 3**	**Zone 3**										
1880	**1900**	0	7300	0.1	0.1	0.1										
1900	**1905**	7300	9125	0.1	0.1	0.1										
1905	**1910**	9125	10950	0.1	0.1	0.1										
1910	**1915**	10950	12775	0.1	0.1	0.1										
1915	**1920**	12775	14600	0.1	0.1	0.1										
1920	**1925**	14600	16425	0.1	0.1	0.1										
1925	**1930**	16425	18250	0.1	0.1	0.1										
1930	**1935**	18250	20075	0.1	0.1	0.1										
1935	**1940**	20075	21900	5	5	5										
1940	**1945**	21900	23725	10	10	10										
1945	**1950**	23725	25550	25	25	25										
1950	**1955**	25550	27375	50	50	50										
1955	**1960**	27375	29200	100	100	100										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
1960	**1961**	0	365	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	220	220	220	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	240	240	240	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	260	260	260	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	280	280	280	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	325	325	325	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	375	375	375	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	400	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	425	425	425	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	450	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	475	475	475	475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	450	400	500	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	440	300	500	440	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	430	200	500	430	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	420	100	500	420	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	410	100	500	410	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	400	100	500	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-4(S4). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 4)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Development		
Irrigation Start year				*1920*	*1940*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				15	10	45	20	20	30	30	30	30	25	20	20	40
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
2005	**2006**	16425	16790	380	100	500	380	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	350	100	450	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	300	100	400	300	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	250	100	350	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	100	300	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	150	100	250	150	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	100	100	200	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	100	100	150	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	100	100	100	100	0.1	100	0.1	0.1	100	0.1	0.1	0.1
2032	**2034**	26280	27010	100	100	100	100	100	0.1	100	100	0.1	100	0.1	0.1	0.1
2034	**2036**	27010	27740	100	100	100	100	100	0.1	100	100	100	100	0.1	0.1	0.1
2036	**2038**	27740	28470	100	100	100	100	100	0.1	100	100	100	100	0.1	0.1	0.1
2038	**2040**	28470	29200	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2040	**2042**	29200	29930	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2042	**2044**	29930	30660	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2044	**2046**	30660	31390	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2046	**2048**	31390	32120	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2048	**2050**	32120	32850	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2050	**2052**	32850	33580	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2052	**2054**	33580	34310	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2054	**2056**	34310	35040	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2056	**2060**	35040	36500	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2060	**2106**	36500	53290	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2106	**2107**	53290	53291	100	100	100	100	100	100	100	100	100	100	0.1	0.1	0.1

A-4(S4). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 4)



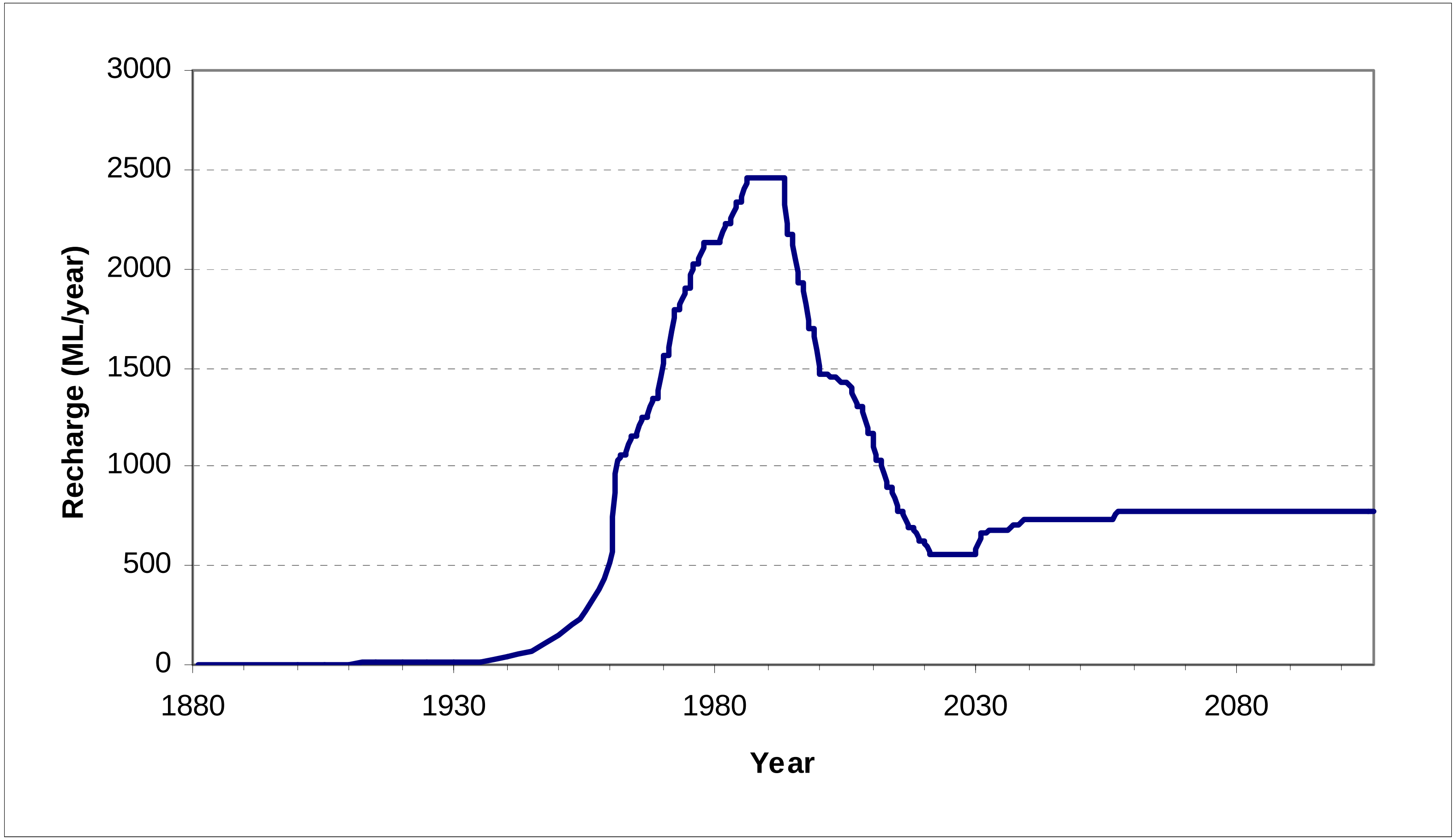
A-4(S4). Total recharge volume applied in the Moorook Area (Scenario 4)

				Pre 1988 Irrigation				*Post 1988 Irrigation*						*Future Development*		
Irrigation Start year				*1880*	*1880*	*1880*	*1956*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				**55**	**55**	**55**	**25**	**20**	**40**	**30**	**30**	**30**	**25**	**20**	**20**	**40**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 3**	**Zone 3**	**Zone 3**										
1880	**1900**	0	7300	0.1	0.1	0.1										
1900	**1905**	7300	9125	0.1	0.1	0.1										
1905	**1910**	9125	10950	0.1	0.1	0.1										
1910	**1915**	10950	12775	0.1	0.1	0.1										
1915	**1920**	12775	14600	0.1	0.1	0.1										
1920	**1925**	14600	16425	0.1	0.1	0.1										
1925	**1930**	16425	18250	0.1	0.1	0.1										
1930	**1935**	18250	20075	0.1	0.1	0.1										
1935	**1940**	20075	21900	5	5	5										
1940	**1945**	21900	23725	10	10	10										
1945	**1950**	23725	25550	25	25	25										
1950	**1955**	25550	27375	50	50	50										
1955	**1960**	27375	29200	100	100	100										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
1960	**1961**	0	365	200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	220	220	220	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	240	240	240	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	260	260	260	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	280	280	280	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	325	325	325	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	375	375	375	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	400	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	425	425	425	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	450	450	450	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	475	475	475	475	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	500	500	500	500	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	450	400	500	450	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	440	300	500	440	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	430	200	500	430	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	420	100	500	420	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	410	100	500	410	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	400	100	500	400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-4(S5). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 5)

				Pre 1988 Irrigation				Post 1988 Irrigation						Future Development		
Irrigation Start year				*1920*	*1940*	*1960*	*1960*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2015*	*2015*	*2015*
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**20**	**20**	**40**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**	**Zone 42**	**Zone 43**
2005	**2006**	16425	16790	380	100	500	380	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	350	100	450	350	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	300	100	400	300	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	250	100	350	250	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	200	100	300	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	150	100	250	150	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	100	100	200	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	100	100	150	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	100	100	100	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	100	100	100	100	0.1	100	0.1	0.1	100	0.1	0.1	0.1
2032	**2034**	26280	27010	100	100	100	100	100	0.1	100	100	0.1	100	0.1	0.1	0.1
2034	**2036**	27010	27740	100	100	100	100	100	0.1	100	100	100	100	0.1	0.1	0.1
2036	**2038**	27740	28470	100	100	100	100	100	0.1	100	100	100	100	100	100	0.1
2038	**2040**	28470	29200	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2040	**2042**	29200	29930	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2042	**2044**	29930	30660	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2044	**2046**	30660	31390	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2046	**2048**	31390	32120	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2048	**2050**	32120	32850	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2050	**2052**	32850	33580	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2052	**2054**	33580	34310	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2054	**2056**	34310	35040	100	100	100	100	100	100	100	100	100	100	100	100	0.1
2056	**2060**	35040	36500	100	100	100	100	100	100	100	100	100	100	100	100	100
2060	**2106**	36500	53290	100	100	100	100	100	100	100	100	100	100	100	100	100
2106	**2107**	53290	53291	100	100	100	100	100	100	100	100	100	100	100	100	100

A-4(S5). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Moorook Area (Scenario 5)



A-4(S5). Total recharge volume applied in the Moorook Area (Scenario 5)

A-5. MODEL INPUT – KINGSTON AREA

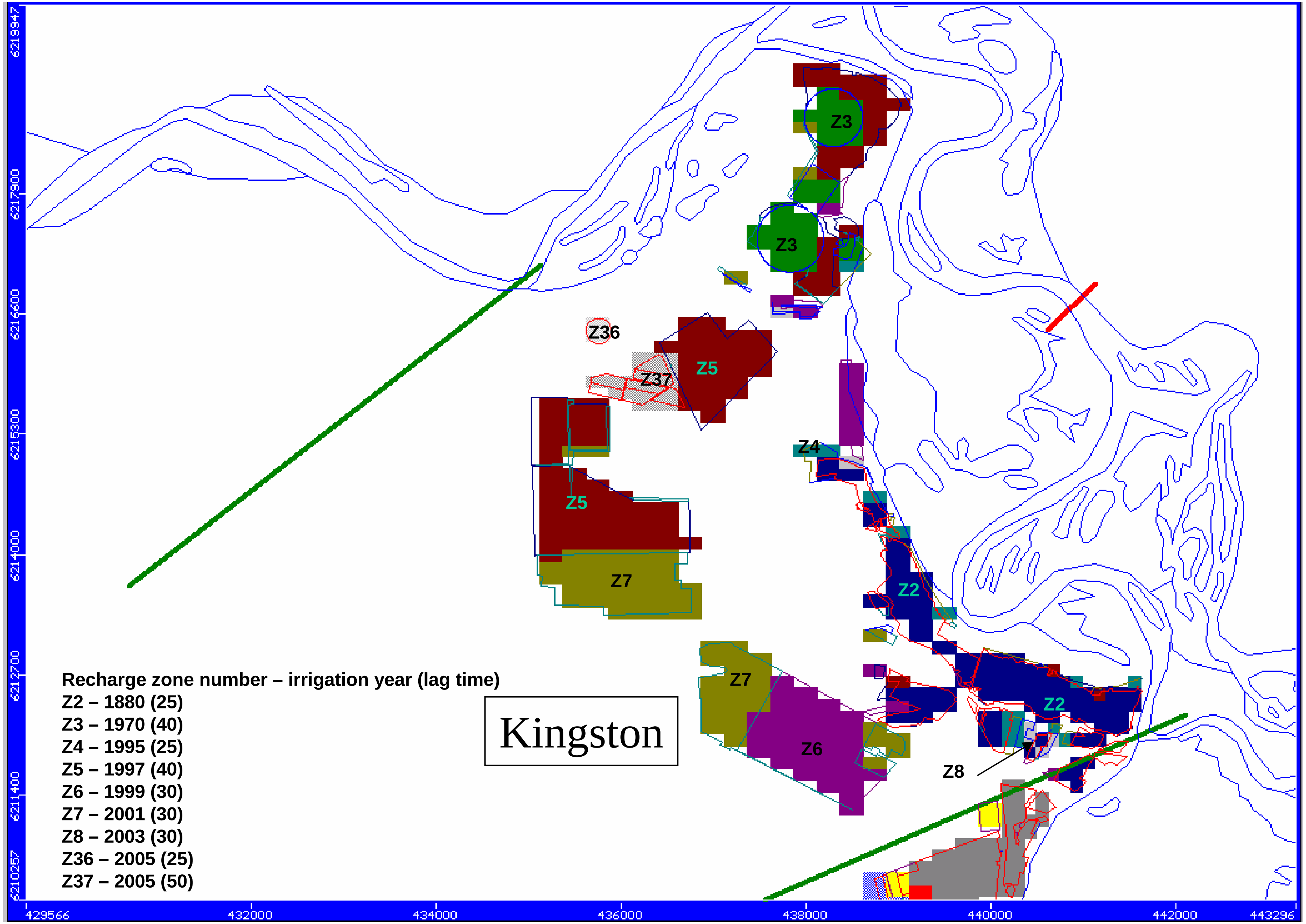
- Model scenario conditions
- Model recharge zones
- Model recharge rates (mm/y)
- Irrigation start year and lag time
- Total model recharge volume

(Scenario-3A, Scenario-3B, Scenario-3C, Scenario-4 and Scenario-5)

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

Note: 1 Improved Irrigation Practices, 2 Rehabilitation, 3 Salt Interception Scheme (see Glossary for definitions)

A-5. Model Scenario conditions



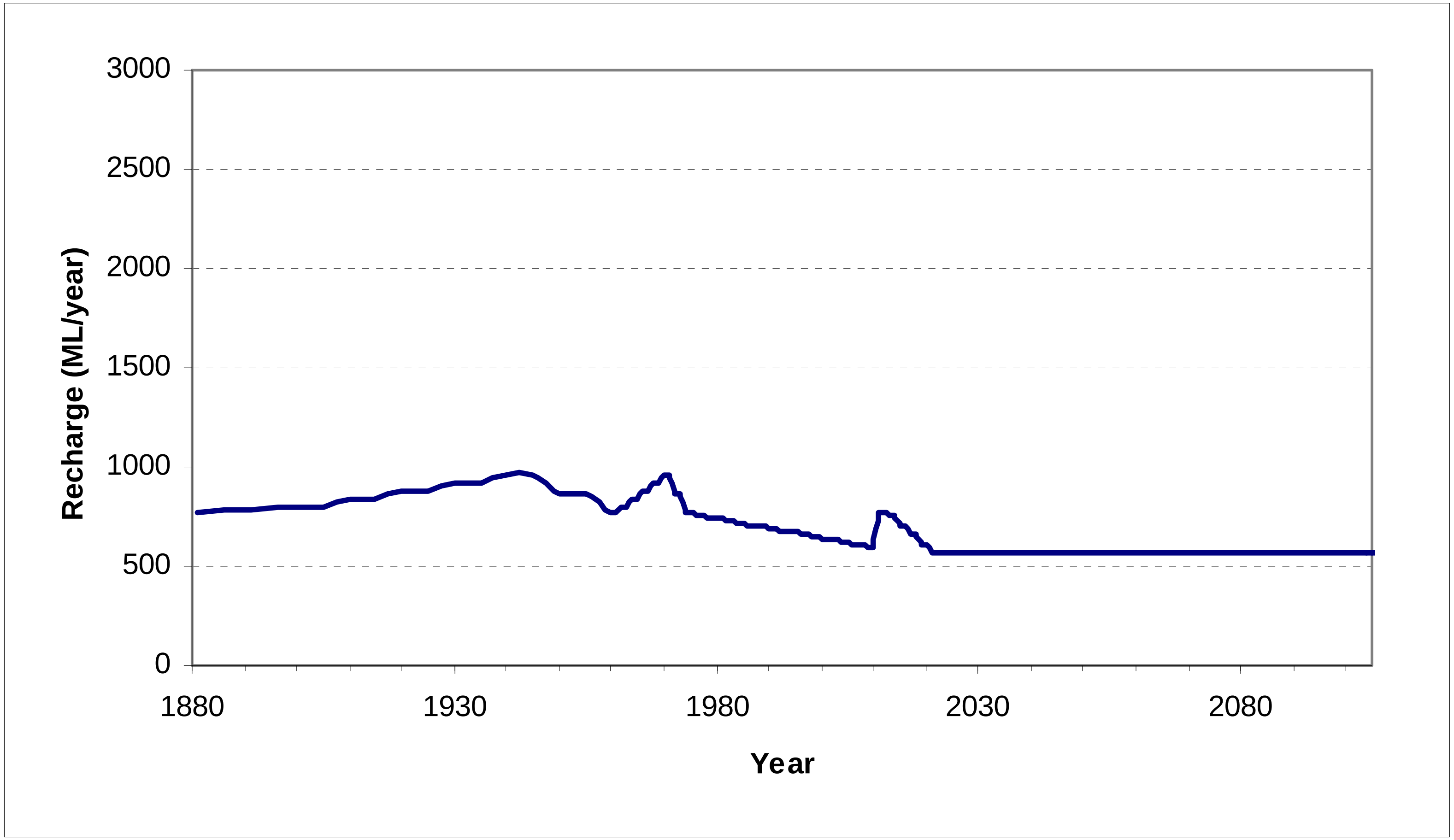
A-5. Model recharge zones in the Kingston area (Scenario-3A, 3B, 3C, 4 and 5)

				Pre 1988 Irrigation		Post 1988 Irrigation							Future Development	
Irrigation Start year				*1880*	*1970*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2005*	*2015*	*2015*
Lag time (yrs)				**25**	**40**	**25**	**40**	**30**	**30**	**30**	**25**	**50**	**15**	**15**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**	**Zone 6**	**Zone 7**	**Zone 8**	**Zone 36**	**Zone 37**	**Zone 39**	**Zone 40**
1880	**1900**	0	7300	0.1										
1900	**1905**	7300	9125	0.1										
1905	**1910**	9125	10950	25										
1910	**1915**	10950	12775	50										
1915	**1920**	12775	14600	75										
1920	**1925**	14600	16425	100										
1925	**1930**	16425	18250	125										
1930	**1935**	18250	20075	150										
1935	**1940**	20075	21900	200										
1940	**1945**	21900	23725	225										
1945	**1950**	23725	25550	250										
1950	**1955**	25550	27375	300										
1955	**1960**	27375	29200	350										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**	**Zone 6**	**Zone 7**	**Zone 8**	**Zone 36**	**Zone 37**	**Zone 39**	**Zone 40**
1960	**1961**	0	365	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	420	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	440	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	460	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	480	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	500	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	450	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	395	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	390	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	385	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	380	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	375	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	370	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	365	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	360	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	355	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	350	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	345	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	340	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	335	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	330	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	325	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-5(S3A). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 3A)

				Pre 1988 Irrigation		*Post 1988 Irrigation*							*Future Development*	
Irrigation Start year				***1880***	***1970***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2005***	***2015***	***2015***
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**20**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**
2005	**2006**	16425	16790	320	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	315	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	310	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	305	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	300	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	275	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	250	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	225	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2050**	32120	32850	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2050	**2052**	32850	33580	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2052	**2054**	33580	34310	200	200	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2054	**2056**	34310	35040	100	100	100	100	100	100	100	100	100	100	100
2056	**2060**	35040	36500	100	100	100	100	100	100	100	100	100	100	100
2060	**2106**	36500	53290	100	100	100	100	100	100	100	100	100	100	100
2106	**2107**	53290	53291	100	100	100	100	100	100	100	100	100	100	100

A-5(S3A). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 3A)



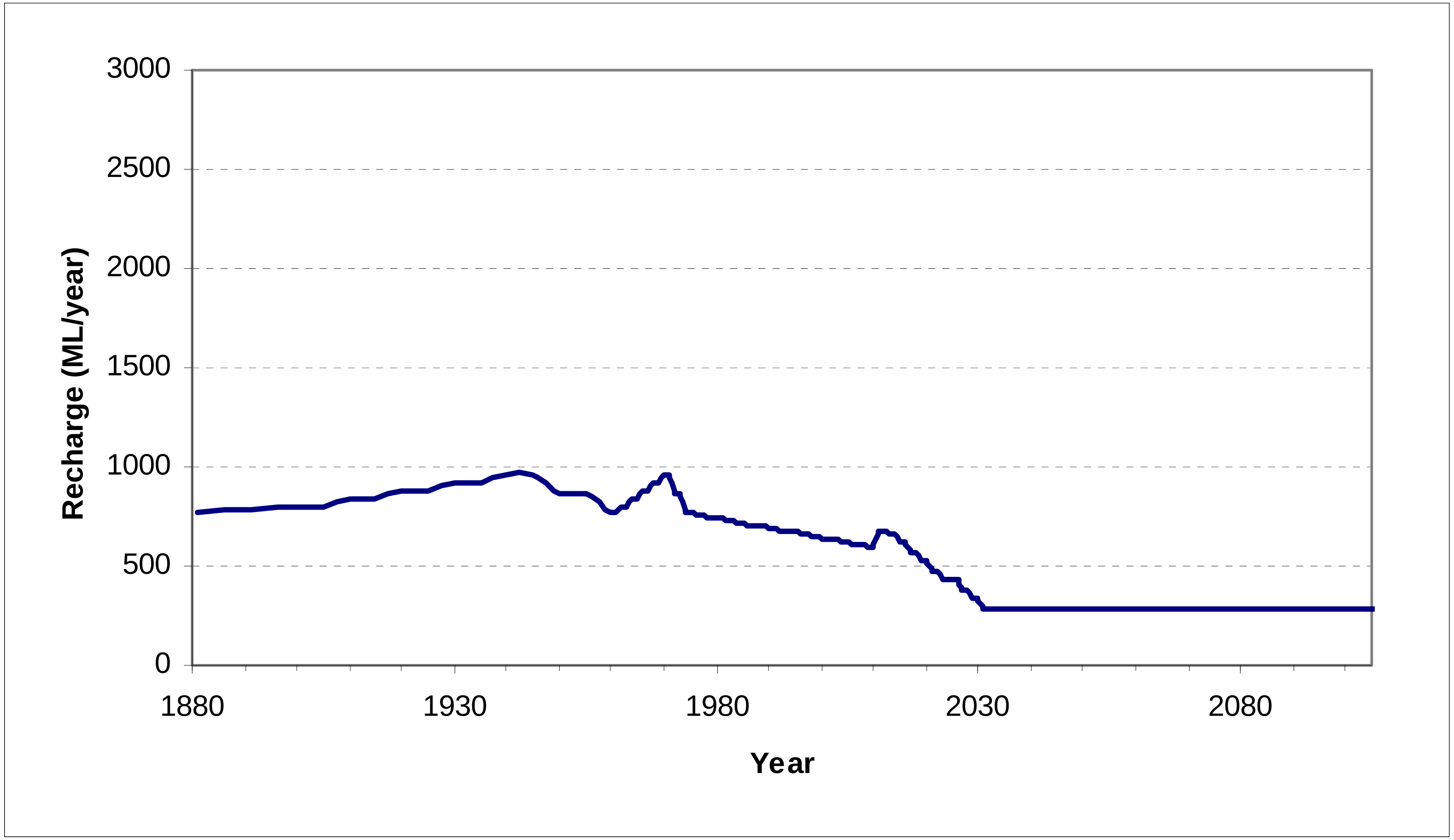
A-5(S3A). Total recharge volume applied in the Kingston Area (Scenario 3A)

				Pre 1988 Irrigation		*Post 1988 Irrigation*							*Future Development*	
Irrigation Start year				*1880*	*1970*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2005*	*2015*	*2015*
Lag time (yrs)				**25**	**40**	**25**	**40**	**30**	**30**	**30**	**25**	**50**	**15**	**15**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**	**Zone 6**	**Zone 7**	**Zone 8**	**Zone 36**	**Zone 37**	**Zone 39**	**Zone 40**
1880	**1900**	0	7300	0.1										
1900	**1905**	7300	9125	0.1										
1905	**1910**	9125	10950	25										
1910	**1915**	10950	12775	50										
1915	**1920**	12775	14600	75										
1920	**1925**	14600	16425	100										
1925	**1930**	16425	18250	125										
1930	**1935**	18250	20075	150										
1935	**1940**	20075	21900	200										
1940	**1945**	21900	23725	225										
1945	**1950**	23725	25550	250										
1950	**1955**	25550	27375	300										
1955	**1960**	27375	29200	350										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**	**Zone 6**	**Zone 7**	**Zone 8**	**Zone 36**	**Zone 37**	**Zone 39**	**Zone 40**
1960	**1961**	0	365	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	420	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	440	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	460	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	480	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	500	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	450	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	395	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	390	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	385	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	380	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	375	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	370	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	365	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	360	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	355	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	350	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	345	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	340	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	335	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	330	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	325	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-5(S3B). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 3B)

				Pre 1988 Irrigation		*Post 1988 Irrigation*							*Future Development*	
Irrigation Start year				***1880***	***1970***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2005***	***2015***	***2015***
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**20**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**
2005	**2006**	16425	16790	320	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	315	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	310	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	305	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	300	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	275	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	250	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	225	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	200	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	175	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	175	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	150	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	125	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2060**	32120	36500	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2060	**2106**	36500	53290	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	**2107**	53290	53291	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-5(S3B). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 3B)



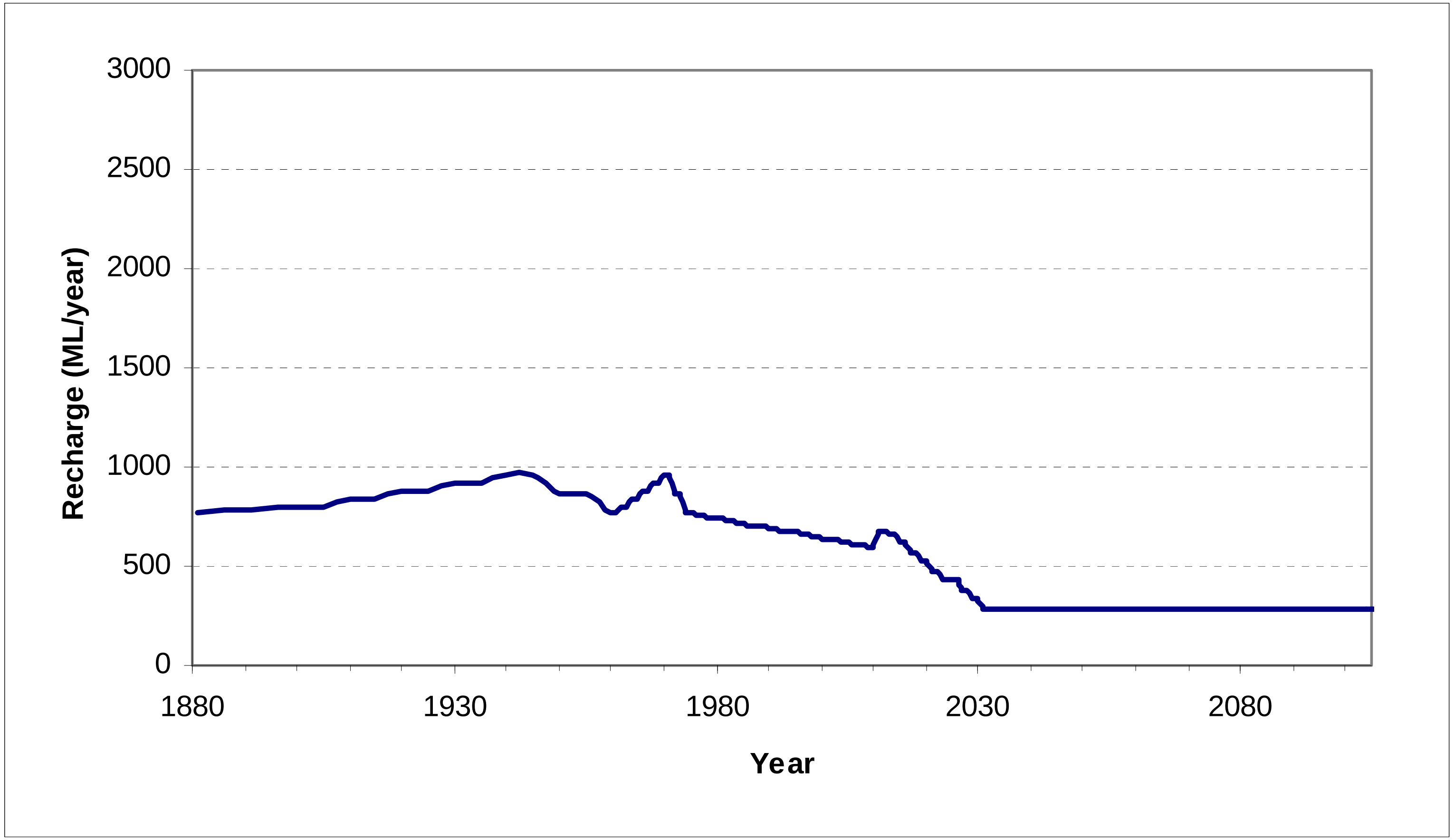
A-5(S3B). Total recharge volume applied in the Kingston Area (Scenario 3B)

				Pre 1988 Irrigation		*Post 1988 Irrigation*							*Future Development*	
Irrigation Start year				*1880*	*1970*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2005*	*2015*	*2015*
Lag time (yrs)				**25**	**40**	**25**	**40**	**30**	**30**	**30**	**25**	**50**	**15**	**15**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**	**Zone 6**	**Zone 7**	**Zone 8**	**Zone 36**	**Zone 37**	**Zone 39**	**Zone 40**
1880	**1900**	0	7300	0.1										
1900	**1905**	7300	9125	0.1										
1905	**1910**	9125	10950	25										
1910	**1915**	10950	12775	50										
1915	**1920**	12775	14600	75										
1920	**1925**	14600	16425	100										
1925	**1930**	16425	18250	125										
1930	**1935**	18250	20075	150										
1935	**1940**	20075	21900	200										
1940	**1945**	21900	23725	225										
1945	**1950**	23725	25550	250										
1950	**1955**	25550	27375	300										
1955	**1960**	27375	29200	350										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**	**Zone 6**	**Zone 7**	**Zone 8**	**Zone 36**	**Zone 37**	**Zone 39**	**Zone 40**
1960	**1961**	0	365	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	420	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	440	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	460	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	480	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	500	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	450	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	395	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	390	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	385	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	380	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	375	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	370	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	365	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	360	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	355	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	350	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	345	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	340	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	335	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	330	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	325	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-5(S3C). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 3C)

				Pre 1988 Irrigation		*Post 1988 Irrigation*							*Future Development*	
Irrigation Start year				***1880***	***1970***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2005***	***2015***	***2015***
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**20**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**
2005	**2006**	16425	16790	320	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	315	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	310	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	305	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	300	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	275	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	250	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	225	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	200	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	175	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	175	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	150	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	125	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2032	**2034**	26280	27010	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2034	**2036**	27010	27740	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2036	**2038**	27740	28470	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2038	**2040**	28470	29200	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2040	**2042**	29200	29930	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2042	**2044**	29930	30660	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2044	**2046**	30660	31390	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2046	**2048**	31390	32120	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2048	**2060**	32120	36500	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2060	**2106**	36500	53290	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2106	**2107**	53290	53291	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-5(S3C). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 3C)



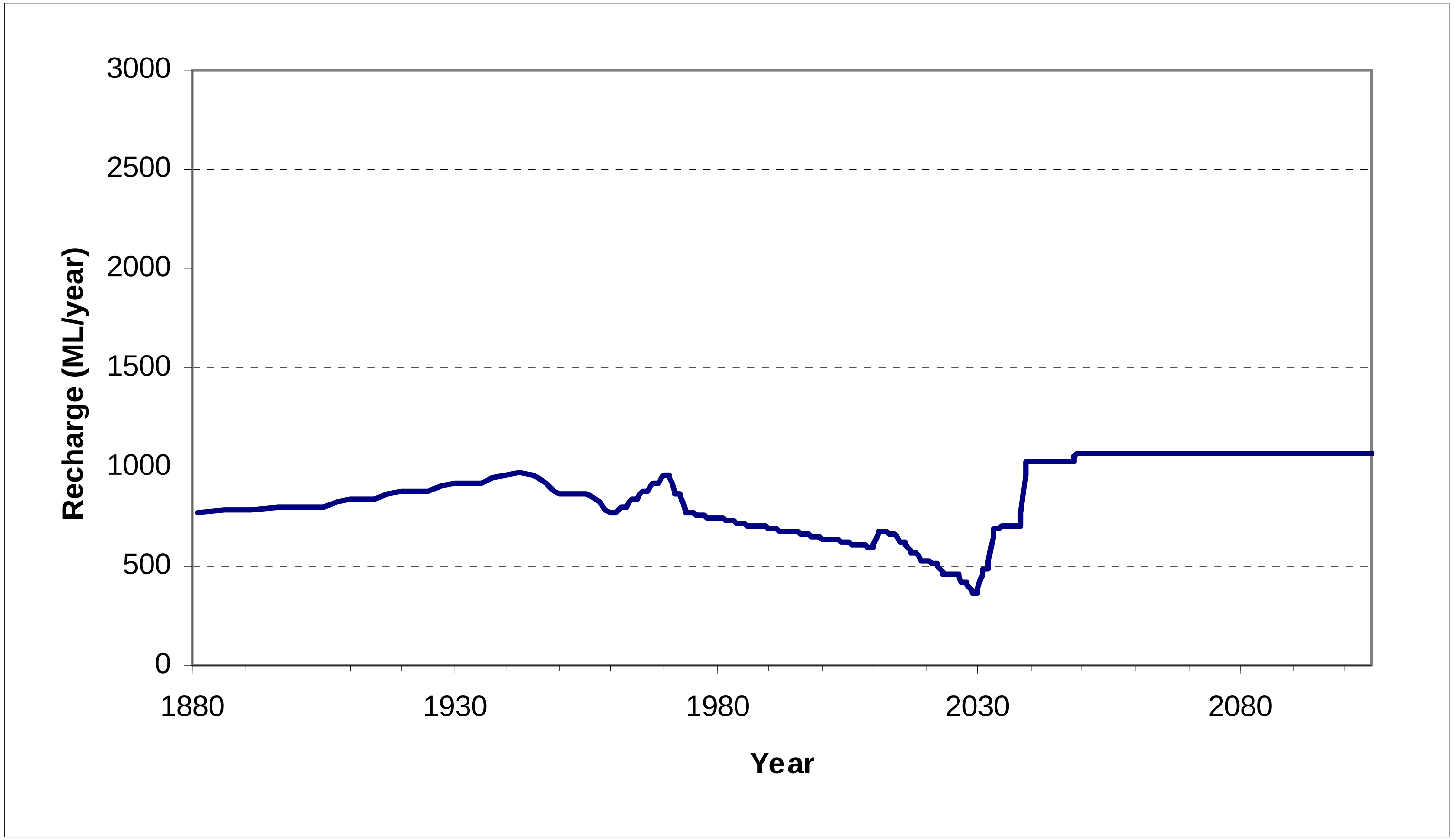
A-5(S3C). Total recharge volume applied in the Kingston Area (Scenario 3C)

				Pre 1988 Irrigation		Post 1988 Irrigation							Future Development	
Irrigation Start year				1880	1970	1995	1997	1999	2001	2003	2005	2005	2015	2015
Lag time (yrs)				25	40	25	40	30	30	30	25	50	15	15
Start Date	Stop Date	Start Time	Stop Time	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 36	Zone 37	Zone 39	Zone 40
1880	1900	0	7300	0.1										
1900	1905	7300	9125	0.1										
1905	1910	9125	10950	25										
1910	1915	10950	12775	50										
1915	1920	12775	14600	75										
1920	1925	14600	16425	100										
1925	1930	16425	18250	125										
1930	1935	18250	20075	150										
1935	1940	20075	21900	200										
1940	1945	21900	23725	225										
1945	1950	23725	25550	250										
1950	1955	25550	27375	300										
1955	1960	27375	29200	350										
Start Date	Stop Date	Start Time	Stop Time	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 36	Zone 37	Zone 39	Zone 40
1960	1961	0	365	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	1963	365	1095	420	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	1965	1095	1825	440	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	1967	1825	2555	460	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	1969	2555	3285	480	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	1971	3285	4015	500	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	1973	4015	4745	450	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	1975	4745	5475	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	1977	5475	6205	395	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	1979	6205	6935	390	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	1981	6935	7665	385	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	1983	7665	8395	380	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	1985	8395	9125	375	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	1987	9125	9855	370	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	1989	9855	10585	365	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	1991	10585	11315	360	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	1993	11315	12045	355	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	1995	12045	12775	350	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	1997	12775	13505	345	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	1999	13505	14235	340	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	2001	14235	14965	335	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	2003	14965	15695	330	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	2005	15695	16425	325	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-5(S4). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 4)

				Pre 1988 Irrigation		*Post 1988 Irrigation*							*Future Development*	
Irrigation Start year				***1880***	***1970***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2005***	***2015***	***2015***
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**20**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**
2005	**2006**	16425	16790	320	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	315	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	310	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	305	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	300	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	275	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	250	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	225	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	200	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	175	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	175	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	150	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	125	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	100	100	0.1	100	0.1	0.1	100	0.1	0.1	0.1
2032	**2034**	26280	27010	100	100	100	0.1	100	100	0.1	100	0.1	0.1	0.1
2034	**2036**	27010	27740	100	100	100	0.1	100	100	100	100	0.1	0.1	0.1
2036	**2038**	27740	28470	100	100	100	0.1	100	100	100	100	0.1	0.1	0.1
2038	**2040**	28470	29200	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2040	**2042**	29200	29930	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2042	**2044**	29930	30660	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2044	**2046**	30660	31390	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2046	**2048**	31390	32120	100	100	100	100	100	100	100	100	0.1	0.1	0.1
2048	**2060**	32120	36500	100	100	100	100	100	100	100	100	100	0.1	0.1
2060	**2106**	36500	53290	100	100	100	100	100	100	100	100	100	0.1	0.1
2106	**2107**	53290	53291	100	100	100	100	100	100	100	100	100	0.1	0.1

A-5(S4). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 4)



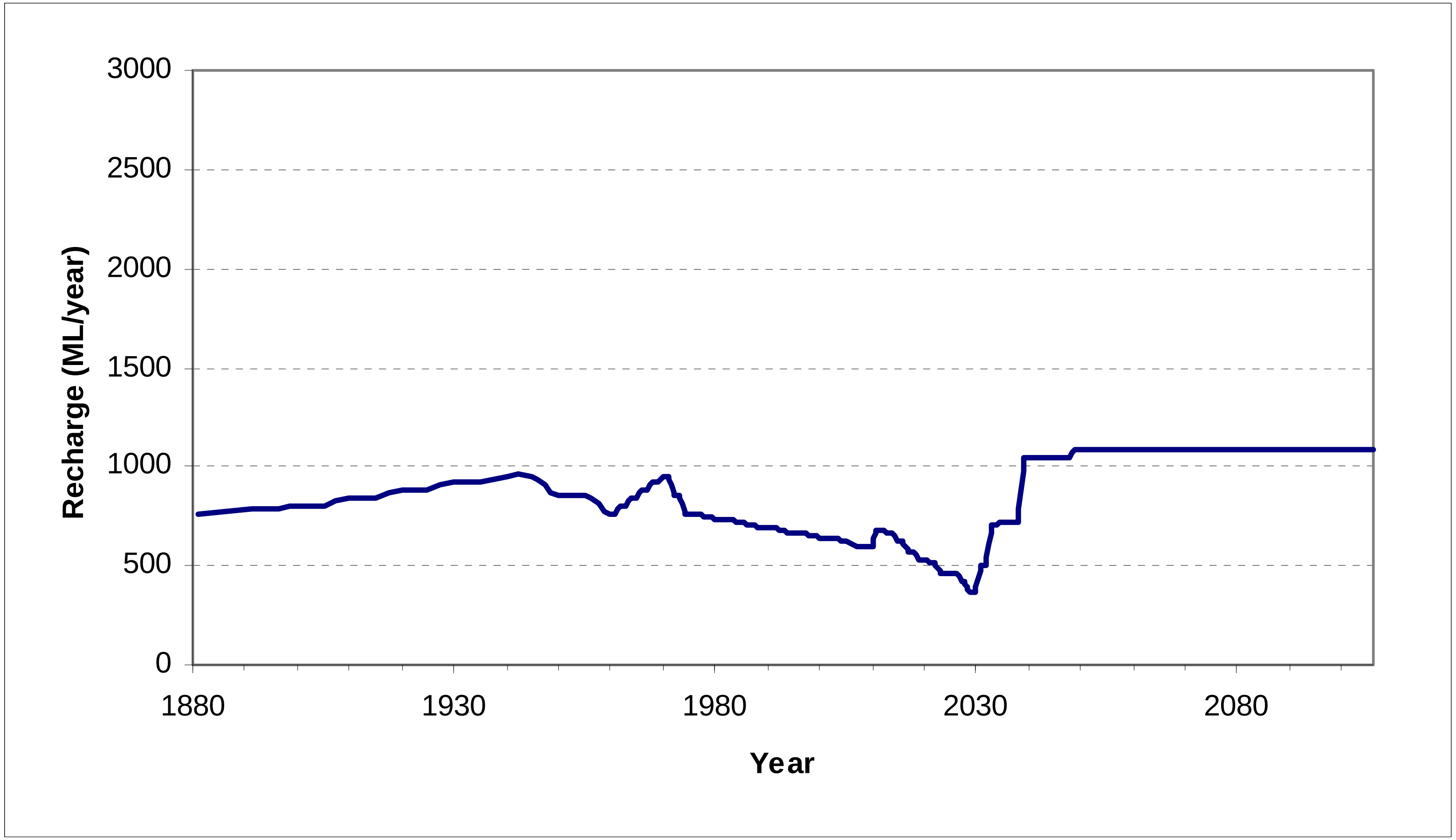
A-5(S4). Total recharge volume applied in the Kingston Area (Scenario 4)

				Pre 1988 Irrigation		*Post 1988 Irrigation*							*Future Development*	
Irrigation Start year				*1880*	*1970*	*1995*	*1997*	*1999*	*2001*	*2003*	*2005*	*2005*	*2015*	*2015*
Lag time (yrs)				**25**	**40**	**25**	**40**	**30**	**30**	**30**	**25**	**50**	**15**	**15**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**	**Zone 6**	**Zone 7**	**Zone 8**	**Zone 36**	**Zone 37**	**Zone 39**	**Zone 40**
1880	**1900**	0	7300	0.1										
1900	**1905**	7300	9125	0.1										
1905	**1910**	9125	10950	25										
1910	**1915**	10950	12775	50										
1915	**1920**	12775	14600	75										
1920	**1925**	14600	16425	100										
1925	**1930**	16425	18250	125										
1930	**1935**	18250	20075	150										
1935	**1940**	20075	21900	200										
1940	**1945**	21900	23725	225										
1945	**1950**	23725	25550	250										
1950	**1955**	25550	27375	300										
1955	**1960**	27375	29200	350										
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**	**Zone 6**	**Zone 7**	**Zone 8**	**Zone 36**	**Zone 37**	**Zone 39**	**Zone 40**
1960	**1961**	0	365	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1961	**1963**	365	1095	420	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1963	**1965**	1095	1825	440	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1965	**1967**	1825	2555	460	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1967	**1969**	2555	3285	480	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1969	**1971**	3285	4015	500	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1971	**1973**	4015	4745	450	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1973	**1975**	4745	5475	400	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1975	**1977**	5475	6205	395	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1977	**1979**	6205	6935	390	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1979	**1981**	6935	7665	385	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1981	**1983**	7665	8395	380	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1983	**1985**	8395	9125	375	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1985	**1987**	9125	9855	370	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1987	**1989**	9855	10585	365	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1989	**1991**	10585	11315	360	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1991	**1993**	11315	12045	355	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1993	**1995**	12045	12775	350	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1995	**1997**	12775	13505	345	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1997	**1999**	13505	14235	340	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1999	**2001**	14235	14965	335	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2001	**2003**	14965	15695	330	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2003	**2005**	15695	16425	325	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

A-5(S5). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 5)

				Pre 1988 Irrigation		*Post 1988 Irrigation*							*Future Development*	
Irrigation Start year				***1880***	***1970***	***1995***	***1997***	***1999***	***2001***	***2003***	***2005***	***2005***	***2015***	***2015***
Lag time (yrs)				**15**	**10**	**45**	**20**	**20**	**30**	**30**	**30**	**30**	**25**	**20**
Start Date	**Stop Date**	**Start Time**	**Stop Time**	**Zone 9**	**Zone 10**	**Zone 11**	**Zone 12**	**Zone 13**	**Zone 14**	**Zone 15**	**Zone 16**	**Zone 17**	**Zone 38**	**Zone 41**
2005	**2006**	16425	16790	320	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2006	**2008**	16790	17520	315	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2008	**2010**	17520	18250	310	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2010	**2012**	18250	18980	305	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2012	**2014**	18980	19710	300	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2014	**2016**	19710	20440	275	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2016	**2018**	20440	21170	250	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2018	**2020**	21170	21900	225	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2020	**2022**	21900	22630	200	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2022	**2024**	22630	23360	175	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2024	**2026**	23360	24090	175	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2026	**2028**	24090	24820	150	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2028	**2030**	24820	25550	125	100	100	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2030	**2032**	25550	26280	100	100	100	0.1	100	0.1	0.1	100	0.1	100	100
2032	**2034**	26280	27010	100	100	100	0.1	100	100	0.1	100	0.1	100	100
2034	**2036**	27010	27740	100	100	100	0.1	100	100	100	100	0.1	100	100
2036	**2038**	27740	28470	100	100	100	0.1	100	100	100	100	0.1	100	100
2038	**2040**	28470	29200	100	100	100	100	100	100	100	100	0.1	100	100
2040	**2042**	29200	29930	100	100	100	100	100	100	100	100	0.1	100	100
2042	**2044**	29930	30660	100	100	100	100	100	100	100	100	0.1	100	100
2044	**2046**	30660	31390	100	100	100	100	100	100	100	100	0.1	100	100
2046	**2048**	31390	32120	100	100	100	100	100	100	100	100	0.1	100	100
2048	**2060**	32120	36500	100	100	100	100	100	100	100	100	100	100	100
2060	**2106**	36500	53290	100	100	100	100	100	100	100	100	100	100	100
2106	**2107**	53290	53291	100	100	100	100	100	100	100	100	100	100	100

A-5(S5). Model recharge zones, irrigation start time, lag time and recharge rates (mm/yr) in the Kingston Area (Scenario 5)



A-5(S5). Total recharge volume applied in the Kingston Area (Scenario 5)

B. MODEL OUTPUTS (MODEL RESULTS – FLUX AND SALT LOAD)

B-1. SUMMARY OF FLUX AND SALT LOADS (ALL SCENARIOS)

Model Output - Pyap, New Residence, Moorook and Kingston Areas

- Modelled total salt load (t/d) entering the River Murray (all scenarios)
- Modelled total flux (m^3/d) entering the River Murray (all scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
1881	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1900	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1905	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1910	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1915	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1920	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1925	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1930	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1940	2.3	2.3	2.4	2.4	2.4	2.4	2.4
1945	2.3	2.3	2.5	2.5	2.5	2.5	2.5
1950	2.3	2.4	2.7	2.7	2.7	2.7	2.7
1955	2.3	2.4	3.1	3.1	3.1	3.1	3.1
1960	2.3	2.4	4.2	4.2	4.2	4.2	4.2
1961	2.3	2.4	4.5	4.5	4.5	4.5	4.5
1962	2.3	2.4	4.5	4.5	4.5	4.5	4.5
1963	2.3	2.4	4.5	4.5	4.5	4.5	4.5
1964	2.3	2.4	4.5	4.5	4.5	4.5	4.5
1965	2.3	2.4	4.6	4.6	4.6	4.6	4.6
1966	2.3	2.4	4.6	4.6	4.6	4.6	4.6
1967	2.3	2.4	4.6	4.6	4.6	4.6	4.6
1968	2.3	2.4	4.6	4.6	4.6	4.6	4.6
1969	2.3	2.4	4.6	4.6	4.6	4.6	4.6
1970	2.3	2.4	4.6	4.6	4.6	4.6	4.6
1971	2.3	2.4	4.6	4.6	4.6	4.6	4.6
1972	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1973	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1974	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1975	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1976	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1977	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1978	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1979	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1980	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1981	2.3	2.5	4.7	4.7	4.7	4.7	4.7
1982	2.3	2.5	5.0	5.0	5.0	5.0	5.0
1983	2.3	2.5	5.0	5.0	5.0	5.0	5.0
1984	2.3	2.5	5.3	5.3	5.3	5.3	5.3
1985	2.3	2.5	5.5	5.5	5.5	5.5	5.5
1986	2.3	2.6	6.0	6.0	6.0	6.0	6.0
1987	2.3	2.6	6.2	6.2	6.2	6.2	6.2
1988	**2.3**	**2.6**	**7.1**	**7.1**	**7.1**	**7.1**	**7.1**
1989	2.3	2.6	7.5	7.5	7.5	7.5	7.5
1990	2.3	2.6	7.8	7.8	7.8	7.8	7.8
1991	2.3	2.6	8.1	8.1	8.1	8.1	8.1
1992	2.3	2.6	8.3	8.3	8.3	8.3	8.3
1993	2.3	2.6	8.5	8.5	8.5	8.5	8.5
1994	2.3	2.6	8.7	8.7	8.7	8.7	8.7
1995	2.3	2.6	8.9	8.9	8.9	8.9	8.9
1996	2.3	2.7	9.0	9.0	9.0	9.0	9.0
1997	2.3	2.7	9.2	9.2	9.2	9.2	9.2
1998	2.3	2.7	9.3	9.3	9.3	9.3	9.3
1999	2.3	2.7	9.5	9.5	9.5	9.5	9.5
2000	**2.3**	**2.7**	**9.6**	**9.6**	**9.6**	**9.6**	**9.6**

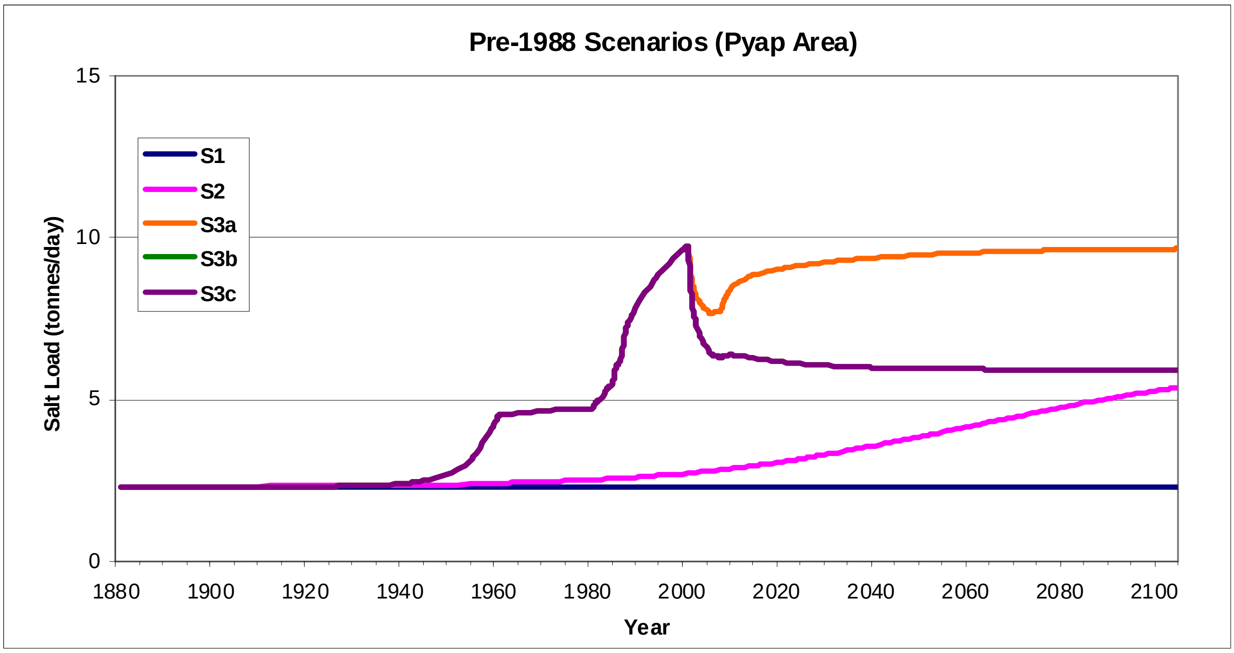
B-1-a. Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (All scenarios)

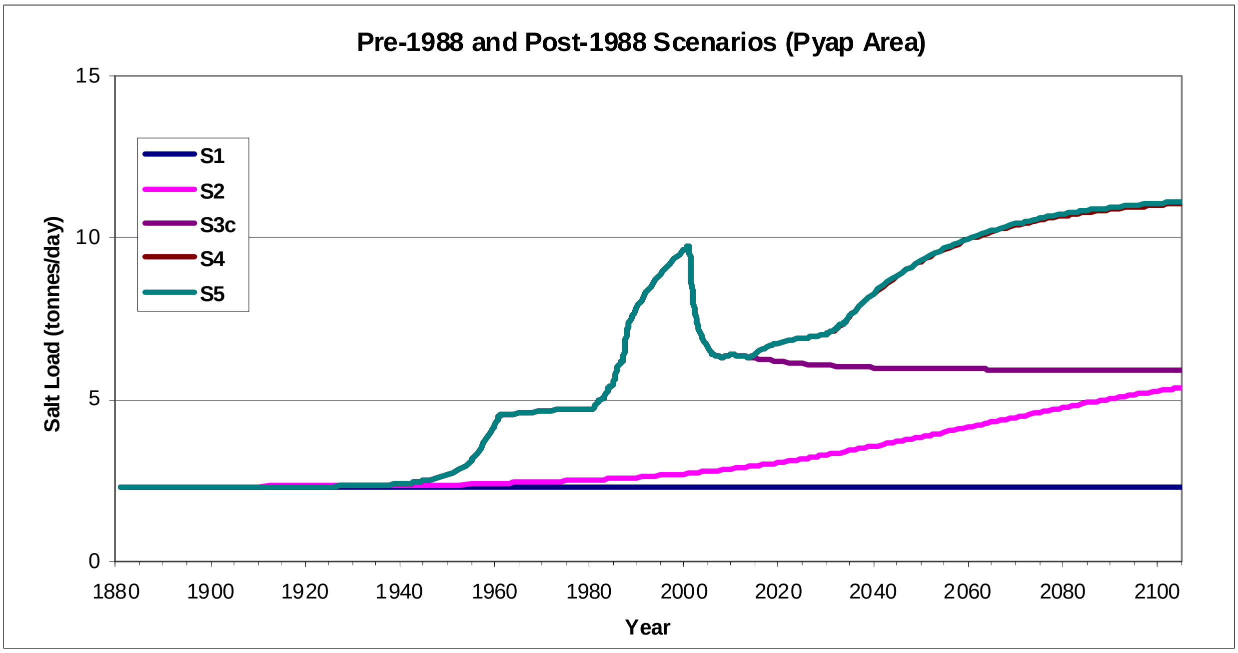
Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2001	2.3	2.7	9.7	9.7	9.7	9.7	9.7
2002	2.3	2.7	8.6	8.0	8.0	8.0	8.0
2003	2.3	2.7	8.2	7.3	7.3	7.3	7.3
2004	2.3	2.8	7.9	6.9	6.9	6.9	6.9
2005	2.3	2.8	7.8	6.6	6.6	6.6	6.6
2006	**2.3**	**2.8**	**7.6**	**6.4**	**6.4**	**6.4**	**6.4**
2007	2.3	2.8	7.7	6.4	6.4	6.4	6.4
2008	2.3	2.8	7.7	6.3	6.3	6.3	6.3
2009	2.3	2.8	8.1	6.4	6.4	6.4	6.4
2010	2.3	2.9	8.4	6.4	6.4	6.4	6.4
2011	2.3	2.9	8.5	6.4	6.4	6.4	6.4
2012	2.3	2.9	8.6	6.3	6.3	6.3	6.3
2013	2.3	2.9	8.7	6.3	6.3	6.3	6.3
2014	2.3	2.9	8.8	6.3	6.3	6.3	6.3
2015	2.3	2.9	8.8	6.3	6.3	6.4	6.4
2016	2.3	3.0	8.9	6.3	6.3	6.5	6.5
2017	2.3	3.0	8.9	6.2	6.2	6.6	6.6
2018	2.3	3.0	9.0	6.2	6.2	6.6	6.6
2019	2.3	3.0	9.0	6.2	6.2	6.7	6.7
2020	2.3	3.0	9.0	6.2	6.2	6.7	6.7
2021	2.3	3.1	9.0	6.2	6.2	6.8	6.8
2022	2.3	3.1	9.1	6.1	6.1	6.8	6.8
2023	2.3	3.1	9.1	6.1	6.1	6.8	6.8
2024	2.3	3.1	9.1	6.1	6.1	6.9	6.9
2025	2.3	3.2	9.1	6.1	6.1	6.9	6.9
2026	2.3	3.2	9.2	6.1	6.1	6.9	6.9
2027	2.3	3.2	9.2	6.1	6.1	6.9	6.9
2028	2.3	3.2	9.2	6.1	6.1	7.0	7.0
2029	2.3	3.3	9.2	6.1	6.1	7.0	7.0
2030	2.3	3.3	9.2	6.0	6.0	7.0	7.0
2031	2.3	3.3	9.2	6.0	6.0	7.1	7.1
2032	2.3	3.3	9.3	6.0	6.0	7.1	7.2
2033	2.3	3.4	9.3	6.0	6.0	7.3	7.3
2034	2.3	3.4	9.3	6.0	6.0	7.4	7.4
2035	2.3	3.4	9.3	6.0	6.0	7.6	7.6
2036	2.3	3.4	9.3	6.0	6.0	7.7	7.7
2037	2.3	3.5	9.3	6.0	6.0	7.9	7.9
2038	2.3	3.5	9.3	6.0	6.0	8.0	8.0
2039	2.3	3.5	9.3	6.0	6.0	8.1	8.2
2040	2.3	3.5	9.4	6.0	6.0	8.3	8.3
2041	2.3	3.6	9.4	6.0	6.0	8.4	8.4
2042	2.3	3.6	9.4	6.0	6.0	8.5	8.5
2043	2.3	3.6	9.4	6.0	6.0	8.6	8.6
2044	2.3	3.7	9.4	6.0	6.0	8.7	8.7
2045	2.3	3.7	9.4	6.0	6.0	8.8	8.8
2046	2.3	3.7	9.4	6.0	6.0	8.9	8.9
2047	2.3	3.7	9.4	6.0	6.0	9.0	9.0
2048	2.3	3.8	9.4	6.0	6.0	9.1	9.1
2049	2.3	3.8	9.4	5.9	5.9	9.2	9.2
2050	**2.3**	**3.8**	**9.5**	**5.9**	**5.9**	**9.3**	**9.3**
2051	2.3	3.9	9.5	5.9	5.9	9.3	9.4
2052	2.3	3.9	9.5	5.9	5.9	9.4	9.4
2053	2.3	3.9	9.5	5.9	5.9	9.5	9.5

B-1-a. Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2054	2.3	4.0	9.5	5.9	5.9	9.6	9.6
2055	2.3	4.0	9.5	5.9	5.9	9.6	9.7
2056	2.3	4.0	9.5	5.9	5.9	9.7	9.7
2057	2.3	4.0	9.5	5.9	5.9	9.8	9.8
2058	2.3	4.1	9.5	5.9	5.9	9.8	9.8
2059	2.3	4.1	9.5	5.9	5.9	9.9	9.9
2060	2.3	4.1	9.5	5.9	5.9	9.9	10.0
2061	2.3	4.2	9.5	5.9	5.9	10.0	10.0
2062	2.3	4.2	9.5	5.9	5.9	10.0	10.1
2063	2.3	4.2	9.5	5.9	5.9	10.1	10.1
2064	2.3	4.3	9.5	5.9	5.9	10.1	10.2
2065	2.3	4.3	9.5	5.9	5.9	10.2	10.2
2066	2.3	4.3	9.6	5.9	5.9	10.2	10.3
2067	2.3	4.4	9.6	5.9	5.9	10.3	10.3
2068	2.3	4.4	9.6	5.9	5.9	10.3	10.3
2069	2.3	4.4	9.6	5.9	5.9	10.3	10.4
2070	2.3	4.4	9.6	5.9	5.9	10.4	10.4
2071	2.3	4.5	9.6	5.9	5.9	10.4	10.5
2072	2.3	4.5	9.6	5.9	5.9	10.4	10.5
2073	2.3	4.5	9.6	5.9	5.9	10.5	10.5
2074	2.3	4.6	9.6	5.9	5.9	10.5	10.6
2075	2.3	4.6	9.6	5.9	5.9	10.5	10.6
2076	2.3	4.6	9.6	5.9	5.9	10.6	10.6
2077	2.3	4.7	9.6	5.9	5.9	10.6	10.6
2078	2.3	4.7	9.6	5.9	5.9	10.6	10.7
2079	2.3	4.7	9.6	5.9	5.9	10.6	10.7
2080	2.3	4.7	9.6	5.9	5.9	10.7	10.7
2081	2.3	4.8	9.6	5.9	5.9	10.7	10.7
2082	2.3	4.8	9.6	5.9	5.9	10.7	10.8
2083	2.3	4.8	9.6	5.9	5.9	10.7	10.8
2084	2.3	4.9	9.6	5.9	5.9	10.8	10.8
2085	2.3	4.9	9.6	5.9	5.9	10.8	10.8
2086	2.3	4.9	9.6	5.9	5.9	10.8	10.9
2087	2.3	4.9	9.6	5.9	5.9	10.8	10.9
2088	2.3	5.0	9.6	5.9	5.9	10.8	10.9
2089	2.3	5.0	9.6	5.9	5.9	10.8	10.9
2090	2.3	5.0	9.6	5.9	5.9	10.9	10.9
2091	2.3	5.0	9.6	5.9	5.9	10.9	10.9
2092	2.3	5.1	9.6	5.9	5.9	10.9	11.0
2093	2.3	5.1	9.6	5.9	5.9	10.9	11.0
2094	2.3	5.1	9.6	5.9	5.9	10.9	11.0
2095	2.3	5.1	9.6	5.9	5.9	10.9	11.0
2096	2.3	5.2	9.6	5.9	5.9	11.0	11.0
2097	2.3	5.2	9.6	5.9	5.9	11.0	11.0
2098	2.3	5.2	9.6	5.9	5.9	11.0	11.0
2099	2.3	5.2	9.6	5.9	5.9	11.0	11.1
2100	2.3	5.3	9.6	5.9	5.9	11.0	11.1
2101	2.3	5.3	9.6	5.9	5.9	11.0	11.1
2102	2.3	5.3	9.6	5.9	5.9	11.0	11.1
2103	2.3	5.3	9.6	5.9	5.9	11.0	11.1
2104	2.3	5.3	9.7	5.9	5.9	11.0	11.1
2105	2.3	5.4	9.7	5.9	5.9	11.1	11.1
2106	**2.3**	**5.4**	**9.7**	**5.9**	**5.9**	**11.1**	**11.1**

B-1-a. Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (All scenarios)





B-1-a. Graph of modelled salt load (tonnes/day) entering the River Murray in the Pyap area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
1881	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1900	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1905	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1910	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1915	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1920	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1925	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1930	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1940	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1945	0.3	0.4	0.3	0.3	0.3	0.3	0.3
1950	0.3	0.4	0.3	0.3	0.3	0.3	0.3
1955	0.3	0.4	0.3	0.3	0.3	0.3	0.3
1960	0.3	0.4	0.3	0.3	0.3	0.3	0.3
1961	0.3	0.5	0.3	0.3	0.3	0.3	0.3
1962	0.3	0.5	0.4	0.4	0.4	0.4	0.4
1963	0.3	0.5	0.4	0.4	0.4	0.4	0.4
1964	0.3	0.5	0.4	0.4	0.4	0.4	0.4
1965	0.3	0.5	0.4	0.4	0.4	0.4	0.4
1966	0.3	0.5	0.4	0.4	0.4	0.4	0.4
1967	0.3	0.5	0.4	0.4	0.4	0.4	0.4
1968	0.3	0.5	0.4	0.4	0.4	0.4	0.4
1969	0.3	0.5	0.4	0.4	0.4	0.4	0.4
1970	0.3	0.5	0.5	0.5	0.5	0.5	0.5
1971	0.3	0.5	0.5	0.5	0.5	0.5	0.5
1972	0.3	0.5	0.5	0.5	0.5	0.5	0.5
1973	0.3	0.6	0.5	0.5	0.5	0.5	0.5
1974	0.3	0.6	0.5	0.5	0.5	0.5	0.5
1975	0.3	0.6	0.5	0.5	0.5	0.5	0.5
1976	0.3	0.6	0.5	0.5	0.5	0.5	0.5
1977	0.3	0.6	0.5	0.5	0.5	0.5	0.5
1978	0.3	0.6	0.5	0.5	0.5	0.5	0.5
1979	0.3	0.6	0.6	0.6	0.6	0.6	0.6
1980	0.3	0.6	1.3	1.3	1.3	1.3	1.3
1981	0.3	0.6	1.9	1.9	1.9	1.9	1.9
1982	0.3	0.6	3.8	3.8	3.8	3.8	3.8
1983	0.3	0.7	5.3	5.3	5.3	5.3	5.3
1984	0.3	0.7	6.4	6.4	6.4	6.4	6.4
1985	0.3	0.7	7.4	7.4	7.4	7.4	7.4
1986	0.3	0.7	8.3	8.3	8.3	8.3	8.3
1987	0.3	0.7	9.3	9.3	9.3	9.3	9.3
1988	**0.3**	**0.7**	**9.9**	**9.9**	**9.9**	**9.9**	**9.9**
1989	0.3	0.8	10.5	10.5	10.5	10.5	10.5
1990	0.3	0.8	10.9	10.9	10.9	10.9	10.9
1991	0.3	0.8	11.2	11.2	11.2	11.2	11.2
1992	0.3	0.8	11.4	11.4	11.4	11.4	11.4
1993	0.3	0.8	11.6	11.6	11.6	11.6	11.6
1994	0.3	0.8	11.5	11.5	11.5	11.5	11.5
1995	0.3	0.9	11.4	11.4	11.4	11.4	11.4
1996	0.3	0.9	11.2	11.2	11.2	11.2	11.2
1997	0.3	0.9	11.1	11.1	11.1	11.1	11.1
1998	0.3	0.9	10.9	10.9	10.9	10.9	10.9
1999	0.3	0.9	10.9	10.8	10.8	10.8	10.8
2000	**0.3**	**0.9**	**10.8**	**10.7**	**10.7**	**10.7**	**10.7**

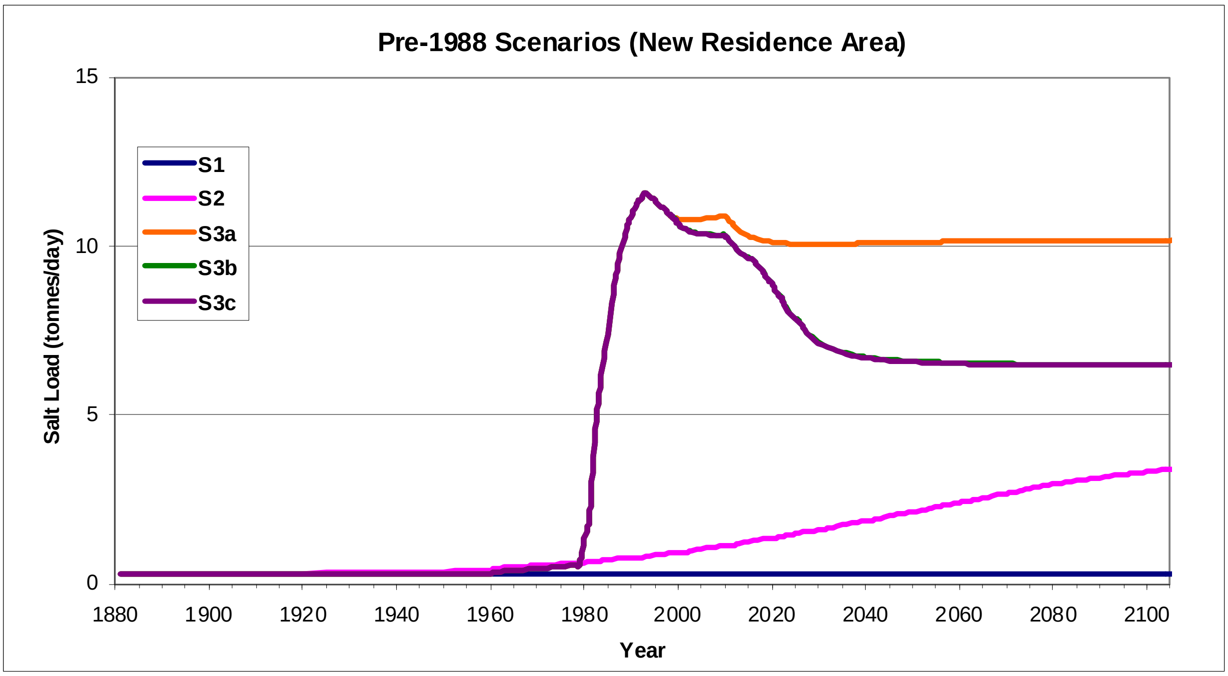
B-1-b. Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (All scenarios)

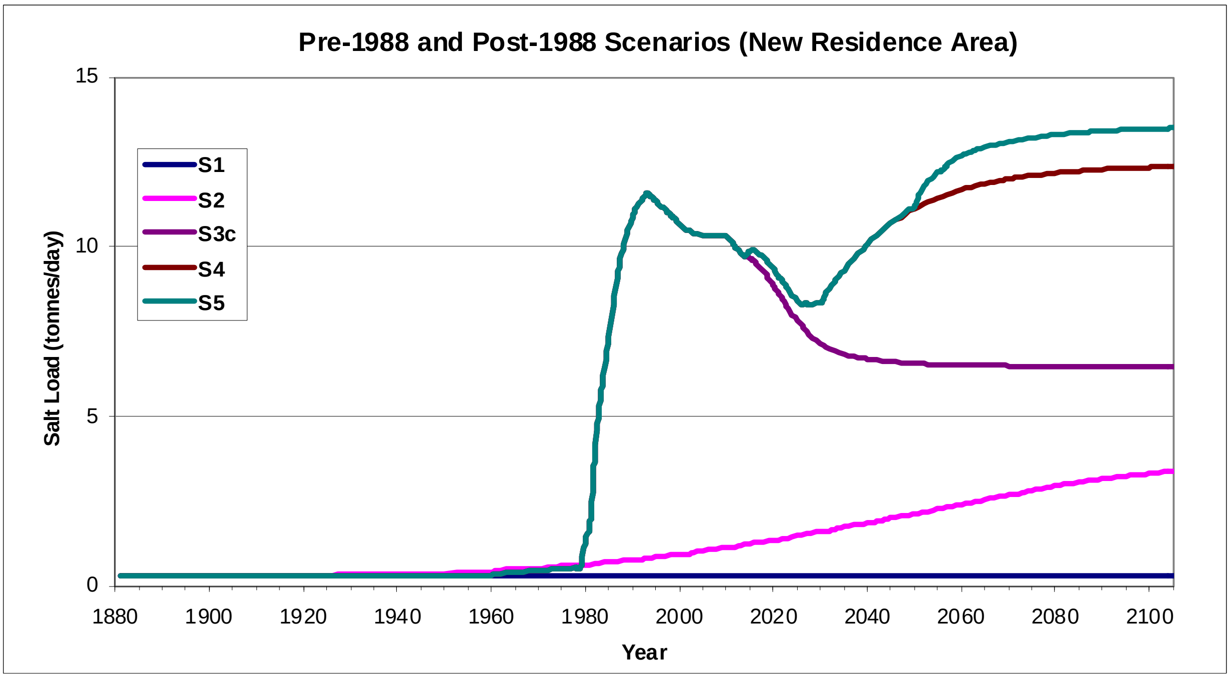
Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2001	0.3	0.9	10.8	10.5	10.5	10.5	10.5
2002	0.3	0.9	10.8	10.5	10.5	10.5	10.5
2003	0.3	1.0	10.8	10.4	10.4	10.4	10.4
2004	0.3	1.0	10.8	10.4	10.4	10.4	10.4
2005	0.3	1.0	10.8	10.4	10.4	10.4	10.4
2006	**0.3**	**1.1**	**10.8**	**10.3**	**10.3**	**10.3**	**10.3**
2007	0.3	1.1	10.8	10.3	10.3	10.3	10.3
2008	0.3	1.1	10.8	10.3	10.3	10.3	10.3
2009	0.3	1.1	10.9	10.3	10.3	10.3	10.3
2010	0.3	1.1	10.9	10.3	10.3	10.3	10.3
2011	0.3	1.1	10.7	10.2	10.2	10.2	10.2
2012	0.3	1.2	10.6	10.0	10.0	10.0	10.0
2013	0.3	1.2	10.4	9.8	9.8	9.8	9.8
2014	0.3	1.2	10.4	9.7	9.7	9.7	9.7
2015	0.3	1.3	10.3	9.7	9.6	9.9	9.9
2016	0.3	1.3	10.2	9.6	9.6	9.9	9.9
2017	0.3	1.3	10.2	9.4	9.4	9.8	9.8
2018	0.3	1.3	10.2	9.3	9.3	9.7	9.7
2019	0.3	1.3	10.1	9.1	9.0	9.5	9.5
2020	0.3	1.4	10.1	8.9	8.9	9.4	9.4
2021	0.3	1.4	10.1	8.7	8.6	9.1	9.1
2022	0.3	1.4	10.1	8.5	8.5	9.0	9.0
2023	0.3	1.4	10.1	8.2	8.2	8.7	8.7
2024	0.3	1.5	10.1	8.0	8.0	8.6	8.6
2025	0.3	1.5	10.1	7.9	7.8	8.4	8.4
2026	0.3	1.5	10.1	7.7	7.7	8.3	8.3
2027	0.3	1.5	10.1	7.5	7.5	8.3	8.3
2028	0.3	1.6	10.1	7.4	7.3	8.3	8.3
2029	0.3	1.6	10.1	7.2	7.2	8.3	8.3
2030	0.3	1.6	10.1	7.2	7.1	8.4	8.4
2031	0.3	1.6	10.1	7.1	7.1	8.6	8.6
2032	0.3	1.6	10.1	7.0	7.0	8.8	8.8
2033	0.3	1.7	10.1	7.0	6.9	9.0	9.0
2034	0.3	1.7	10.1	6.9	6.9	9.1	9.1
2035	0.3	1.7	10.1	6.9	6.8	9.3	9.3
2036	0.3	1.8	10.1	6.8	6.8	9.5	9.5
2037	0.3	1.8	10.1	6.8	6.8	9.6	9.6
2038	0.3	1.8	10.1	6.8	6.7	9.8	9.8
2039	0.3	1.8	10.1	6.7	6.7	9.9	9.9
2040	0.3	1.9	10.1	6.7	6.7	10.1	10.1
2041	0.3	1.9	10.1	6.7	6.7	10.2	10.2
2042	0.3	1.9	10.1	6.7	6.7	10.3	10.3
2043	0.3	1.9	10.1	6.7	6.6	10.5	10.5
2044	0.3	2.0	10.1	6.6	6.6	10.6	10.6
2045	0.3	2.0	10.1	6.6	6.6	10.7	10.7
2046	0.3	2.0	10.1	6.6	6.6	10.8	10.8
2047	0.3	2.1	10.1	6.6	6.6	10.9	10.9
2048	0.3	2.1	10.1	6.6	6.6	11.0	11.0
2049	0.3	2.1	10.1	6.6	6.6	11.0	11.1
2050	**0.3**	**2.1**	**10.1**	**6.6**	**6.6**	**11.1**	**11.2**
2051	0.3	2.1	10.1	6.6	6.6	11.2	11.5
2052	0.3	2.2	10.1	6.6	6.5	11.3	11.8
2053	0.3	2.2	10.1	6.6	6.5	11.3	11.9

B-1-b. Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2054	0.3	2.2	10.1	6.6	6.5	11.4	12.1
2055	0.3	2.3	10.1	6.6	6.5	11.4	12.2
2056	0.3	2.3	10.1	6.6	6.5	11.5	12.3
2057	0.3	2.3	10.1	6.5	6.5	11.5	12.4
2058	0.3	2.4	10.1	6.5	6.5	11.6	12.5
2059	0.3	2.4	10.1	6.5	6.5	11.6	12.6
2060	0.3	2.4	10.1	6.5	6.5	11.7	12.7
2061	0.3	2.4	10.1	6.5	6.5	11.7	12.7
2062	0.3	2.4	10.1	6.5	6.5	11.8	12.8
2063	0.3	2.5	10.1	6.5	6.5	11.8	12.8
2064	0.3	2.5	10.1	6.5	6.5	11.8	12.9
2065	0.3	2.5	10.1	6.5	6.5	11.9	12.9
2066	0.3	2.6	10.1	6.5	6.5	11.9	13.0
2067	0.3	2.6	10.1	6.5	6.5	11.9	13.0
2068	0.3	2.6	10.1	6.5	6.5	12.0	13.0
2069	0.3	2.7	10.1	6.5	6.5	12.0	13.1
2070	0.3	2.7	10.2	6.5	6.5	12.0	13.1
2071	0.3	2.7	10.2	6.5	6.5	12.0	13.1
2072	0.3	2.7	10.2	6.5	6.5	12.0	13.1
2073	0.3	2.8	10.2	6.5	6.5	12.1	13.2
2074	0.3	2.8	10.2	6.5	6.5	12.1	13.2
2075	0.3	2.8	10.2	6.5	6.5	12.1	13.2
2076	0.3	2.8	10.2	6.5	6.5	12.1	13.2
2077	0.3	2.9	10.2	6.5	6.5	12.1	13.3
2078	0.3	2.9	10.2	6.5	6.5	12.2	13.3
2079	0.3	2.9	10.2	6.5	6.5	12.2	13.3
2080	0.3	2.9	10.2	6.5	6.5	12.2	13.3
2081	0.3	3.0	10.2	6.5	6.5	12.2	13.3
2082	0.3	3.0	10.2	6.5	6.5	12.2	13.3
2083	0.3	3.0	10.2	6.5	6.5	12.2	13.3
2084	0.3	3.0	10.2	6.5	6.5	12.2	13.4
2085	0.3	3.1	10.2	6.5	6.5	12.2	13.4
2086	0.3	3.1	10.2	6.5	6.5	12.2	13.4
2087	0.3	3.1	10.2	6.5	6.5	12.3	13.4
2088	0.3	3.1	10.2	6.5	6.5	12.3	13.4
2089	0.3	3.1	10.2	6.5	6.5	12.3	13.4
2090	0.3	3.2	10.2	6.5	6.5	12.3	13.4
2091	0.3	3.2	10.2	6.5	6.5	12.3	13.4
2092	0.3	3.2	10.2	6.5	6.5	12.3	13.4
2093	0.3	3.2	10.2	6.5	6.5	12.3	13.4
2094	0.3	3.2	10.2	6.5	6.5	12.3	13.4
2095	0.3	3.2	10.2	6.5	6.5	12.3	13.5
2096	0.3	3.3	10.2	6.5	6.5	12.3	13.5
2097	0.3	3.3	10.2	6.5	6.5	12.3	13.5
2098	0.3	3.3	10.2	6.5	6.5	12.3	13.5
2099	0.3	3.3	10.2	6.5	6.5	12.3	13.5
2100	0.3	3.3	10.2	6.5	6.5	12.3	13.5
2101	0.3	3.3	10.2	6.5	6.5	12.3	13.5
2102	0.3	3.4	10.2	6.5	6.5	12.4	13.5
2103	0.3	3.4	10.2	6.5	6.5	12.4	13.5
2104	0.3	3.4	10.2	6.5	6.5	12.4	13.5
2105	0.3	3.4	10.2	6.5	6.5	12.4	13.5
2106	**0.3**	**3.4**	**10.2**	**6.5**	**6.5**	**12.4**	**13.5**

B-1-b. Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (All scenarios)





B-1-b. Graph of modelled salt load (tonnes/day) entering the River Murray in the New Residence area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
1881	0.8	0.8	0.8	0.8	0.8	0.8	0.8
1900	0.8	0.8	0.8	0.8	0.8	0.8	0.8
1905	0.8	0.8	0.8	0.8	0.8	0.8	0.8
1910	0.8	0.8	0.8	0.8	0.8	0.8	0.8
1915	0.8	0.8	0.9	0.9	0.9	0.9	0.9
1920	0.8	0.8	1.0	1.0	1.0	1.0	1.0
1925	0.8	0.8	1.1	1.1	1.1	1.1	1.1
1930	0.8	0.8	1.2	1.2	1.2	1.2	1.2
1940	0.8	0.8	1.3	1.3	1.3	1.3	1.3
1945	0.8	0.8	1.6	1.6	1.6	1.6	1.6
1950	0.8	0.8	1.8	1.8	1.8	1.8	1.8
1955	0.8	0.8	2.1	2.1	2.1	2.1	2.1
1960	0.8	0.8	2.7	2.7	2.7	2.7	2.7
1961	0.8	0.9	4.6	4.6	4.6	4.6	4.6
1962	0.8	0.9	5.3	5.3	5.3	5.3	5.3
1963	0.8	0.9	5.8	5.8	5.8	5.8	5.8
1964	0.8	0.9	6.3	6.3	6.3	6.3	6.3
1965	0.8	0.9	6.6	6.6	6.6	6.6	6.6
1966	0.8	0.9	7.2	7.2	7.2	7.2	7.2
1967	0.8	0.9	7.7	7.7	7.7	7.7	7.7
1968	0.8	0.9	8.1	8.1	8.1	8.1	8.1
1969	0.8	0.9	8.4	8.4	8.4	8.4	8.4
1970	0.8	0.9	9.0	9.0	9.0	9.0	9.0
1971	0.8	0.9	9.4	9.4	9.4	9.4	9.4
1972	0.8	0.9	9.9	9.9	9.9	9.9	9.9
1973	0.8	0.9	10.2	10.2	10.2	10.2	10.2
1974	0.8	0.9	10.6	10.6	10.6	10.6	10.6
1975	0.8	0.9	10.8	10.8	10.8	10.8	10.8
1976	0.8	1.0	11.2	11.2	11.2	11.2	11.2
1977	0.8	1.0	11.4	11.4	11.4	11.4	11.4
1978	0.8	1.0	11.7	11.7	11.7	11.7	11.7
1979	0.8	1.0	12.0	12.0	12.0	12.0	12.0
1980	0.8	1.0	12.1	12.1	12.1	12.1	12.1
1981	0.8	1.0	12.3	12.3	12.3	12.3	12.3
1982	0.8	1.0	12.5	12.5	12.5	12.5	12.5
1983	0.8	1.0	12.6	12.6	12.6	12.6	12.6
1984	0.8	1.0	12.9	12.9	12.9	12.9	12.9
1985	0.8	1.0	13.1	13.1	13.1	13.1	13.1
1986	0.8	1.0	13.4	13.4	13.4	13.4	13.4
1987	0.8	1.0	13.6	13.6	13.6	13.6	13.6
1988	**0.8**	**1.0**	**13.8**	**13.8**	**13.8**	**13.8**	**13.8**
1989	0.8	1.0	13.9	13.9	13.9	13.9	13.9
1990	0.8	1.0	14.0	14.0	14.0	14.0	14.0
1991	0.8	1.0	14.0	14.0	14.0	14.0	14.0
1992	0.8	1.0	14.1	14.1	14.1	14.1	14.1
1993	0.8	1.1	14.1	14.1	14.1	14.1	14.1
1994	0.8	1.1	13.7	13.7	13.7	13.7	13.7
1995	0.8	1.1	13.5	13.5	13.5	13.5	13.5
1996	0.8	1.1	13.0	13.0	13.0	13.0	13.0
1997	0.8	1.1	12.6	12.6	12.6	12.6	12.6
1998	0.8	1.1	12.2	12.1	12.1	12.1	12.1
1999	0.8	1.1	12.0	11.8	11.8	11.8	11.8
2000	**0.8**	**1.1**	**11.7**	**11.3**	**11.3**	**11.3**	**11.3**

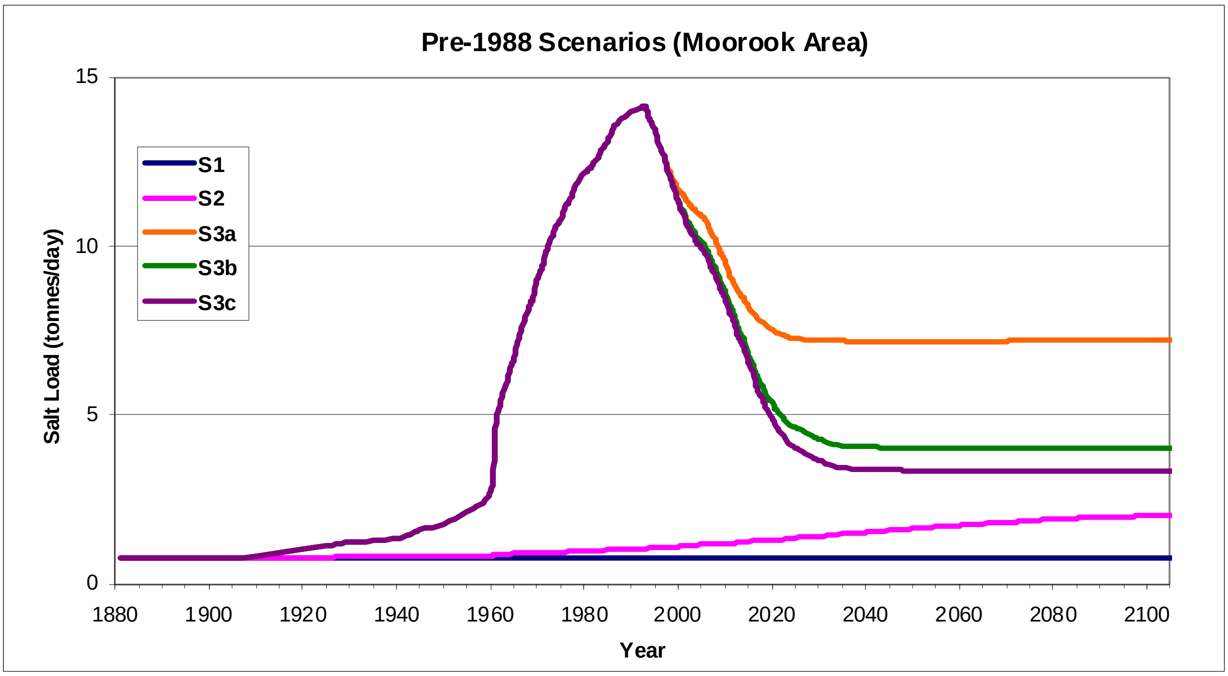
B-1-c. Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (All scenarios)

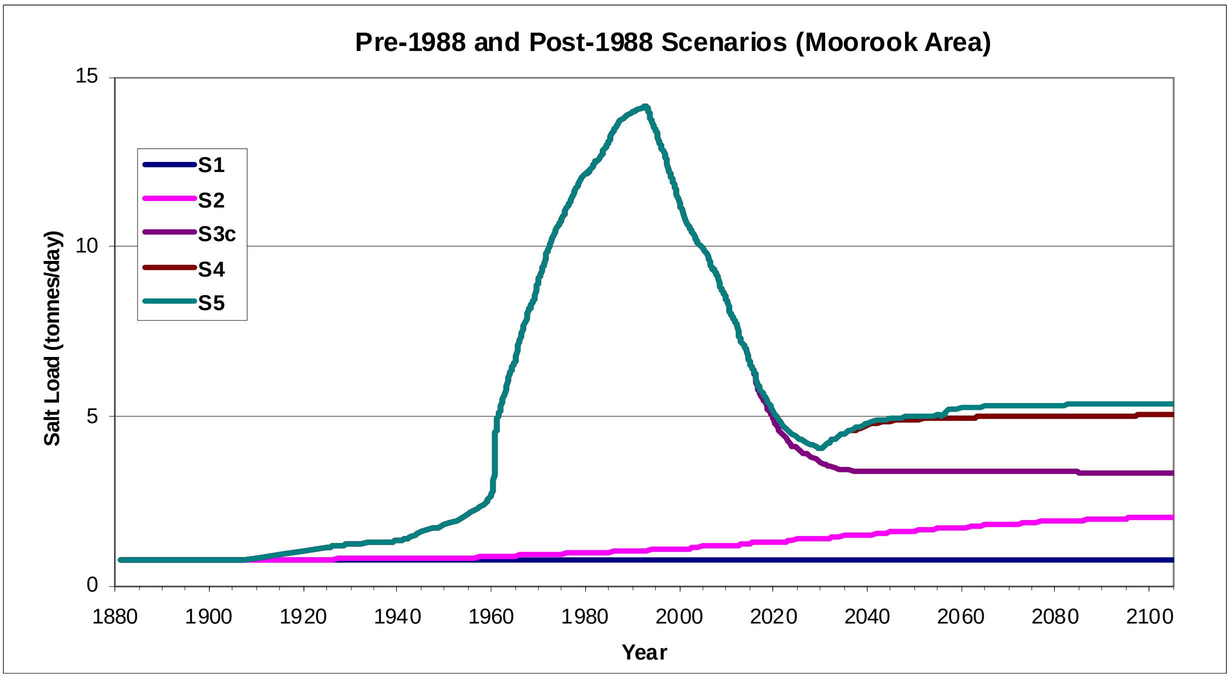
Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2001	0.8	1.1	11.5	11.0	10.9	10.9	10.9
2002	0.8	1.1	11.3	10.7	10.6	10.6	10.6
2003	0.8	1.1	11.2	10.5	10.4	10.4	10.4
2004	0.8	1.2	11.0	10.3	10.1	10.1	10.1
2005	0.8	1.2	10.9	10.1	10.0	10.0	10.0
2006	**0.8**	**1.2**	**10.7**	**9.9**	**9.7**	**9.7**	**9.7**
2007	0.8	1.2	10.4	9.6	9.4	9.4	9.4
2008	0.8	1.2	10.2	9.4	9.2	9.2	9.2
2009	0.8	1.2	9.8	8.9	8.7	8.7	8.7
2010	0.8	1.2	9.6	8.7	8.5	8.5	8.5
2011	0.8	1.2	9.1	8.2	8.0	8.0	8.0
2012	0.8	1.2	8.9	8.0	7.8	7.8	7.8
2013	0.8	1.2	8.6	7.5	7.3	7.3	7.3
2014	0.8	1.2	8.4	7.3	7.0	7.0	7.0
2015	0.8	1.3	8.2	6.8	6.5	6.6	6.6
2016	0.8	1.3	8.0	6.5	6.3	6.3	6.3
2017	0.8	1.3	7.9	6.1	5.8	5.9	5.9
2018	0.8	1.3	7.7	5.9	5.5	5.6	5.6
2019	0.8	1.3	7.6	5.6	5.2	5.4	5.4
2020	0.8	1.3	7.5	5.4	4.9	5.2	5.2
2021	0.8	1.3	7.4	5.1	4.7	4.9	4.9
2022	0.8	1.3	7.4	5.0	4.5	4.7	4.7
2023	0.8	1.3	7.3	4.8	4.3	4.6	4.6
2024	0.8	1.4	7.3	4.7	4.1	4.5	4.5
2025	0.8	1.4	7.3	4.6	4.0	4.4	4.4
2026	0.8	1.4	7.2	4.6	4.0	4.3	4.3
2027	0.8	1.4	7.2	4.5	3.9	4.2	4.2
2028	0.8	1.4	7.2	4.4	3.8	4.2	4.2
2029	0.8	1.4	7.2	4.4	3.7	4.1	4.1
2030	0.8	1.4	7.2	4.3	3.7	4.1	4.1
2031	0.8	1.4	7.2	4.2	3.6	4.1	4.2
2032	0.8	1.4	7.2	4.2	3.5	4.2	4.2
2033	0.8	1.4	7.2	4.1	3.5	4.3	4.3
2034	0.8	1.5	7.2	4.1	3.5	4.4	4.4
2035	0.8	1.5	7.2	4.1	3.4	4.5	4.5
2036	0.8	1.5	7.2	4.1	3.4	4.6	4.6
2037	0.8	1.5	7.2	4.1	3.4	4.6	4.6
2038	0.8	1.5	7.2	4.1	3.4	4.6	4.7
2039	0.8	1.5	7.2	4.1	3.4	4.7	4.8
2040	0.8	1.5	7.2	4.0	3.4	4.7	4.8
2041	0.8	1.5	7.2	4.0	3.4	4.8	4.8
2042	0.8	1.5	7.2	4.0	3.4	4.8	4.9
2043	0.8	1.6	7.2	4.0	3.4	4.8	4.9
2044	0.8	1.6	7.2	4.0	3.4	4.8	4.9
2045	0.8	1.6	7.2	4.0	3.4	4.9	4.9
2046	0.8	1.6	7.2	4.0	3.4	4.9	5.0
2047	0.8	1.6	7.2	4.0	3.4	4.9	5.0
2048	0.8	1.6	7.2	4.0	3.4	4.9	5.0
2049	0.8	1.6	7.2	4.0	3.4	4.9	5.0
2050	**0.8**	**1.6**	**7.2**	**4.0**	**3.4**	**4.9**	**5.0**
2051	0.8	1.6	7.2	4.0	3.4	4.9	5.0
2052	0.8	1.6	7.2	4.0	3.4	4.9	5.0
2053	0.8	1.7	7.2	4.0	3.4	4.9	5.0

B-1-c. Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2054	0.8	1.7	7.2	4.0	3.4	4.9	5.0
2055	0.8	1.7	7.2	4.0	3.4	4.9	5.0
2056	0.8	1.7	7.2	4.0	3.4	4.9	5.0
2057	0.8	1.7	7.2	4.0	3.4	5.0	5.2
2058	0.8	1.7	7.2	4.0	3.4	5.0	5.2
2059	0.8	1.7	7.2	4.0	3.4	5.0	5.2
2060	0.8	1.7	7.2	4.0	3.4	5.0	5.2
2061	0.8	1.7	7.2	4.0	3.4	5.0	5.3
2062	0.8	1.7	7.2	4.0	3.4	5.0	5.3
2063	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2064	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2065	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2066	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2067	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2068	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2069	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2070	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2071	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2072	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2073	0.8	1.8	7.2	4.0	3.4	5.0	5.3
2074	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2075	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2076	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2077	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2078	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2079	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2080	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2081	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2082	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2083	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2084	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2085	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2086	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2087	0.8	1.9	7.2	4.0	3.4	5.0	5.3
2088	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2089	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2090	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2091	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2092	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2093	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2094	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2095	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2096	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2097	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2098	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2099	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2100	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2101	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2102	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2103	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2104	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2105	0.8	2.0	7.2	4.0	3.4	5.0	5.4
2106	**0.8**	**2.0**	**7.2**	**4.0**	**3.4**	**5.0**	**5.4**

B-1-c. Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (All scenarios)





B-1-c. Graph of modelled salt load (tonnes/day) entering the River Murray in the Moorook area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
1881	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1900	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1905	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1910	0.3	0.3	0.7	0.7	0.7	0.7	0.7
1915	0.3	0.3	1.2	1.2	1.2	1.2	1.2
1920	0.3	0.4	1.6	1.6	1.6	1.6	1.6
1925	0.3	0.4	2.1	2.1	2.1	2.1	2.1
1930	0.3	0.4	2.6	2.6	2.6	2.6	2.6
1940	0.3	0.4	3.0	3.0	3.0	3.0	3.0
1945	0.3	0.4	3.9	3.9	3.9	3.9	3.9
1950	0.3	0.4	4.5	4.5	4.5	4.5	4.5
1955	0.3	0.4	5.0	5.0	5.0	5.0	5.0
1960	0.3	0.4	5.9	5.9	5.9	5.9	5.9
1961	0.3	0.4	7.6	7.6	7.6	7.6	7.6
1962	0.3	0.4	8.1	8.1	8.1	8.1	8.1
1963	0.3	0.4	8.3	8.3	8.3	8.3	8.3
1964	0.3	0.4	8.7	8.7	8.7	8.7	8.7
1965	0.3	0.4	8.9	8.9	8.9	8.9	8.9
1966	0.3	0.4	9.9	9.9	9.9	9.9	9.9
1967	0.3	0.4	10.4	10.4	10.4	10.4	10.4
1968	0.3	0.4	10.8	10.8	10.8	10.8	10.8
1969	0.3	0.4	11.0	11.0	11.0	11.0	11.0
1970	0.3	0.4	11.4	11.4	11.4	11.4	11.4
1971	0.3	0.4	11.5	11.5	11.5	11.5	11.5
1972	0.3	0.4	11.1	11.1	11.1	11.1	11.1
1973	0.3	0.4	10.9	10.9	10.9	10.9	10.9
1974	0.3	0.4	10.3	10.3	10.3	10.3	10.3
1975	0.3	0.4	10.1	10.1	10.1	10.1	10.1
1976	0.3	0.4	10.0	10.0	10.0	10.0	10.0
1977	0.3	0.4	9.9	9.9	9.9	9.9	9.9
1978	0.3	0.4	9.9	9.9	9.9	9.9	9.9
1979	0.3	0.4	9.9	9.9	9.9	9.9	9.9
1980	0.3	0.4	9.8	9.8	9.8	9.8	9.8
1981	0.3	0.4	9.8	9.8	9.8	9.8	9.8
1982	0.3	0.4	9.7	9.7	9.7	9.7	9.7
1983	0.3	0.5	9.7	9.7	9.7	9.7	9.7
1984	0.3	0.5	9.6	9.6	9.6	9.6	9.6
1985	0.3	0.5	9.6	9.6	9.6	9.6	9.6
1986	0.3	0.5	9.6	9.6	9.6	9.6	9.6
1987	0.3	0.5	9.6	9.6	9.6	9.6	9.6
1988	**0.3**	**0.5**	**9.5**	**9.5**	**9.5**	**9.5**	**9.5**
1989	0.3	0.5	9.5	9.5	9.5	9.5	9.5
1990	0.3	0.5	9.4	9.4	9.4	9.4	9.4
1991	0.3	0.5	9.4	9.4	9.4	9.4	9.4
1992	0.3	0.5	9.4	9.4	9.4	9.4	9.4
1993	0.3	0.5	9.3	9.3	9.3	9.3	9.3
1994	0.3	0.5	9.2	9.2	9.2	9.2	9.2
1995	0.3	0.5	9.2	9.2	9.2	9.2	9.2
1996	0.3	0.5	9.0	9.0	9.0	9.0	9.0
1997	0.3	0.5	8.9	8.9	8.9	8.9	8.9
1998	0.3	0.5	8.7	8.7	8.7	8.7	8.7
1999	0.3	0.5	8.7	8.6	8.6	8.6	8.6
2000	**0.3**	**0.5**	**8.5**	**8.4**	**8.4**	**8.4**	**8.4**

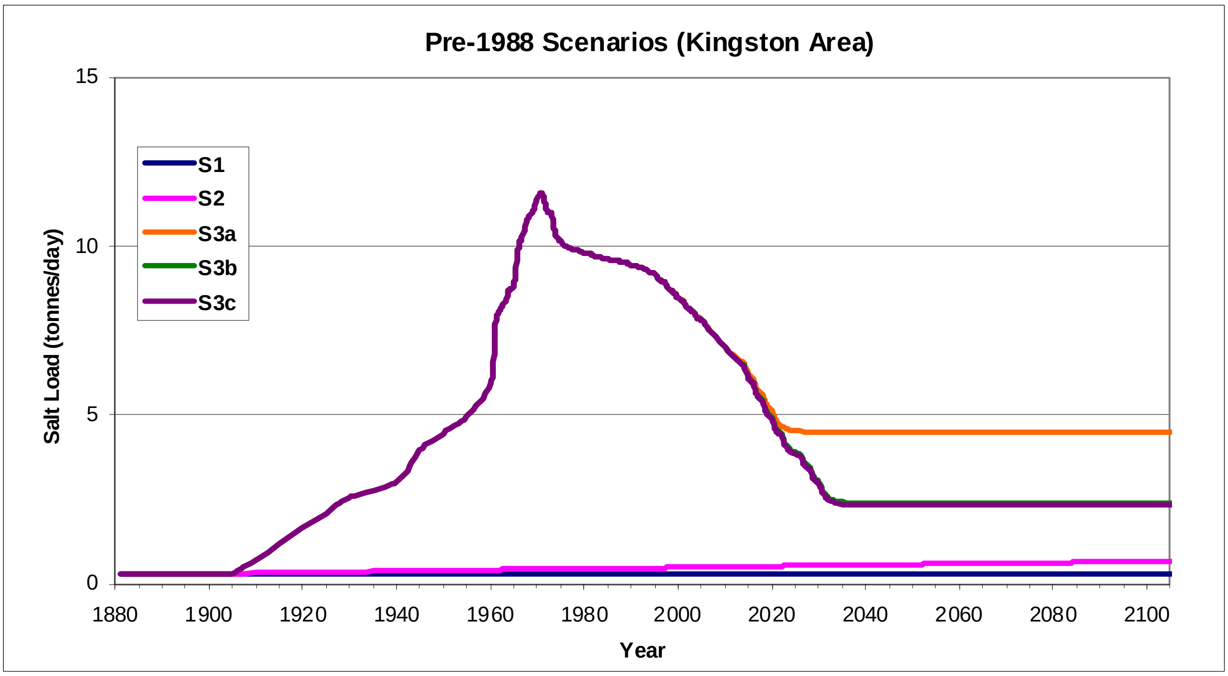
B-1-d. Modelled salt load (tonnes/day) entering the River Murray in the Kingston area (All scenarios)

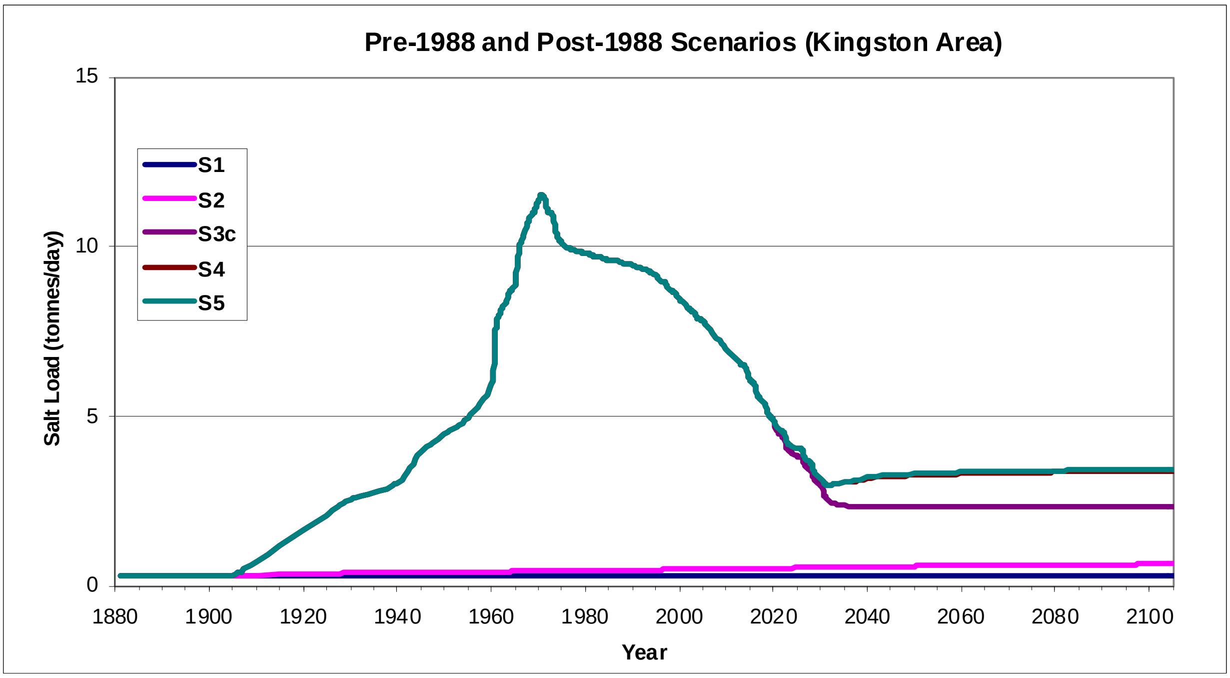
Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2001	0.3	0.5	8.4	8.4	8.4	8.4	8.4
2002	0.3	0.5	8.2	8.2	8.2	8.2	8.2
2003	0.3	0.5	8.1	8.1	8.1	8.1	8.1
2004	0.3	0.5	7.9	7.9	7.9	7.9	7.9
2005	0.3	0.5	7.8	7.8	7.8	7.8	7.8
2006	**0.3**	**0.5**	**7.6**	**7.6**	**7.6**	**7.6**	**7.6**
2007	0.3	0.5	7.5	7.5	7.5	7.5	7.5
2008	0.3	0.5	7.3	7.3	7.3	7.3	7.3
2009	0.3	0.5	7.2	7.2	7.2	7.2	7.2
2010	0.3	0.5	7.0	7.0	7.0	7.0	7.0
2011	0.3	0.5	6.9	6.8	6.8	6.8	6.8
2012	0.3	0.5	6.7	6.7	6.7	6.7	6.7
2013	0.3	0.5	6.6	6.6	6.6	6.6	6.6
2014	0.3	0.5	6.5	6.5	6.4	6.4	6.4
2015	0.3	0.5	6.2	6.1	6.1	6.1	6.1
2016	0.3	0.5	6.1	5.9	5.9	5.9	5.9
2017	0.3	0.5	5.7	5.6	5.6	5.6	5.6
2018	0.3	0.5	5.6	5.4	5.4	5.4	5.4
2019	0.3	0.5	5.3	5.1	5.0	5.0	5.0
2020	0.3	0.5	5.1	4.9	4.9	4.9	4.9
2021	0.3	0.5	4.8	4.6	4.5	4.6	4.6
2022	0.3	0.5	4.7	4.4	4.4	4.6	4.6
2023	0.3	0.5	4.6	4.1	4.0	4.2	4.2
2024	0.3	0.5	4.6	4.0	3.9	4.1	4.1
2025	0.3	0.5	4.5	3.9	3.8	4.0	4.0
2026	0.3	0.5	4.5	3.8	3.8	4.0	4.0
2027	0.3	0.5	4.5	3.6	3.5	3.7	3.7
2028	0.3	0.5	4.5	3.5	3.4	3.6	3.6
2029	0.3	0.5	4.5	3.1	3.1	3.3	3.3
2030	0.3	0.5	4.5	3.0	3.0	3.2	3.2
2031	0.3	0.5	4.5	2.7	2.6	3.0	3.0
2032	0.3	0.5	4.5	2.6	2.5	3.0	3.0
2033	0.3	0.5	4.5	2.5	2.4	3.0	3.0
2034	0.3	0.6	4.5	2.4	2.4	3.0	3.0
2035	0.3	0.6	4.5	2.4	2.4	3.0	3.0
2036	0.3	0.6	4.5	2.4	2.3	3.1	3.1
2037	0.3	0.6	4.5	2.4	2.3	3.1	3.1
2038	0.3	0.6	4.5	2.4	2.3	3.1	3.1
2039	0.3	0.6	4.5	2.4	2.3	3.1	3.2
2040	0.3	0.6	4.5	2.4	2.3	3.2	3.2
2041	0.3	0.6	4.5	2.4	2.3	3.2	3.2
2042	0.3	0.6	4.5	2.4	2.3	3.2	3.2
2043	0.3	0.6	4.5	2.4	2.3	3.2	3.3
2044	0.3	0.6	4.5	2.4	2.3	3.2	3.3
2045	0.3	0.6	4.5	2.4	2.3	3.2	3.3
2046	0.3	0.6	4.5	2.4	2.3	3.2	3.3
2047	0.3	0.6	4.5	2.4	2.3	3.2	3.3
2048	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2049	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2050	**0.3**	**0.6**	**4.5**	**2.4**	**2.3**	**3.3**	**3.3**
2051	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2052	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2053	0.3	0.6	4.5	2.4	2.3	3.3	3.3

B-1-d. Modelled salt load (tonnes/day) entering the River Murray in the Kingston area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2054	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2055	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2056	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2057	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2058	0.3	0.6	4.5	2.4	2.3	3.3	3.3
2059	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2060	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2061	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2062	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2063	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2064	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2065	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2066	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2067	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2068	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2069	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2070	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2071	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2072	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2073	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2074	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2075	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2076	0.3	0.6	4.5	2.4	2.3	3.3	3.4
2077	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2078	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2079	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2080	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2081	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2082	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2083	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2084	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2085	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2086	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2087	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2088	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2089	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2090	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2091	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2092	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2093	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2094	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2095	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2096	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2097	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2098	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2099	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2100	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2101	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2102	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2103	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2104	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2105	0.3	0.6	4.5	2.4	2.3	3.4	3.4
2106	**0.3**	**0.6**	**4.5**	**2.4**	**2.3**	**3.4**	**3.4**

B-1-d. Modelled salt load (tonnes/day) entering the River Murray in the Kingston area (All scenarios)





B-1-d. Graph of modelled salt load (tonnes/day) entering the River Murray in the Kingston area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
1881	293	293	295	295	295	295	295
1900	293	294	295	295	295	295	295
1905	293	294	295	295	295	295	295
1910	293	295	295	295	295	295	295
1915	293	295	295	295	295	295	295
1920	293	296	295	295	295	295	295
1925	293	296	295	295	295	295	295
1930	293	297	299	299	299	299	299
1935	293	297	306	306	306	306	306
1940	293	298	321	321	321	321	321
1945	293	299	345	345	345	345	345
1950	293	301	402	402	402	402	402
1955	293	302	501	501	501	501	501
1960	293	305	531	531	531	531	531
1961	293	306	535	535	535	535	535
1962	293	307	534	534	534	534	534
1963	293	308	535	535	535	535	535
1964	293	309	537	537	537	537	537
1965	293	309	539	539	539	539	539
1966	293	310	541	541	541	541	541
1967	293	310	543	543	543	543	543
1968	293	311	544	544	544	544	544
1969	293	311	546	546	546	546	546
1970	293	312	547	547	547	547	547
1971	293	312	549	549	549	549	549
1972	293	314	550	550	550	550	550
1973	293	315	551	551	551	551	551
1974	293	315	552	552	552	552	552
1975	293	316	554	554	554	554	554
1976	293	317	555	555	555	555	555
1977	293	318	556	556	556	556	556
1978	293	318	557	557	557	557	557
1979	293	319	557	557	557	557	557
1980	293	320	558	558	558	558	558
1981	293	321	559	559	559	559	559
1982	293	322	602	602	602	602	602
1983	293	324	617	617	617	617	617
1984	293	325	670	670	670	670	670
1985	293	326	692	692	692	692	692
1986	293	327	795	795	795	795	795
1987	293	328	837	837	837	837	837
1988	**293**	**330**	**1002**	**1002**	**1002**	**1002**	**1002**
1989	293	331	1073	1073	1073	1073	1073
1990	293	332	1125	1125	1125	1125	1125
1991	293	333	1170	1170	1170	1170	1170
1992	293	335	1211	1211	1211	1211	1211
1993	293	337	1248	1248	1248	1248	1248
1994	293	339	1282	1282	1282	1282	1282
1995	293	340	1314	1314	1314	1314	1314
1996	293	342	1344	1344	1344	1344	1344
1997	293	344	1372	1372	1372	1372	1372
1998	293	345	1398	1398	1398	1398	1398
1999	293	347	1422	1423	1423	1423	1423
2000	**293**	**348**	**1446**	**1446**	**1446**	**1446**	**1446**

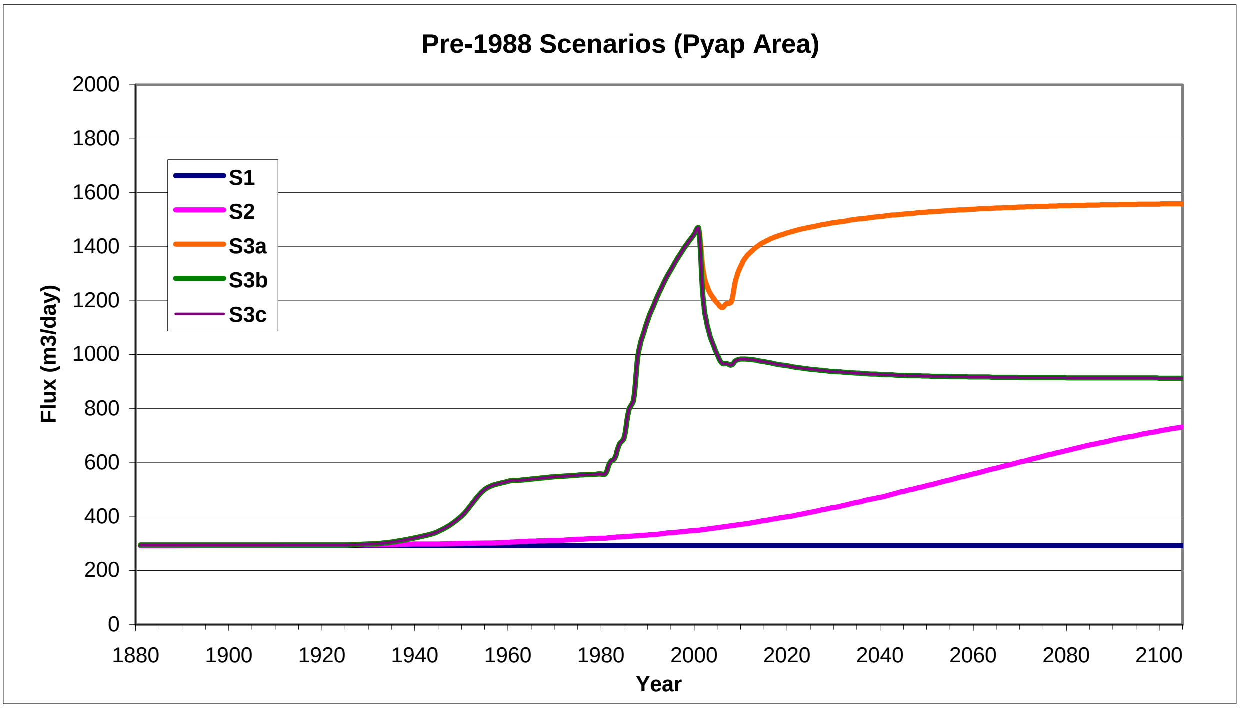
B-1-e. Modelled groundwater flux (m^3/day) entering the River Murray in the Pyap area (All scenarios)

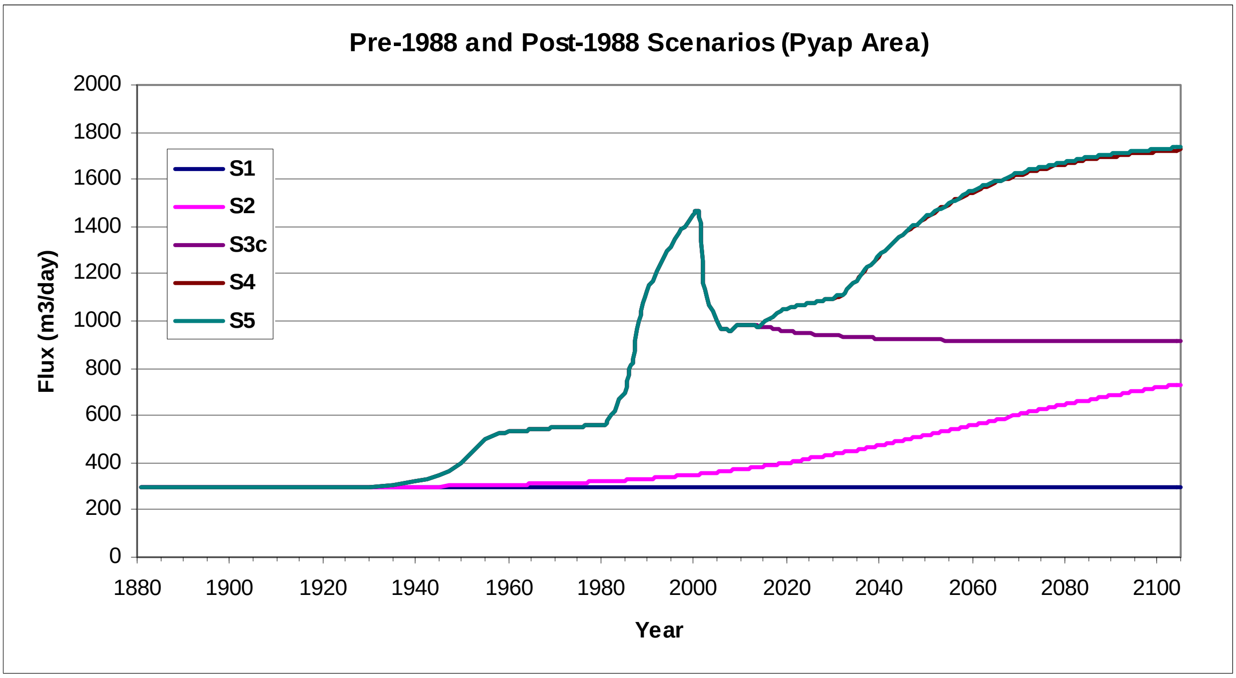
Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2001	293	350	1468	1468	1468	1468	1468
2002	293	353	1304	1196	1196	1196	1196
2003	293	355	1245	1099	1099	1099	1099
2004	293	357	1213	1042	1042	1042	1042
2005	293	360	1191	1001	1001	1001	1001
2006	**293**	**362**	**1175**	**969**	**969**	**969**	**969**
2007	293	364	1189	968	968	968	968
2008	293	366	1196	961	961	961	961
2009	293	369	1278	978	978	978	978
2010	293	371	1326	984	984	984	984
2011	293	373	1357	984	984	984	984
2012	293	376	1378	983	983	983	983
2013	293	379	1394	980	980	980	980
2014	293	382	1406	977	977	977	977
2015	293	385	1417	974	974	991	991
2016	293	388	1425	971	971	1007	1007
2017	293	391	1433	968	968	1021	1021
2018	293	394	1440	964	964	1033	1033
2019	293	397	1446	961	961	1042	1042
2020	293	399	1451	959	959	1050	1050
2021	293	402	1456	956	956	1056	1056
2022	293	406	1461	953	953	1062	1062
2023	293	409	1465	951	951	1066	1066
2024	293	413	1469	949	949	1071	1071
2025	293	417	1473	947	947	1074	1074
2026	293	420	1476	945	945	1078	1078
2027	293	423	1480	943	943	1082	1083
2028	293	427	1483	941	941	1086	1087
2029	293	430	1486	939	939	1089	1091
2030	293	433	1489	938	938	1093	1095
2031	293	437	1491	936	936	1105	1106
2032	293	441	1494	935	935	1112	1114
2033	293	445	1497	934	934	1135	1136
2034	293	449	1499	933	933	1149	1150
2035	293	453	1502	932	932	1171	1172
2036	293	457	1504	930	930	1193	1195
2037	293	461	1506	929	929	1215	1217
2038	293	465	1508	929	929	1236	1237
2039	293	468	1510	928	928	1255	1257
2040	293	472	1512	927	927	1275	1276
2041	293	476	1514	926	926	1293	1295
2042	293	480	1516	925	925	1311	1313
2043	293	485	1518	925	925	1329	1330
2044	293	489	1519	924	924	1345	1347
2045	293	493	1521	923	923	1362	1364
2046	293	498	1522	923	923	1377	1379
2047	293	502	1524	922	922	1393	1395
2048	293	506	1525	922	922	1407	1409
2049	293	510	1527	921	921	1421	1424
2050	**293**	**514**	**1528**	**921**	**921**	**1435**	**1437**
2051	293	518	1529	921	921	1448	1450
2052	293	523	1531	920	920	1460	1463
2053	293	527	1532	920	920	1473	1475

B-1-e. Modelled groundwater flux (m^3/day) entering the River Murray in the Pyap area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2054	293	532	1533	919	919	1484	1487
2055	293	536	1534	919	919	1495	1499
2056	293	541	1535	919	919	1506	1509
2057	293	545	1536	918	918	1516	1520
2058	293	549	1537	918	918	1526	1530
2059	293	554	1538	918	918	1536	1540
2060	293	558	1539	918	918	1545	1549
2061	293	562	1540	917	917	1554	1558
2062	293	567	1541	917	917	1562	1566
2063	293	571	1541	917	917	1570	1575
2064	293	576	1542	917	917	1578	1582
2065	293	580	1543	917	917	1585	1590
2066	293	585	1544	916	916	1592	1597
2067	293	589	1545	916	916	1599	1604
2068	293	593	1545	916	916	1605	1611
2069	293	598	1546	916	916	1611	1617
2070	293	602	1547	916	916	1617	1623
2071	293	606	1547	916	916	1623	1629
2072	293	610	1548	916	916	1628	1635
2073	293	615	1548	915	915	1634	1640
2074	293	619	1549	915	915	1639	1646
2075	293	624	1549	915	915	1644	1651
2076	293	628	1550	915	915	1648	1655
2077	293	632	1550	915	915	1653	1660
2078	293	636	1551	915	915	1657	1665
2079	293	641	1551	915	915	1661	1669
2080	293	645	1552	915	915	1665	1673
2081	293	649	1552	915	915	1669	1677
2082	293	653	1553	914	914	1672	1680
2083	293	657	1553	914	914	1676	1684
2084	293	661	1554	914	914	1679	1687
2085	293	665	1554	914	914	1682	1691
2086	293	669	1554	914	914	1685	1694
2087	293	672	1555	914	914	1688	1697
2088	293	676	1555	914	914	1691	1700
2089	293	680	1555	914	914	1694	1703
2090	293	684	1556	914	914	1696	1705
2091	293	687	1556	914	914	1699	1708
2092	293	691	1556	914	914	1701	1710
2093	293	694	1557	914	914	1704	1713
2094	293	698	1557	914	914	1706	1715
2095	293	701	1557	914	914	1708	1717
2096	293	704	1557	914	914	1710	1719
2097	293	708	1558	914	914	1712	1722
2098	293	711	1558	913	913	1714	1724
2099	293	714	1558	913	913	1716	1725
2100	293	717	1558	913	913	1718	1727
2101	293	720	1559	913	913	1719	1729
2102	293	723	1559	913	913	1721	1731
2103	293	726	1559	913	913	1723	1732
2104	293	730	1559	913	913	1724	1734
2105	293	732	1559	913	913	1725	1735
2106	**293**	**735**	**1560**	**913**	**913**	**1727**	**1737**

B-1-e. Modelled groundwater flux (m^3/day) entering the River Murray in the Pyap area (All scenarios)





B-1-e. Graph of modelled groundwater flux (m³/day) entering the River Murray in the Pyap area

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
1881	35	35	35	35	35	35	35
1900	35	35	35	35	35	35	35
1905	35	36	35	35	35	35	35
1910	35	37	35	35	35	35	35
1915	35	37	35	35	35	35	35
1920	35	39	35	35	35	35	35
1925	35	39	35	35	35	35	35
1930	35	42	35	35	35	35	35
1935	35	42	36	36	36	36	36
1940	35	45	36	36	36	36	36
1945	35	45	36	36	36	36	36
1950	35	49	37	37	37	37	37
1955	35	50	38	38	38	38	38
1960	35	55	40	40	40	40	40
1961	35	56	41	41	41	41	41
1962	35	58	42	42	42	42	42
1963	35	60	43	43	43	43	43
1964	35	60	43	43	43	43	43
1965	35	61	44	44	44	44	44
1966	35	62	45	45	45	45	45
1967	35	62	46	46	46	46	46
1968	35	63	46	46	46	46	46
1969	35	63	47	47	47	47	47
1970	35	63	48	48	48	48	48
1971	35	64	49	49	49	49	49
1972	35	66	49	49	49	49	49
1973	35	68	50	50	50	50	50
1974	35	69	51	51	51	51	51
1975	35	70	52	52	52	52	52
1976	35	71	53	53	53	53	53
1977	35	72	53	53	53	53	53
1978	35	73	54	54	54	54	54
1979	35	73	55	55	55	55	55
1980	35	74	142	142	142	142	142
1981	35	74	201	201	201	201	201
1982	35	77	407	407	407	407	407
1983	35	80	570	570	570	570	570
1984	35	81	684	684	684	684	684
1985	35	83	781	781	781	781	781
1986	35	84	869	869	869	869	869
1987	35	85	960	960	960	960	960
1988	**35**	**86**	**1022**	**1022**	**1022**	**1022**	**1022**
1989	35	87	1077	1077	1077	1077	1077
1990	35	88	1110	1110	1110	1110	1110
1991	35	89	1144	1144	1144	1144	1144
1992	35	92	1159	1159	1159	1159	1159
1993	35	95	1179	1179	1179	1179	1179
1994	35	97	1168	1168	1168	1168	1168
1995	35	99	1161	1161	1161	1161	1161
1996	35	100	1143	1143	1143	1143	1143
1997	35	102	1136	1136	1136	1136	1136
1998	35	103	1117	1117	1117	1117	1117
1999	35	104	1107	1107	1107	1107	1107
2000	**35**	**105**	**1102**	**1086**	**1086**	**1086**	**1086**

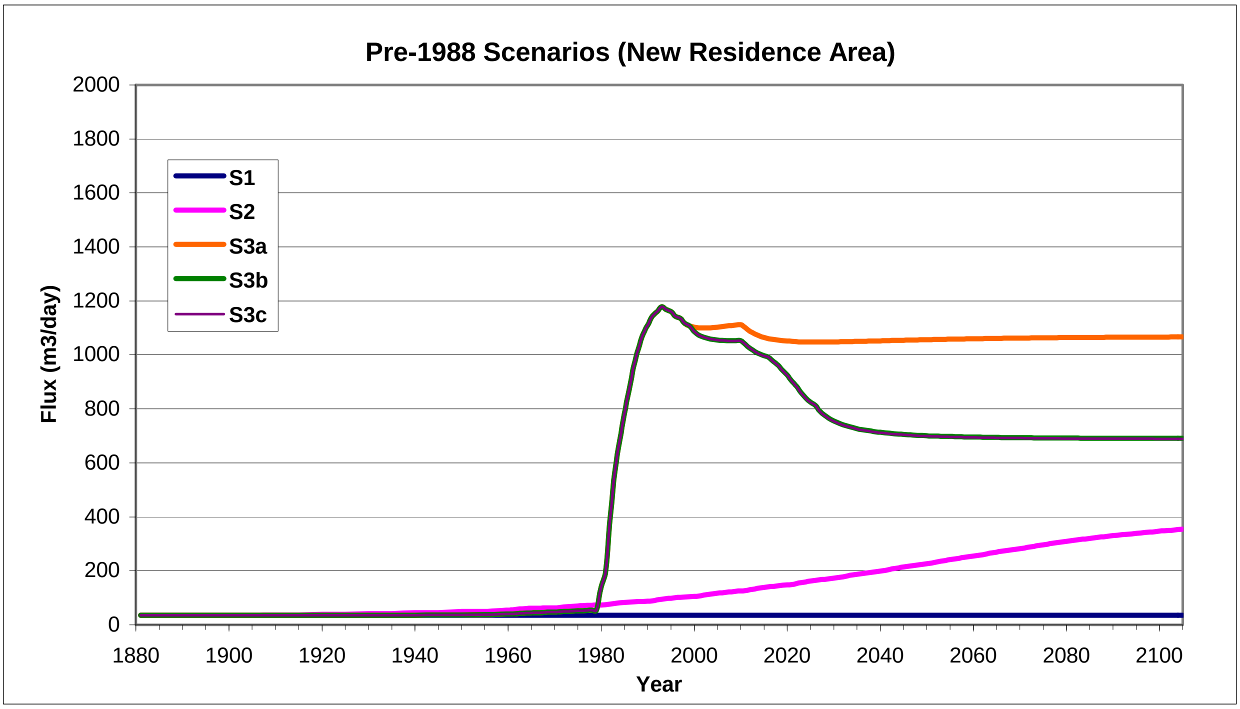
B-1-f. Modelled groundwater flux (m^3/day) entering the River Murray in the New Residence area (All scenarios)

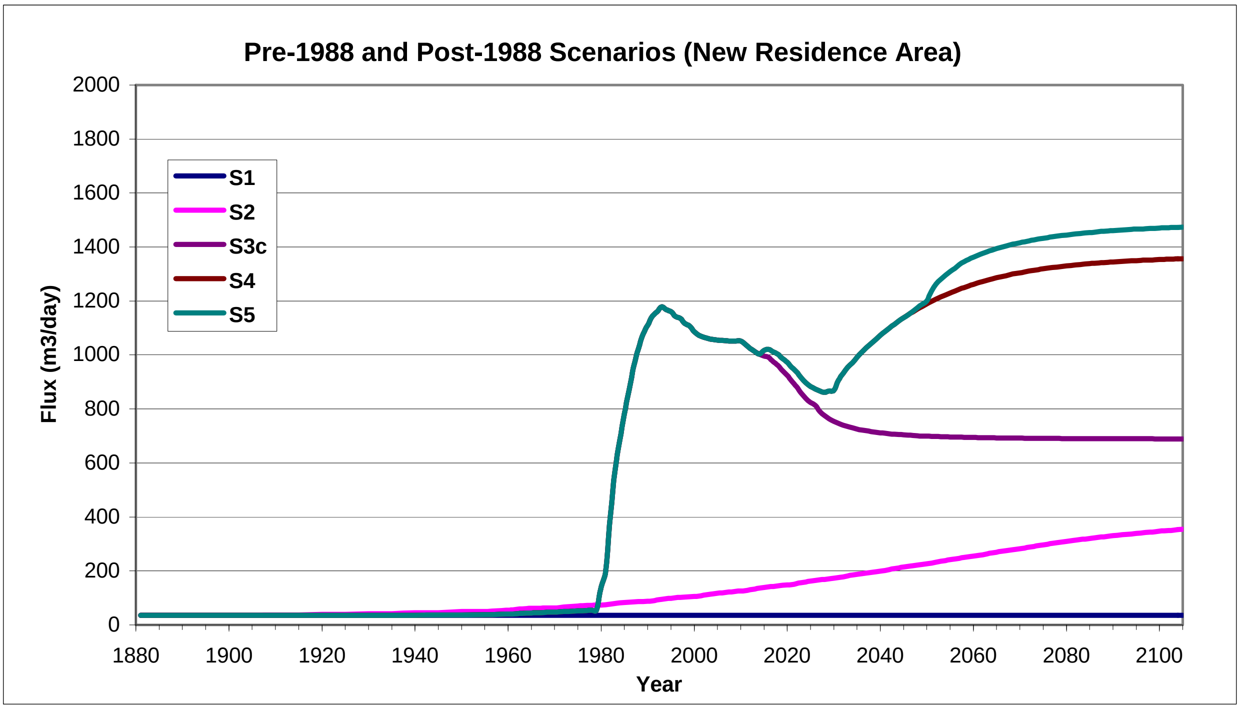
Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2001	35	106	1100	1073	1073	1073	1073
2002	35	110	1100	1066	1066	1066	1066
2003	35	113	1100	1061	1061	1061	1061
2004	35	115	1102	1058	1057	1057	1057
2005	35	117	1103	1055	1055	1055	1055
2006	**35**	**119**	**1105**	**1054**	**1054**	**1054**	**1054**
2007	35	121	1107	1053	1053	1053	1053
2008	35	122	1109	1053	1052	1052	1052
2009	35	124	1111	1052	1052	1052	1052
2010	35	125	1113	1052	1052	1052	1052
2011	35	127	1102	1040	1039	1039	1039
2012	35	130	1088	1025	1024	1024	1024
2013	35	133	1077	1013	1012	1012	1012
2014	35	136	1070	1004	1003	1003	1003
2015	35	138	1064	997	996	1017	1017
2016	35	141	1060	992	991	1021	1021
2017	35	143	1057	975	975	1011	1011
2018	35	145	1055	963	962	1003	1003
2019	35	146	1053	942	941	987	987
2020	35	148	1051	926	925	974	974
2021	35	150	1050	903	902	953	953
2022	35	153	1049	884	884	938	938
2023	35	156	1049	859	859	915	915
2024	35	159	1048	840	839	897	897
2025	35	162	1048	825	824	884	884
2026	35	164	1048	814	813	873	873
2027	35	167	1048	792	791	866	866
2028	35	169	1048	777	775	862	862
2029	35	171	1048	765	764	867	867
2030	35	173	1048	756	754	869	869
2031	35	175	1048	748	746	906	906
2032	35	178	1049	741	740	932	932
2033	35	182	1049	736	735	954	954
2034	35	185	1050	731	730	971	971
2035	35	187	1050	727	726	992	992
2036	35	190	1050	724	722	1010	1010
2037	35	193	1051	721	719	1026	1026
2038	35	195	1051	718	716	1042	1043
2039	35	197	1052	715	714	1058	1058
2040	35	199	1052	713	712	1073	1073
2041	35	202	1053	711	710	1087	1087
2042	35	205	1053	710	708	1101	1101
2043	35	208	1053	708	707	1114	1114
2044	35	211	1054	707	705	1126	1126
2045	35	214	1054	705	704	1138	1138
2046	35	217	1055	704	703	1149	1149
2047	35	219	1055	703	702	1160	1162
2048	35	222	1056	702	701	1170	1175
2049	35	224	1056	702	700	1180	1188
2050	**35**	**227**	**1056**	**701**	**699**	**1189**	**1200**
2051	35	229	1057	700	699	1198	1237
2052	35	232	1057	699	698	1207	1262
2053	35	236	1058	699	697	1215	1281

B-1-f. Modelled groundwater flux (m^3/day) entering the River Murray in the New Residence area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2054	35	239	1058	698	697	1223	1296
2055	35	242	1058	698	696	1230	1309
2056	35	244	1059	697	696	1237	1321
2057	35	247	1059	697	695	1243	1334
2058	35	250	1059	696	695	1250	1345
2059	35	252	1060	696	695	1256	1354
2060	35	255	1060	696	694	1261	1362
2061	35	257	1060	695	694	1267	1370
2062	35	260	1060	695	694	1272	1377
2063	35	263	1061	695	693	1277	1383
2064	35	266	1061	695	693	1281	1389
2065	35	269	1061	694	693	1286	1394
2066	35	272	1061	694	693	1290	1399
2067	35	275	1062	694	692	1294	1404
2068	35	277	1062	694	692	1298	1408
2069	35	280	1062	693	692	1301	1412
2070	35	282	1062	693	692	1305	1416
2071	35	285	1063	693	692	1308	1420
2072	35	288	1063	693	691	1311	1423
2073	35	291	1063	693	691	1314	1426
2074	35	294	1063	693	691	1316	1429
2075	35	296	1063	693	691	1319	1432
2076	35	299	1064	692	691	1321	1435
2077	35	302	1064	692	691	1324	1438
2078	35	304	1064	692	691	1326	1440
2079	35	307	1064	692	691	1328	1442
2080	35	309	1064	692	690	1330	1444
2081	35	312	1064	692	690	1332	1447
2082	35	314	1064	692	690	1334	1448
2083	35	316	1065	692	690	1335	1450
2084	35	318	1065	692	690	1337	1452
2085	35	320	1065	692	690	1338	1454
2086	35	322	1065	692	690	1340	1455
2087	35	324	1065	691	690	1341	1457
2088	35	326	1065	691	690	1342	1458
2089	35	328	1065	691	690	1344	1459
2090	35	330	1065	691	690	1345	1461
2091	35	332	1065	691	690	1346	1462
2092	35	334	1066	691	690	1347	1463
2093	35	336	1066	691	690	1348	1464
2094	35	337	1066	691	690	1349	1465
2095	35	339	1066	691	690	1350	1466
2096	35	341	1066	691	689	1350	1467
2097	35	342	1066	691	689	1351	1468
2098	35	344	1066	691	689	1352	1469
2099	35	345	1066	691	689	1353	1469
2100	35	347	1066	691	689	1353	1470
2101	35	348	1066	691	689	1354	1471
2102	35	350	1066	691	689	1355	1472
2103	35	351	1066	691	689	1355	1472
2104	35	353	1066	691	689	1356	1473
2105	35	354	1067	691	689	1356	1473
2106	**35**	**356**	**1067**	**691**	**689**	**1357**	**1474**

B-1-f. Modelled groundwater flux (m^3/day) entering the River Murray in the New Residence area (All scenarios)





B-1-f. Graph of modelled groundwater flux (m³/day) entering the River Murray in the New Residence area

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
1881	162	162	162	162	162	162	162
1900	162	162	162	162	162	162	162
1905	162	162	162	162	162	162	162
1910	162	165	182	182	182	182	182
1915	162	166	206	206	206	206	206
1920	162	169	230	230	230	230	230
1925	162	170	255	255	255	255	255
1930	162	174	280	280	280	280	280
1935	162	174	306	306	306	306	306
1940	162	178	369	369	369	369	369
1945	162	179	418	418	418	418	418
1950	162	183	502	502	502	502	502
1955	162	184	657	657	657	657	657
1960	162	188	930	930	930	930	930
1961	162	190	1142	1142	1142	1142	1142
1962	162	192	1313	1313	1313	1313	1313
1963	162	193	1431	1431	1431	1431	1431
1964	162	195	1562	1562	1562	1562	1562
1965	162	195	1654	1654	1654	1654	1654
1966	162	196	1804	1804	1804	1804	1804
1967	162	197	1910	1910	1910	1910	1910
1968	162	197	2030	2030	2030	2030	2030
1969	162	198	2108	2108	2108	2108	2108
1970	162	198	2260	2260	2260	2260	2260
1971	162	198	2352	2352	2352	2352	2352
1972	162	201	2494	2494	2494	2494	2494
1973	162	202	2580	2580	2580	2580	2580
1974	162	204	2670	2670	2670	2670	2670
1975	162	205	2729	2729	2729	2729	2729
1976	162	206	2823	2823	2823	2823	2823
1977	162	206	2883	2883	2883	2883	2883
1978	162	207	2977	2977	2977	2977	2977
1979	162	208	3036	3036	3036	3036	3036
1980	162	208	3078	3078	3078	3078	3078
1981	162	208	3109	3109	3109	3109	3109
1982	162	211	3157	3157	3157	3157	3157
1983	162	213	3191	3191	3191	3191	3191
1984	162	214	3268	3268	3268	3268	3268
1985	162	216	3316	3316	3316	3316	3316
1986	162	217	3403	3403	3403	3403	3403
1987	162	217	3458	3458	3458	3458	3458
1988	**162**	**218**	**3495**	**3495**	**3495**	**3495**	**3495**
1989	162	219	3522	3522	3522	3522	3522
1990	162	219	3542	3542	3542	3542	3542
1991	162	220	3557	3557	3557	3557	3557
1992	162	222	3568	3568	3568	3568	3568
1993	162	225	3581	3581	3581	3581	3581
1994	162	226	3478	3478	3478	3478	3478
1995	162	228	3411	3411	3411	3411	3411
1996	162	229	3294	3294	3294	3294	3294
1997	162	230	3209	3209	3209	3209	3209
1998	162	231	3107	3085	3085	3085	3085
1999	162	231	3035	2996	2996	2996	2996
2000	**162**	**232**	**2963**	**2883**	**2871**	**2871**	**2871**

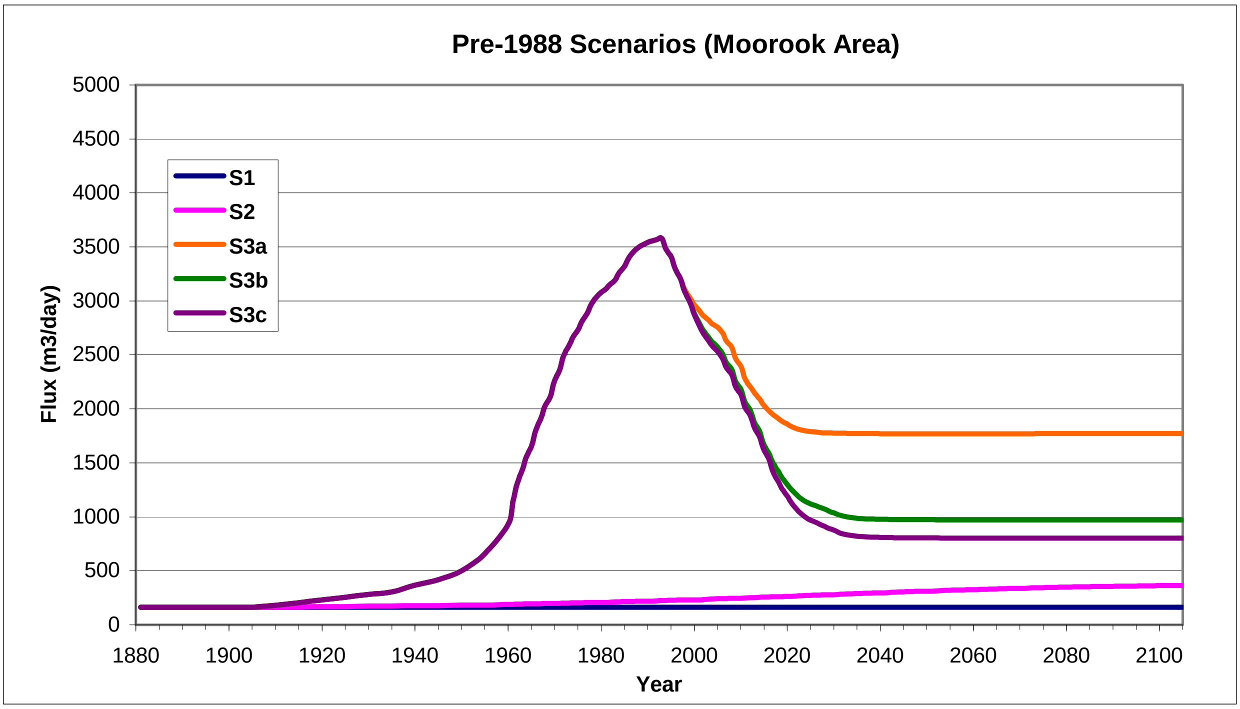
B-1-g. Modelled groundwater flux (m^3/day) entering the River Murray in the Moorook area (All scenarios)

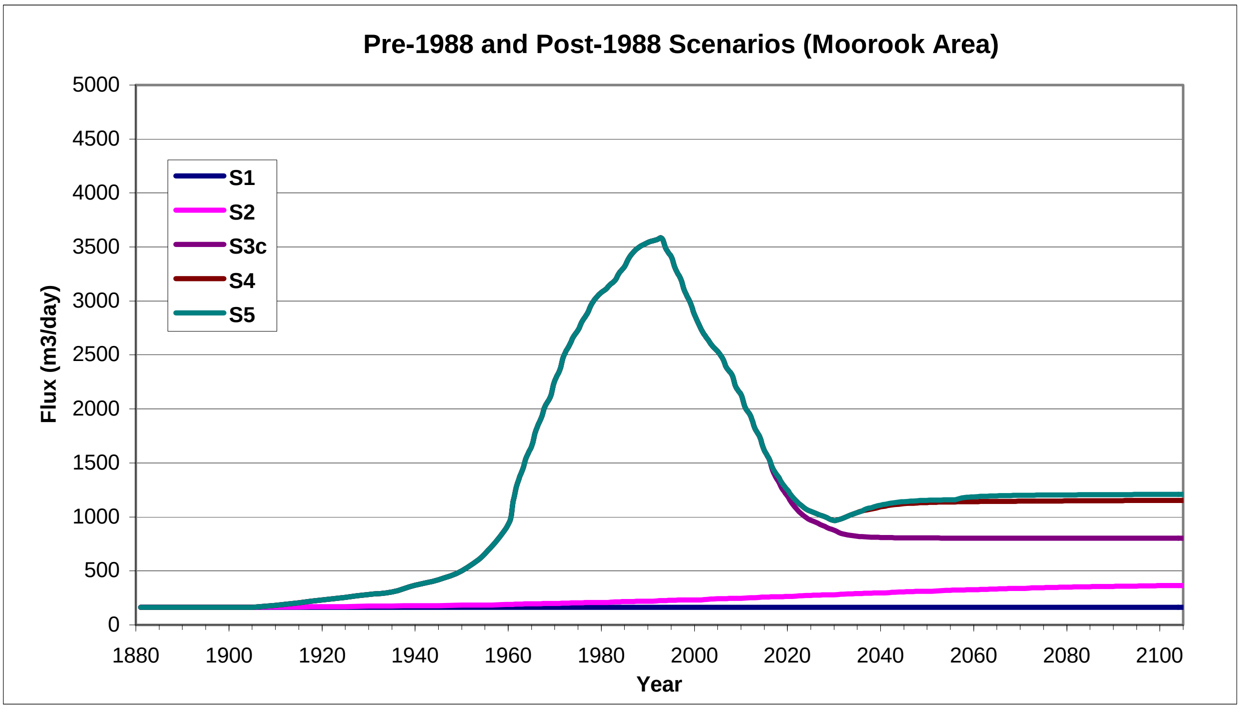
Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2001	162	232	2915	2803	2781	2781	2781
2002	162	235	2861	2725	2696	2696	2696
2003	162	238	2827	2671	2636	2636	2636
2004	162	240	2784	2614	2574	2574	2574
2005	162	242	2758	2575	2533	2533	2533
2006	**162**	**243**	**2710**	**2518**	**2472**	**2472**	**2472**
2007	162	244	2624	2425	2378	2378	2378
2008	162	245	2575	2370	2321	2321	2321
2009	162	246	2460	2251	2200	2200	2200
2010	162	247	2398	2184	2133	2133	2133
2011	162	248	2275	2060	2008	2008	2008
2012	162	251	2209	1992	1940	1940	1940
2013	162	253	2144	1868	1816	1816	1816
2014	162	256	2096	1799	1746	1746	1746
2015	162	257	2032	1667	1615	1616	1616
2016	162	259	1985	1594	1542	1544	1544
2017	162	260	1943	1493	1408	1435	1435
2018	162	261	1913	1429	1333	1374	1374
2019	162	262	1883	1355	1251	1302	1302
2020	162	263	1861	1301	1194	1250	1250
2021	162	264	1836	1247	1124	1190	1190
2022	162	267	1818	1206	1073	1145	1145
2023	162	270	1805	1168	1028	1104	1104
2024	162	272	1797	1141	995	1074	1074
2025	162	274	1790	1121	970	1051	1051
2026	162	275	1786	1106	952	1035	1035
2027	162	277	1782	1087	930	1015	1015
2028	162	278	1780	1072	913	1001	1001
2029	162	279	1778	1052	892	981	981
2030	162	280	1776	1038	876	967	967
2031	162	281	1775	1020	857	975	975
2032	162	283	1774	1007	843	989	989
2033	162	286	1773	998	833	1007	1007
2034	162	288	1773	992	826	1024	1024
2035	162	290	1772	987	821	1041	1041
2036	162	292	1772	984	818	1054	1054
2037	162	293	1771	982	815	1064	1075
2038	162	294	1771	980	813	1071	1086
2039	162	295	1771	979	811	1083	1099
2040	162	296	1771	978	810	1092	1110
2041	162	297	1771	977	809	1101	1119
2042	162	300	1771	976	808	1108	1126
2043	162	302	1771	976	807	1113	1133
2044	162	304	1770	975	807	1118	1137
2045	162	306	1770	975	806	1122	1142
2046	162	307	1770	974	806	1125	1145
2047	162	309	1770	974	806	1128	1148
2048	162	310	1770	974	805	1130	1150
2049	162	311	1770	974	805	1132	1152
2050	**162**	**312**	**1770**	**974**	**805**	**1133**	**1153**
2051	162	313	1770	974	805	1135	1155
2052	162	315	1770	974	805	1136	1156
2053	162	317	1770	973	805	1137	1157

B-1-g. Modelled groundwater flux (m^3/day) entering the River Murray in the Moorook area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2054	162	319	1770	973	805	1138	1158
2055	162	320	1770	973	804	1139	1159
2056	162	322	1771	973	804	1139	1160
2057	162	323	1771	973	804	1140	1172
2058	162	324	1771	973	804	1141	1178
2059	162	325	1771	973	804	1141	1182
2060	162	326	1771	973	804	1142	1186
2061	162	327	1771	973	804	1142	1188
2062	162	328	1771	973	804	1143	1191
2063	162	330	1771	973	804	1143	1193
2064	162	332	1771	973	804	1144	1194
2065	162	333	1771	973	804	1144	1195
2066	162	334	1771	973	804	1144	1197
2067	162	336	1771	973	804	1145	1198
2068	162	337	1771	973	804	1145	1198
2069	162	337	1771	973	804	1145	1199
2070	162	338	1771	973	804	1146	1200
2071	162	339	1771	973	804	1146	1200
2072	162	341	1771	973	804	1146	1201
2073	162	342	1771	973	804	1147	1201
2074	162	344	1771	973	804	1147	1202
2075	162	345	1771	973	804	1147	1202
2076	162	346	1771	973	804	1148	1203
2077	162	347	1771	973	804	1148	1203
2078	162	348	1771	973	804	1148	1203
2079	162	349	1771	973	804	1148	1204
2080	162	350	1771	973	804	1149	1204
2081	162	351	1771	973	804	1149	1204
2082	162	351	1771	973	804	1149	1205
2083	162	352	1771	973	804	1149	1205
2084	162	353	1771	973	804	1150	1205
2085	162	354	1771	973	804	1150	1206
2086	162	354	1771	973	804	1150	1206
2087	162	355	1771	973	804	1150	1206
2088	162	356	1771	973	804	1150	1206
2089	162	356	1771	973	804	1151	1207
2090	162	357	1771	973	804	1151	1207
2091	162	358	1771	973	804	1151	1207
2092	162	358	1771	973	804	1151	1207
2093	162	359	1771	973	804	1151	1207
2094	162	359	1771	973	804	1152	1208
2095	162	360	1771	973	804	1152	1208
2096	162	361	1771	973	804	1152	1208
2097	162	361	1771	973	804	1152	1208
2098	162	362	1771	973	804	1152	1209
2099	162	363	1771	973	804	1153	1209
2100	162	363	1771	973	804	1153	1209
2101	162	364	1771	973	804	1153	1209
2102	162	364	1771	973	804	1153	1209
2103	162	365	1771	973	804	1153	1209
2104	162	365	1771	973	804	1153	1210
2105	162	366	1771	973	804	1154	1210
2106	**162**	**367**	**1771**	**973**	**804**	**1154**	**1210**

B-1-g. Modelled groundwater flux (m^3/day) entering the River Murray in the Moorook area (All scenarios)





B-1-g. Graph of modelled groundwater flux (m^3/day) entering the River Murray in the Moorook area

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
1881	28	28	28	28	28	28	28
1900	28	28	28	28	28	28	28
1905	28	28	28	28	28	28	28
1910	28	30	72	72	72	72	72
1915	28	31	120	120	120	120	120
1920	28	33	169	169	169	169	169
1925	28	34	218	218	218	218	218
1930	28	36	267	267	267	267	267
1935	28	36	317	317	317	317	317
1940	28	37	414	414	414	414	414
1945	28	38	468	468	468	468	468
1950	28	39	521	521	521	521	521
1955	28	39	624	624	624	624	624
1960	28	40	734	734	734	734	734
1961	28	40	800	800	800	800	800
1962	28	41	851	851	851	851	851
1963	28	41	875	875	875	875	875
1964	28	41	914	914	914	914	914
1965	28	41	931	931	931	931	931
1966	28	41	1035	1035	1035	1035	1035
1967	28	41	1077	1077	1077	1077	1077
1968	28	41	1126	1126	1126	1126	1126
1969	28	42	1148	1148	1148	1148	1148
1970	28	42	1187	1187	1187	1187	1187
1971	28	42	1204	1204	1204	1204	1204
1972	28	42	1154	1154	1154	1154	1154
1973	28	42	1141	1141	1141	1141	1141
1974	28	43	1076	1076	1076	1076	1076
1975	28	43	1054	1054	1054	1054	1054
1976	28	43	1038	1038	1038	1038	1038
1977	28	43	1032	1032	1032	1032	1032
1978	28	43	1025	1025	1025	1025	1025
1979	28	43	1023	1023	1023	1023	1023
1980	28	43	1016	1016	1016	1016	1016
1981	28	43	1014	1014	1014	1014	1014
1982	28	44	1007	1007	1007	1007	1007
1983	28	44	1005	1005	1005	1005	1005
1984	28	44	999	999	999	999	999
1985	28	44	997	997	997	997	997
1986	28	44	992	992	992	992	992
1987	28	44	992	992	992	992	992
1988	**28**	**44**	**986**	**986**	**986**	**986**	**986**
1989	28	44	984	984	984	984	984
1990	28	45	977	977	977	977	977
1991	28	45	975	975	975	975	975
1992	28	45	968	968	968	968	968
1993	28	45	965	965	965	965	965
1994	28	46	955	955	955	955	955
1995	28	46	950	950	950	950	950
1996	28	46	932	932	932	932	932
1997	28	46	925	925	925	925	925
1998	28	46	906	906	906	906	906
1999	28	46	897	897	897	897	897
2000	**28**	**46**	**878**	**877**	**877**	**877**	**877**
2001	28	46	869	868	868	868	868

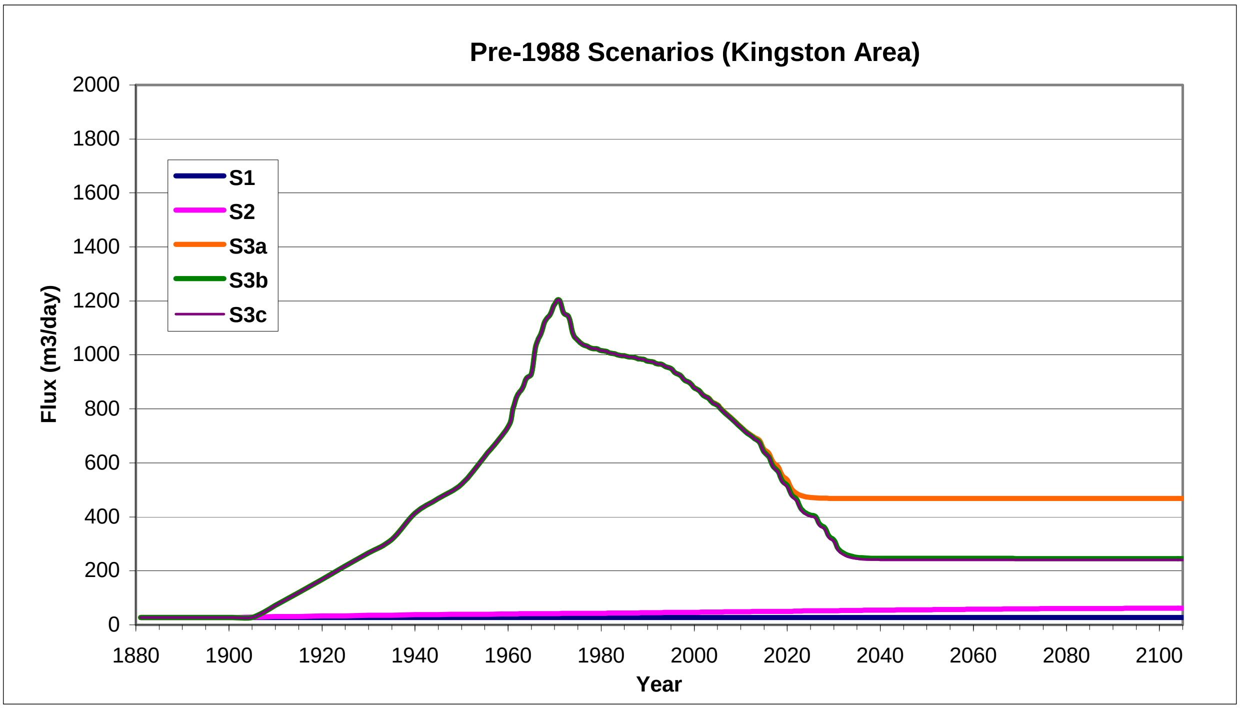
B-1-h. Modelled groundwater flux (m^3/day) entering the River Murray in the Kingston area (All scenarios)

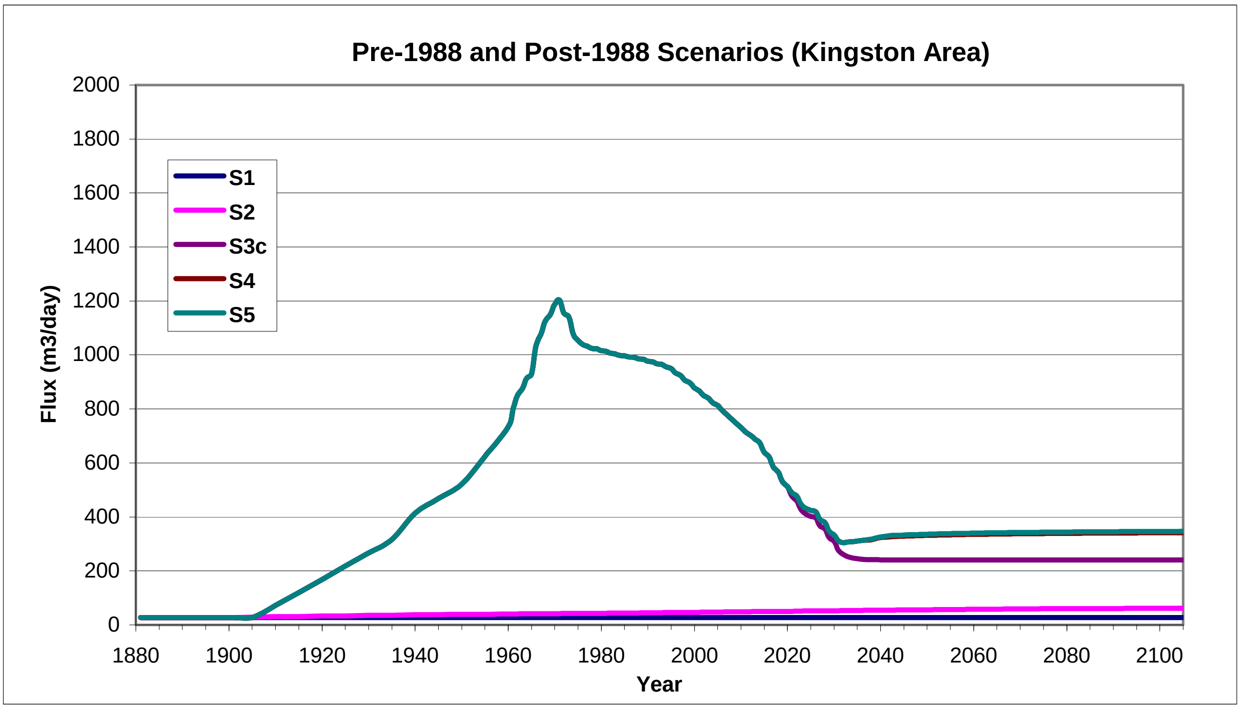
Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2002	28	47	850	849	849	849	849
2003	28	47	842	841	840	840	840
2004	28	48	824	822	821	821	821
2005	28	48	816	814	813	813	813
2006	**28**	**48**	**797**	**795**	**794**	**794**	**794**
2007	28	48	781	779	778	778	778
2008	28	48	766	763	763	763	763
2009	28	48	750	748	747	747	747
2010	28	48	734	732	731	731	731
2011	28	48	718	716	715	715	715
2012	28	49	706	703	703	703	703
2013	28	49	693	689	688	688	688
2014	28	50	683	677	676	676	676
2015	28	50	650	640	639	639	639
2016	28	50	637	624	623	623	623
2017	28	50	601	585	584	584	584
2018	28	50	587	569	566	567	567
2019	28	50	551	532	528	529	529
2020	28	50	537	517	512	513	513
2021	28	50	501	480	475	488	488
2022	28	51	487	466	461	478	478
2023	28	51	479	430	424	444	444
2024	28	52	474	415	410	432	432
2025	28	52	472	407	401	424	424
2026	28	52	470	402	397	420	420
2027	28	52	470	372	367	390	390
2028	28	52	469	361	355	379	379
2029	28	52	469	328	322	346	346
2030	28	52	469	315	309	333	333
2031	28	52	468	281	275	311	311
2032	28	53	468	267	261	305	305
2033	28	53	468	258	253	308	308
2034	28	54	468	254	248	309	309
2035	28	54	468	251	245	311	311
2036	28	54	468	249	243	312	312
2037	28	54	468	248	242	314	315
2038	28	54	468	247	242	315	318
2039	28	54	468	247	241	320	323
2040	28	54	468	247	241	323	327
2041	28	54	468	246	241	325	329
2042	28	55	468	246	241	326	330
2043	28	55	468	246	241	327	331
2044	28	55	468	246	241	328	332
2045	28	55	468	246	241	329	333
2046	28	56	468	246	241	329	334
2047	28	56	468	246	241	330	334
2048	28	56	468	246	241	331	335
2049	28	56	468	246	241	331	335
2050	**28**	**56**	**468**	**246**	**241**	**331**	**336**
2051	28	56	468	246	241	332	336
2052	28	56	468	246	241	332	337
2053	28	57	468	246	241	333	337

B-1-h. Modelled groundwater flux (m^3/day) entering the River Murray in the Kingston area (All scenarios)

Time (year)	S1	S2	S3a	S3b	S3c	S4	S5
2054	28	57	468	246	241	333	338
2055	28	57	468	246	241	334	338
2056	28	57	468	246	240	334	338
2057	28	57	468	246	240	334	339
2058	28	57	468	246	240	335	339
2059	28	58	468	246	240	335	340
2060	28	58	468	246	240	335	340
2061	28	58	468	246	240	336	340
2062	28	58	468	246	240	336	341
2063	28	58	468	246	240	336	341
2064	28	58	468	246	240	336	341
2065	28	59	468	246	240	337	341
2066	28	59	468	246	240	337	342
2067	28	59	468	246	240	337	342
2068	28	59	468	246	240	337	342
2069	28	59	468	246	240	337	342
2070	28	59	468	246	240	338	342
2071	28	59	468	246	240	338	343
2072	28	59	468	246	240	338	343
2073	28	60	468	246	240	338	343
2074	28	60	468	246	240	338	343
2075	28	60	468	246	240	338	343
2076	28	60	468	246	240	339	344
2077	28	60	468	246	240	339	344
2078	28	60	468	246	240	339	344
2079	28	60	468	246	240	339	344
2080	28	60	468	246	240	339	344
2081	28	60	468	246	240	339	344
2082	28	60	468	246	240	339	344
2083	28	61	468	246	240	340	345
2084	28	61	468	246	240	340	345
2085	28	61	468	246	240	340	345
2086	28	61	468	246	240	340	345
2087	28	61	468	246	240	340	345
2088	28	61	468	246	240	340	345
2089	28	61	468	246	240	340	345
2090	28	61	468	246	240	340	345
2091	28	61	468	246	240	340	345
2092	28	61	468	246	240	341	346
2093	28	61	468	246	240	341	346
2094	28	61	468	246	240	341	346
2095	28	61	468	246	240	341	346
2096	28	61	468	246	240	341	346
2097	28	61	468	246	240	341	346
2098	28	61	468	246	240	341	346
2099	28	61	468	246	240	341	346
2100	28	61	468	246	240	341	346
2101	28	61	468	246	240	341	346
2102	28	62	468	246	240	341	347
2103	28	62	468	246	240	342	347
2104	28	62	468	246	240	342	347
2105	28	62	468	246	240	342	347
2106	**28**	**62**	**468**	**246**	**240**	**342**	**347**

B-1-h. Modelled groundwater flux (m^3/day) entering the River Murray in the Kingston area (All scenarios)





B-1-h. Graph of modelled groundwater flux (m^3/day) entering the River Murray in the Kingston area

B-2. MODEL OUTPUT – PYAP AREA

- Model Scenario conditions
- Flow budget zones
- Transient groundwater flux and salt load
- Modelled groundwater flux (m^3/d and L/s)
- Modelled salt load (t/d)

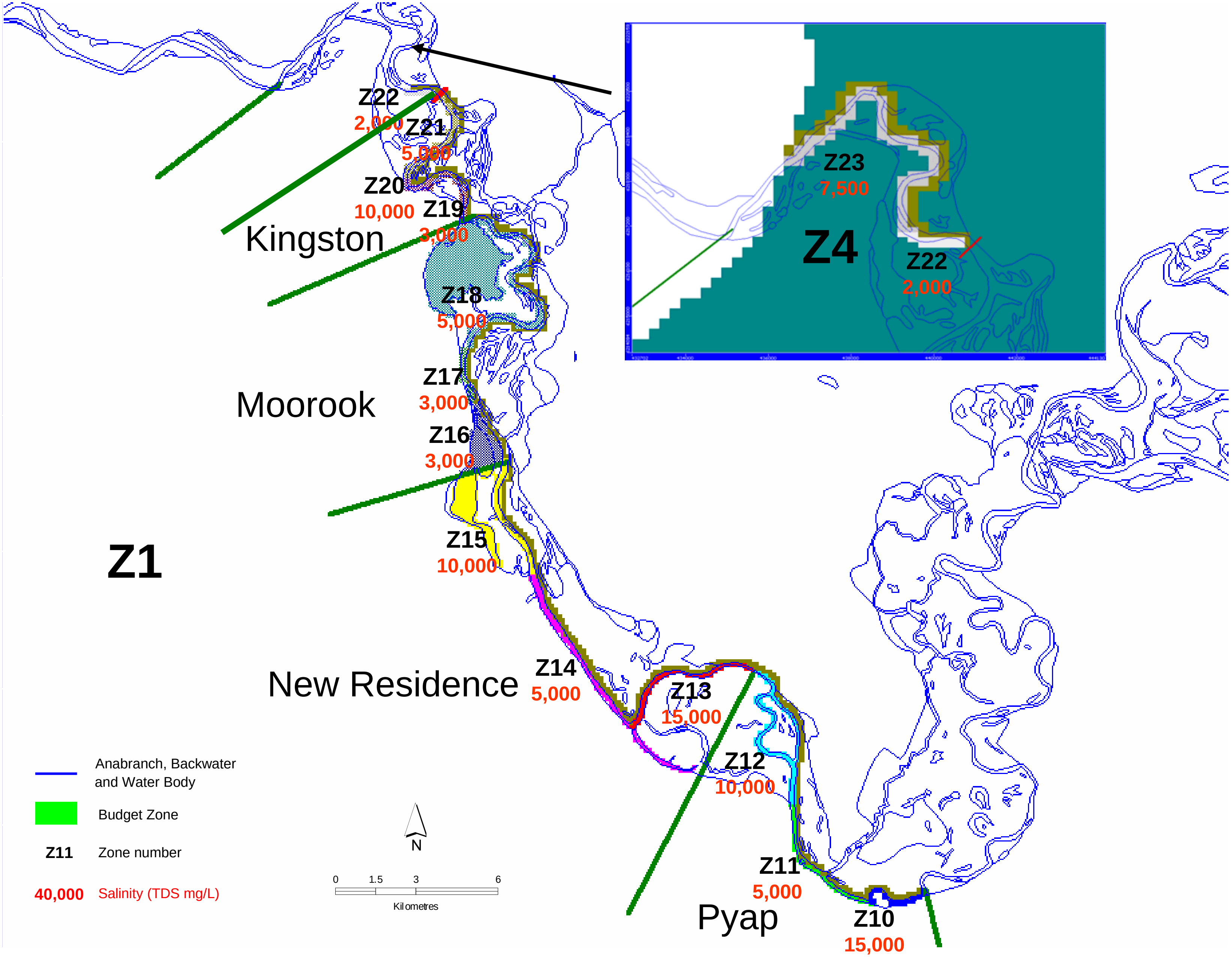
(Transient from 1888 to 1960)

(Scenario-2, 3A, 3B, 3C, 4 and 5)

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

Note: 1 Improved Irrigation Practices, 2 Rehabilitation, 3 Salt Interception Scheme (see Glossary for definitions)

B-2. Model Scenarios and Conditions



B2-1: Flow budget zones (model layer 1) and groundwater salinity values (TDS mg/L) in the Pyap to Kingston area

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
365	1881	23	150	0	71	35	16	**295**	***3***
7300	1900	23	151	0	71	35	16	**295**	***3***
9125	1905	23	151	0	71	35	16	**295**	***3***
10950	1910	23	151	0	71	35	16	**295**	***3***
12775	1915	23	151	0	71	35	16	**295**	***3***
14600	1920	23	151	0	71	35	16	**295**	***3***
16425	1925	23	151	0	71	35	16	**295**	***3***
18250	1930	23	153	0	71	35	16	**299**	***3***
20075	1935	23	158	0	71	37	16	**306**	***4***
21900	1940	23	167	0	71	43	17	**321**	***4***
23725	1945	23	181	0	71	53	17	**345**	***4***
25550	1950	23	208	0	71	82	17	**402**	***5***
27375	1955	63	224	0	108	88	18	**501**	***6***
29200	1960	71	233	0	118	91	18	**531**	***6***

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
365	1881	0.3	0.8	0.0	0.7	0.3	0.2	**2.3**
7300	1900	0.3	0.8	0.0	0.7	0.3	0.2	**2.3**
9125	1905	0.3	0.8	0.0	0.7	0.3	0.2	**2.3**
10950	1910	0.3	0.8	0.0	0.7	0.3	0.2	**2.3**
12775	1915	0.3	0.8	0.0	0.7	0.3	0.2	**2.3**
14600	1920	0.3	0.8	0.0	0.7	0.3	0.2	**2.3**
16425	1925	0.3	0.8	0.0	0.7	0.3	0.2	**2.3**
18250	1930	0.3	0.8	0.0	0.7	0.4	0.2	**2.3**
20075	1935	0.3	0.8	0.0	0.7	0.4	0.2	**2.4**
21900	1940	0.3	0.8	0.0	0.7	0.4	0.2	**2.5**
23725	1945	0.3	0.9	0.0	0.7	0.5	0.2	**2.7**
25550	1950	0.3	1.0	0.0	0.7	0.8	0.2	**3.1**
27375	1955	0.9	1.1	0.0	1.1	0.9	0.2	**4.2**
29200	1960	1.1	1.2	0.0	1.2	0.9	0.2	**4.5**
Salinity (mg/L)		***15,000***	***5,000***	***10,000***	***10,000***	***10,000***	***10,000***	

B-2(Transient from 1880 to 1960). Modelled groundwater flux (m^3/day) and salt load (tonnes/day) entering the River Murray from flow budget zones in the Pyap area

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
365	1881	23	148	0	71	35	16	**293**	***3***
3650	1890	23	149	0	71	35	16	**294**	***3***
7300	1900	23	149	0	71	35	16	**294**	***3***
9125	1905	23	149	0	71	35	16	**295**	***3***
10950	1910	23	149	0	71	35	16	**295**	***3***
12775	1915	23	150	0	72	35	16	**296**	***3***
14600	1920	23	150	0	72	35	16	**296**	***3***
16425	1925	23	150	0	72	35	16	**297**	***3***
18250	1930	23	150	0	72	35	17	**297**	***3***
20075	1935	24	151	0	72	35	17	**298**	***3***
21900	1940	24	151	0	72	35	17	**299**	***3***
23725	1945	24	152	0	73	36	17	**301**	***3***
25550	1950	24	153	0	73	36	17	**302**	***3***
27375	1955	24	154	0	74	36	17	**305**	***4***
29200	1960	25	155	0	74	36	17	**306**	***4***
29565	1961	25	156	0	74	36	17	**307**	***4***
29930	1962	25	156	0	74	36	17	**308**	***4***
30295	1963	25	157	0	74	36	17	**309**	***4***
30660	1964	25	157	0	74	36	17	**309**	***4***
31025	1965	25	157	0	74	37	17	**310**	***4***
31390	1966	25	158	0	74	37	17	**310**	***4***
31755	1967	25	158	0	74	37	17	**311**	***4***
32120	1968	25	158	0	74	37	17	**311**	***4***
32485	1969	25	158	0	74	37	17	**312**	***4***
32850	1970	25	159	0	74	37	17	**312**	***4***
33215	1971	25	160	0	75	37	17	**314**	***4***
33580	1972	25	160	0	75	37	17	**315**	***4***
33945	1973	25	161	0	75	37	17	**315**	***4***
34310	1974	25	161	0	75	37	17	**316**	***4***
34675	1975	26	162	0	75	37	17	**317**	***4***
35040	1976	26	162	0	75	37	17	**318**	***4***
35405	1977	26	163	0	75	38	17	**318**	***4***
35770	1978	26	163	0	75	38	17	**319**	***4***
36135	1979	26	164	0	75	38	17	**320**	***4***
36500	1980	26	164	0	75	38	17	**321**	***4***
36865	1981	26	165	0	76	38	17	**322**	***4***
37230	1982	26	166	0	76	38	18	**324**	***4***
37595	1983	26	167	0	76	38	18	**325**	***4***
37960	1984	26	168	0	76	38	18	**326**	***4***
38325	1985	26	168	0	76	39	18	**327**	***4***
38690	1986	27	169	0	76	39	18	**328**	***4***

B-2(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
39055	1987	27	170	0	76	39	18	**330**	*4*
39420	1988	27	171	0	76	39	18	**331**	*4*
39785	1989	27	171	0	77	39	18	**332**	*4*
40150	1990	27	172	0	77	39	18	**333**	*4*
40515	1991	27	174	0	77	39	18	**335**	*4*
40880	1992	27	175	0	77	40	18	**337**	*4*
41245	1993	27	176	0	77	40	18	**339**	*4*
41610	1994	28	177	0	77	40	18	**340**	*4*
41975	1995	28	178	0	78	40	18	**342**	*4*
42340	1996	28	179	0	78	40	18	**344**	*4*
42705	1997	28	180	0	78	41	18	**345**	*4*
43070	1998	28	181	0	78	41	19	**347**	*4*
43435	1999	28	182	0	78	41	19	**348**	*4*
43800	2000	28	183	0	78	41	19	**350**	*4*
44165	2001	28	185	0	79	41	19	**353**	*4*
44530	2002	29	187	0	79	42	19	**355**	*4*
44895	2003	29	189	0	79	42	19	**357**	*4*
45260	2004	29	190	0	79	42	19	**360**	*4*
45625	2005	29	192	0	79	43	19	**362**	*4*
45990	2006	29	193	0	80	43	19	**364**	*4*
46355	2007	30	195	0	80	43	19	**366**	*4*
46720	2008	30	196	0	80	43	19	**369**	*4*
47085	2009	30	198	0	80	44	19	**371**	*4*
47450	2010	30	199	0	80	44	20	**373**	*4*
47815	2011	30	201	0	81	44	20	**376**	*4*
48180	2012	30	203	0	81	45	20	**379**	*4*
48545	2013	31	206	0	81	45	20	**382**	*4*
48910	2014	31	208	0	82	45	20	**385**	*4*
49275	2015	31	210	0	82	46	20	**388**	*4*
49640	2016	31	211	0	82	46	20	**391**	*5*
50005	2017	32	213	0	82	46	20	**394**	*5*
50370	2018	32	215	0	83	46	20	**397**	*5*
50735	2019	32	217	0	83	47	20	**399**	*5*
51100	2020	32	219	0	83	47	21	**402**	*5*
51465	2021	32	222	0	83	47	21	**406**	*5*
51830	2022	33	224	0	84	48	21	**409**	*5*
52195	2023	33	227	0	84	48	21	**413**	*5*
52560	2024	33	229	0	84	49	21	**417**	*5*
52925	2025	33	232	0	85	49	21	**420**	*5*
53290	2026	34	234	0	85	49	21	**423**	*5*

B-2(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
53655	2027	34	236	0	85	50	21	427	5
54020	2028	34	239	0	86	50	22	430	5
54385	2029	35	241	0	86	50	22	433	5
54750	2030	35	243	0	86	51	22	437	5
55115	2031	35	246	0	87	51	22	441	5
55480	2032	35	249	0	87	52	22	445	5
55845	2033	36	252	0	87	52	22	449	5
56210	2034	36	254	0	88	53	22	453	5
56575	2035	36	257	0	88	53	23	457	5
56940	2036	37	260	0	88	53	23	461	5
57305	2037	37	262	0	89	54	23	465	5
57670	2038	37	265	0	89	54	23	468	5
58035	2039	37	268	0	89	55	23	472	5
58400	2040	38	270	0	90	55	23	476	6
58765	2041	38	273	0	90	55	23	480	6
59130	2042	38	276	0	91	56	23	485	6
59495	2043	39	279	0	91	56	24	489	6
59860	2044	39	282	0	91	57	24	493	6
60225	2045	39	285	0	92	57	24	498	6
60590	2046	40	288	0	92	58	24	502	6
60955	2047	40	291	0	93	58	24	506	6
61320	2048	40	294	0	93	59	24	510	6
61685	2049	41	297	0	94	59	24	514	6
62050	2050	41	299	0	94	59	25	518	6
62415	2051	41	303	0	94	60	25	523	6
62780	2052	42	306	0	95	60	25	527	6
63145	2053	42	309	0	95	61	25	532	6
63510	2054	42	312	0	96	61	25	536	6
63875	2055	43	315	0	96	62	25	541	6
64240	2056	43	318	0	96	62	25	545	6
64605	2057	43	321	0	97	63	26	549	6
64970	2058	44	324	0	97	63	26	554	6
65335	2059	44	327	0	98	63	26	558	6
65700	2060	45	329	0	98	64	26	562	7
66065	2061	45	333	0	99	64	26	567	7
66430	2062	45	336	0	99	65	26	571	7
66795	2063	46	339	0	99	65	26	576	7
67160	2064	46	342	0	100	66	27	580	7
67525	2065	46	345	0	100	66	27	585	7
67890	2066	47	348	0	101	67	27	589	7

B-2(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
68255	2067	47	351	0	101	67	27	**593**	***7***
68620	2068	47	354	0	102	68	27	**598**	***7***
68985	2069	48	357	0	102	68	27	**602**	***7***
69350	2070	48	360	0	103	68	27	**606**	***7***
69715	2071	48	363	0	103	69	27	**610**	***7***
70080	2072	49	366	0	103	69	28	**615**	***7***
70445	2073	49	369	0	104	70	28	**619**	***7***
70810	2074	50	372	0	104	70	28	**624**	***7***
71175	2075	50	375	0	105	71	28	**628**	***7***
71540	2076	50	378	0	105	71	28	**632**	***7***
71905	2077	51	381	0	106	71	28	**636**	***7***
72270	2078	51	383	0	106	72	28	**641**	***7***
72635	2079	51	386	0	106	72	29	**645**	***7***
73000	2080	52	389	0	107	73	29	**649**	***8***
73365	2081	52	392	0	107	73	29	**653**	***8***
73730	2082	52	395	0	108	73	29	**657**	***8***
74095	2083	53	397	0	108	74	29	**661**	***8***
74460	2084	53	400	0	108	74	29	**665**	***8***
74825	2085	53	403	0	109	75	29	**669**	***8***
75190	2086	54	405	0	109	75	29	**672**	***8***
75555	2087	54	408	0	110	75	29	**676**	***8***
75920	2088	54	410	0	110	76	30	**680**	***8***
76285	2089	55	413	0	110	76	30	**684**	***8***
76650	2090	55	415	0	111	76	30	**687**	***8***
77015	2091	55	418	0	111	77	30	**691**	***8***
77380	2092	56	420	0	111	77	30	**694**	***8***
77745	2093	56	422	0	112	77	30	**698**	***8***
78110	2094	56	425	0	112	78	30	**701**	***8***
78475	2095	57	427	0	113	78	30	**704**	***8***
78840	2096	57	429	0	113	78	30	**708**	***8***
79205	2097	57	431	0	113	79	30	**711**	***8***
79570	2098	57	433	0	114	79	31	**714**	***8***
79935	2099	58	436	0	114	79	31	**717**	***8***
80300	2100	58	438	0	114	80	31	**720**	***8***
80665	2101	58	440	0	115	80	31	**723**	***8***
81030	2102	59	442	0	115	80	31	**726**	***8***
81395	2103	59	444	0	115	80	31	**730**	***8***
81760	2104	59	446	0	116	81	31	**732**	***8***
82125	2105	60	448	0	116	81	31	**735**	***9***
82490	2106	60	450	0	116	81	31	**738**	***9***

B-2(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
365	1881	0.3	0.7	0.0	0.7	0.3	0.2	2.3
3650	1890	0.3	0.7	0.0	0.7	0.3	0.2	2.3
7300	1900	0.3	0.7	0.0	0.7	0.3	0.2	2.3
9125	1905	0.3	0.7	0.0	0.7	0.3	0.2	2.3
10950	1910	0.3	0.7	0.0	0.7	0.3	0.2	2.3
12775	1915	0.3	0.7	0.0	0.7	0.3	0.2	2.3
14600	1920	0.3	0.7	0.0	0.7	0.4	0.2	2.3
16425	1925	0.3	0.8	0.0	0.7	0.4	0.2	2.3
18250	1930	0.3	0.8	0.0	0.7	0.4	0.2	2.3
20075	1935	0.4	0.8	0.0	0.7	0.4	0.2	2.3
21900	1940	0.4	0.8	0.0	0.7	0.4	0.2	2.4
23725	1945	0.4	0.8	0.0	0.7	0.4	0.2	2.4
25550	1950	0.4	0.8	0.0	0.7	0.4	0.2	2.4
27375	1955	0.4	0.8	0.0	0.7	0.4	0.2	2.4
29200	1960	0.4	0.8	0.0	0.7	0.4	0.2	2.4
29565	1961	0.4	0.8	0.0	0.7	0.4	0.2	2.4
29930	1962	0.4	0.8	0.0	0.7	0.4	0.2	2.4
30295	1963	0.4	0.8	0.0	0.7	0.4	0.2	2.4
30660	1964	0.4	0.8	0.0	0.7	0.4	0.2	2.4
31025	1965	0.4	0.8	0.0	0.7	0.4	0.2	2.4
31390	1966	0.4	0.8	0.0	0.7	0.4	0.2	2.4
31755	1967	0.4	0.8	0.0	0.7	0.4	0.2	2.4
32120	1968	0.4	0.8	0.0	0.7	0.4	0.2	2.4
32485	1969	0.4	0.8	0.0	0.7	0.4	0.2	2.4
32850	1970	0.4	0.8	0.0	0.7	0.4	0.2	2.5
33215	1971	0.4	0.8	0.0	0.7	0.4	0.2	2.5
33580	1972	0.4	0.8	0.0	0.7	0.4	0.2	2.5
33945	1973	0.4	0.8	0.0	0.7	0.4	0.2	2.5
34310	1974	0.4	0.8	0.0	0.7	0.4	0.2	2.5
34675	1975	0.4	0.8	0.0	0.7	0.4	0.2	2.5
35040	1976	0.4	0.8	0.0	0.8	0.4	0.2	2.5
35405	1977	0.4	0.8	0.0	0.8	0.4	0.2	2.5
35770	1978	0.4	0.8	0.0	0.8	0.4	0.2	2.5
36135	1979	0.4	0.8	0.0	0.8	0.4	0.2	2.5
36500	1980	0.4	0.8	0.0	0.8	0.4	0.2	2.5
36865	1981	0.4	0.8	0.0	0.8	0.4	0.2	2.5
37230	1982	0.4	0.8	0.0	0.8	0.4	0.2	2.5
37595	1983	0.4	0.8	0.0	0.8	0.4	0.2	2.5
37960	1984	0.4	0.8	0.0	0.8	0.4	0.2	2.6
38325	1985	0.4	0.8	0.0	0.8	0.4	0.2	2.6
38690	1986	0.4	0.8	0.0	0.8	0.4	0.2	2.6
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S2). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
39055	1987	0.4	0.8	0.0	0.8	0.4	0.2	2.6
39420	1988	0.4	0.9	0.0	0.8	0.4	0.2	2.6
39785	1989	0.4	0.9	0.0	0.8	0.4	0.2	2.6
40150	1990	0.4	0.9	0.0	0.8	0.4	0.2	2.6
40515	1991	0.4	0.9	0.0	0.8	0.4	0.2	2.6
40880	1992	0.4	0.9	0.0	0.8	0.4	0.2	2.6
41245	1993	0.4	0.9	0.0	0.8	0.4	0.2	2.6
41610	1994	0.4	0.9	0.0	0.8	0.4	0.2	2.7
41975	1995	0.4	0.9	0.0	0.8	0.4	0.2	2.7
42340	1996	0.4	0.9	0.0	0.8	0.4	0.2	2.7
42705	1997	0.4	0.9	0.0	0.8	0.4	0.2	2.7
43070	1998	0.4	0.9	0.0	0.8	0.4	0.2	2.7
43435	1999	0.4	0.9	0.0	0.8	0.4	0.2	2.7
43800	2000	0.4	0.9	0.0	0.8	0.4	0.2	2.7
44165	2001	0.4	0.9	0.0	0.8	0.4	0.2	2.7
44530	2002	0.4	0.9	0.0	0.8	0.4	0.2	2.8
44895	2003	0.4	0.9	0.0	0.8	0.4	0.2	2.8
45260	2004	0.4	1.0	0.0	0.8	0.4	0.2	2.8
45625	2005	0.4	1.0	0.0	0.8	0.4	0.2	2.8
45990	2006	0.4	1.0	0.0	0.8	0.4	0.2	2.8
46355	2007	0.4	1.0	0.0	0.8	0.4	0.2	2.8
46720	2008	0.4	1.0	0.0	0.8	0.4	0.2	2.9
47085	2009	0.4	1.0	0.0	0.8	0.4	0.2	2.9
47450	2010	0.5	1.0	0.0	0.8	0.4	0.2	2.9
47815	2011	0.5	1.0	0.0	0.8	0.4	0.2	2.9
48180	2012	0.5	1.0	0.0	0.8	0.4	0.2	2.9
48545	2013	0.5	1.0	0.0	0.8	0.4	0.2	2.9
48910	2014	0.5	1.0	0.0	0.8	0.5	0.2	3.0
49275	2015	0.5	1.0	0.0	0.8	0.5	0.2	3.0
49640	2016	0.5	1.1	0.0	0.8	0.5	0.2	3.0
50005	2017	0.5	1.1	0.0	0.8	0.5	0.2	3.0
50370	2018	0.5	1.1	0.0	0.8	0.5	0.2	3.0
50735	2019	0.5	1.1	0.0	0.8	0.5	0.2	3.1
51100	2020	0.5	1.1	0.0	0.8	0.5	0.2	3.1
51465	2021	0.5	1.1	0.0	0.8	0.5	0.2	3.1
51830	2022	0.5	1.1	0.0	0.8	0.5	0.2	3.1
52195	2023	0.5	1.1	0.0	0.8	0.5	0.2	3.2
52560	2024	0.5	1.1	0.0	0.8	0.5	0.2	3.2
52925	2025	0.5	1.2	0.0	0.8	0.5	0.2	3.2
53290	2026	0.5	1.2	0.0	0.9	0.5	0.2	3.2
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

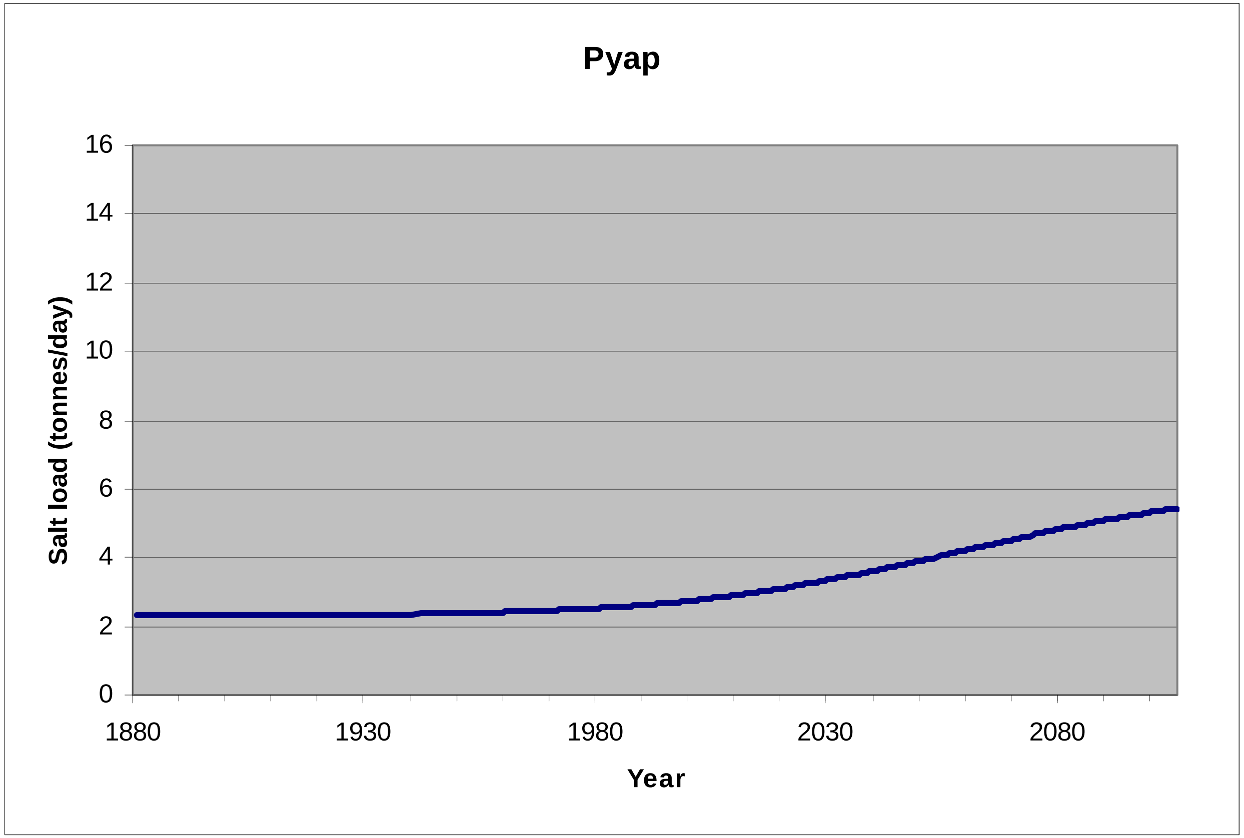
B-2(S2). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
53655	2027	0.5	1.2	0.0	0.9	0.5	0.2	3.3
54020	2028	0.5	1.2	0.0	0.9	0.5	0.2	3.3
54385	2029	0.5	1.2	0.0	0.9	0.5	0.2	3.3
54750	2030	0.5	1.2	0.0	0.9	0.5	0.2	3.3
55115	2031	0.5	1.2	0.0	0.9	0.5	0.2	3.4
55480	2032	0.5	1.2	0.0	0.9	0.5	0.2	3.4
55845	2033	0.5	1.3	0.0	0.9	0.5	0.2	3.4
56210	2034	0.5	1.3	0.0	0.9	0.5	0.2	3.4
56575	2035	0.5	1.3	0.0	0.9	0.5	0.2	3.5
56940	2036	0.5	1.3	0.0	0.9	0.5	0.2	3.5
57305	2037	0.6	1.3	0.0	0.9	0.5	0.2	3.5
57670	2038	0.6	1.3	0.0	0.9	0.5	0.2	3.5
58035	2039	0.6	1.3	0.0	0.9	0.5	0.2	3.6
58400	2040	0.6	1.4	0.0	0.9	0.5	0.2	3.6
58765	2041	0.6	1.4	0.0	0.9	0.6	0.2	3.6
59130	2042	0.6	1.4	0.0	0.9	0.6	0.2	3.7
59495	2043	0.6	1.4	0.0	0.9	0.6	0.2	3.7
59860	2044	0.6	1.4	0.0	0.9	0.6	0.2	3.7
60225	2045	0.6	1.4	0.0	0.9	0.6	0.2	3.7
60590	2046	0.6	1.4	0.0	0.9	0.6	0.2	3.8
60955	2047	0.6	1.5	0.0	0.9	0.6	0.2	3.8
61320	2048	0.6	1.5	0.0	0.9	0.6	0.2	3.8
61685	2049	0.6	1.5	0.0	0.9	0.6	0.2	3.9
62050	2050	0.6	1.5	0.0	0.9	0.6	0.2	3.9
62415	2051	0.6	1.5	0.0	0.9	0.6	0.2	3.9
62780	2052	0.6	1.5	0.0	0.9	0.6	0.2	4.0
63145	2053	0.6	1.5	0.0	1.0	0.6	0.2	4.0
63510	2054	0.6	1.6	0.0	1.0	0.6	0.3	4.0
63875	2055	0.6	1.6	0.0	1.0	0.6	0.3	4.0
64240	2056	0.6	1.6	0.0	1.0	0.6	0.3	4.1
64605	2057	0.7	1.6	0.0	1.0	0.6	0.3	4.1
64970	2058	0.7	1.6	0.0	1.0	0.6	0.3	4.1
65335	2059	0.7	1.6	0.0	1.0	0.6	0.3	4.2
65700	2060	0.7	1.6	0.0	1.0	0.6	0.3	4.2
66065	2061	0.7	1.7	0.0	1.0	0.6	0.3	4.2
66430	2062	0.7	1.7	0.0	1.0	0.6	0.3	4.3
66795	2063	0.7	1.7	0.0	1.0	0.7	0.3	4.3
67160	2064	0.7	1.7	0.0	1.0	0.7	0.3	4.3
67525	2065	0.7	1.7	0.0	1.0	0.7	0.3	4.4
67890	2066	0.7	1.7	0.0	1.0	0.7	0.3	4.4
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S2). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
68255	2067	0.7	1.8	0.0	1.0	0.7	0.3	4.4
68620	2068	0.7	1.8	0.0	1.0	0.7	0.3	4.4
68985	2069	0.7	1.8	0.0	1.0	0.7	0.3	4.5
69350	2070	0.7	1.8	0.0	1.0	0.7	0.3	4.5
69715	2071	0.7	1.8	0.0	1.0	0.7	0.3	4.5
70080	2072	0.7	1.8	0.0	1.0	0.7	0.3	4.6
70445	2073	0.7	1.8	0.0	1.0	0.7	0.3	4.6
70810	2074	0.7	1.9	0.0	1.0	0.7	0.3	4.6
71175	2075	0.7	1.9	0.0	1.0	0.7	0.3	4.7
71540	2076	0.8	1.9	0.0	1.1	0.7	0.3	4.7
71905	2077	0.8	1.9	0.0	1.1	0.7	0.3	4.7
72270	2078	0.8	1.9	0.0	1.1	0.7	0.3	4.7
72635	2079	0.8	1.9	0.0	1.1	0.7	0.3	4.8
73000	2080	0.8	1.9	0.0	1.1	0.7	0.3	4.8
73365	2081	0.8	2.0	0.0	1.1	0.7	0.3	4.8
73730	2082	0.8	2.0	0.0	1.1	0.7	0.3	4.9
74095	2083	0.8	2.0	0.0	1.1	0.7	0.3	4.9
74460	2084	0.8	2.0	0.0	1.1	0.7	0.3	4.9
74825	2085	0.8	2.0	0.0	1.1	0.7	0.3	4.9
75190	2086	0.8	2.0	0.0	1.1	0.7	0.3	5.0
75555	2087	0.8	2.0	0.0	1.1	0.8	0.3	5.0
75920	2088	0.8	2.1	0.0	1.1	0.8	0.3	5.0
76285	2089	0.8	2.1	0.0	1.1	0.8	0.3	5.0
76650	2090	0.8	2.1	0.0	1.1	0.8	0.3	5.1
77015	2091	0.8	2.1	0.0	1.1	0.8	0.3	5.1
77380	2092	0.8	2.1	0.0	1.1	0.8	0.3	5.1
77745	2093	0.8	2.1	0.0	1.1	0.8	0.3	5.1
78110	2094	0.8	2.1	0.0	1.1	0.8	0.3	5.2
78475	2095	0.8	2.1	0.0	1.1	0.8	0.3	5.2
78840	2096	0.9	2.1	0.0	1.1	0.8	0.3	5.2
79205	2097	0.9	2.2	0.0	1.1	0.8	0.3	5.2
79570	2098	0.9	2.2	0.0	1.1	0.8	0.3	5.3
79935	2099	0.9	2.2	0.0	1.1	0.8	0.3	5.3
80300	2100	0.9	2.2	0.0	1.1	0.8	0.3	5.3
80665	2101	0.9	2.2	0.0	1.1	0.8	0.3	5.3
81030	2102	0.9	2.2	0.0	1.1	0.8	0.3	5.3
81395	2103	0.9	2.2	0.0	1.2	0.8	0.3	5.4
81760	2104	0.9	2.2	0.0	1.2	0.8	0.3	5.4
82125	2105	0.9	2.2	0.0	1.2	0.8	0.3	5.4
82490	2106	0.9	2.2	0.0	1.2	0.8	0.3	5.4
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

B-2(S2). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 2)



B-2(S2). Graph of modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
365	1961	72	241	0	119	85	18	**535**	***6***
730	1962	73	240	0	120	84	18	**534**	***6***
1095	1963	74	240	0	121	83	18	**535**	***6***
1460	1964	74	240	0	121	83	18	**537**	***6***
1825	1965	75	241	0	122	84	18	**539**	***6***
2190	1966	75	242	0	122	84	18	**541**	***6***
2555	1967	76	243	0	123	84	18	**543**	***6***
2920	1968	76	243	0	123	84	18	**544**	***6***
3285	1969	76	244	0	124	84	18	**546**	***6***
3650	1970	77	245	0	124	84	18	**547**	***6***
4015	1971	77	246	0	124	84	18	**549**	***6***
4380	1972	77	246	0	124	84	18	**550**	***6***
4745	1973	77	247	0	125	85	18	**551**	***6***
5110	1974	77	247	0	125	85	18	**552**	***6***
5475	1975	78	248	0	125	85	18	**554**	***6***
5840	1976	78	249	0	125	85	18	**555**	***6***
6205	1977	78	249	0	125	85	18	**556**	***6***
6570	1978	78	250	0	126	85	18	**557**	***6***
6935	1979	78	250	0	126	85	18	**557**	***6***
7300	1980	78	251	0	126	85	18	**558**	***6***
7665	1981	78	251	0	126	85	18	**559**	***6***
8030	1982	78	291	0	126	89	18	**602**	***7***
8395	1983	79	304	0	126	90	18	**617**	***7***
8760	1984	79	352	0	126	94	18	**670**	***8***
9125	1985	79	372	0	127	96	18	**692**	***8***
9490	1986	79	466	0	127	104	19	**795**	***9***
9855	1987	79	505	0	127	108	19	**837**	***10***
10220	1988	79	656	0	128	120	19	**1002**	***12***
10585	1989	79	720	0	128	126	19	**1073**	***12***
10950	1990	80	768	0	128	131	19	**1125**	***13***
11315	1991	80	808	0	129	134	19	**1170**	***14***
11680	1992	80	845	0	129	138	19	**1211**	***14***
12045	1993	80	878	0	130	141	19	**1248**	***14***
12410	1994	80	908	0	130	144	20	**1282**	***15***
12775	1995	81	937	0	130	146	20	**1314**	***15***
13140	1996	81	964	0	131	149	20	**1344**	***16***
13505	1997	81	988	0	131	151	20	**1372**	***16***
13870	1998	81	1012	0	132	153	20	**1398**	***16***

B-2(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
14235	1999	82	1034	0	132	155	20	1422	16
14600	2000	82	1055	0	132	157	20	1446	17
14965	2001	82	1074	0	133	159	20	1468	17
15330	2002	70	954	0	125	134	20	1304	15
15695	2003	64	921	0	120	121	20	1245	14
16060	2004	61	901	0	116	115	20	1213	14
16425	2005	58	888	0	113	112	20	1191	14
16790	2006	57	878	0	111	110	20	1175	14
17155	2007	55	894	0	110	110	20	1189	14
17520	2008	55	903	0	109	110	20	1196	14
17885	2009	54	983	0	108	113	20	1278	15
18250	2010	53	1031	0	107	115	20	1326	15
18615	2011	53	1060	0	107	117	20	1357	16
18980	2012	52	1081	0	106	118	20	1378	16
19345	2013	52	1096	0	106	119	20	1394	16
19710	2014	52	1108	0	106	120	21	1406	16
20075	2015	52	1118	0	105	121	21	1417	16
20440	2016	51	1126	0	105	122	21	1425	16
20805	2017	51	1133	0	105	123	21	1433	17
21170	2018	51	1139	0	105	123	21	1440	17
21535	2019	51	1145	0	105	124	21	1446	17
21900	2020	51	1150	0	105	125	21	1451	17
22265	2021	51	1154	0	105	125	21	1456	17
22630	2022	51	1158	0	105	125	21	1461	17
22995	2023	51	1162	0	105	126	21	1465	17
23360	2024	51	1166	0	105	126	21	1469	17
23725	2025	51	1169	0	105	127	21	1473	17
24090	2026	51	1172	0	105	127	21	1476	17
24455	2027	51	1175	0	105	127	21	1480	17
24820	2028	51	1178	0	105	128	21	1483	17
25185	2029	51	1181	0	105	128	21	1486	17
25550	2030	51	1183	0	105	128	21	1489	17
25915	2031	51	1186	0	105	128	21	1491	17
26280	2032	51	1188	0	105	129	21	1494	17
26645	2033	51	1190	0	105	129	22	1497	17
27010	2034	51	1192	0	105	129	22	1499	17

B-2(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
27375	2035	51	1194	0	105	129	22	**1502**	***17***
27740	2036	51	1196	0	105	130	22	**1504**	***17***
28105	2037	51	1198	0	105	130	22	**1506**	***17***
28470	2038	51	1200	0	105	130	22	**1508**	***17***
28835	2039	51	1202	0	105	130	22	**1510**	***17***
29200	2040	51	1203	0	105	130	22	**1512**	***18***
29565	2041	51	1205	0	105	131	22	**1514**	***18***
29930	2042	51	1206	0	105	131	22	**1516**	***18***
30295	2043	51	1208	0	106	131	22	**1518**	***18***
30660	2044	51	1209	0	106	131	22	**1519**	***18***
31025	2045	51	1211	0	106	131	22	**1521**	***18***
31390	2046	52	1212	0	106	131	22	**1522**	***18***
31755	2047	52	1213	0	106	132	22	**1524**	***18***
32120	2048	52	1214	0	106	132	22	**1525**	***18***
32485	2049	52	1216	0	106	132	22	**1527**	***18***
32850	2050	52	1217	0	106	132	22	**1528**	***18***
33215	2051	52	1218	0	106	132	22	**1529**	***18***
33580	2052	52	1219	0	106	132	22	**1531**	***18***
33945	2053	52	1220	0	106	132	22	**1532**	***18***
34310	2054	52	1221	0	106	132	22	**1533**	***18***
34675	2055	52	1222	0	106	132	22	**1534**	***18***
35040	2056	52	1222	0	106	133	22	**1535**	***18***
35405	2057	52	1223	0	106	133	22	**1536**	***18***
35770	2058	52	1224	0	106	133	22	**1537**	***18***
36135	2059	52	1225	0	106	133	22	**1538**	***18***
36500	2060	52	1226	0	106	133	22	**1539**	***18***
36865	2061	52	1226	0	106	133	22	**1540**	***18***
37230	2062	52	1227	0	106	133	22	**1541**	***18***
37595	2063	52	1228	0	107	133	22	**1541**	***18***
37960	2064	52	1228	0	107	133	22	**1542**	***18***
38325	2065	52	1229	0	107	133	22	**1543**	***18***
38690	2066	52	1230	0	107	133	22	**1544**	***18***
39055	2067	52	1230	0	107	133	22	**1545**	***18***
39420	2068	52	1231	0	107	134	22	**1545**	***18***
39785	2069	52	1231	0	107	134	22	**1546**	***18***
40150	2070	52	1232	0	107	134	22	**1547**	***18***

B-2(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
40515	2071	52	1232	0	107	134	22	1547	18
40880	2072	52	1233	0	107	134	22	1548	18
41245	2073	52	1233	0	107	134	22	1548	18
41610	2074	52	1234	0	107	134	22	1549	18
41975	2075	52	1234	0	107	134	22	1549	18
42340	2076	53	1234	0	107	134	22	1550	18
42705	2077	53	1235	0	107	134	22	1550	18
43070	2078	53	1235	0	107	134	22	1551	18
43435	2079	53	1236	0	107	134	22	1551	18
43800	2080	53	1236	0	107	134	22	1552	18
44165	2081	53	1236	0	107	134	22	1552	18
44530	2082	53	1237	0	107	134	22	1553	18
44895	2083	53	1237	0	107	134	22	1553	18
45260	2084	53	1237	0	107	134	22	1554	18
45625	2085	53	1237	0	107	134	22	1554	18
45990	2086	53	1238	0	107	134	22	1554	18
46355	2087	53	1238	0	107	134	22	1555	18
46720	2088	53	1238	0	107	134	22	1555	18
47085	2089	53	1238	0	107	134	22	1555	18
47450	2090	53	1239	0	107	134	22	1556	18
47815	2091	53	1239	0	107	134	22	1556	18
48180	2092	53	1239	0	107	135	22	1556	18
48545	2093	53	1239	0	107	135	22	1557	18
48910	2094	53	1240	0	107	135	22	1557	18
49275	2095	53	1240	0	108	135	22	1557	18
49640	2096	53	1240	0	108	135	22	1557	18
50005	2097	53	1240	0	108	135	22	1558	18
50370	2098	53	1240	0	108	135	22	1558	18
50735	2099	53	1241	0	108	135	22	1558	18
51100	2100	53	1241	0	108	135	22	1558	18
51465	2101	53	1241	0	108	135	22	1559	18
51830	2102	53	1241	0	108	135	22	1559	18
52195	2103	53	1241	0	108	135	22	1559	18
52560	2104	53	1241	0	108	135	22	1559	18
52925	2105	53	1242	0	108	135	22	1559	18
53290	2106	53	1242	0	108	135	22	1560	18

B-2(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
365	1961	1.1	1.2	0.0	1.2	0.9	0.2	4.5
730	1962	1.1	1.2	0.0	1.2	0.8	0.2	4.5
1095	1963	1.1	1.2	0.0	1.2	0.8	0.2	4.5
1460	1964	1.1	1.2	0.0	1.2	0.8	0.2	4.5
1825	1965	1.1	1.2	0.0	1.2	0.8	0.2	4.6
2190	1966	1.1	1.2	0.0	1.2	0.8	0.2	4.6
2555	1967	1.1	1.2	0.0	1.2	0.8	0.2	4.6
2920	1968	1.1	1.2	0.0	1.2	0.8	0.2	4.6
3285	1969	1.1	1.2	0.0	1.2	0.8	0.2	4.6
3650	1970	1.1	1.2	0.0	1.2	0.8	0.2	4.6
4015	1971	1.2	1.2	0.0	1.2	0.8	0.2	4.6
4380	1972	1.2	1.2	0.0	1.2	0.8	0.2	4.7
4745	1973	1.2	1.2	0.0	1.2	0.8	0.2	4.7
5110	1974	1.2	1.2	0.0	1.2	0.8	0.2	4.7
5475	1975	1.2	1.2	0.0	1.3	0.8	0.2	4.7
5840	1976	1.2	1.2	0.0	1.3	0.8	0.2	4.7
6205	1977	1.2	1.2	0.0	1.3	0.9	0.2	4.7
6570	1978	1.2	1.2	0.0	1.3	0.9	0.2	4.7
6935	1979	1.2	1.3	0.0	1.3	0.9	0.2	4.7
7300	1980	1.2	1.3	0.0	1.3	0.9	0.2	4.7
7665	1981	1.2	1.3	0.0	1.3	0.9	0.2	4.7
8030	1982	1.2	1.5	0.0	1.3	0.9	0.2	5.0
8395	1983	1.2	1.5	0.0	1.3	0.9	0.2	5.0
8760	1984	1.2	1.8	0.0	1.3	0.9	0.2	5.3
9125	1985	1.2	1.9	0.0	1.3	1.0	0.2	5.5
9490	1986	1.2	2.3	0.0	1.3	1.0	0.2	6.0
9855	1987	1.2	2.5	0.0	1.3	1.1	0.2	6.2
10220	1988	1.2	3.3	0.0	1.3	1.2	0.2	7.1
10585	1989	1.2	3.6	0.0	1.3	1.3	0.2	7.5
10950	1990	1.2	3.8	0.0	1.3	1.3	0.2	7.8
11315	1991	1.2	4.0	0.0	1.3	1.3	0.2	8.1
11680	1992	1.2	4.2	0.0	1.3	1.4	0.2	8.3
12045	1993	1.2	4.4	0.0	1.3	1.4	0.2	8.5
12410	1994	1.2	4.5	0.0	1.3	1.4	0.2	8.7
12775	1995	1.2	4.7	0.0	1.3	1.5	0.2	8.9
13140	1996	1.2	4.8	0.0	1.3	1.5	0.2	9.0
13505	1997	1.2	4.9	0.0	1.3	1.5	0.2	9.2
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

B-2(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
13870	1998	1.2	5.1	0.0	1.3	1.5	0.2	9.3
14235	1999	1.2	5.2	0.0	1.3	1.6	0.2	9.5
14600	2000	1.2	5.3	0.0	1.3	1.6	0.2	9.6
14965	2001	1.2	5.4	0.0	1.3	1.6	0.2	9.7
15330	2002	1.0	4.8	0.0	1.3	1.3	0.2	8.6
15695	2003	1.0	4.6	0.0	1.2	1.2	0.2	8.2
16060	2004	0.9	4.5	0.0	1.2	1.1	0.2	7.9
16425	2005	0.9	4.4	0.0	1.1	1.1	0.2	7.8
16790	2006	0.8	4.4	0.0	1.1	1.1	0.2	7.6
17155	2007	0.8	4.5	0.0	1.1	1.1	0.2	7.7
17520	2008	0.8	4.5	0.0	1.1	1.1	0.2	7.7
17885	2009	0.8	4.9	0.0	1.1	1.1	0.2	8.1
18250	2010	0.8	5.2	0.0	1.1	1.2	0.2	8.4
18615	2011	0.8	5.3	0.0	1.1	1.2	0.2	8.5
18980	2012	0.8	5.4	0.0	1.1	1.2	0.2	8.6
19345	2013	0.8	5.5	0.0	1.1	1.2	0.2	8.7
19710	2014	0.8	5.5	0.0	1.1	1.2	0.2	8.8
20075	2015	0.8	5.6	0.0	1.1	1.2	0.2	8.8
20440	2016	0.8	5.6	0.0	1.1	1.2	0.2	8.9
20805	2017	0.8	5.7	0.0	1.1	1.2	0.2	8.9
21170	2018	0.8	5.7	0.0	1.0	1.2	0.2	9.0
21535	2019	0.8	5.7	0.0	1.0	1.2	0.2	9.0
21900	2020	0.8	5.7	0.0	1.0	1.2	0.2	9.0
22265	2021	0.8	5.8	0.0	1.0	1.3	0.2	9.0
22630	2022	0.8	5.8	0.0	1.0	1.3	0.2	9.1
22995	2023	0.8	5.8	0.0	1.0	1.3	0.2	9.1
23360	2024	0.8	5.8	0.0	1.0	1.3	0.2	9.1
23725	2025	0.8	5.8	0.0	1.0	1.3	0.2	9.1
24090	2026	0.8	5.9	0.0	1.0	1.3	0.2	9.2
24455	2027	0.8	5.9	0.0	1.0	1.3	0.2	9.2
24820	2028	0.8	5.9	0.0	1.0	1.3	0.2	9.2
25185	2029	0.8	5.9	0.0	1.0	1.3	0.2	9.2
25550	2030	0.8	5.9	0.0	1.0	1.3	0.2	9.2
25915	2031	0.8	5.9	0.0	1.0	1.3	0.2	9.2
26280	2032	0.8	5.9	0.0	1.0	1.3	0.2	9.3
26645	2033	0.8	6.0	0.0	1.1	1.3	0.2	9.3
27010	2034	0.8	6.0	0.0	1.1	1.3	0.2	9.3
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

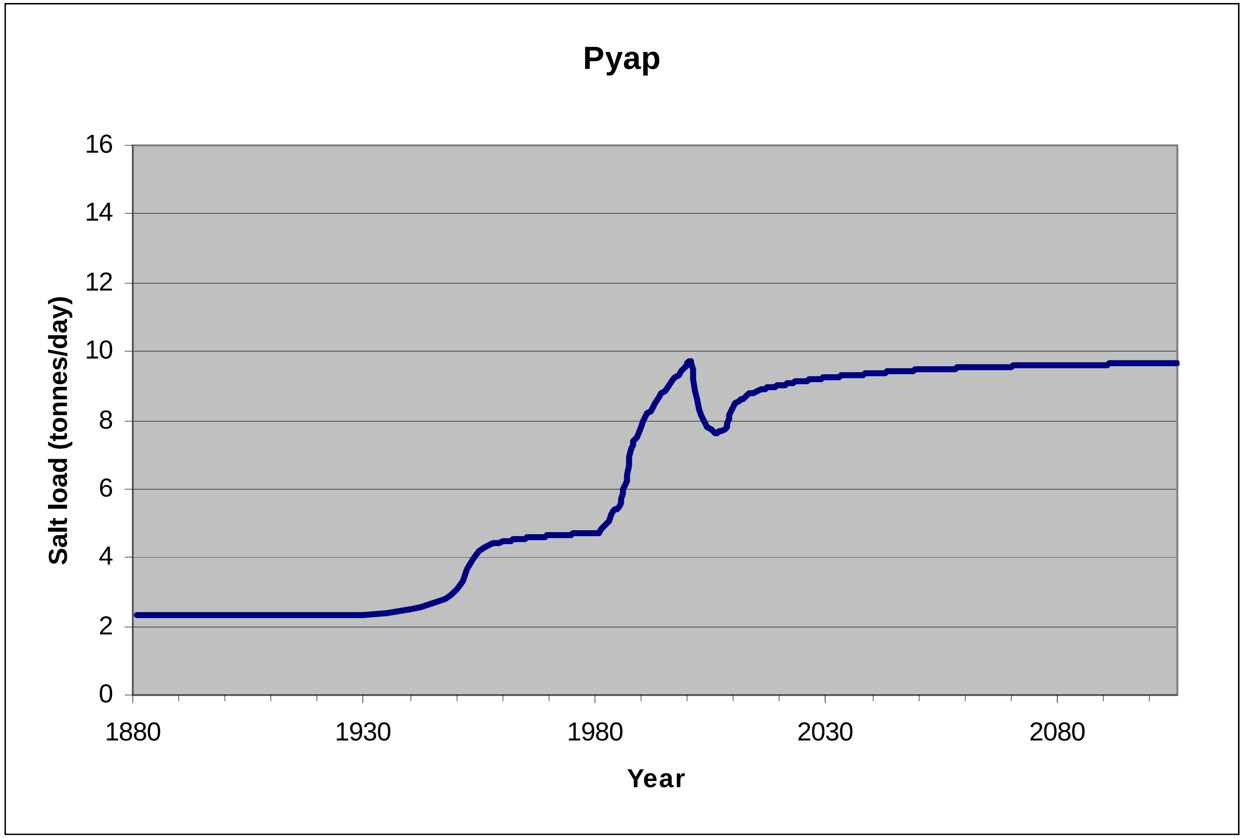
B-2(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
27375	2035	0.8	6.0	0.0	1.1	1.3	0.2	9.3
27740	2036	0.8	6.0	0.0	1.1	1.3	0.2	9.3
28105	2037	0.8	6.0	0.0	1.1	1.3	0.2	9.3
28470	2038	0.8	6.0	0.0	1.1	1.3	0.2	9.3
28835	2039	0.8	6.0	0.0	1.1	1.3	0.2	9.3
29200	2040	0.8	6.0	0.0	1.1	1.3	0.2	9.4
29565	2041	0.8	6.0	0.0	1.1	1.3	0.2	9.4
29930	2042	0.8	6.0	0.0	1.1	1.3	0.2	9.4
30295	2043	0.8	6.0	0.0	1.1	1.3	0.2	9.4
30660	2044	0.8	6.0	0.0	1.1	1.3	0.2	9.4
31025	2045	0.8	6.1	0.0	1.1	1.3	0.2	9.4
31390	2046	0.8	6.1	0.0	1.1	1.3	0.2	9.4
31755	2047	0.8	6.1	0.0	1.1	1.3	0.2	9.4
32120	2048	0.8	6.1	0.0	1.1	1.3	0.2	9.4
32485	2049	0.8	6.1	0.0	1.1	1.3	0.2	9.4
32850	2050	0.8	6.1	0.0	1.1	1.3	0.2	9.5
33215	2051	0.8	6.1	0.0	1.1	1.3	0.2	9.5
33580	2052	0.8	6.1	0.0	1.1	1.3	0.2	9.5
33945	2053	0.8	6.1	0.0	1.1	1.3	0.2	9.5
34310	2054	0.8	6.1	0.0	1.1	1.3	0.2	9.5
34675	2055	0.8	6.1	0.0	1.1	1.3	0.2	9.5
35040	2056	0.8	6.1	0.0	1.1	1.3	0.2	9.5
35405	2057	0.8	6.1	0.0	1.1	1.3	0.2	9.5
35770	2058	0.8	6.1	0.0	1.1	1.3	0.2	9.5
36135	2059	0.8	6.1	0.0	1.1	1.3	0.2	9.5
36500	2060	0.8	6.1	0.0	1.1	1.3	0.2	9.5
36865	2061	0.8	6.1	0.0	1.1	1.3	0.2	9.5
37230	2062	0.8	6.1	0.0	1.1	1.3	0.2	9.5
37595	2063	0.8	6.1	0.0	1.1	1.3	0.2	9.5
37960	2064	0.8	6.1	0.0	1.1	1.3	0.2	9.5
38325	2065	0.8	6.1	0.0	1.1	1.3	0.2	9.5
38690	2066	0.8	6.1	0.0	1.1	1.3	0.2	9.6
39055	2067	0.8	6.2	0.0	1.1	1.3	0.2	9.6
39420	2068	0.8	6.2	0.0	1.1	1.3	0.2	9.6
39785	2069	0.8	6.2	0.0	1.1	1.3	0.2	9.6
40150	2070	0.8	6.2	0.0	1.1	1.3	0.2	9.6
40515	2071	0.8	6.2	0.0	1.1	1.3	0.2	9.6
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

B-2(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
40880	2072	0.8	6.2	0.0	1.1	1.3	0.2	9.6
41245	2073	0.8	6.2	0.0	1.1	1.3	0.2	9.6
41610	2074	0.8	6.2	0.0	1.1	1.3	0.2	9.6
41975	2075	0.8	6.2	0.0	1.1	1.3	0.2	9.6
42340	2076	0.8	6.2	0.0	1.1	1.3	0.2	9.6
42705	2077	0.8	6.2	0.0	1.1	1.3	0.2	9.6
43070	2078	0.8	6.2	0.0	1.1	1.3	0.2	9.6
43435	2079	0.8	6.2	0.0	1.1	1.3	0.2	9.6
43800	2080	0.8	6.2	0.0	1.1	1.3	0.2	9.6
44165	2081	0.8	6.2	0.0	1.1	1.3	0.2	9.6
44530	2082	0.8	6.2	0.0	1.1	1.3	0.2	9.6
44895	2083	0.8	6.2	0.0	1.1	1.3	0.2	9.6
45260	2084	0.8	6.2	0.0	1.1	1.3	0.2	9.6
45625	2085	0.8	6.2	0.0	1.1	1.3	0.2	9.6
45990	2086	0.8	6.2	0.0	1.1	1.3	0.2	9.6
46355	2087	0.8	6.2	0.0	1.1	1.3	0.2	9.6
46720	2088	0.8	6.2	0.0	1.1	1.3	0.2	9.6
47085	2089	0.8	6.2	0.0	1.1	1.3	0.2	9.6
47450	2090	0.8	6.2	0.0	1.1	1.3	0.2	9.6
47815	2091	0.8	6.2	0.0	1.1	1.3	0.2	9.6
48180	2092	0.8	6.2	0.0	1.1	1.3	0.2	9.6
48545	2093	0.8	6.2	0.0	1.1	1.3	0.2	9.6
48910	2094	0.8	6.2	0.0	1.1	1.3	0.2	9.6
49275	2095	0.8	6.2	0.0	1.1	1.3	0.2	9.6
49640	2096	0.8	6.2	0.0	1.1	1.3	0.2	9.6
50005	2097	0.8	6.2	0.0	1.1	1.3	0.2	9.6
50370	2098	0.8	6.2	0.0	1.1	1.3	0.2	9.6
50735	2099	0.8	6.2	0.0	1.1	1.3	0.2	9.6
51100	2100	0.8	6.2	0.0	1.1	1.3	0.2	9.6
51465	2101	0.8	6.2	0.0	1.1	1.3	0.2	9.6
51830	2102	0.8	6.2	0.0	1.1	1.3	0.2	9.6
52195	2103	0.8	6.2	0.0	1.1	1.3	0.2	9.6
52560	2104	0.8	6.2	0.0	1.1	1.3	0.2	9.7
52925	2105	0.8	6.2	0.0	1.1	1.3	0.2	9.7
53290	2106	0.8	6.2	0.0	1.1	1.3	0.2	9.7
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

B-2(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3A)



B-2(S3A). Graph of modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
365	1961	72	241	0	119	85	18	535	6
730	1962	73	240	0	120	84	18	534	6
1095	1963	74	240	0	121	83	18	535	6
1460	1964	74	240	0	121	83	18	537	6
1825	1965	75	241	0	122	84	18	539	6
2190	1966	75	242	0	122	84	18	541	6
2555	1967	76	243	0	123	84	18	543	6
2920	1968	76	243	0	123	84	18	544	6
3285	1969	76	244	0	124	84	18	546	6
3650	1970	77	245	0	124	84	18	547	6
4015	1971	77	246	0	124	84	18	549	6
4380	1972	77	246	0	124	84	18	550	6
4745	1973	77	247	0	125	85	18	551	6
5110	1974	77	247	0	125	85	18	552	6
5475	1975	78	248	0	125	85	18	554	6
5840	1976	78	249	0	125	85	18	555	6
6205	1977	78	249	0	125	85	18	556	6
6570	1978	78	250	0	126	85	18	557	6
6935	1979	78	250	0	126	85	18	557	6
7300	1980	78	251	0	126	85	18	558	6
7665	1981	78	251	0	126	85	18	559	6
8030	1982	78	291	0	126	89	18	602	7
8395	1983	79	304	0	126	90	18	617	7
8760	1984	79	352	0	126	94	18	670	8
9125	1985	79	372	0	127	96	18	692	8
9490	1986	79	466	0	127	104	19	795	9
9855	1987	79	505	0	127	108	19	837	10
10220	1988	79	656	0	128	120	19	1002	12
10585	1989	79	720	0	128	126	19	1073	12
10950	1990	80	768	0	128	131	19	1125	13
11315	1991	80	808	0	129	134	19	1170	14
11680	1992	80	845	0	129	138	19	1211	14
12045	1993	80	878	0	130	141	19	1248	14
12410	1994	80	908	0	130	144	20	1282	15
12775	1995	81	937	0	130	146	20	1314	15
13140	1996	81	964	0	131	149	20	1344	16
13505	1997	81	988	0	131	151	20	1372	16
13870	1998	81	1012	0	132	153	20	1398	16

B-2(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
14235	1999	82	1034	0	132	155	20	**1423**	***16***
14600	2000	82	1055	0	132	157	20	**1446**	***17***
14965	2001	82	1075	0	133	159	20	**1468**	***17***
15330	2002	66	865	0	123	123	20	**1196**	***14***
15695	2003	58	801	0	115	105	20	**1099**	***13***
16060	2004	53	761	0	110	98	20	**1042**	***12***
16425	2005	50	731	0	106	93	20	**1001**	***12***
16790	2006	48	707	0	103	90	20	**969**	***11***
17155	2007	46	711	0	101	89	20	**968**	***11***
17520	2008	45	709	0	100	88	20	**961**	***11***
17885	2009	44	728	0	98	88	20	**978**	***11***
18250	2010	43	736	0	97	88	20	**984**	***11***
18615	2011	43	738	0	96	88	20	**984**	***11***
18980	2012	42	738	0	96	87	20	**983**	***11***
19345	2013	41	737	0	95	87	20	**980**	***11***
19710	2014	41	736	0	94	87	20	**977**	***11***
20075	2015	41	733	0	94	86	20	**974**	***11***
20440	2016	40	731	0	94	86	20	**971**	***11***
20805	2017	40	729	0	93	86	20	**968**	***11***
21170	2018	40	726	0	93	85	20	**964**	***11***
21535	2019	40	724	0	93	85	20	**961**	***11***
21900	2020	40	722	0	92	85	20	**959**	***11***
22265	2021	39	720	0	92	85	20	**956**	***11***
22630	2022	39	718	0	92	84	20	**953**	***11***
22995	2023	39	716	0	92	84	20	**951**	***11***
23360	2024	39	714	0	92	84	20	**949**	***11***
23725	2025	39	712	0	92	84	20	**947**	***11***
24090	2026	39	711	0	92	84	20	**945**	***11***
24455	2027	39	709	0	91	84	20	**943**	***11***
24820	2028	39	708	0	91	83	20	**941**	***11***
25185	2029	39	706	0	91	83	20	**939**	***11***
25550	2030	39	705	0	91	83	20	**938**	***11***
25915	2031	39	704	0	91	83	20	**936**	***11***
26280	2032	39	703	0	91	83	20	**935**	***11***
26645	2033	38	702	0	91	83	20	**934**	***11***
27010	2034	38	701	0	91	83	20	**933**	***11***

B-2(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
14235	1999	82	1034	0	132	155	20	**1423**	***16***
14600	2000	82	1055	0	132	157	20	**1446**	***17***
14965	2001	82	1075	0	133	159	20	**1468**	***17***
15330	2002	66	865	0	123	123	20	**1196**	***14***
15695	2003	58	801	0	115	105	20	**1099**	***13***
16060	2004	53	761	0	110	98	20	**1042**	***12***
16425	2005	50	731	0	106	93	20	**1001**	***12***
16790	2006	48	707	0	103	90	20	**969**	***11***
17155	2007	46	711	0	101	89	20	**968**	***11***
17520	2008	45	709	0	100	88	20	**961**	***11***
17885	2009	44	728	0	98	88	20	**978**	***11***
18250	2010	43	736	0	97	88	20	**984**	***11***
18615	2011	43	738	0	96	88	20	**984**	***11***
18980	2012	42	738	0	96	87	20	**983**	***11***
19345	2013	41	737	0	95	87	20	**980**	***11***
19710	2014	41	736	0	94	87	20	**977**	***11***
20075	2015	41	733	0	94	86	20	**974**	***11***
20440	2016	40	731	0	94	86	20	**971**	***11***
20805	2017	40	729	0	93	86	20	**968**	***11***
21170	2018	40	726	0	93	85	20	**964**	***11***
21535	2019	40	724	0	93	85	20	**961**	***11***
21900	2020	40	722	0	92	85	20	**959**	***11***
22265	2021	39	720	0	92	85	20	**956**	***11***
22630	2022	39	718	0	92	84	20	**953**	***11***
22995	2023	39	716	0	92	84	20	**951**	***11***
23360	2024	39	714	0	92	84	20	**949**	***11***
23725	2025	39	712	0	92	84	20	**947**	***11***
24090	2026	39	711	0	92	84	20	**945**	***11***
24455	2027	39	709	0	91	84	20	**943**	***11***
24820	2028	39	708	0	91	83	20	**941**	***11***
25185	2029	39	706	0	91	83	20	**939**	***11***
25550	2030	39	705	0	91	83	20	**938**	***11***
25915	2031	39	704	0	91	83	20	**936**	***11***
26280	2032	39	703	0	91	83	20	**935**	***11***
26645	2033	38	702	0	91	83	20	**934**	***11***
27010	2034	38	701	0	91	83	20	**933**	***11***

B-2(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
40515	2071	38	686	0	90	81	20	916	11
40880	2072	38	686	0	90	81	20	916	11
41245	2073	38	686	0	90	81	20	915	11
41610	2074	38	686	0	90	81	20	915	11
41975	2075	38	686	0	90	81	20	915	11
42340	2076	38	686	0	90	81	20	915	11
42705	2077	38	686	0	90	81	20	915	11
43070	2078	38	685	0	90	81	20	915	11
43435	2079	38	685	0	90	81	20	915	11
43800	2080	38	685	0	90	81	20	915	11
44165	2081	38	685	0	90	81	20	915	11
44530	2082	38	685	0	90	81	20	914	11
44895	2083	38	685	0	90	81	20	914	11
45260	2084	38	685	0	90	81	20	914	11
45625	2085	38	685	0	90	81	20	914	11
45990	2086	38	685	0	90	81	20	914	11
46355	2087	38	685	0	90	81	20	914	11
46720	2088	38	685	0	90	81	20	914	11
47085	2089	38	685	0	90	81	20	914	11
47450	2090	38	685	0	90	81	20	914	11
47815	2091	38	685	0	90	81	20	914	11
48180	2092	38	684	0	90	81	20	914	11
48545	2093	38	684	0	90	81	20	914	11
48910	2094	38	684	0	90	81	20	914	11
49275	2095	38	684	0	90	81	20	914	11
49640	2096	38	684	0	90	81	20	914	11
50005	2097	38	684	0	90	81	20	914	11
50370	2098	38	684	0	90	81	20	913	11
50735	2099	38	684	0	90	81	20	913	11
51100	2100	38	684	0	90	81	20	913	11
51465	2101	38	684	0	90	81	20	913	11
51830	2102	38	684	0	90	81	20	913	11
52195	2103	38	684	0	90	81	20	913	11
52560	2104	38	684	0	90	81	20	913	11
52925	2105	38	684	0	90	81	20	913	11
53290	2106	38	684	0	90	81	20	913	11

B-2(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
365	1961	1.1	1.2	0.0	1.2	0.9	0.2	**4.5**
730	1962	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1095	1963	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1460	1964	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1825	1965	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2190	1966	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2555	1967	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2920	1968	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
3285	1969	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
3650	1970	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
4015	1971	1.2	1.2	0.0	1.2	0.8	0.2	**4.6**
4380	1972	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
4745	1973	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
5110	1974	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
5475	1975	1.2	1.2	0.0	1.3	0.8	0.2	**4.7**
5840	1976	1.2	1.2	0.0	1.3	0.8	0.2	**4.7**
6205	1977	1.2	1.2	0.0	1.3	0.9	0.2	**4.7**
6570	1978	1.2	1.2	0.0	1.3	0.9	0.2	**4.7**
6935	1979	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
7300	1980	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
7665	1981	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
8030	1982	1.2	1.5	0.0	1.3	0.9	0.2	**5.0**
8395	1983	1.2	1.5	0.0	1.3	0.9	0.2	**5.0**
8760	1984	1.2	1.8	0.0	1.3	0.9	0.2	**5.3**
9125	1985	1.2	1.9	0.0	1.3	1.0	0.2	**5.5**
9490	1986	1.2	2.3	0.0	1.3	1.0	0.2	**6.0**
9855	1987	1.2	2.5	0.0	1.3	1.1	0.2	**6.2**
10220	1988	1.2	3.3	0.0	1.3	1.2	0.2	**7.1**
10585	1989	1.2	3.6	0.0	1.3	1.3	0.2	**7.5**
10950	1990	1.2	3.8	0.0	1.3	1.3	0.2	**7.8**
11315	1991	1.2	4.0	0.0	1.3	1.3	0.2	**8.1**
11680	1992	1.2	4.2	0.0	1.3	1.4	0.2	**8.3**
12045	1993	1.2	4.4	0.0	1.3	1.4	0.2	**8.5**
12410	1994	1.2	4.5	0.0	1.3	1.4	0.2	**8.7**
12775	1995	1.2	4.7	0.0	1.3	1.5	0.2	**8.9**
13140	1996	1.2	4.8	0.0	1.3	1.5	0.2	**9.0**
13505	1997	1.2	4.9	0.0	1.3	1.5	0.2	**9.2**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
13870	1998	1.2	5.1	0.0	1.3	1.5	0.2	**9.3**
14235	1999	1.2	5.2	0.0	1.3	1.6	0.2	**9.5**
14600	2000	1.2	5.3	0.0	1.3	1.6	0.2	**9.6**
14965	2001	1.2	5.4	0.0	1.3	1.6	0.2	**9.7**
15330	2002	1.0	4.3	0.0	1.2	1.2	0.2	**8.0**
15695	2003	0.9	4.0	0.0	1.1	1.1	0.2	**7.3**
16060	2004	0.8	3.8	0.0	1.1	1.0	0.2	**6.9**
16425	2005	0.8	3.7	0.0	1.1	0.9	0.2	**6.6**
16790	2006	0.7	3.5	0.0	1.0	0.9	0.2	**6.4**
17155	2007	0.7	3.6	0.0	1.0	0.9	0.2	**6.4**
17520	2008	0.7	3.5	0.0	1.0	0.9	0.2	**6.3**
17885	2009	0.7	3.6	0.0	1.0	0.9	0.2	**6.4**
18250	2010	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
18615	2011	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
18980	2012	0.6	3.7	0.0	1.0	0.9	0.2	**6.3**
19345	2013	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
19710	2014	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
20075	2015	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
20440	2016	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
20805	2017	0.6	3.6	0.0	0.9	0.9	0.2	**6.2**
21170	2018	0.6	3.6	0.0	0.9	0.9	0.2	**6.2**
21535	2019	0.6	3.6	0.0	0.9	0.9	0.2	**6.2**
21900	2020	0.6	3.6	0.0	0.9	0.8	0.2	**6.2**
22265	2021	0.6	3.6	0.0	0.9	0.8	0.2	**6.2**
22630	2022	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
22995	2023	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
23360	2024	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
23725	2025	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
24090	2026	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
24455	2027	0.6	3.5	0.0	0.9	0.8	0.2	**6.1**
24820	2028	0.6	3.5	0.0	0.9	0.8	0.2	**6.1**
25185	2029	0.6	3.5	0.0	0.9	0.8	0.2	**6.1**
25550	2030	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
25915	2031	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
26280	2032	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
26645	2033	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
27010	2034	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
Salinity (mg/L)		***15,000***	***5,000***	***10,000***	***10,000***	***10,000***	***10,000***	

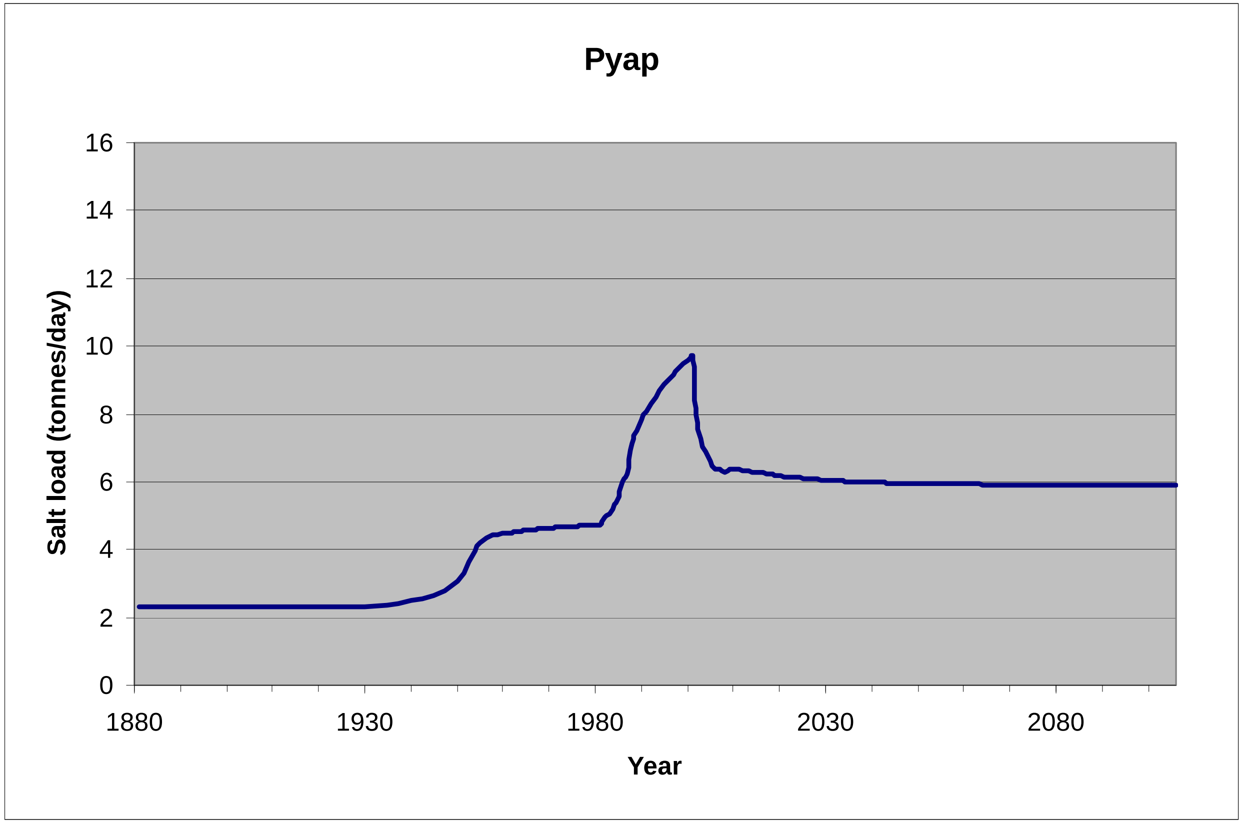
B-2(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
27375	2035	0.6	3.5	0.0	0.9	0.8	0.2	6.0
27740	2036	0.6	3.5	0.0	0.9	0.8	0.2	6.0
28105	2037	0.6	3.5	0.0	0.9	0.8	0.2	6.0
28470	2038	0.6	3.5	0.0	0.9	0.8	0.2	6.0
28835	2039	0.6	3.5	0.0	0.9	0.8	0.2	6.0
29200	2040	0.6	3.5	0.0	0.9	0.8	0.2	6.0
29565	2041	0.6	3.5	0.0	0.9	0.8	0.2	6.0
29930	2042	0.6	3.5	0.0	0.9	0.8	0.2	6.0
30295	2043	0.6	3.5	0.0	0.9	0.8	0.2	6.0
30660	2044	0.6	3.5	0.0	0.9	0.8	0.2	6.0
31025	2045	0.6	3.5	0.0	0.9	0.8	0.2	6.0
31390	2046	0.6	3.5	0.0	0.9	0.8	0.2	6.0
31755	2047	0.6	3.5	0.0	0.9	0.8	0.2	6.0
32120	2048	0.6	3.5	0.0	0.9	0.8	0.2	6.0
32485	2049	0.6	3.5	0.0	0.9	0.8	0.2	5.9
32850	2050	0.6	3.5	0.0	0.9	0.8	0.2	5.9
33215	2051	0.6	3.5	0.0	0.9	0.8	0.2	5.9
33580	2052	0.6	3.5	0.0	0.9	0.8	0.2	5.9
33945	2053	0.6	3.4	0.0	0.9	0.8	0.2	5.9
34310	2054	0.6	3.4	0.0	0.9	0.8	0.2	5.9
34675	2055	0.6	3.4	0.0	0.9	0.8	0.2	5.9
35040	2056	0.6	3.4	0.0	0.9	0.8	0.2	5.9
35405	2057	0.6	3.4	0.0	0.9	0.8	0.2	5.9
35770	2058	0.6	3.4	0.0	0.9	0.8	0.2	5.9
36135	2059	0.6	3.4	0.0	0.9	0.8	0.2	5.9
36500	2060	0.6	3.4	0.0	0.9	0.8	0.2	5.9
36865	2061	0.6	3.4	0.0	0.9	0.8	0.2	5.9
37230	2062	0.6	3.4	0.0	0.9	0.8	0.2	5.9
37595	2063	0.6	3.4	0.0	0.9	0.8	0.2	5.9
37960	2064	0.6	3.4	0.0	0.9	0.8	0.2	5.9
38325	2065	0.6	3.4	0.0	0.9	0.8	0.2	5.9
38690	2066	0.6	3.4	0.0	0.9	0.8	0.2	5.9
39055	2067	0.6	3.4	0.0	0.9	0.8	0.2	5.9
39420	2068	0.6	3.4	0.0	0.9	0.8	0.2	5.9
39785	2069	0.6	3.4	0.0	0.9	0.8	0.2	5.9
40150	2070	0.6	3.4	0.0	0.9	0.8	0.2	5.9
40515	2071	0.6	3.4	0.0	0.9	0.8	0.2	5.9
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

B-2(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
40880	2072	0.6	3.4	0.0	0.9	0.8	0.2	5.9
41245	2073	0.6	3.4	0.0	0.9	0.8	0.2	5.9
41610	2074	0.6	3.4	0.0	0.9	0.8	0.2	5.9
41975	2075	0.6	3.4	0.0	0.9	0.8	0.2	5.9
42340	2076	0.6	3.4	0.0	0.9	0.8	0.2	5.9
42705	2077	0.6	3.4	0.0	0.9	0.8	0.2	5.9
43070	2078	0.6	3.4	0.0	0.9	0.8	0.2	5.9
43435	2079	0.6	3.4	0.0	0.9	0.8	0.2	5.9
43800	2080	0.6	3.4	0.0	0.9	0.8	0.2	5.9
44165	2081	0.6	3.4	0.0	0.9	0.8	0.2	5.9
44530	2082	0.6	3.4	0.0	0.9	0.8	0.2	5.9
44895	2083	0.6	3.4	0.0	0.9	0.8	0.2	5.9
45260	2084	0.6	3.4	0.0	0.9	0.8	0.2	5.9
45625	2085	0.6	3.4	0.0	0.9	0.8	0.2	5.9
45990	2086	0.6	3.4	0.0	0.9	0.8	0.2	5.9
46355	2087	0.6	3.4	0.0	0.9	0.8	0.2	5.9
46720	2088	0.6	3.4	0.0	0.9	0.8	0.2	5.9
47085	2089	0.6	3.4	0.0	0.9	0.8	0.2	5.9
47450	2090	0.6	3.4	0.0	0.9	0.8	0.2	5.9
47815	2091	0.6	3.4	0.0	0.9	0.8	0.2	5.9
48180	2092	0.6	3.4	0.0	0.9	0.8	0.2	5.9
48545	2093	0.6	3.4	0.0	0.9	0.8	0.2	5.9
48910	2094	0.6	3.4	0.0	0.9	0.8	0.2	5.9
49275	2095	0.6	3.4	0.0	0.9	0.8	0.2	5.9
49640	2096	0.6	3.4	0.0	0.9	0.8	0.2	5.9
50005	2097	0.6	3.4	0.0	0.9	0.8	0.2	5.9
50370	2098	0.6	3.4	0.0	0.9	0.8	0.2	5.9
50735	2099	0.6	3.4	0.0	0.9	0.8	0.2	5.9
51100	2100	0.6	3.4	0.0	0.9	0.8	0.2	5.9
51465	2101	0.6	3.4	0.0	0.9	0.8	0.2	5.9
51830	2102	0.6	3.4	0.0	0.9	0.8	0.2	5.9
52195	2103	0.6	3.4	0.0	0.9	0.8	0.2	5.9
52560	2104	0.6	3.4	0.0	0.9	0.8	0.2	5.9
52925	2105	0.6	3.4	0.0	0.9	0.8	0.2	5.9
53290	2106	0.6	3.4	0.0	0.9	0.8	0.2	5.9
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

B-2(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3B)



B-2(S3B). Graph of modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
365	1961	72	241	0	119	85	18	535	6
730	1962	73	240	0	120	84	18	534	6
1095	1963	74	240	0	121	83	18	535	6
1460	1964	74	240	0	121	83	18	537	6
1825	1965	75	241	0	122	84	18	539	6
2190	1966	75	242	0	122	84	18	541	6
2555	1967	76	243	0	123	84	18	543	6
2920	1968	76	243	0	123	84	18	544	6
3285	1969	76	244	0	124	84	18	546	6
3650	1970	77	245	0	124	84	18	547	6
4015	1971	77	246	0	124	84	18	549	6
4380	1972	77	246	0	124	84	18	550	6
4745	1973	77	247	0	125	85	18	551	6
5110	1974	77	247	0	125	85	18	552	6
5475	1975	78	248	0	125	85	18	554	6
5840	1976	78	249	0	125	85	18	555	6
6205	1977	78	249	0	125	85	18	556	6
6570	1978	78	250	0	126	85	18	557	6
6935	1979	78	250	0	126	85	18	557	6
7300	1980	78	251	0	126	85	18	558	6
7665	1981	78	251	0	126	85	18	559	6
8030	1982	78	291	0	126	89	18	602	7
8395	1983	79	304	0	126	90	18	617	7
8760	1984	79	352	0	126	94	18	670	8
9125	1985	79	372	0	127	96	18	692	8
9490	1986	79	466	0	127	104	19	795	9
9855	1987	79	505	0	127	108	19	837	10
10220	1988	79	656	0	128	120	19	1002	12
10585	1989	79	720	0	128	126	19	1073	12
10950	1990	80	768	0	128	131	19	1125	13
11315	1991	80	808	0	129	134	19	1170	14
11680	1992	80	845	0	129	138	19	1211	14
12045	1993	80	878	0	130	141	19	1248	14
12410	1994	80	908	0	130	144	20	1282	15
12775	1995	81	937	0	130	146	20	1314	15
13140	1996	81	964	0	131	149	20	1344	16
13505	1997	81	988	0	131	151	20	1372	16
13870	1998	81	1012	0	132	153	20	1398	16

B-2(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
14235	1999	82	1034	0	132	155	20	**1423**	***16***
14600	2000	82	1055	0	132	157	20	**1446**	***17***
14965	2001	82	1075	0	133	159	20	**1468**	***17***
15330	2002	66	865	0	123	123	20	**1196**	***14***
15695	2003	58	801	0	115	105	20	**1099**	***13***
16060	2004	53	761	0	110	98	20	**1042**	***12***
16425	2005	50	731	0	106	93	20	**1001**	***12***
16790	2006	48	707	0	103	90	20	**969**	***11***
17155	2007	46	711	0	101	89	20	**968**	***11***
17520	2008	45	709	0	100	88	20	**961**	***11***
17885	2009	44	728	0	98	88	20	**978**	***11***
18250	2010	43	736	0	97	88	20	**984**	***11***
18615	2011	43	738	0	96	88	20	**984**	***11***
18980	2012	42	738	0	96	87	20	**983**	***11***
19345	2013	41	737	0	95	87	20	**980**	***11***
19710	2014	41	736	0	94	87	20	**977**	***11***
20075	2015	41	733	0	94	86	20	**974**	***11***
20440	2016	40	731	0	94	86	20	**971**	***11***
20805	2017	40	729	0	93	86	20	**968**	***11***
21170	2018	40	726	0	93	85	20	**964**	***11***
21535	2019	40	724	0	93	85	20	**961**	***11***
21900	2020	40	722	0	92	85	20	**959**	***11***
22265	2021	39	720	0	92	85	20	**956**	***11***
22630	2022	39	718	0	92	84	20	**953**	***11***
22995	2023	39	716	0	92	84	20	**951**	***11***
23360	2024	39	714	0	92	84	20	**949**	***11***
23725	2025	39	712	0	92	84	20	**947**	***11***
24090	2026	39	711	0	92	84	20	**945**	***11***
24455	2027	39	709	0	91	84	20	**943**	***11***
24820	2028	39	708	0	91	83	20	**941**	***11***
25185	2029	39	706	0	91	83	20	**939**	***11***
25550	2030	39	705	0	91	83	20	**938**	***11***
25915	2031	39	704	0	91	83	20	**936**	***11***
26280	2032	39	703	0	91	83	20	**935**	***11***
26645	2033	38	702	0	91	83	20	**934**	***11***
27010	2034	38	701	0	91	83	20	**933**	***11***

B-2(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
27375	2035	38	700	0	91	83	20	**932**	***11***
27740	2036	38	699	0	91	83	20	**930**	***11***
28105	2037	38	698	0	91	83	20	**929**	***11***
28470	2038	38	697	0	91	82	20	**929**	***11***
28835	2039	38	697	0	91	82	20	**928**	***11***
29200	2040	38	696	0	91	82	20	**927**	***11***
29565	2041	38	695	0	91	82	20	**926**	***11***
29930	2042	38	695	0	91	82	20	**925**	***11***
30295	2043	38	694	0	91	82	20	**925**	***11***
30660	2044	38	693	0	91	82	20	**924**	***11***
31025	2045	38	693	0	91	82	20	**923**	***11***
31390	2046	38	692	0	90	82	20	**923**	***11***
31755	2047	38	692	0	90	82	20	**922**	***11***
32120	2048	38	692	0	90	82	20	**922**	***11***
32485	2049	38	691	0	90	82	20	**921**	***11***
32850	2050	38	691	0	90	82	20	**921**	***11***
33215	2051	38	690	0	90	82	20	**921**	***11***
33580	2052	38	690	0	90	82	20	**920**	***11***
33945	2053	38	690	0	90	82	20	**920**	***11***
34310	2054	38	689	0	90	82	20	**919**	***11***
34675	2055	38	689	0	90	82	20	**919**	***11***
35040	2056	38	689	0	90	82	20	**919**	***11***
35405	2057	38	689	0	90	82	20	**918**	***11***
35770	2058	38	688	0	90	82	20	**918**	***11***
36135	2059	38	688	0	90	82	20	**918**	***11***
36500	2060	38	688	0	90	82	20	**918**	***11***
36865	2061	38	688	0	90	81	20	**917**	***11***
37230	2062	38	688	0	90	81	20	**917**	***11***
37595	2063	38	687	0	90	81	20	**917**	***11***
37960	2064	38	687	0	90	81	20	**917**	***11***
38325	2065	38	687	0	90	81	20	**917**	***11***
38690	2066	38	687	0	90	81	20	**916**	***11***
39055	2067	38	687	0	90	81	20	**916**	***11***
39420	2068	38	687	0	90	81	20	**916**	***11***
39785	2069	38	686	0	90	81	20	**916**	***11***
40150	2070	38	686	0	90	81	20	**916**	***11***

B-2(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
40515	2071	38	686	0	90	81	20	**916**	***11***
40880	2072	38	686	0	90	81	20	**916**	***11***
41245	2073	38	686	0	90	81	20	**915**	***11***
41610	2074	38	686	0	90	81	20	**915**	***11***
41975	2075	38	686	0	90	81	20	**915**	***11***
42340	2076	38	686	0	90	81	20	**915**	***11***
42705	2077	38	686	0	90	81	20	**915**	***11***
43070	2078	38	685	0	90	81	20	**915**	***11***
43435	2079	38	685	0	90	81	20	**915**	***11***
43800	2080	38	685	0	90	81	20	**915**	***11***
44165	2081	38	685	0	90	81	20	**915**	***11***
44530	2082	38	685	0	90	81	20	**914**	***11***
44895	2083	38	685	0	90	81	20	**914**	***11***
45260	2084	38	685	0	90	81	20	**914**	***11***
45625	2085	38	685	0	90	81	20	**914**	***11***
45990	2086	38	685	0	90	81	20	**914**	***11***
46355	2087	38	685	0	90	81	20	**914**	***11***
46720	2088	38	685	0	90	81	20	**914**	***11***
47085	2089	38	685	0	90	81	20	**914**	***11***
47450	2090	38	685	0	90	81	20	**914**	***11***
47815	2091	38	685	0	90	81	20	**914**	***11***
48180	2092	38	684	0	90	81	20	**914**	***11***
48545	2093	38	684	0	90	81	20	**914**	***11***
48910	2094	38	684	0	90	81	20	**914**	***11***
49275	2095	38	684	0	90	81	20	**914**	***11***
49640	2096	38	684	0	90	81	20	**914**	***11***
50005	2097	38	684	0	90	81	20	**914**	***11***
50370	2098	38	684	0	90	81	20	**913**	***11***
50735	2099	38	684	0	90	81	20	**913**	***11***
51100	2100	38	684	0	90	81	20	**913**	***11***
51465	2101	38	684	0	90	81	20	**913**	***11***
51830	2102	38	684	0	90	81	20	**913**	***11***
52195	2103	38	684	0	90	81	20	**913**	***11***
52560	2104	38	684	0	90	81	20	**913**	***11***
52925	2105	38	684	0	90	81	20	**913**	***11***
53290	2106	38	684	0	90	81	20	**913**	***11***

B-2(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
365	1961	1.1	1.2	0.0	1.2	0.9	0.2	**4.5**
730	1962	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1095	1963	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1460	1964	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1825	1965	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2190	1966	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2555	1967	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2920	1968	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
3285	1969	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
3650	1970	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
4015	1971	1.2	1.2	0.0	1.2	0.8	0.2	**4.6**
4380	1972	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
4745	1973	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
5110	1974	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
5475	1975	1.2	1.2	0.0	1.3	0.8	0.2	**4.7**
5840	1976	1.2	1.2	0.0	1.3	0.8	0.2	**4.7**
6205	1977	1.2	1.2	0.0	1.3	0.9	0.2	**4.7**
6570	1978	1.2	1.2	0.0	1.3	0.9	0.2	**4.7**
6935	1979	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
7300	1980	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
7665	1981	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
8030	1982	1.2	1.5	0.0	1.3	0.9	0.2	**5.0**
8395	1983	1.2	1.5	0.0	1.3	0.9	0.2	**5.0**
8760	1984	1.2	1.8	0.0	1.3	0.9	0.2	**5.3**
9125	1985	1.2	1.9	0.0	1.3	1.0	0.2	**5.5**
9490	1986	1.2	2.3	0.0	1.3	1.0	0.2	**6.0**
9855	1987	1.2	2.5	0.0	1.3	1.1	0.2	**6.2**
10220	1988	1.2	3.3	0.0	1.3	1.2	0.2	**7.1**
10585	1989	1.2	3.6	0.0	1.3	1.3	0.2	**7.5**
10950	1990	1.2	3.8	0.0	1.3	1.3	0.2	**7.8**
11315	1991	1.2	4.0	0.0	1.3	1.3	0.2	**8.1**
11680	1992	1.2	4.2	0.0	1.3	1.4	0.2	**8.3**
12045	1993	1.2	4.4	0.0	1.3	1.4	0.2	**8.5**
12410	1994	1.2	4.5	0.0	1.3	1.4	0.2	**8.7**
12775	1995	1.2	4.7	0.0	1.3	1.5	0.2	**8.9**
13140	1996	1.2	4.8	0.0	1.3	1.5	0.2	**9.0**
13505	1997	1.2	4.9	0.0	1.3	1.5	0.2	**9.2**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
13870	1998	1.2	5.1	0.0	1.3	1.5	0.2	**9.3**
14235	1999	1.2	5.2	0.0	1.3	1.6	0.2	**9.5**
14600	2000	1.2	5.3	0.0	1.3	1.6	0.2	**9.6**
14965	2001	1.2	5.4	0.0	1.3	1.6	0.2	**9.7**
15330	2002	1.0	4.3	0.0	1.2	1.2	0.2	**8.0**
15695	2003	0.9	4.0	0.0	1.1	1.1	0.2	**7.3**
16060	2004	0.8	3.8	0.0	1.1	1.0	0.2	**6.9**
16425	2005	0.8	3.7	0.0	1.1	0.9	0.2	**6.6**
16790	2006	0.7	3.5	0.0	1.0	0.9	0.2	**6.4**
17155	2007	0.7	3.6	0.0	1.0	0.9	0.2	**6.4**
17520	2008	0.7	3.5	0.0	1.0	0.9	0.2	**6.3**
17885	2009	0.7	3.6	0.0	1.0	0.9	0.2	**6.4**
18250	2010	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
18615	2011	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
18980	2012	0.6	3.7	0.0	1.0	0.9	0.2	**6.3**
19345	2013	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
19710	2014	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
20075	2015	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
20440	2016	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
20805	2017	0.6	3.6	0.0	0.9	0.9	0.2	**6.2**
21170	2018	0.6	3.6	0.0	0.9	0.9	0.2	**6.2**
21535	2019	0.6	3.6	0.0	0.9	0.9	0.2	**6.2**
21900	2020	0.6	3.6	0.0	0.9	0.8	0.2	**6.2**
22265	2021	0.6	3.6	0.0	0.9	0.8	0.2	**6.2**
22630	2022	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
22995	2023	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
23360	2024	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
23725	2025	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
24090	2026	0.6	3.6	0.0	0.9	0.8	0.2	**6.1**
24455	2027	0.6	3.5	0.0	0.9	0.8	0.2	**6.1**
24820	2028	0.6	3.5	0.0	0.9	0.8	0.2	**6.1**
25185	2029	0.6	3.5	0.0	0.9	0.8	0.2	**6.1**
25550	2030	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
25915	2031	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
26280	2032	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
26645	2033	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
27010	2034	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

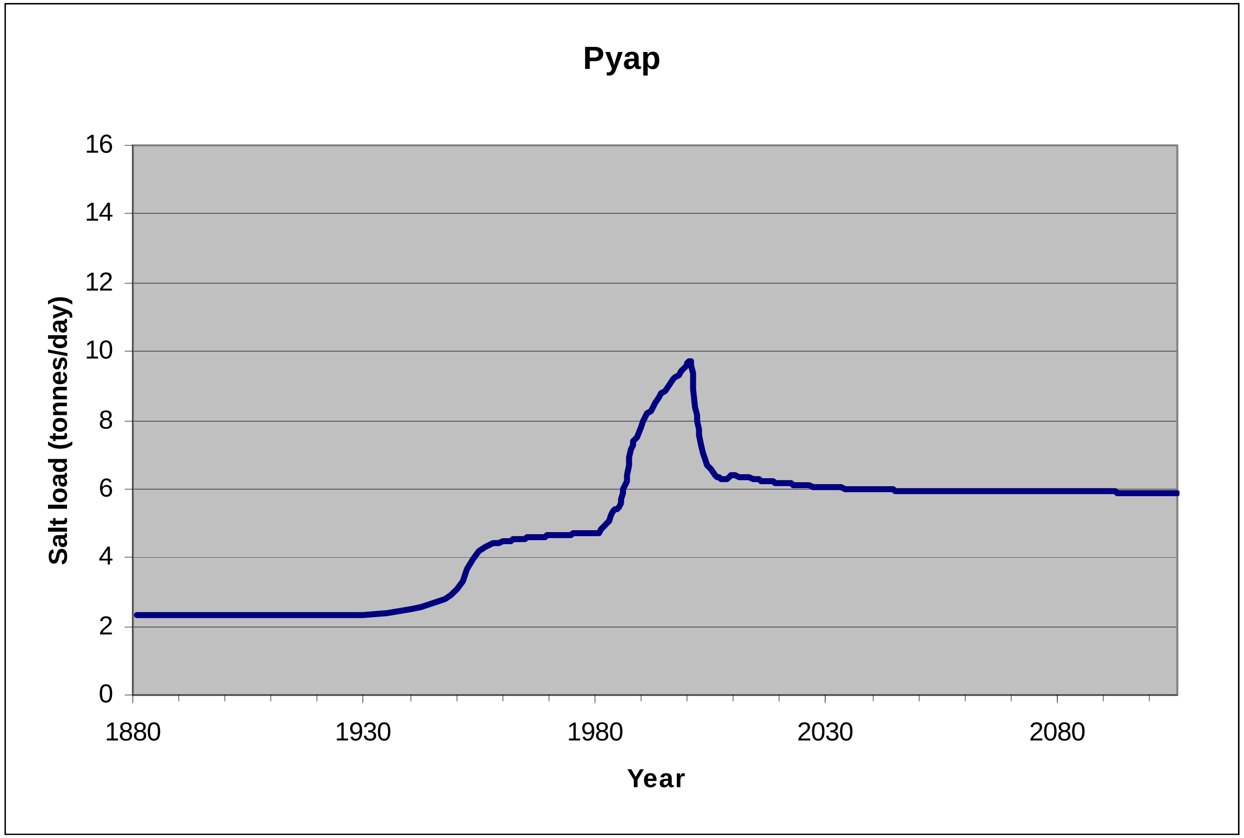
B-2(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
27375	2035	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
27740	2036	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
28105	2037	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
28470	2038	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
28835	2039	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
29200	2040	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
29565	2041	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
29930	2042	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
30295	2043	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
30660	2044	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
31025	2045	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
31390	2046	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
31755	2047	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
32120	2048	0.6	3.5	0.0	0.9	0.8	0.2	**6.0**
32485	2049	0.6	3.5	0.0	0.9	0.8	0.2	**5.9**
32850	2050	0.6	3.5	0.0	0.9	0.8	0.2	**5.9**
33215	2051	0.6	3.5	0.0	0.9	0.8	0.2	**5.9**
33580	2052	0.6	3.5	0.0	0.9	0.8	0.2	**5.9**
33945	2053	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
34310	2054	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
34675	2055	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
35040	2056	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
35405	2057	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
35770	2058	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
36135	2059	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
36500	2060	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
36865	2061	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
37230	2062	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
37595	2063	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
37960	2064	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
38325	2065	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
38690	2066	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
39055	2067	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
39420	2068	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
39785	2069	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
40150	2070	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
40515	2071	0.6	3.4	0.0	0.9	0.8	0.2	**5.9**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
40880	2072	0.6	3.4	0.0	0.9	0.8	0.2	5.9
41245	2073	0.6	3.4	0.0	0.9	0.8	0.2	5.9
41610	2074	0.6	3.4	0.0	0.9	0.8	0.2	5.9
41975	2075	0.6	3.4	0.0	0.9	0.8	0.2	5.9
42340	2076	0.6	3.4	0.0	0.9	0.8	0.2	5.9
42705	2077	0.6	3.4	0.0	0.9	0.8	0.2	5.9
43070	2078	0.6	3.4	0.0	0.9	0.8	0.2	5.9
43435	2079	0.6	3.4	0.0	0.9	0.8	0.2	5.9
43800	2080	0.6	3.4	0.0	0.9	0.8	0.2	5.9
44165	2081	0.6	3.4	0.0	0.9	0.8	0.2	5.9
44530	2082	0.6	3.4	0.0	0.9	0.8	0.2	5.9
44895	2083	0.6	3.4	0.0	0.9	0.8	0.2	5.9
45260	2084	0.6	3.4	0.0	0.9	0.8	0.2	5.9
45625	2085	0.6	3.4	0.0	0.9	0.8	0.2	5.9
45990	2086	0.6	3.4	0.0	0.9	0.8	0.2	5.9
46355	2087	0.6	3.4	0.0	0.9	0.8	0.2	5.9
46720	2088	0.6	3.4	0.0	0.9	0.8	0.2	5.9
47085	2089	0.6	3.4	0.0	0.9	0.8	0.2	5.9
47450	2090	0.6	3.4	0.0	0.9	0.8	0.2	5.9
47815	2091	0.6	3.4	0.0	0.9	0.8	0.2	5.9
48180	2092	0.6	3.4	0.0	0.9	0.8	0.2	5.9
48545	2093	0.6	3.4	0.0	0.9	0.8	0.2	5.9
48910	2094	0.6	3.4	0.0	0.9	0.8	0.2	5.9
49275	2095	0.6	3.4	0.0	0.9	0.8	0.2	5.9
49640	2096	0.6	3.4	0.0	0.9	0.8	0.2	5.9
50005	2097	0.6	3.4	0.0	0.9	0.8	0.2	5.9
50370	2098	0.6	3.4	0.0	0.9	0.8	0.2	5.9
50735	2099	0.6	3.4	0.0	0.9	0.8	0.2	5.9
51100	2100	0.6	3.4	0.0	0.9	0.8	0.2	5.9
51465	2101	0.6	3.4	0.0	0.9	0.8	0.2	5.9
51830	2102	0.6	3.4	0.0	0.9	0.8	0.2	5.9
52195	2103	0.6	3.4	0.0	0.9	0.8	0.2	5.9
52560	2104	0.6	3.4	0.0	0.9	0.8	0.2	5.9
52925	2105	0.6	3.4	0.0	0.9	0.8	0.2	5.9
53290	2106	0.6	3.4	0.0	0.9	0.8	0.2	5.9
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3C)



B-2(S3C). Graph of modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
365	1961	72	241	0	119	85	18	535	6
730	1962	73	240	0	120	84	18	534	6
1095	1963	74	240	0	121	83	18	535	6
1460	1964	74	240	0	121	83	18	537	6
1825	1965	75	241	0	122	84	18	539	6
2190	1966	75	242	0	122	84	18	541	6
2555	1967	76	243	0	123	84	18	543	6
2920	1968	76	243	0	123	84	18	544	6
3285	1969	76	244	0	124	84	18	546	6
3650	1970	77	245	0	124	84	18	547	6
4015	1971	77	246	0	124	84	18	549	6
4380	1972	77	246	0	124	84	18	550	6
4745	1973	77	247	0	125	85	18	551	6
5110	1974	77	247	0	125	85	18	552	6
5475	1975	78	248	0	125	85	18	554	6
5840	1976	78	249	0	125	85	18	555	6
6205	1977	78	249	0	125	85	18	556	6
6570	1978	78	250	0	126	85	18	557	6
6935	1979	78	250	0	126	85	18	557	6
7300	1980	78	251	0	126	85	18	558	6
7665	1981	78	251	0	126	85	18	559	6
8030	1982	78	291	0	126	89	18	602	7
8395	1983	79	304	0	126	90	18	617	7
8760	1984	79	352	0	126	94	18	670	8
9125	1985	79	372	0	127	96	18	692	8
9490	1986	79	466	0	127	104	19	795	9
9855	1987	79	505	0	127	108	19	837	10
10220	1988	79	656	0	128	120	19	1002	12
10585	1989	79	720	0	128	126	19	1073	12
10950	1990	80	768	0	128	131	19	1125	13
11315	1991	80	808	0	129	134	19	1170	14
11680	1992	80	845	0	129	138	19	1211	14
12045	1993	80	878	0	130	141	19	1248	14
12410	1994	80	908	0	130	144	20	1282	15
12775	1995	81	937	0	130	146	20	1314	15
13140	1996	81	964	0	131	149	20	1344	16
13505	1997	81	988	0	131	151	20	1372	16
13870	1998	81	1012	0	132	153	20	1398	16

B-2(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
14235	1999	82	1034	0	132	155	20	**1423**	***16***
14600	2000	82	1055	0	132	157	20	**1446**	***17***
14965	2001	82	1075	0	133	159	20	**1468**	***17***
15330	2002	66	865	0	123	123	20	**1196**	***14***
15695	2003	58	801	0	115	105	20	**1099**	***13***
16060	2004	53	761	0	110	98	20	**1042**	***12***
16425	2005	50	731	0	106	93	20	**1001**	***12***
16790	2006	48	707	0	103	90	20	**969**	***11***
17155	2007	46	711	0	101	89	20	**968**	***11***
17520	2008	45	709	0	100	88	20	**961**	***11***
17885	2009	44	728	0	98	88	20	**978**	***11***
18250	2010	43	736	0	97	88	20	**984**	***11***
18615	2011	43	738	0	96	88	20	**984**	***11***
18980	2012	42	738	0	96	87	20	**983**	***11***
19345	2013	41	737	0	95	87	20	**980**	***11***
19710	2014	41	736	0	94	87	20	**977**	***11***
20075	2015	42	744	0	97	88	20	**991**	***11***
20440	2016	43	757	0	98	89	20	**1007**	***12***
20805	2017	43	769	0	98	91	20	**1021**	***12***
21170	2018	43	779	0	98	92	20	**1033**	***12***
21535	2019	43	788	0	99	92	20	**1042**	***12***
21900	2020	43	794	0	99	93	20	**1050**	***12***
22265	2021	43	800	0	99	94	20	**1056**	***12***
22630	2022	44	805	0	99	94	20	**1062**	***12***
22995	2023	44	809	0	99	94	20	**1066**	***12***
23360	2024	44	813	0	99	95	20	**1071**	***12***
23725	2025	44	816	0	100	95	20	**1074**	***12***
24090	2026	44	818	0	100	96	20	**1078**	***12***
24455	2027	44	822	0	100	96	20	**1082**	***13***
24820	2028	44	825	0	100	96	20	**1086**	***13***
25185	2029	44	827	0	101	97	20	**1089**	***13***
25550	2030	45	830	0	101	97	20	**1093**	***13***
25915	2031	46	837	0	103	98	20	**1105**	***13***
26280	2032	47	842	0	104	99	21	**1112**	***13***
26645	2033	48	859	0	106	101	21	**1135**	***13***
27010	2034	49	868	0	108	102	21	**1149**	***13***

B-2(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
27375	2035	52	881	0	112	105	21	1171	14
27740	2036	54	896	0	115	107	21	1193	14
28105	2037	56	911	0	117	110	22	1215	14
28470	2038	57	926	0	119	112	22	1236	14
28835	2039	58	941	0	120	114	22	1255	15
29200	2040	59	956	0	122	116	22	1275	15
29565	2041	60	971	0	123	117	22	1293	15
29930	2042	61	985	0	124	119	23	1311	15
30295	2043	62	999	0	125	121	23	1329	15
30660	2044	62	1012	0	126	122	23	1345	16
31025	2045	63	1025	0	127	124	23	1362	16
31390	2046	64	1038	0	127	125	23	1377	16
31755	2047	64	1050	0	128	127	24	1393	16
32120	2048	65	1062	0	129	128	24	1407	16
32485	2049	65	1073	0	130	129	24	1421	16
32850	2050	66	1084	0	130	130	24	1435	17
33215	2051	66	1095	0	131	132	24	1448	17
33580	2052	67	1105	0	131	133	24	1460	17
33945	2053	67	1115	0	132	134	25	1473	17
34310	2054	68	1124	0	132	135	25	1484	17
34675	2055	68	1133	0	133	136	25	1495	17
35040	2056	69	1142	0	133	137	25	1506	17
35405	2057	69	1151	0	134	138	25	1516	18
35770	2058	69	1159	0	134	139	25	1526	18
36135	2059	70	1166	0	135	140	25	1536	18
36500	2060	70	1174	0	135	141	25	1545	18
36865	2061	70	1181	0	135	141	25	1554	18
37230	2062	71	1188	0	136	142	26	1562	18
37595	2063	71	1194	0	136	143	26	1570	18
37960	2064	71	1201	0	136	144	26	1578	18
38325	2065	72	1207	0	137	144	26	1585	18
38690	2066	72	1212	0	137	145	26	1592	18
39055	2067	72	1218	0	137	146	26	1599	19
39420	2068	72	1223	0	138	146	26	1605	19
39785	2069	73	1228	0	138	147	26	1611	19
40150	2070	73	1233	0	138	147	26	1617	19

B-2(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
40515	2071	73	1237	0	138	148	26	**1623**	***19***
40880	2072	73	1242	0	139	148	26	**1628**	***19***
41245	2073	73	1246	0	139	149	26	**1634**	***19***
41610	2074	74	1250	0	139	149	26	**1639**	***19***
41975	2075	74	1254	0	139	150	26	**1644**	***19***
42340	2076	74	1258	0	140	150	26	**1648**	***19***
42705	2077	74	1261	0	140	151	26	**1653**	***19***
43070	2078	74	1265	0	140	151	27	**1657**	***19***
43435	2079	75	1268	0	140	152	27	**1661**	***19***
43800	2080	75	1271	0	140	152	27	**1665**	***19***
44165	2081	75	1274	0	141	152	27	**1669**	***19***
44530	2082	75	1277	0	141	153	27	**1672**	***19***
44895	2083	75	1280	0	141	153	27	**1676**	***19***
45260	2084	75	1282	0	141	153	27	**1679**	***19***
45625	2085	76	1285	0	141	154	27	**1682**	***19***
45990	2086	76	1287	0	142	154	27	**1685**	***20***
46355	2087	76	1290	0	142	154	27	**1688**	***20***
46720	2088	76	1292	0	142	154	27	**1691**	***20***
47085	2089	76	1294	0	142	155	27	**1694**	***20***
47450	2090	76	1296	0	142	155	27	**1696**	***20***
47815	2091	76	1298	0	142	155	27	**1699**	***20***
48180	2092	77	1300	0	142	155	27	**1701**	***20***
48545	2093	77	1302	0	143	156	27	**1704**	***20***
48910	2094	77	1304	0	143	156	27	**1706**	***20***
49275	2095	77	1305	0	143	156	27	**1708**	***20***
49640	2096	77	1307	0	143	156	27	**1710**	***20***
50005	2097	77	1308	0	143	156	27	**1712**	***20***
50370	2098	77	1310	0	143	157	27	**1714**	***20***
50735	2099	77	1311	0	143	157	27	**1716**	***20***
51100	2100	77	1313	0	143	157	27	**1718**	***20***
51465	2101	78	1314	0	144	157	27	**1719**	***20***
51830	2102	78	1315	0	144	157	27	**1721**	***20***
52195	2103	78	1316	0	144	157	27	**1723**	***20***
52560	2104	78	1317	0	144	158	27	**1724**	***20***
52925	2105	78	1319	0	144	158	27	**1725**	***20***
53290	2106	78	1320	0	144	158	27	**1727**	***20***

B-2(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
365	1961	1.1	1.2	0.0	1.2	0.9	0.2	4.5
730	1962	1.1	1.2	0.0	1.2	0.8	0.2	4.5
1095	1963	1.1	1.2	0.0	1.2	0.8	0.2	4.5
1460	1964	1.1	1.2	0.0	1.2	0.8	0.2	4.5
1825	1965	1.1	1.2	0.0	1.2	0.8	0.2	4.6
2190	1966	1.1	1.2	0.0	1.2	0.8	0.2	4.6
2555	1967	1.1	1.2	0.0	1.2	0.8	0.2	4.6
2920	1968	1.1	1.2	0.0	1.2	0.8	0.2	4.6
3285	1969	1.1	1.2	0.0	1.2	0.8	0.2	4.6
3650	1970	1.1	1.2	0.0	1.2	0.8	0.2	4.6
4015	1971	1.2	1.2	0.0	1.2	0.8	0.2	4.6
4380	1972	1.2	1.2	0.0	1.2	0.8	0.2	4.7
4745	1973	1.2	1.2	0.0	1.2	0.8	0.2	4.7
5110	1974	1.2	1.2	0.0	1.2	0.8	0.2	4.7
5475	1975	1.2	1.2	0.0	1.3	0.8	0.2	4.7
5840	1976	1.2	1.2	0.0	1.3	0.8	0.2	4.7
6205	1977	1.2	1.2	0.0	1.3	0.9	0.2	4.7
6570	1978	1.2	1.2	0.0	1.3	0.9	0.2	4.7
6935	1979	1.2	1.3	0.0	1.3	0.9	0.2	4.7
7300	1980	1.2	1.3	0.0	1.3	0.9	0.2	4.7
7665	1981	1.2	1.3	0.0	1.3	0.9	0.2	4.7
8030	1982	1.2	1.5	0.0	1.3	0.9	0.2	5.0
8395	1983	1.2	1.5	0.0	1.3	0.9	0.2	5.0
8760	1984	1.2	1.8	0.0	1.3	0.9	0.2	5.3
9125	1985	1.2	1.9	0.0	1.3	1.0	0.2	5.5
9490	1986	1.2	2.3	0.0	1.3	1.0	0.2	6.0
9855	1987	1.2	2.5	0.0	1.3	1.1	0.2	6.2
10220	1988	1.2	3.3	0.0	1.3	1.2	0.2	7.1
10585	1989	1.2	3.6	0.0	1.3	1.3	0.2	7.5
10950	1990	1.2	3.8	0.0	1.3	1.3	0.2	7.8
11315	1991	1.2	4.0	0.0	1.3	1.3	0.2	8.1
11680	1992	1.2	4.2	0.0	1.3	1.4	0.2	8.3
12045	1993	1.2	4.4	0.0	1.3	1.4	0.2	8.5
12410	1994	1.2	4.5	0.0	1.3	1.4	0.2	8.7
12775	1995	1.2	4.7	0.0	1.3	1.5	0.2	8.9
13140	1996	1.2	4.8	0.0	1.3	1.5	0.2	9.0
13505	1997	1.2	4.9	0.0	1.3	1.5	0.2	9.2
Salinity (mg/L)		15,000	5,000	10,000	10,000	10,000	10,000	

B-2(S4). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
13870	1998	1.2	5.1	0.0	1.3	1.5	0.2	**9.3**
14235	1999	1.2	5.2	0.0	1.3	1.6	0.2	**9.5**
14600	2000	1.2	5.3	0.0	1.3	1.6	0.2	**9.6**
14965	2001	1.2	5.4	0.0	1.3	1.6	0.2	**9.7**
15330	2002	1.0	4.3	0.0	1.2	1.2	0.2	**8.0**
15695	2003	0.9	4.0	0.0	1.1	1.1	0.2	**7.3**
16060	2004	0.8	3.8	0.0	1.1	1.0	0.2	**6.9**
16425	2005	0.8	3.7	0.0	1.1	0.9	0.2	**6.6**
16790	2006	0.7	3.5	0.0	1.0	0.9	0.2	**6.4**
17155	2007	0.7	3.6	0.0	1.0	0.9	0.2	**6.4**
17520	2008	0.7	3.5	0.0	1.0	0.9	0.2	**6.3**
17885	2009	0.7	3.6	0.0	1.0	0.9	0.2	**6.4**
18250	2010	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
18615	2011	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
18980	2012	0.6	3.7	0.0	1.0	0.9	0.2	**6.3**
19345	2013	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
19710	2014	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
20075	2015	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
20440	2016	0.6	3.8	0.0	1.0	0.9	0.2	**6.5**
20805	2017	0.6	3.8	0.0	1.0	0.9	0.2	**6.6**
21170	2018	0.6	3.9	0.0	1.0	0.9	0.2	**6.6**
21535	2019	0.7	3.9	0.0	1.0	0.9	0.2	**6.7**
21900	2020	0.7	4.0	0.0	1.0	0.9	0.2	**6.7**
22265	2021	0.7	4.0	0.0	1.0	0.9	0.2	**6.8**
22630	2022	0.7	4.0	0.0	1.0	0.9	0.2	**6.8**
22995	2023	0.7	4.0	0.0	1.0	0.9	0.2	**6.8**
23360	2024	0.7	4.1	0.0	1.0	0.9	0.2	**6.9**
23725	2025	0.7	4.1	0.0	1.0	1.0	0.2	**6.9**
24090	2026	0.7	4.1	0.0	1.0	1.0	0.2	**6.9**
24455	2027	0.7	4.1	0.0	1.0	1.0	0.2	**6.9**
24820	2028	0.7	4.1	0.0	1.0	1.0	0.2	**7.0**
25185	2029	0.7	4.1	0.0	1.0	1.0	0.2	**7.0**
25550	2030	0.7	4.1	0.0	1.0	1.0	0.2	**7.0**
25915	2031	0.7	4.2	0.0	1.0	1.0	0.2	**7.1**
26280	2032	0.7	4.2	0.0	1.0	1.0	0.2	**7.1**
26645	2033	0.7	4.3	0.0	1.1	1.0	0.2	**7.3**
27010	2034	0.7	4.3	0.0	1.1	1.0	0.2	**7.4**
Salinity (mg/L)		***15,000***	***5,000***	***10,000***	***10,000***	***10,000***	***10,000***	

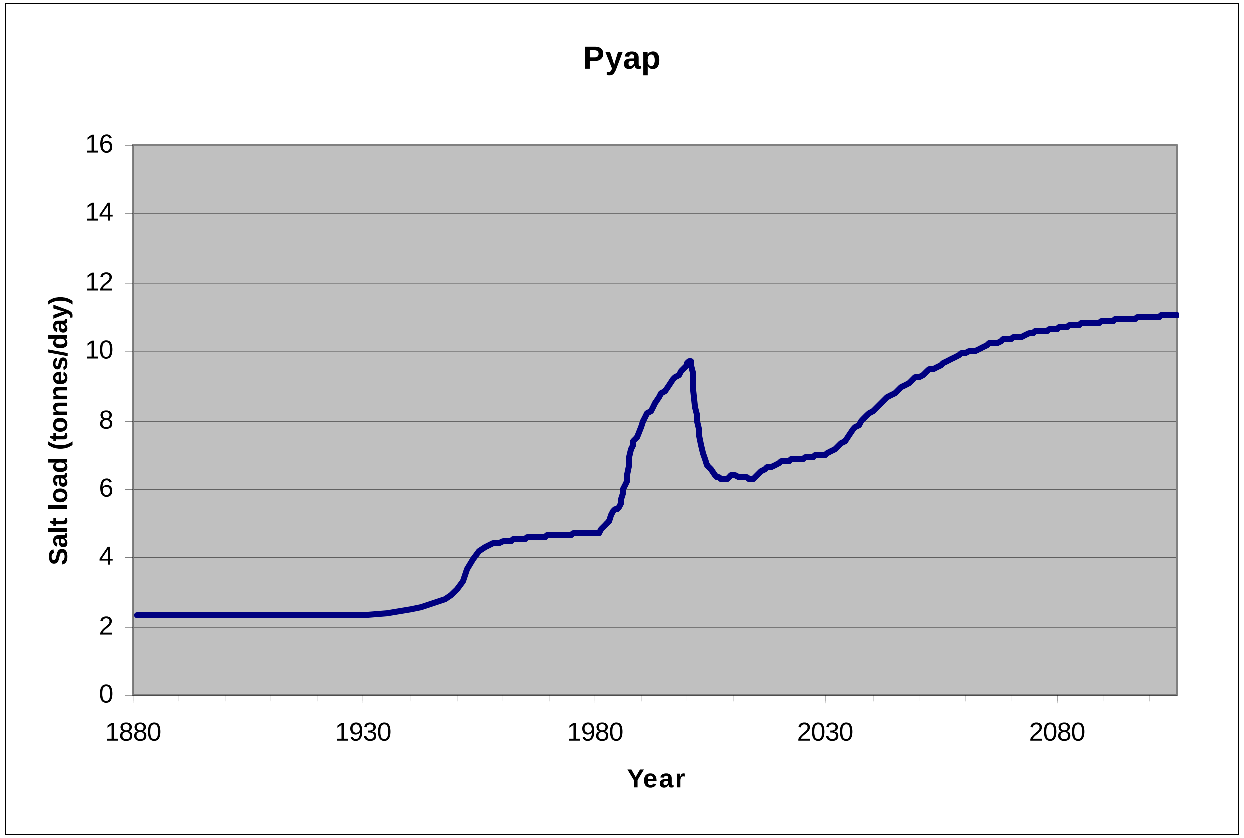
B-2(S4). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
27375	2035	0.8	4.4	0.0	1.1	1.0	0.2	7.6
27740	2036	0.8	4.5	0.0	1.1	1.1	0.2	7.7
28105	2037	0.8	4.6	0.0	1.2	1.1	0.2	7.9
28470	2038	0.9	4.6	0.0	1.2	1.1	0.2	8.0
28835	2039	0.9	4.7	0.0	1.2	1.1	0.2	8.1
29200	2040	0.9	4.8	0.0	1.2	1.2	0.2	8.3
29565	2041	0.9	4.9	0.0	1.2	1.2	0.2	8.4
29930	2042	0.9	4.9	0.0	1.2	1.2	0.2	8.5
30295	2043	0.9	5.0	0.0	1.2	1.2	0.2	8.6
30660	2044	0.9	5.1	0.0	1.3	1.2	0.2	8.7
31025	2045	0.9	5.1	0.0	1.3	1.2	0.2	8.8
31390	2046	1.0	5.2	0.0	1.3	1.3	0.2	8.9
31755	2047	1.0	5.2	0.0	1.3	1.3	0.2	9.0
32120	2048	1.0	5.3	0.0	1.3	1.3	0.2	9.1
32485	2049	1.0	5.4	0.0	1.3	1.3	0.2	9.2
32850	2050	1.0	5.4	0.0	1.3	1.3	0.2	9.3
33215	2051	1.0	5.5	0.0	1.3	1.3	0.2	9.3
33580	2052	1.0	5.5	0.0	1.3	1.3	0.2	9.4
33945	2053	1.0	5.6	0.0	1.3	1.3	0.2	9.5
34310	2054	1.0	5.6	0.0	1.3	1.4	0.2	9.6
34675	2055	1.0	5.7	0.0	1.3	1.4	0.2	9.6
35040	2056	1.0	5.7	0.0	1.3	1.4	0.2	9.7
35405	2057	1.0	5.8	0.0	1.3	1.4	0.3	9.8
35770	2058	1.0	5.8	0.0	1.3	1.4	0.3	9.8
36135	2059	1.0	5.8	0.0	1.3	1.4	0.3	9.9
36500	2060	1.1	5.9	0.0	1.4	1.4	0.3	9.9
36865	2061	1.1	5.9	0.0	1.4	1.4	0.3	10.0
37230	2062	1.1	5.9	0.0	1.4	1.4	0.3	10.0
37595	2063	1.1	6.0	0.0	1.4	1.4	0.3	10.1
37960	2064	1.1	6.0	0.0	1.4	1.4	0.3	10.1
38325	2065	1.1	6.0	0.0	1.4	1.4	0.3	10.2
38690	2066	1.1	6.1	0.0	1.4	1.4	0.3	10.2
39055	2067	1.1	6.1	0.0	1.4	1.5	0.3	10.3
39420	2068	1.1	6.1	0.0	1.4	1.5	0.3	10.3
39785	2069	1.1	6.1	0.0	1.4	1.5	0.3	10.3
40150	2070	1.1	6.2	0.0	1.4	1.5	0.3	10.4
40515	2071	1.1	6.2	0.0	1.4	1.5	0.3	10.4
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S4). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
40880	2072	1.1	6.2	0.0	1.4	1.5	0.3	10.4
41245	2073	1.1	6.2	0.0	1.4	1.5	0.3	10.5
41610	2074	1.1	6.3	0.0	1.4	1.5	0.3	10.5
41975	2075	1.1	6.3	0.0	1.4	1.5	0.3	10.5
42340	2076	1.1	6.3	0.0	1.4	1.5	0.3	10.6
42705	2077	1.1	6.3	0.0	1.4	1.5	0.3	10.6
43070	2078	1.1	6.3	0.0	1.4	1.5	0.3	10.6
43435	2079	1.1	6.3	0.0	1.4	1.5	0.3	10.6
43800	2080	1.1	6.4	0.0	1.4	1.5	0.3	10.7
44165	2081	1.1	6.4	0.0	1.4	1.5	0.3	10.7
44530	2082	1.1	6.4	0.0	1.4	1.5	0.3	10.7
44895	2083	1.1	6.4	0.0	1.4	1.5	0.3	10.7
45260	2084	1.1	6.4	0.0	1.4	1.5	0.3	10.8
45625	2085	1.1	6.4	0.0	1.4	1.5	0.3	10.8
45990	2086	1.1	6.4	0.0	1.4	1.5	0.3	10.8
46355	2087	1.1	6.4	0.0	1.4	1.5	0.3	10.8
46720	2088	1.1	6.5	0.0	1.4	1.5	0.3	10.8
47085	2089	1.1	6.5	0.0	1.4	1.5	0.3	10.8
47450	2090	1.1	6.5	0.0	1.4	1.5	0.3	10.9
47815	2091	1.1	6.5	0.0	1.4	1.6	0.3	10.9
48180	2092	1.1	6.5	0.0	1.4	1.6	0.3	10.9
48545	2093	1.2	6.5	0.0	1.4	1.6	0.3	10.9
48910	2094	1.2	6.5	0.0	1.4	1.6	0.3	10.9
49275	2095	1.2	6.5	0.0	1.4	1.6	0.3	10.9
49640	2096	1.2	6.5	0.0	1.4	1.6	0.3	11.0
50005	2097	1.2	6.5	0.0	1.4	1.6	0.3	11.0
50370	2098	1.2	6.5	0.0	1.4	1.6	0.3	11.0
50735	2099	1.2	6.6	0.0	1.4	1.6	0.3	11.0
51100	2100	1.2	6.6	0.0	1.4	1.6	0.3	11.0
51465	2101	1.2	6.6	0.0	1.4	1.6	0.3	11.0
51830	2102	1.2	6.6	0.0	1.4	1.6	0.3	11.0
52195	2103	1.2	6.6	0.0	1.4	1.6	0.3	11.0
52560	2104	1.2	6.6	0.0	1.4	1.6	0.3	11.0
52925	2105	1.2	6.6	0.0	1.4	1.6	0.3	11.1
53290	2106	1.2	6.6	0.0	1.4	1.6	0.3	11.1
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S4). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 4)



B-2(S4). Graph of modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
365	1961	72	241	0	119	85	18	535	6
730	1962	73	240	0	120	84	18	534	6
1095	1963	74	240	0	121	83	18	535	6
1460	1964	74	240	0	121	83	18	537	6
1825	1965	75	241	0	122	84	18	539	6
2190	1966	75	242	0	122	84	18	541	6
2555	1967	76	243	0	123	84	18	543	6
2920	1968	76	243	0	123	84	18	544	6
3285	1969	76	244	0	124	84	18	546	6
3650	1970	77	245	0	124	84	18	547	6
4015	1971	77	246	0	124	84	18	549	6
4380	1972	77	246	0	124	84	18	550	6
4745	1973	77	247	0	125	85	18	551	6
5110	1974	77	247	0	125	85	18	552	6
5475	1975	78	248	0	125	85	18	554	6
5840	1976	78	249	0	125	85	18	555	6
6205	1977	78	249	0	125	85	18	556	6
6570	1978	78	250	0	126	85	18	557	6
6935	1979	78	250	0	126	85	18	557	6
7300	1980	78	251	0	126	85	18	558	6
7665	1981	78	251	0	126	85	18	559	6
8030	1982	78	291	0	126	89	18	602	7
8395	1983	79	304	0	126	90	18	617	7
8760	1984	79	352	0	126	94	18	670	8
9125	1985	79	372	0	127	96	18	692	8
9490	1986	79	466	0	127	104	19	795	9
9855	1987	79	505	0	127	108	19	837	10
10220	1988	79	656	0	128	120	19	1002	12
10585	1989	79	720	0	128	126	19	1073	12
10950	1990	80	768	0	128	131	19	1125	13
11315	1991	80	808	0	129	134	19	1170	14
11680	1992	80	845	0	129	138	19	1211	14
12045	1993	80	878	0	130	141	19	1248	14
12410	1994	80	908	0	130	144	20	1282	15
12775	1995	81	937	0	130	146	20	1314	15
13140	1996	81	964	0	131	149	20	1344	16
13505	1997	81	988	0	131	151	20	1372	16
13870	1998	81	1012	0	132	153	20	1398	16

B-2(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
14235	1999	82	1034	0	132	155	20	**1423**	***16***
14600	2000	82	1055	0	132	157	20	**1446**	***17***
14965	2001	82	1075	0	133	159	20	**1468**	***17***
15330	2002	66	865	0	123	123	20	**1196**	***14***
15695	2003	58	801	0	115	105	20	**1099**	***13***
16060	2004	53	761	0	110	98	20	**1042**	***12***
16425	2005	50	731	0	106	93	20	**1001**	***12***
16790	2006	48	707	0	103	90	20	**969**	***11***
17155	2007	46	711	0	101	89	20	**968**	***11***
17520	2008	45	709	0	100	88	20	**961**	***11***
17885	2009	44	728	0	98	88	20	**978**	***11***
18250	2010	43	736	0	97	88	20	**984**	***11***
18615	2011	43	738	0	96	88	20	**984**	***11***
18980	2012	42	738	0	96	87	20	**983**	***11***
19345	2013	41	737	0	95	87	20	**980**	***11***
19710	2014	41	736	0	94	87	20	**977**	***11***
20075	2015	42	744	0	97	88	20	**991**	***11***
20440	2016	43	757	0	98	89	20	**1007**	***12***
20805	2017	43	769	0	98	91	20	**1021**	***12***
21170	2018	43	779	0	98	92	20	**1033**	***12***
21535	2019	43	788	0	99	92	20	**1042**	***12***
21900	2020	43	794	0	99	93	20	**1050**	***12***
22265	2021	43	800	0	99	94	20	**1056**	***12***
22630	2022	44	805	0	99	94	20	**1062**	***12***
22995	2023	44	809	0	99	94	20	**1066**	***12***
23360	2024	44	813	0	99	95	20	**1071**	***12***
23725	2025	44	816	0	100	95	20	**1074**	***12***
24090	2026	44	818	0	100	96	20	**1078**	***12***
24455	2027	44	822	0	100	97	20	**1083**	***13***
24820	2028	44	825	0	100	97	20	**1087**	***13***
25185	2029	44	828	0	101	98	20	**1091**	***13***
25550	2030	45	830	0	101	98	20	**1095**	***13***
25915	2031	46	837	0	103	99	20	**1106**	***13***
26280	2032	47	842	0	104	100	21	**1114**	***13***
26645	2033	48	860	0	106	102	21	**1136**	***13***
27010	2034	49	868	0	108	103	21	**1150**	***13***

B-2(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
27375	2035	52	882	0	112	106	21	1172	14
27740	2036	54	897	0	115	108	21	1195	14
28105	2037	56	912	0	117	111	22	1217	14
28470	2038	57	927	0	119	113	22	1237	14
28835	2039	58	942	0	120	115	22	1257	15
29200	2040	59	957	0	122	117	22	1276	15
29565	2041	60	971	0	123	118	23	1295	15
29930	2042	61	985	0	124	120	23	1313	15
30295	2043	62	999	0	125	122	23	1330	15
30660	2044	62	1013	0	126	123	23	1347	16
31025	2045	63	1026	0	127	125	23	1364	16
31390	2046	64	1038	0	127	126	23	1379	16
31755	2047	64	1051	0	128	128	24	1395	16
32120	2048	65	1063	0	129	129	24	1409	16
32485	2049	65	1074	0	130	131	24	1424	16
32850	2050	66	1085	0	130	132	24	1437	17
33215	2051	66	1096	0	131	133	24	1450	17
33580	2052	67	1106	0	131	134	25	1463	17
33945	2053	67	1116	0	132	136	25	1475	17
34310	2054	68	1126	0	132	137	25	1487	17
34675	2055	68	1135	0	133	138	25	1499	17
35040	2056	69	1144	0	133	139	25	1509	17
35405	2057	69	1152	0	134	140	25	1520	18
35770	2058	69	1160	0	134	141	25	1530	18
36135	2059	70	1168	0	135	142	25	1540	18
36500	2060	70	1176	0	135	142	26	1549	18
36865	2061	70	1183	0	135	143	26	1558	18
37230	2062	71	1190	0	136	144	26	1566	18
37595	2063	71	1197	0	136	145	26	1575	18
37960	2064	71	1203	0	136	146	26	1582	18
38325	2065	72	1209	0	137	146	26	1590	18
38690	2066	72	1215	0	137	147	26	1597	18
39055	2067	72	1221	0	137	148	26	1604	19
39420	2068	72	1226	0	138	148	26	1611	19
39785	2069	73	1232	0	138	149	26	1617	19
40150	2070	73	1237	0	138	149	26	1623	19

B-2(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
40515	2071	73	1241	0	139	150	26	1629	19
40880	2072	73	1246	0	139	151	26	1635	19
41245	2073	73	1250	0	139	151	27	1640	19
41610	2074	74	1254	0	139	152	27	1646	19
41975	2075	74	1258	0	139	152	27	1651	19
42340	2076	74	1262	0	140	153	27	1655	19
42705	2077	74	1266	0	140	153	27	1660	19
43070	2078	74	1270	0	140	154	27	1665	19
43435	2079	75	1273	0	140	154	27	1669	19
43800	2080	75	1276	0	141	154	27	1673	19
44165	2081	75	1279	0	141	155	27	1677	19
44530	2082	75	1282	0	141	155	27	1680	19
44895	2083	75	1285	0	141	155	27	1684	19
45260	2084	75	1288	0	141	156	27	1687	20
45625	2085	76	1290	0	141	156	27	1691	20
45990	2086	76	1293	0	142	156	27	1694	20
46355	2087	76	1295	0	142	157	27	1697	20
46720	2088	76	1298	0	142	157	27	1700	20
47085	2089	76	1300	0	142	157	27	1703	20
47450	2090	76	1302	0	142	158	27	1705	20
47815	2091	76	1304	0	142	158	27	1708	20
48180	2092	77	1306	0	143	158	27	1710	20
48545	2093	77	1308	0	143	158	27	1713	20
48910	2094	77	1310	0	143	159	27	1715	20
49275	2095	77	1311	0	143	159	27	1717	20
49640	2096	77	1313	0	143	159	27	1719	20
50005	2097	77	1315	0	143	159	27	1722	20
50370	2098	77	1316	0	143	159	27	1724	20
50735	2099	77	1318	0	143	160	28	1725	20
51100	2100	78	1319	0	144	160	28	1727	20
51465	2101	78	1320	0	144	160	28	1729	20
51830	2102	78	1322	0	144	160	28	1731	20
52195	2103	78	1323	0	144	160	28	1732	20
52560	2104	78	1324	0	144	160	28	1734	20
52925	2105	78	1325	0	144	160	28	1735	20
53290	2106	78	1326	0	144	161	28	1737	20

B-2(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Pyap area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
365	1961	1.1	1.2	0.0	1.2	0.9	0.2	**4.5**
730	1962	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1095	1963	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1460	1964	1.1	1.2	0.0	1.2	0.8	0.2	**4.5**
1825	1965	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2190	1966	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2555	1967	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
2920	1968	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
3285	1969	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
3650	1970	1.1	1.2	0.0	1.2	0.8	0.2	**4.6**
4015	1971	1.2	1.2	0.0	1.2	0.8	0.2	**4.6**
4380	1972	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
4745	1973	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
5110	1974	1.2	1.2	0.0	1.2	0.8	0.2	**4.7**
5475	1975	1.2	1.2	0.0	1.3	0.8	0.2	**4.7**
5840	1976	1.2	1.2	0.0	1.3	0.8	0.2	**4.7**
6205	1977	1.2	1.2	0.0	1.3	0.9	0.2	**4.7**
6570	1978	1.2	1.2	0.0	1.3	0.9	0.2	**4.7**
6935	1979	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
7300	1980	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
7665	1981	1.2	1.3	0.0	1.3	0.9	0.2	**4.7**
8030	1982	1.2	1.5	0.0	1.3	0.9	0.2	**5.0**
8395	1983	1.2	1.5	0.0	1.3	0.9	0.2	**5.0**
8760	1984	1.2	1.8	0.0	1.3	0.9	0.2	**5.3**
9125	1985	1.2	1.9	0.0	1.3	1.0	0.2	**5.5**
9490	1986	1.2	2.3	0.0	1.3	1.0	0.2	**6.0**
9855	1987	1.2	2.5	0.0	1.3	1.1	0.2	**6.2**
10220	1988	1.2	3.3	0.0	1.3	1.2	0.2	**7.1**
10585	1989	1.2	3.6	0.0	1.3	1.3	0.2	**7.5**
10950	1990	1.2	3.8	0.0	1.3	1.3	0.2	**7.8**
11315	1991	1.2	4.0	0.0	1.3	1.3	0.2	**8.1**
11680	1992	1.2	4.2	0.0	1.3	1.4	0.2	**8.3**
12045	1993	1.2	4.4	0.0	1.3	1.4	0.2	**8.5**
12410	1994	1.2	4.5	0.0	1.3	1.4	0.2	**8.7**
12775	1995	1.2	4.7	0.0	1.3	1.5	0.2	**8.9**
13140	1996	1.2	4.8	0.0	1.3	1.5	0.2	**9.0**
13505	1997	1.2	4.9	0.0	1.3	1.5	0.2	**9.2**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S5). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
13870	1998	1.2	5.1	0.0	1.3	1.5	0.2	**9.3**
14235	1999	1.2	5.2	0.0	1.3	1.6	0.2	**9.5**
14600	2000	1.2	5.3	0.0	1.3	1.6	0.2	**9.6**
14965	2001	1.2	5.4	0.0	1.3	1.6	0.2	**9.7**
15330	2002	1.0	4.3	0.0	1.2	1.2	0.2	**8.0**
15695	2003	0.9	4.0	0.0	1.1	1.1	0.2	**7.3**
16060	2004	0.8	3.8	0.0	1.1	1.0	0.2	**6.9**
16425	2005	0.8	3.7	0.0	1.1	0.9	0.2	**6.6**
16790	2006	0.7	3.5	0.0	1.0	0.9	0.2	**6.4**
17155	2007	0.7	3.6	0.0	1.0	0.9	0.2	**6.4**
17520	2008	0.7	3.5	0.0	1.0	0.9	0.2	**6.3**
17885	2009	0.7	3.6	0.0	1.0	0.9	0.2	**6.4**
18250	2010	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
18615	2011	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
18980	2012	0.6	3.7	0.0	1.0	0.9	0.2	**6.3**
19345	2013	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
19710	2014	0.6	3.7	0.0	0.9	0.9	0.2	**6.3**
20075	2015	0.6	3.7	0.0	1.0	0.9	0.2	**6.4**
20440	2016	0.6	3.8	0.0	1.0	0.9	0.2	**6.5**
20805	2017	0.6	3.8	0.0	1.0	0.9	0.2	**6.6**
21170	2018	0.6	3.9	0.0	1.0	0.9	0.2	**6.6**
21535	2019	0.7	3.9	0.0	1.0	0.9	0.2	**6.7**
21900	2020	0.7	4.0	0.0	1.0	0.9	0.2	**6.7**
22265	2021	0.7	4.0	0.0	1.0	0.9	0.2	**6.8**
22630	2022	0.7	4.0	0.0	1.0	0.9	0.2	**6.8**
22995	2023	0.7	4.0	0.0	1.0	0.9	0.2	**6.8**
23360	2024	0.7	4.1	0.0	1.0	0.9	0.2	**6.9**
23725	2025	0.7	4.1	0.0	1.0	1.0	0.2	**6.9**
24090	2026	0.7	4.1	0.0	1.0	1.0	0.2	**6.9**
24455	2027	0.7	4.1	0.0	1.0	1.0	0.2	**6.9**
24820	2028	0.7	4.1	0.0	1.0	1.0	0.2	**7.0**
25185	2029	0.7	4.1	0.0	1.0	1.0	0.2	**7.0**
25550	2030	0.7	4.2	0.0	1.0	1.0	0.2	**7.0**
25915	2031	0.7	4.2	0.0	1.0	1.0	0.2	**7.1**
26280	2032	0.7	4.2	0.0	1.0	1.0	0.2	**7.2**
26645	2033	0.7	4.3	0.0	1.1	1.0	0.2	**7.3**
27010	2034	0.7	4.3	0.0	1.1	1.0	0.2	**7.4**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

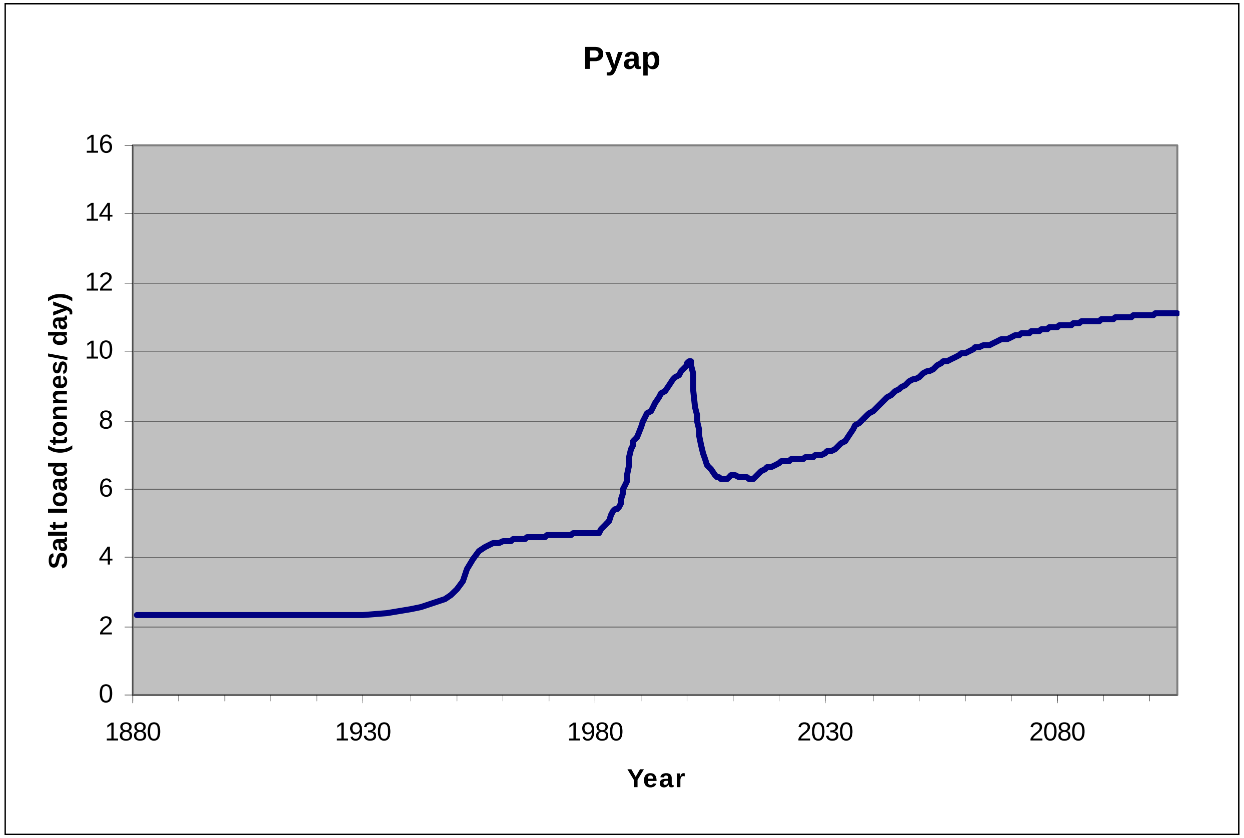
B-2(S5). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
27375	2035	0.8	4.4	0.0	1.1	1.1	0.2	**7.6**
27740	2036	0.8	4.5	0.0	1.1	1.1	0.2	**7.7**
28105	2037	0.8	4.6	0.0	1.2	1.1	0.2	**7.9**
28470	2038	0.9	4.6	0.0	1.2	1.1	0.2	**8.0**
28835	2039	0.9	4.7	0.0	1.2	1.1	0.2	**8.2**
29200	2040	0.9	4.8	0.0	1.2	1.2	0.2	**8.3**
29565	2041	0.9	4.9	0.0	1.2	1.2	0.2	**8.4**
29930	2042	0.9	4.9	0.0	1.2	1.2	0.2	**8.5**
30295	2043	0.9	5.0	0.0	1.2	1.2	0.2	**8.6**
30660	2044	0.9	5.1	0.0	1.3	1.2	0.2	**8.7**
31025	2045	0.9	5.1	0.0	1.3	1.2	0.2	**8.8**
31390	2046	1.0	5.2	0.0	1.3	1.3	0.2	**8.9**
31755	2047	1.0	5.3	0.0	1.3	1.3	0.2	**9.0**
32120	2048	1.0	5.3	0.0	1.3	1.3	0.2	**9.1**
32485	2049	1.0	5.4	0.0	1.3	1.3	0.2	**9.2**
32850	2050	1.0	5.4	0.0	1.3	1.3	0.2	**9.3**
33215	2051	1.0	5.5	0.0	1.3	1.3	0.2	**9.4**
33580	2052	1.0	5.5	0.0	1.3	1.3	0.2	**9.4**
33945	2053	1.0	5.6	0.0	1.3	1.4	0.2	**9.5**
34310	2054	1.0	5.6	0.0	1.3	1.4	0.2	**9.6**
34675	2055	1.0	5.7	0.0	1.3	1.4	0.2	**9.7**
35040	2056	1.0	5.7	0.0	1.3	1.4	0.3	**9.7**
35405	2057	1.0	5.8	0.0	1.3	1.4	0.3	**9.8**
35770	2058	1.0	5.8	0.0	1.3	1.4	0.3	**9.8**
36135	2059	1.0	5.8	0.0	1.3	1.4	0.3	**9.9**
36500	2060	1.1	5.9	0.0	1.4	1.4	0.3	**10.0**
36865	2061	1.1	5.9	0.0	1.4	1.4	0.3	**10.0**
37230	2062	1.1	6.0	0.0	1.4	1.4	0.3	**10.1**
37595	2063	1.1	6.0	0.0	1.4	1.4	0.3	**10.1**
37960	2064	1.1	6.0	0.0	1.4	1.5	0.3	**10.2**
38325	2065	1.1	6.0	0.0	1.4	1.5	0.3	**10.2**
38690	2066	1.1	6.1	0.0	1.4	1.5	0.3	**10.3**
39055	2067	1.1	6.1	0.0	1.4	1.5	0.3	**10.3**
39420	2068	1.1	6.1	0.0	1.4	1.5	0.3	**10.3**
39785	2069	1.1	6.2	0.0	1.4	1.5	0.3	**10.4**
40150	2070	1.1	6.2	0.0	1.4	1.5	0.3	**10.4**
40515	2071	1.1	6.2	0.0	1.4	1.5	0.3	**10.5**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S5). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Pyap Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
40880	2072	1.1	6.2	0.0	1.4	1.5	0.3	**10.5**
41245	2073	1.1	6.3	0.0	1.4	1.5	0.3	**10.5**
41610	2074	1.1	6.3	0.0	1.4	1.5	0.3	**10.6**
41975	2075	1.1	6.3	0.0	1.4	1.5	0.3	**10.6**
42340	2076	1.1	6.3	0.0	1.4	1.5	0.3	**10.6**
42705	2077	1.1	6.3	0.0	1.4	1.5	0.3	**10.6**
43070	2078	1.1	6.3	0.0	1.4	1.5	0.3	**10.7**
43435	2079	1.1	6.4	0.0	1.4	1.5	0.3	**10.7**
43800	2080	1.1	6.4	0.0	1.4	1.5	0.3	**10.7**
44165	2081	1.1	6.4	0.0	1.4	1.5	0.3	**10.7**
44530	2082	1.1	6.4	0.0	1.4	1.6	0.3	**10.8**
44895	2083	1.1	6.4	0.0	1.4	1.6	0.3	**10.8**
45260	2084	1.1	6.4	0.0	1.4	1.6	0.3	**10.8**
45625	2085	1.1	6.5	0.0	1.4	1.6	0.3	**10.8**
45990	2086	1.1	6.5	0.0	1.4	1.6	0.3	**10.9**
46355	2087	1.1	6.5	0.0	1.4	1.6	0.3	**10.9**
46720	2088	1.1	6.5	0.0	1.4	1.6	0.3	**10.9**
47085	2089	1.1	6.5	0.0	1.4	1.6	0.3	**10.9**
47450	2090	1.1	6.5	0.0	1.4	1.6	0.3	**10.9**
47815	2091	1.1	6.5	0.0	1.4	1.6	0.3	**10.9**
48180	2092	1.1	6.5	0.0	1.4	1.6	0.3	**11.0**
48545	2093	1.2	6.5	0.0	1.4	1.6	0.3	**11.0**
48910	2094	1.2	6.5	0.0	1.4	1.6	0.3	**11.0**
49275	2095	1.2	6.6	0.0	1.4	1.6	0.3	**11.0**
49640	2096	1.2	6.6	0.0	1.4	1.6	0.3	**11.0**
50005	2097	1.2	6.6	0.0	1.4	1.6	0.3	**11.0**
50370	2098	1.2	6.6	0.0	1.4	1.6	0.3	**11.0**
50735	2099	1.2	6.6	0.0	1.4	1.6	0.3	**11.1**
51100	2100	1.2	6.6	0.0	1.4	1.6	0.3	**11.1**
51465	2101	1.2	6.6	0.0	1.4	1.6	0.3	**11.1**
51830	2102	1.2	6.6	0.0	1.4	1.6	0.3	**11.1**
52195	2103	1.2	6.6	0.0	1.4	1.6	0.3	**11.1**
52560	2104	1.2	6.6	0.0	1.4	1.6	0.3	**11.1**
52925	2105	1.2	6.6	0.0	1.4	1.6	0.3	**11.1**
53290	2106	1.2	6.6	0.0	1.4	1.6	0.3	**11.1**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*10,000*	*10,000*	*10,000*	

B-2(S5). Modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 5)



B-2(S5). Graph of modelled salt load (tonnes/day) entering the River Murray in the Pyap area (Scenario 5)

B-3. MODEL OUTPUT - NEW RESIDENCE AREA

- Model Scenario conditions
- Flow budget zones
- Transient groundwater flux and salt load
- Modelled groundwater flux (m^3/d and L/s)
- Modelled salt load (t/d)

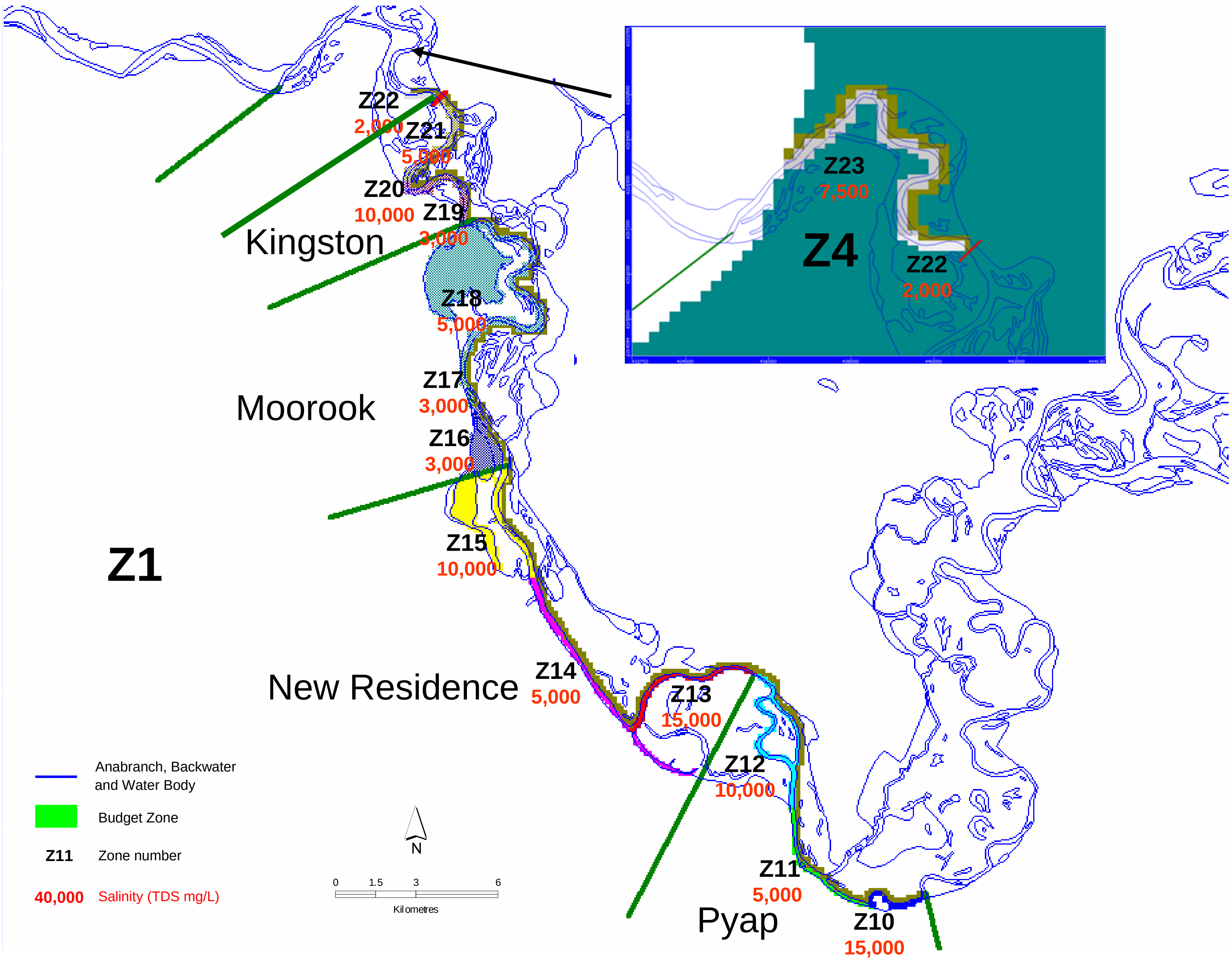
(Transient from 1888 to 1960)

(Scenario-2, 3A, 3B, 3C, 4 and 5)

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

Note: 1 Improved Irrigation Practices, 2 Rehabilitation, 3 Salt Interception Scheme (see Glossary for definitions)

B-3. Model Scenarios and Conditions



B3-1: Flow budget zones (model layer 1) and groundwater salinity values (TDS mg/L) in the Pyap to Kingston area

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
365	1881	0	28	0	1	3	3	**35**	***0***
7300	1900	0	28	0	1	3	3	**35**	***0***
9125	1905	0	28	0	1	3	3	**35**	***0***
10950	1910	0	28	0	1	3	3	**35**	***0***
12775	1915	0	28	0	1	3	3	**35**	***0***
14600	1920	0	28	0	1	3	3	**35**	***0***
16425	1925	0	28	0	1	3	3	**35**	***0***
18250	1930	0	28	0	1	3	3	**35**	***0***
20075	1935	0	28	0	1	3	3	**36**	***0***
21900	1940	0	28	0	1	3	3	**36**	***0***
23725	1945	0	29	0	1	3	3	**36**	***0***
25550	1950	0	29	0	1	3	4	**37**	***0***
27375	1955	0	30	0	1	3	4	**38**	***0***
29200	1960	0	31	0	1	3	5	**40**	***0***

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
365	1881	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
7300	1900	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
9125	1905	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
10950	1910	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
12775	1915	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
14600	1920	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
16425	1925	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
18250	1930	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
20075	1935	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
21900	1940	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
23725	1945	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
25550	1950	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
27375	1955	0.0	0.1	0.0	0.0	0.1	0.1	**0.3**
29200	1960	0.0	0.2	0.0	0.0	0.1	0.1	**0.3**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(Transient from 1880 to 1960). Modelled groundwater flux (m^3/day) and salt load (tonnes/day) entering the River Murray from flow budget zones in the New Residence area

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
365	1881	0	28	0	1	3	3	35	0
3650	1890	0	28	0	1	3	3	35	0
7300	1900	0	28	0	1	3	3	36	0
9125	1905	0	29	1	1	3	3	37	0
10950	1910	0	29	1	1	3	3	37	0
12775	1915	0	30	2	1	3	3	39	0
14600	1920	0	30	2	1	3	3	39	0
16425	1925	0	31	3	1	3	3	42	0
18250	1930	0	31	3	1	3	4	42	0
20075	1935	0	33	4	1	3	4	45	1
21900	1940	0	33	4	1	3	4	45	1
23725	1945	0	36	5	1	3	4	49	1
25550	1950	0	36	5	1	3	4	50	1
27375	1955	0	39	6	1	4	4	55	1
29200	1960	0	39	7	1	4	5	56	1
29565	1961	0	41	7	1	4	5	58	1
29930	1962	0	41	8	1	4	5	60	1
30295	1963	0	42	8	1	4	5	60	1
30660	1964	0	42	8	1	5	5	61	1
31025	1965	0	42	8	1	5	5	62	1
31390	1966	0	43	8	1	5	5	62	1
31755	1967	0	43	8	1	5	5	63	1
32120	1968	0	43	8	1	5	6	63	1
32485	1969	0	43	8	1	5	6	63	1
32850	1970	0	43	8	1	5	6	64	1
33215	1971	0	45	9	1	5	6	66	1
33580	1972	0	46	9	1	5	6	68	1
33945	1973	0	47	9	1	5	7	69	1
34310	1974	0	47	9	1	5	7	70	1
34675	1975	0	48	10	1	6	7	71	1
35040	1976	0	48	10	1	6	7	72	1
35405	1977	0	49	10	1	6	7	73	1
35770	1978	0	49	10	1	6	7	73	1
36135	1979	0	49	10	1	6	7	74	1
36500	1980	0	50	10	1	6	7	74	1
36865	1981	0	52	10	1	6	8	77	1
37230	1982	0	53	11	2	6	8	80	1
37595	1983	0	54	11	2	7	8	81	1
37960	1984	0	55	11	2	7	9	83	1
38325	1985	0	55	11	2	7	9	84	1
38690	1986	0	56	11	2	7	9	85	1

B-3(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
39055	1987	0	57	12	2	7	9	86	1
39420	1988	0	57	12	2	7	9	87	1
39785	1989	0	58	12	2	7	9	88	1
40150	1990	0	58	12	2	8	9	89	1
40515	1991	0	60	12	2	8	10	92	1
40880	1992	0	62	13	2	8	10	95	1
41245	1993	0	63	13	2	8	11	97	1
41610	1994	0	64	13	2	9	11	99	1
41975	1995	0	65	13	2	9	11	100	1
42340	1996	0	66	13	2	9	11	102	1
42705	1997	0	67	14	2	9	12	103	1
43070	1998	0	68	14	2	9	12	104	1
43435	1999	0	68	14	2	9	12	105	1
43800	2000	0	69	14	2	10	12	106	1
44165	2001	0	71	14	2	10	13	110	1
44530	2002	0	73	15	2	10	13	113	1
44895	2003	0	74	15	2	11	14	115	1
45260	2004	0	75	15	2	11	14	117	1
45625	2005	0	76	16	2	11	14	119	1
45990	2006	0	77	16	2	11	15	121	1
46355	2007	0	79	16	2	11	15	122	1
46720	2008	0	80	16	2	12	15	124	1
47085	2009	0	81	16	2	12	15	125	1
47450	2010	0	81	16	2	12	15	127	1
47815	2011	0	83	17	2	12	16	130	2
48180	2012	0	85	17	2	13	17	133	2
48545	2013	0	86	18	2	13	17	136	2
48910	2014	0	88	18	2	13	18	138	2
49275	2015	0	89	18	2	14	18	141	2
49640	2016	0	90	18	2	14	18	143	2
50005	2017	0	91	19	2	14	18	145	2
50370	2018	0	93	19	2	14	18	146	2
50735	2019	0	94	19	2	15	19	148	2
51100	2020	0	95	19	2	15	19	150	2
51465	2021	0	96	20	2	15	20	153	2
51830	2022	0	98	20	2	16	21	156	2
52195	2023	0	100	20	2	16	21	159	2
52560	2024	0	101	21	2	16	21	162	2
52925	2025	0	103	21	2	17	22	164	2
53290	2026	0	104	21	2	17	22	167	2

B-3(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
53655	2027	0	106	22	2	17	22	169	2
54020	2028	0	107	22	2	18	22	171	2
54385	2029	0	108	22	2	18	23	173	2
54750	2030	0	110	22	2	18	23	175	2
55115	2031	0	111	22	2	18	24	178	2
55480	2032	0	113	23	2	19	24	182	2
55845	2033	0	115	23	3	19	25	185	2
56210	2034	0	116	24	3	20	25	187	2
56575	2035	0	118	24	3	20	26	190	2
56940	2036	0	120	24	3	20	26	193	2
57305	2037	0	121	24	3	21	26	195	2
57670	2038	0	123	25	3	21	26	197	2
58035	2039	0	124	25	3	21	27	199	2
58400	2040	0	126	25	3	22	27	202	2
58765	2041	0	127	25	3	22	28	205	2
59130	2042	0	129	26	3	22	28	208	2
59495	2043	0	131	26	3	23	29	211	2
59860	2044	0	132	26	3	23	29	214	2
60225	2045	0	134	27	3	23	30	217	3
60590	2046	0	136	27	3	24	30	219	3
60955	2047	0	137	27	3	24	30	222	3
61320	2048	0	139	27	3	25	30	224	3
61685	2049	0	141	28	3	25	30	227	3
62050	2050	0	142	28	3	25	31	229	3
62415	2051	0	144	28	3	26	32	232	3
62780	2052	0	146	29	3	26	32	236	3
63145	2053	0	147	29	3	26	33	239	3
63510	2054	0	149	29	3	27	33	242	3
63875	2055	0	151	30	3	27	33	244	3
64240	2056	0	152	30	3	28	34	247	3
64605	2057	0	154	30	3	28	34	250	3
64970	2058	0	156	30	3	28	34	252	3
65335	2059	0	157	31	4	29	34	255	3
65700	2060	0	159	31	4	29	35	257	3
66065	2061	0	161	31	4	30	35	260	3
66430	2062	0	162	32	4	30	36	263	3
66795	2063	0	164	32	4	30	36	266	3
67160	2064	0	166	32	4	31	37	269	3
67525	2065	0	168	33	4	31	37	272	3
67890	2066	0	169	33	4	32	37	275	3

B-3(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12		
68255	2067	0	171	33	4	32	38	277	3
68620	2068	0	172	33	4	32	38	280	3
68985	2069	0	174	34	4	33	38	282	3
69350	2070	0	175	34	4	33	38	285	3
69715	2071	0	177	34	4	34	39	288	3
70080	2072	0	179	35	4	34	39	291	3
70445	2073	0	180	35	4	34	40	294	3
70810	2074	0	182	35	4	35	40	296	3
71175	2075	0	184	36	4	35	41	299	3
71540	2076	0	185	36	4	36	41	302	3
71905	2077	0	187	36	4	36	41	304	4
72270	2078	0	188	36	4	36	41	307	4
72635	2079	0	190	37	4	37	42	309	4
73000	2080	0	191	37	4	37	42	312	4
73365	2081	0	193	37	4	37	42	314	4
73730	2082	0	194	37	4	38	42	316	4
74095	2083	0	195	38	5	38	43	318	4
74460	2084	0	197	38	5	38	43	320	4
74825	2085	0	198	38	5	39	43	322	4
75190	2086	0	199	38	5	39	43	324	4
75555	2087	0	201	38	5	39	44	326	4
75920	2088	0	202	39	5	40	44	328	4
76285	2089	0	203	39	5	40	44	330	4
76650	2090	0	204	39	5	40	44	332	4
77015	2091	0	205	39	5	40	44	334	4
77380	2092	0	206	39	5	41	45	336	4
77745	2093	0	207	40	5	41	45	337	4
78110	2094	0	208	40	5	41	45	339	4
78475	2095	0	209	40	5	41	45	341	4
78840	2096	0	210	40	5	41	46	342	4
79205	2097	0	211	40	5	42	46	344	4
79570	2098	0	212	40	5	42	46	345	4
79935	2099	0	213	41	5	42	46	347	4
80300	2100	0	214	41	5	42	46	348	4
80665	2101	0	215	41	5	43	47	350	4
81030	2102	0	216	41	5	43	47	351	4
81395	2103	0	216	41	5	43	47	353	4
81760	2104	0	217	41	5	43	47	354	4
82125	2105	0	218	42	5	43	48	356	4
82490	2106	0	219	42	5	44	48	357	4

B-3(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
365	1881	0.0	0.1	0.0	0.0	0.1	0.1	0.3
3650	1890	0.0	0.1	0.0	0.0	0.1	0.1	0.3
7300	1900	0.0	0.1	0.0	0.0	0.1	0.1	0.3
9125	1905	0.0	0.1	0.0	0.0	0.1	0.1	0.3
10950	1910	0.0	0.1	0.0	0.0	0.1	0.1	0.3
12775	1915	0.0	0.1	0.0	0.0	0.1	0.1	0.3
14600	1920	0.0	0.2	0.0	0.0	0.1	0.1	0.3
16425	1925	0.0	0.2	0.0	0.0	0.1	0.1	0.3
18250	1930	0.0	0.2	0.0	0.0	0.1	0.1	0.3
20075	1935	0.0	0.2	0.0	0.0	0.1	0.1	0.4
21900	1940	0.0	0.2	0.0	0.0	0.1	0.1	0.4
23725	1945	0.0	0.2	0.0	0.0	0.1	0.1	0.4
25550	1950	0.0	0.2	0.1	0.0	0.1	0.1	0.4
27375	1955	0.0	0.2	0.1	0.0	0.1	0.1	0.5
29200	1960	0.0	0.2	0.1	0.0	0.1	0.1	0.5
29565	1961	0.0	0.2	0.1	0.0	0.1	0.1	0.5
29930	1962	0.0	0.2	0.1	0.0	0.1	0.1	0.5
30295	1963	0.0	0.2	0.1	0.0	0.1	0.1	0.5
30660	1964	0.0	0.2	0.1	0.0	0.1	0.1	0.5
31025	1965	0.0	0.2	0.1	0.0	0.1	0.1	0.5
31390	1966	0.0	0.2	0.1	0.0	0.1	0.1	0.5
31755	1967	0.0	0.2	0.1	0.0	0.1	0.1	0.5
32120	1968	0.0	0.2	0.1	0.0	0.1	0.1	0.5
32485	1969	0.0	0.2	0.1	0.0	0.1	0.1	0.5
32850	1970	0.0	0.2	0.1	0.0	0.1	0.1	0.5
33215	1971	0.0	0.2	0.1	0.0	0.1	0.1	0.6
33580	1972	0.0	0.2	0.1	0.0	0.1	0.1	0.6
33945	1973	0.0	0.2	0.1	0.0	0.1	0.1	0.6
34310	1974	0.0	0.2	0.1	0.0	0.1	0.1	0.6
34675	1975	0.0	0.2	0.1	0.0	0.1	0.1	0.6
35040	1976	0.0	0.2	0.1	0.0	0.1	0.1	0.6
35405	1977	0.0	0.2	0.1	0.0	0.1	0.1	0.6
35770	1978	0.0	0.2	0.1	0.0	0.1	0.1	0.6
36135	1979	0.0	0.2	0.1	0.0	0.1	0.1	0.6
36500	1980	0.0	0.2	0.1	0.0	0.1	0.1	0.6
36865	1981	0.0	0.3	0.1	0.0	0.1	0.2	0.7
37230	1982	0.0	0.3	0.1	0.0	0.1	0.2	0.7
37595	1983	0.0	0.3	0.1	0.0	0.1	0.2	0.7
37960	1984	0.0	0.3	0.1	0.0	0.1	0.2	0.7
38325	1985	0.0	0.3	0.1	0.0	0.1	0.2	0.7
38690	1986	0.0	0.3	0.1	0.0	0.1	0.2	0.7
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

B-3(S2). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New ResidenceTotal
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
39055	1987	0.0	0.3	0.1	0.0	0.1	0.2	**0.8**
39420	1988	0.0	0.3	0.1	0.0	0.1	0.2	**0.8**
39785	1989	0.0	0.3	0.1	0.0	0.1	0.2	**0.8**
40150	1990	0.0	0.3	0.1	0.0	0.2	0.2	**0.8**
40515	1991	0.0	0.3	0.1	0.0	0.2	0.2	**0.8**
40880	1992	0.0	0.3	0.1	0.0	0.2	0.2	**0.8**
41245	1993	0.0	0.3	0.1	0.0	0.2	0.2	**0.9**
41610	1994	0.0	0.3	0.1	0.0	0.2	0.2	**0.9**
41975	1995	0.0	0.3	0.1	0.0	0.2	0.2	**0.9**
42340	1996	0.0	0.3	0.1	0.0	0.2	0.2	**0.9**
42705	1997	0.0	0.3	0.1	0.0	0.2	0.2	**0.9**
43070	1998	0.0	0.3	0.1	0.0	0.2	0.2	**0.9**
43435	1999	0.0	0.3	0.1	0.0	0.2	0.2	**0.9**
43800	2000	0.0	0.3	0.1	0.0	0.2	0.2	**0.9**
44165	2001	0.0	0.4	0.1	0.0	0.2	0.3	**1.0**
44530	2002	0.0	0.4	0.1	0.0	0.2	0.3	**1.0**
44895	2003	0.0	0.4	0.1	0.0	0.2	0.3	**1.0**
45260	2004	0.0	0.4	0.2	0.0	0.2	0.3	**1.1**
45625	2005	0.0	0.4	0.2	0.0	0.2	0.3	**1.1**
45990	2006	0.0	0.4	0.2	0.0	0.2	0.3	**1.1**
46355	2007	0.0	0.4	0.2	0.0	0.2	0.3	**1.1**
46720	2008	0.0	0.4	0.2	0.0	0.2	0.3	**1.1**
47085	2009	0.0	0.4	0.2	0.0	0.2	0.3	**1.1**
47450	2010	0.0	0.4	0.2	0.0	0.2	0.3	**1.2**
47815	2011	0.0	0.4	0.2	0.0	0.2	0.3	**1.2**
48180	2012	0.0	0.4	0.2	0.0	0.3	0.3	**1.2**
48545	2013	0.0	0.4	0.2	0.0	0.3	0.3	**1.3**
48910	2014	0.0	0.4	0.2	0.0	0.3	0.4	**1.3**
49275	2015	0.0	0.4	0.2	0.0	0.3	0.4	**1.3**
49640	2016	0.0	0.5	0.2	0.0	0.3	0.4	**1.3**
50005	2017	0.0	0.5	0.2	0.0	0.3	0.4	**1.3**
50370	2018	0.0	0.5	0.2	0.0	0.3	0.4	**1.4**
50735	2019	0.0	0.5	0.2	0.0	0.3	0.4	**1.4**
51100	2020	0.0	0.5	0.2	0.0	0.3	0.4	**1.4**
51465	2021	0.0	0.5	0.2	0.0	0.3	0.4	**1.4**
51830	2022	0.0	0.5	0.2	0.0	0.3	0.4	**1.5**
52195	2023	0.0	0.5	0.2	0.0	0.3	0.4	**1.5**
52560	2024	0.0	0.5	0.2	0.0	0.3	0.4	**1.5**
52925	2025	0.0	0.5	0.2	0.0	0.3	0.4	**1.5**
53290	2026	0.0	0.5	0.2	0.0	0.3	0.4	**1.6**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

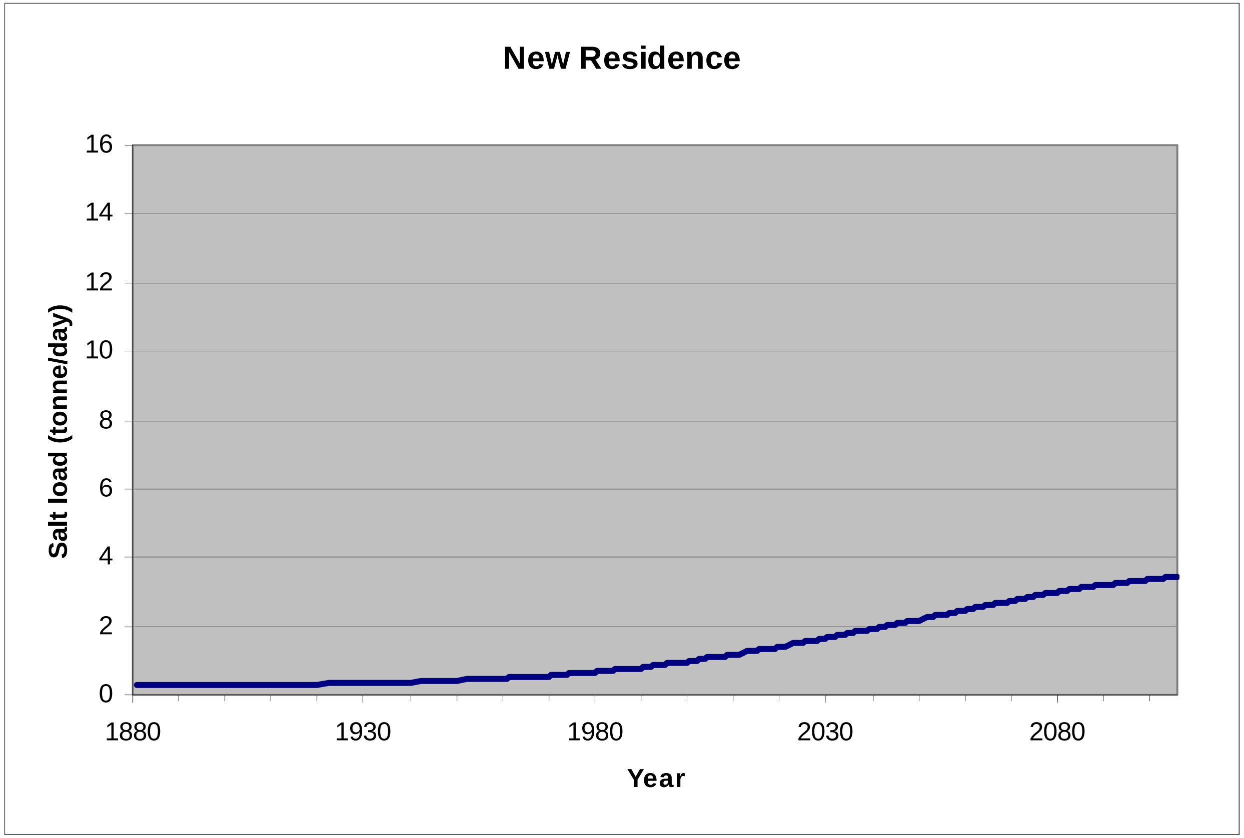
B-3(S2). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New ResidenceTotal
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
53655	2027	0.0	0.5	0.2	0.0	0.3	0.4	1.6
54020	2028	0.0	0.5	0.2	0.0	0.4	0.4	1.6
54385	2029	0.0	0.5	0.2	0.0	0.4	0.5	1.6
54750	2030	0.0	0.5	0.2	0.0	0.4	0.5	1.6
55115	2031	0.0	0.6	0.2	0.0	0.4	0.5	1.7
55480	2032	0.0	0.6	0.2	0.0	0.4	0.5	1.7
55845	2033	0.0	0.6	0.2	0.1	0.4	0.5	1.7
56210	2034	0.0	0.6	0.2	0.1	0.4	0.5	1.8
56575	2035	0.0	0.6	0.2	0.1	0.4	0.5	1.8
56940	2036	0.0	0.6	0.2	0.1	0.4	0.5	1.8
57305	2037	0.0	0.6	0.2	0.1	0.4	0.5	1.8
57670	2038	0.0	0.6	0.2	0.1	0.4	0.5	1.9
58035	2039	0.0	0.6	0.2	0.1	0.4	0.5	1.9
58400	2040	0.0	0.6	0.3	0.1	0.4	0.5	1.9
58765	2041	0.0	0.6	0.3	0.1	0.4	0.6	1.9
59130	2042	0.0	0.6	0.3	0.1	0.4	0.6	2.0
59495	2043	0.0	0.7	0.3	0.1	0.5	0.6	2.0
59860	2044	0.0	0.7	0.3	0.1	0.5	0.6	2.0
60225	2045	0.0	0.7	0.3	0.1	0.5	0.6	2.1
60590	2046	0.0	0.7	0.3	0.1	0.5	0.6	2.1
60955	2047	0.0	0.7	0.3	0.1	0.5	0.6	2.1
61320	2048	0.0	0.7	0.3	0.1	0.5	0.6	2.1
61685	2049	0.0	0.7	0.3	0.1	0.5	0.6	2.1
62050	2050	0.0	0.7	0.3	0.1	0.5	0.6	2.2
62415	2051	0.0	0.7	0.3	0.1	0.5	0.6	2.2
62780	2052	0.0	0.7	0.3	0.1	0.5	0.6	2.2
63145	2053	0.0	0.7	0.3	0.1	0.5	0.7	2.3
63510	2054	0.0	0.7	0.3	0.1	0.5	0.7	2.3
63875	2055	0.0	0.8	0.3	0.1	0.5	0.7	2.3
64240	2056	0.0	0.8	0.3	0.1	0.6	0.7	2.4
64605	2057	0.0	0.8	0.3	0.1	0.6	0.7	2.4
64970	2058	0.0	0.8	0.3	0.1	0.6	0.7	2.4
65335	2059	0.0	0.8	0.3	0.1	0.6	0.7	2.4
65700	2060	0.0	0.8	0.3	0.1	0.6	0.7	2.4
66065	2061	0.0	0.8	0.3	0.1	0.6	0.7	2.5
66430	2062	0.0	0.8	0.3	0.1	0.6	0.7	2.5
66795	2063	0.0	0.8	0.3	0.1	0.6	0.7	2.5
67160	2064	0.0	0.8	0.3	0.1	0.6	0.7	2.6
67525	2065	0.0	0.8	0.3	0.1	0.6	0.7	2.6
67890	2066	0.0	0.8	0.3	0.1	0.6	0.7	2.6
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

B-3(S2). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
68255	2067	0.0	0.9	0.3	0.1	0.6	0.8	2.7
68620	2068	0.0	0.9	0.3	0.1	0.6	0.8	2.7
68985	2069	0.0	0.9	0.3	0.1	0.7	0.8	2.7
69350	2070	0.0	0.9	0.3	0.1	0.7	0.8	2.7
69715	2071	0.0	0.9	0.3	0.1	0.7	0.8	2.8
70080	2072	0.0	0.9	0.3	0.1	0.7	0.8	2.8
70445	2073	0.0	0.9	0.3	0.1	0.7	0.8	2.8
70810	2074	0.0	0.9	0.4	0.1	0.7	0.8	2.8
71175	2075	0.0	0.9	0.4	0.1	0.7	0.8	2.9
71540	2076	0.0	0.9	0.4	0.1	0.7	0.8	2.9
71905	2077	0.0	0.9	0.4	0.1	0.7	0.8	2.9
72270	2078	0.0	0.9	0.4	0.1	0.7	0.8	2.9
72635	2079	0.0	0.9	0.4	0.1	0.7	0.8	3.0
73000	2080	0.0	1.0	0.4	0.1	0.7	0.8	3.0
73365	2081	0.0	1.0	0.4	0.1	0.7	0.8	3.0
73730	2082	0.0	1.0	0.4	0.1	0.8	0.8	3.0
74095	2083	0.0	1.0	0.4	0.1	0.8	0.9	3.1
74460	2084	0.0	1.0	0.4	0.1	0.8	0.9	3.1
74825	2085	0.0	1.0	0.4	0.1	0.8	0.9	3.1
75190	2086	0.0	1.0	0.4	0.1	0.8	0.9	3.1
75555	2087	0.0	1.0	0.4	0.1	0.8	0.9	3.1
75920	2088	0.0	1.0	0.4	0.1	0.8	0.9	3.2
76285	2089	0.0	1.0	0.4	0.1	0.8	0.9	3.2
76650	2090	0.0	1.0	0.4	0.1	0.8	0.9	3.2
77015	2091	0.0	1.0	0.4	0.1	0.8	0.9	3.2
77380	2092	0.0	1.0	0.4	0.1	0.8	0.9	3.2
77745	2093	0.0	1.0	0.4	0.1	0.8	0.9	3.2
78110	2094	0.0	1.0	0.4	0.1	0.8	0.9	3.3
78475	2095	0.0	1.0	0.4	0.1	0.8	0.9	3.3
78840	2096	0.0	1.1	0.4	0.1	0.8	0.9	3.3
79205	2097	0.0	1.1	0.4	0.1	0.8	0.9	3.3
79570	2098	0.0	1.1	0.4	0.1	0.8	0.9	3.3
79935	2099	0.0	1.1	0.4	0.1	0.8	0.9	3.3
80300	2100	0.0	1.1	0.4	0.1	0.8	0.9	3.4
80665	2101	0.0	1.1	0.4	0.1	0.9	0.9	3.4
81030	2102	0.0	1.1	0.4	0.1	0.9	0.9	3.4
81395	2103	0.0	1.1	0.4	0.1	0.9	0.9	3.4
81760	2104	0.0	1.1	0.4	0.1	0.9	0.9	3.4
82125	2105	0.0	1.1	0.4	0.1	0.9	1.0	3.4
82490	2106	0.0	1.1	0.4	0.1	0.9	1.0	3.4
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(S2). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 2)



B-3(S2). Graph of modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
365	1961	0	31	1	1	3	5	41	0
730	1962	0	31	1	1	3	6	42	0
1095	1963	0	31	1	1	3	6	43	0
1460	1964	0	31	1	1	3	7	43	1
1825	1965	0	32	1	1	3	7	44	1
2190	1966	0	32	1	1	3	8	45	1
2555	1967	0	32	1	1	3	8	46	1
2920	1968	0	32	1	1	3	9	46	1
3285	1969	0	32	1	1	3	9	47	1
3650	1970	0	33	2	1	3	9	48	1
4015	1971	0	33	2	1	3	10	49	1
4380	1972	0	33	2	1	3	10	49	1
4745	1973	0	33	2	1	3	11	50	1
5110	1974	0	33	2	1	3	11	51	1
5475	1975	0	33	2	1	3	12	52	1
5840	1976	0	34	2	1	3	12	53	1
6205	1977	0	34	3	1	3	12	53	1
6570	1978	0	34	3	1	3	13	54	1
6935	1979	0	34	3	1	3	13	55	1
7300	1980	0	92	13	1	16	19	142	2
7665	1981	0	127	22	1	29	21	201	2
8030	1982	0	260	48	2	69	29	407	5
8395	1983	1	355	75	2	105	32	570	7
8760	1984	1	418	98	2	131	35	684	8
9125	1985	1	471	117	2	152	36	781	9
9490	1986	1	515	133	3	179	38	869	10
9855	1987	2	563	147	3	206	40	960	11
10220	1988	2	594	158	3	224	41	1022	12
10585	1989	2	623	168	3	239	42	1077	12
10950	1990	2	638	176	3	248	43	1110	13
11315	1991	2	655	183	3	256	44	1144	13
11680	1992	2	660	189	3	260	44	1159	13
12045	1993	2	669	195	3	264	45	1179	14
12410	1994	2	660	199	3	259	45	1168	14
12775	1995	2	655	203	3	253	45	1161	13
13140	1996	1	640	206	3	247	45	1143	13
13505	1997	1	634	208	3	244	45	1136	13
13870	1998	1	619	210	3	239	45	1117	13

B-3(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
14235	1999	1	611	211	3	235	45	**1107**	***13***
14600	2000	1	607	213	3	234	44	**1102**	***13***
14965	2001	1	605	214	3	232	44	**1100**	***13***
15330	2002	1	604	215	3	232	44	**1100**	***13***
15695	2003	1	604	216	3	231	44	**1100**	***13***
16060	2004	1	605	217	3	231	44	**1102**	***13***
16425	2005	1	605	218	3	231	44	**1103**	***13***
16790	2006	1	606	218	3	232	44	**1105**	***13***
17155	2007	1	607	219	3	232	44	**1107**	***13***
17520	2008	1	608	220	3	232	44	**1109**	***13***
17885	2009	1	609	220	3	233	44	**1111**	***13***
18250	2010	1	611	220	3	233	44	**1113**	***13***
18615	2011	1	606	221	3	227	44	**1102**	***13***
18980	2012	1	598	221	3	220	44	**1088**	***13***
19345	2013	1	593	221	3	215	44	**1077**	***12***
19710	2014	1	589	221	3	212	44	**1070**	***12***
20075	2015	1	585	222	3	210	43	**1064**	***12***
20440	2016	1	583	222	3	208	43	**1060**	***12***
20805	2017	1	581	222	3	207	43	**1057**	***12***
21170	2018	1	580	222	3	205	43	**1055**	***12***
21535	2019	1	579	222	3	205	43	**1053**	***12***
21900	2020	1	579	222	3	204	43	**1051**	***12***
22265	2021	1	578	222	3	203	43	**1050**	***12***
22630	2022	1	578	222	3	203	43	**1049**	***12***
22995	2023	1	578	222	3	203	42	**1049**	***12***
23360	2024	1	578	222	3	202	42	**1048**	***12***
23725	2025	1	578	222	3	202	42	**1048**	***12***
24090	2026	1	578	222	3	202	42	**1048**	***12***
24455	2027	1	578	222	3	202	42	**1048**	***12***
24820	2028	1	578	222	3	201	42	**1048**	***12***
25185	2029	1	578	222	3	201	42	**1048**	***12***
25550	2030	1	579	222	3	201	42	**1048**	***12***
25915	2031	1	579	222	3	201	42	**1048**	***12***
26280	2032	1	579	222	3	201	42	**1049**	***12***
26645	2033	1	580	222	3	201	42	**1049**	***12***
27010	2034	1	580	222	3	201	42	**1050**	***12***

B-3(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
27375	2035	1	580	222	3	201	42	1050	12
27740	2036	1	581	222	3	201	42	1050	12
28105	2037	1	581	222	3	201	42	1051	12
28470	2038	1	582	222	3	201	42	1051	12
28835	2039	1	582	222	3	201	42	1052	12
29200	2040	1	582	222	3	201	42	1052	12
29565	2041	1	583	222	3	201	42	1053	12
29930	2042	1	583	222	3	201	42	1053	12
30295	2043	1	584	222	3	201	42	1053	12
30660	2044	1	584	222	3	201	42	1054	12
31025	2045	1	584	222	3	201	42	1054	12
31390	2046	1	585	222	3	201	42	1055	12
31755	2047	1	585	222	3	201	42	1055	12
32120	2048	1	585	222	3	201	42	1056	12
32485	2049	1	586	222	3	201	42	1056	12
32850	2050	1	586	222	3	201	42	1056	12
33215	2051	1	586	222	3	201	43	1057	12
33580	2052	1	587	222	3	201	43	1057	12
33945	2053	1	587	222	3	201	43	1058	12
34310	2054	1	587	222	3	201	43	1058	12
34675	2055	1	588	222	3	201	43	1058	12
35040	2056	1	588	222	3	201	43	1059	12
35405	2057	1	588	222	3	201	43	1059	12
35770	2058	1	589	222	3	201	43	1059	12
36135	2059	1	589	222	3	202	43	1060	12
36500	2060	1	589	222	3	202	43	1060	12
36865	2061	1	589	222	3	202	43	1060	12
37230	2062	1	590	222	3	202	43	1060	12
37595	2063	1	590	222	3	202	43	1061	12
37960	2064	1	590	222	3	202	43	1061	12
38325	2065	1	590	222	3	202	43	1061	12
38690	2066	1	590	222	3	202	43	1061	12
39055	2067	1	591	222	3	202	43	1062	12
39420	2068	1	591	222	3	202	43	1062	12
39785	2069	1	591	222	3	202	43	1062	12
40150	2070	1	591	222	3	202	43	1062	12

B-3(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
40515	2071	1	591	222	3	202	43	1063	12
40880	2072	1	592	223	3	202	43	1063	12
41245	2073	1	592	223	3	202	43	1063	12
41610	2074	1	592	223	3	202	43	1063	12
41975	2075	1	592	223	3	202	43	1063	12
42340	2076	1	592	223	3	202	43	1064	12
42705	2077	1	592	223	3	202	43	1064	12
43070	2078	1	592	223	3	202	43	1064	12
43435	2079	1	593	223	3	202	43	1064	12
43800	2080	1	593	223	3	202	43	1064	12
44165	2081	1	593	223	3	202	43	1064	12
44530	2082	1	593	223	3	202	43	1064	12
44895	2083	1	593	223	3	202	43	1065	12
45260	2084	1	593	223	3	202	43	1065	12
45625	2085	1	593	223	3	202	43	1065	12
45990	2086	1	593	223	3	202	43	1065	12
46355	2087	1	593	223	3	202	43	1065	12
46720	2088	1	593	223	3	202	43	1065	12
47085	2089	1	594	223	3	202	43	1065	12
47450	2090	1	594	223	3	202	43	1065	12
47815	2091	1	594	223	3	202	43	1065	12
48180	2092	1	594	223	3	202	43	1066	12
48545	2093	1	594	223	3	202	43	1066	12
48910	2094	1	594	223	3	202	43	1066	12
49275	2095	1	594	223	3	202	43	1066	12
49640	2096	1	594	223	3	202	43	1066	12
50005	2097	1	594	223	3	202	43	1066	12
50370	2098	1	594	223	3	202	43	1066	12
50735	2099	1	594	223	3	202	43	1066	12
51100	2100	1	594	223	3	202	43	1066	12
51465	2101	1	594	223	3	202	43	1066	12
51830	2102	1	594	223	3	202	43	1066	12
52195	2103	1	594	223	3	202	43	1066	12
52560	2104	1	594	223	3	202	43	1066	12
52925	2105	1	595	223	3	202	43	1067	12
53290	2106	1	595	223	3	202	43	1067	12

B-3(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
365	1961	0.0	0.2	0.0	0.0	0.1	0.1	**0.3**
730	1962	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1095	1963	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1460	1964	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1825	1965	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
2190	1966	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
2555	1967	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
2920	1968	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
3285	1969	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
3650	1970	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4015	1971	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4380	1972	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4745	1973	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5110	1974	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5475	1975	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5840	1976	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
6205	1977	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
6570	1978	0.0	0.2	0.0	0.0	0.1	0.3	**0.5**
6935	1979	0.0	0.2	0.0	0.0	0.1	0.3	**0.6**
7300	1980	0.0	0.5	0.1	0.0	0.3	0.4	**1.3**
7665	1981	0.0	0.6	0.2	0.0	0.6	0.4	**1.9**
8030	1982	0.0	1.3	0.5	0.0	1.4	0.6	**3.8**
8395	1983	0.0	1.8	0.8	0.0	2.1	0.6	**5.3**
8760	1984	0.0	2.1	1.0	0.0	2.6	0.7	**6.4**
9125	1985	0.0	2.4	1.2	0.0	3.0	0.7	**7.4**
9490	1986	0.0	2.6	1.3	0.1	3.6	0.8	**8.3**
9855	1987	0.0	2.8	1.5	0.1	4.1	0.8	**9.3**
10220	1988	0.0	3.0	1.6	0.1	4.5	0.8	**9.9**
10585	1989	0.0	3.1	1.7	0.1	4.8	0.8	**10.5**
10950	1990	0.0	3.2	1.8	0.1	5.0	0.9	**10.9**
11315	1991	0.0	3.3	1.8	0.1	5.1	0.9	**11.2**
11680	1992	0.0	3.3	1.9	0.1	5.2	0.9	**11.4**
12045	1993	0.0	3.3	1.9	0.1	5.3	0.9	**11.6**
12410	1994	0.0	3.3	2.0	0.1	5.2	0.9	**11.5**
12775	1995	0.0	3.3	2.0	0.1	5.1	0.9	**11.4**
13140	1996	0.0	3.2	2.1	0.1	4.9	0.9	**11.2**
13505	1997	0.0	3.2	2.1	0.1	4.9	0.9	**11.1**
Salinity (mg/L)		***15,000***	***5,000***	***10,000***	***20,000***	***20,000***	***20,000***	

B-3(S3A). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
13870	1998	0.0	3.1	2.1	0.1	4.8	0.9	10.9
14235	1999	0.0	3.1	2.1	0.1	4.7	0.9	10.9
14600	2000	0.0	3.0	2.1	0.1	4.7	0.9	10.8
14965	2001	0.0	3.0	2.1	0.1	4.6	0.9	10.8
15330	2002	0.0	3.0	2.2	0.1	4.6	0.9	10.8
15695	2003	0.0	3.0	2.2	0.1	4.6	0.9	10.8
16060	2004	0.0	3.0	2.2	0.1	4.6	0.9	10.8
16425	2005	0.0	3.0	2.2	0.1	4.6	0.9	10.8
16790	2006	0.0	3.0	2.2	0.1	4.6	0.9	10.8
17155	2007	0.0	3.0	2.2	0.1	4.6	0.9	10.8
17520	2008	0.0	3.0	2.2	0.1	4.6	0.9	10.8
17885	2009	0.0	3.0	2.2	0.1	4.7	0.9	10.9
18250	2010	0.0	3.1	2.2	0.1	4.7	0.9	10.9
18615	2011	0.0	3.0	2.2	0.1	4.5	0.9	10.7
18980	2012	0.0	3.0	2.2	0.1	4.4	0.9	10.6
19345	2013	0.0	3.0	2.2	0.1	4.3	0.9	10.4
19710	2014	0.0	2.9	2.2	0.1	4.2	0.9	10.4
20075	2015	0.0	2.9	2.2	0.1	4.2	0.9	10.3
20440	2016	0.0	2.9	2.2	0.1	4.2	0.9	10.2
20805	2017	0.0	2.9	2.2	0.1	4.1	0.9	10.2
21170	2018	0.0	2.9	2.2	0.1	4.1	0.9	10.2
21535	2019	0.0	2.9	2.2	0.1	4.1	0.9	10.1
21900	2020	0.0	2.9	2.2	0.1	4.1	0.9	10.1
22265	2021	0.0	2.9	2.2	0.1	4.1	0.9	10.1
22630	2022	0.0	2.9	2.2	0.1	4.1	0.9	10.1
22995	2023	0.0	2.9	2.2	0.1	4.1	0.8	10.1
23360	2024	0.0	2.9	2.2	0.1	4.0	0.8	10.1
23725	2025	0.0	2.9	2.2	0.1	4.0	0.8	10.1
24090	2026	0.0	2.9	2.2	0.1	4.0	0.8	10.1
24455	2027	0.0	2.9	2.2	0.1	4.0	0.8	10.1
24820	2028	0.0	2.9	2.2	0.1	4.0	0.8	10.1
25185	2029	0.0	2.9	2.2	0.1	4.0	0.8	10.1
25550	2030	0.0	2.9	2.2	0.1	4.0	0.8	10.1
25915	2031	0.0	2.9	2.2	0.1	4.0	0.8	10.1
26280	2032	0.0	2.9	2.2	0.1	4.0	0.8	10.1
26645	2033	0.0	2.9	2.2	0.1	4.0	0.8	10.1
27010	2034	0.0	2.9	2.2	0.1	4.0	0.8	10.1
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

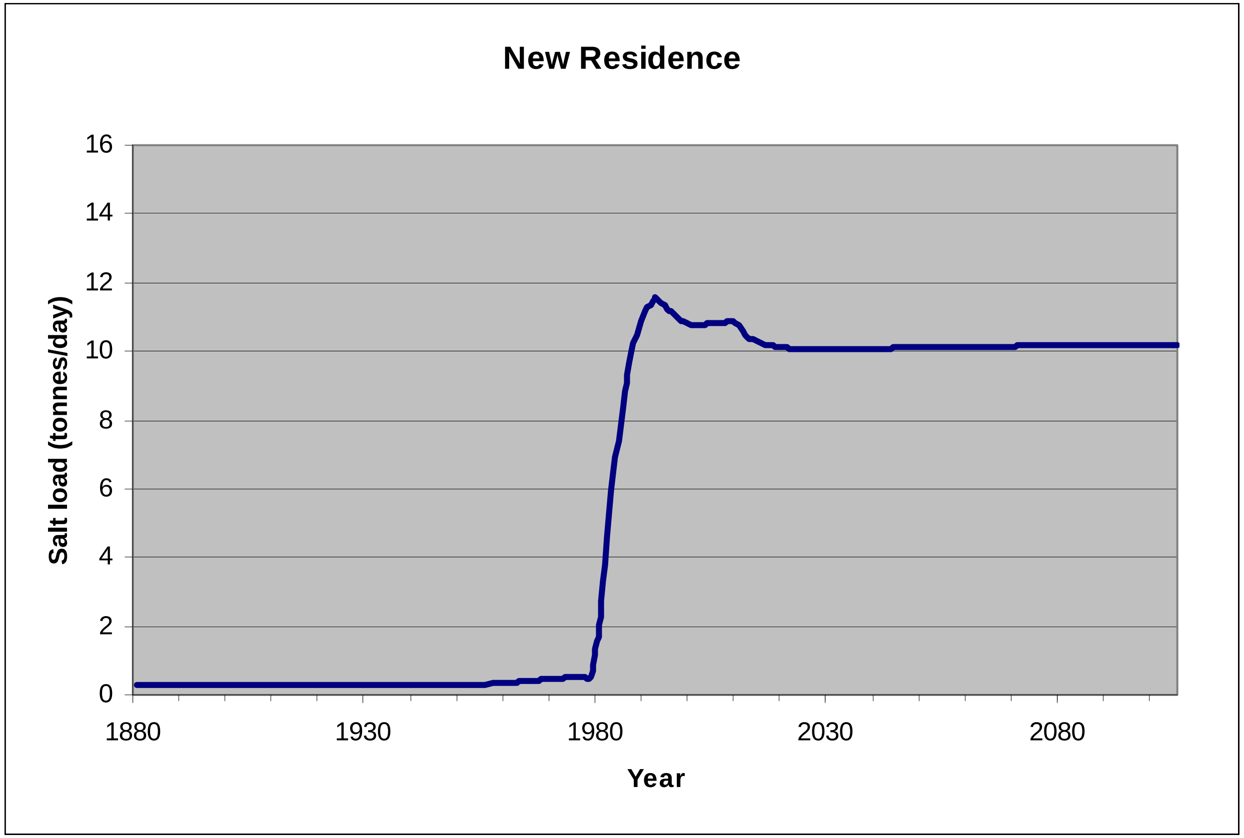
B-3(S3A). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
27375	2035	0.0	2.9	2.2	0.1	4.0	0.8	10.1
27740	2036	0.0	2.9	2.2	0.1	4.0	0.8	10.1
28105	2037	0.0	2.9	2.2	0.1	4.0	0.8	10.1
28470	2038	0.0	2.9	2.2	0.1	4.0	0.8	10.1
28835	2039	0.0	2.9	2.2	0.1	4.0	0.8	10.1
29200	2040	0.0	2.9	2.2	0.1	4.0	0.8	10.1
29565	2041	0.0	2.9	2.2	0.1	4.0	0.8	10.1
29930	2042	0.0	2.9	2.2	0.1	4.0	0.8	10.1
30295	2043	0.0	2.9	2.2	0.1	4.0	0.8	10.1
30660	2044	0.0	2.9	2.2	0.1	4.0	0.8	10.1
31025	2045	0.0	2.9	2.2	0.1	4.0	0.8	10.1
31390	2046	0.0	2.9	2.2	0.1	4.0	0.8	10.1
31755	2047	0.0	2.9	2.2	0.1	4.0	0.8	10.1
32120	2048	0.0	2.9	2.2	0.1	4.0	0.8	10.1
32485	2049	0.0	2.9	2.2	0.1	4.0	0.8	10.1
32850	2050	0.0	2.9	2.2	0.1	4.0	0.8	10.1
33215	2051	0.0	2.9	2.2	0.1	4.0	0.9	10.1
33580	2052	0.0	2.9	2.2	0.1	4.0	0.9	10.1
33945	2053	0.0	2.9	2.2	0.1	4.0	0.9	10.1
34310	2054	0.0	2.9	2.2	0.1	4.0	0.9	10.1
34675	2055	0.0	2.9	2.2	0.1	4.0	0.9	10.1
35040	2056	0.0	2.9	2.2	0.1	4.0	0.9	10.1
35405	2057	0.0	2.9	2.2	0.1	4.0	0.9	10.1
35770	2058	0.0	2.9	2.2	0.1	4.0	0.9	10.1
36135	2059	0.0	2.9	2.2	0.1	4.0	0.9	10.1
36500	2060	0.0	2.9	2.2	0.1	4.0	0.9	10.1
36865	2061	0.0	2.9	2.2	0.1	4.0	0.9	10.1
37230	2062	0.0	2.9	2.2	0.1	4.0	0.9	10.1
37595	2063	0.0	2.9	2.2	0.1	4.0	0.9	10.1
37960	2064	0.0	2.9	2.2	0.1	4.0	0.9	10.1
38325	2065	0.0	3.0	2.2	0.1	4.0	0.9	10.1
38690	2066	0.0	3.0	2.2	0.1	4.0	0.9	10.1
39055	2067	0.0	3.0	2.2	0.1	4.0	0.9	10.1
39420	2068	0.0	3.0	2.2	0.1	4.0	0.9	10.1
39785	2069	0.0	3.0	2.2	0.1	4.0	0.9	10.1
40150	2070	0.0	3.0	2.2	0.1	4.0	0.9	10.2
40515	2071	0.0	3.0	2.2	0.1	4.0	0.9	10.2
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(S3A). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
40880	2072	0.0	3.0	2.2	0.1	4.0	0.9	10.2
41245	2073	0.0	3.0	2.2	0.1	4.0	0.9	10.2
41610	2074	0.0	3.0	2.2	0.1	4.0	0.9	10.2
41975	2075	0.0	3.0	2.2	0.1	4.0	0.9	10.2
42340	2076	0.0	3.0	2.2	0.1	4.0	0.9	10.2
42705	2077	0.0	3.0	2.2	0.1	4.0	0.9	10.2
43070	2078	0.0	3.0	2.2	0.1	4.0	0.9	10.2
43435	2079	0.0	3.0	2.2	0.1	4.0	0.9	10.2
43800	2080	0.0	3.0	2.2	0.1	4.0	0.9	10.2
44165	2081	0.0	3.0	2.2	0.1	4.0	0.9	10.2
44530	2082	0.0	3.0	2.2	0.1	4.0	0.9	10.2
44895	2083	0.0	3.0	2.2	0.1	4.0	0.9	10.2
45260	2084	0.0	3.0	2.2	0.1	4.0	0.9	10.2
45625	2085	0.0	3.0	2.2	0.1	4.0	0.9	10.2
45990	2086	0.0	3.0	2.2	0.1	4.0	0.9	10.2
46355	2087	0.0	3.0	2.2	0.1	4.0	0.9	10.2
46720	2088	0.0	3.0	2.2	0.1	4.0	0.9	10.2
47085	2089	0.0	3.0	2.2	0.1	4.0	0.9	10.2
47450	2090	0.0	3.0	2.2	0.1	4.0	0.9	10.2
47815	2091	0.0	3.0	2.2	0.1	4.0	0.9	10.2
48180	2092	0.0	3.0	2.2	0.1	4.0	0.9	10.2
48545	2093	0.0	3.0	2.2	0.1	4.0	0.9	10.2
48910	2094	0.0	3.0	2.2	0.1	4.0	0.9	10.2
49275	2095	0.0	3.0	2.2	0.1	4.0	0.9	10.2
49640	2096	0.0	3.0	2.2	0.1	4.0	0.9	10.2
50005	2097	0.0	3.0	2.2	0.1	4.0	0.9	10.2
50370	2098	0.0	3.0	2.2	0.1	4.0	0.9	10.2
50735	2099	0.0	3.0	2.2	0.1	4.0	0.9	10.2
51100	2100	0.0	3.0	2.2	0.1	4.0	0.9	10.2
51465	2101	0.0	3.0	2.2	0.1	4.0	0.9	10.2
51830	2102	0.0	3.0	2.2	0.1	4.0	0.9	10.2
52195	2103	0.0	3.0	2.2	0.1	4.0	0.9	10.2
52560	2104	0.0	3.0	2.2	0.1	4.0	0.9	10.2
52925	2105	0.0	3.0	2.2	0.1	4.0	0.9	10.2
53290	2106	0.0	3.0	2.2	0.1	4.0	0.9	10.2
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

B-3(S3A). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3A)



B-3(S3A). Graph of modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
365	1961	0	31	1	1	3	5	41	0
730	1962	0	31	1	1	3	6	42	0
1095	1963	0	31	1	1	3	6	43	0
1460	1964	0	31	1	1	3	7	43	1
1825	1965	0	32	1	1	3	7	44	1
2190	1966	0	32	1	1	3	8	45	1
2555	1967	0	32	1	1	3	8	46	1
2920	1968	0	32	1	1	3	9	46	1
3285	1969	0	32	1	1	3	9	47	1
3650	1970	0	33	2	1	3	9	48	1
4015	1971	0	33	2	1	3	10	49	1
4380	1972	0	33	2	1	3	10	49	1
4745	1973	0	33	2	1	3	11	50	1
5110	1974	0	33	2	1	3	11	51	1
5475	1975	0	33	2	1	3	12	52	1
5840	1976	0	34	2	1	3	12	53	1
6205	1977	0	34	3	1	3	12	53	1
6570	1978	0	34	3	1	3	13	54	1
6935	1979	0	34	3	1	3	13	55	1
7300	1980	0	92	13	1	16	19	142	2
7665	1981	0	127	22	1	29	21	201	2
8030	1982	0	260	48	2	69	29	407	5
8395	1983	1	355	75	2	105	32	570	7
8760	1984	1	418	98	2	131	35	684	8
9125	1985	1	471	117	2	152	36	781	9
9490	1986	1	515	133	3	179	38	869	10
9855	1987	2	563	147	3	206	40	960	11
10220	1988	2	594	158	3	224	41	1022	12
10585	1989	2	623	168	3	239	42	1077	12
10950	1990	2	638	176	3	248	43	1110	13
11315	1991	2	655	183	3	256	44	1144	13
11680	1992	2	660	189	3	260	44	1159	13
12045	1993	2	669	195	3	264	45	1179	14
12410	1994	2	660	199	3	259	45	1168	14
12775	1995	2	655	203	3	253	45	1161	13
13140	1996	1	640	206	3	247	45	1143	13
13505	1997	1	634	208	3	244	45	1136	13
13870	1998	1	619	210	3	239	45	1117	13

B-3(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
14235	1999	1	611	211	3	235	44	**1107**	***13***
14600	2000	1	595	212	3	230	44	**1086**	***13***
14965	2001	1	586	213	3	227	44	**1073**	***12***
15330	2002	1	580	214	3	224	43	**1066**	***12***
15695	2003	1	577	215	3	223	43	**1061**	***12***
16060	2004	1	574	215	3	221	43	**1058**	***12***
16425	2005	1	572	216	3	220	43	**1055**	***12***
16790	2006	1	571	217	3	220	43	**1054**	***12***
17155	2007	1	570	217	3	219	43	**1053**	***12***
17520	2008	1	570	217	3	219	43	**1053**	***12***
17885	2009	1	569	218	3	219	43	**1052**	***12***
18250	2010	1	569	218	3	219	42	**1052**	***12***
18615	2011	1	563	218	3	212	42	**1040**	***12***
18980	2012	1	555	218	3	205	42	**1025**	***12***
19345	2013	1	548	219	3	200	42	**1013**	***12***
19710	2014	1	543	219	3	196	42	**1004**	***12***
20075	2015	1	539	219	3	194	42	**997**	***12***
20440	2016	1	536	219	3	192	41	**992**	***11***
20805	2017	1	531	211	3	189	40	**975**	***11***
21170	2018	1	527	206	3	187	39	**963**	***11***
21535	2019	1	521	195	3	185	37	**942**	***11***
21900	2020	1	516	187	3	183	36	**926**	***11***
22265	2021	1	511	174	3	181	34	**903**	***10***
22630	2022	1	505	164	3	179	33	**884**	***10***
22995	2023	1	499	150	3	176	31	**859**	***10***
23360	2024	1	494	139	3	174	30	**840**	***10***
23725	2025	1	490	130	3	173	29	**825**	***10***
24090	2026	1	487	124	3	172	28	**814**	***9***
24455	2027	0	476	118	3	167	28	**792**	***9***
24820	2028	0	469	114	3	164	27	**777**	***9***
25185	2029	0	463	110	3	162	27	**765**	***9***
25550	2030	0	459	107	3	160	26	**756**	***9***
25915	2031	0	456	104	3	158	26	**748**	***9***
26280	2032	0	454	102	3	157	26	**741**	***9***
26645	2033	0	451	100	3	156	26	**736**	***9***
27010	2034	0	449	98	3	155	25	**731**	***8***

B-3(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
27375	2035	0	448	97	3	155	25	**727**	***8***
27740	2036	0	446	95	3	154	25	**724**	***8***
28105	2037	0	445	94	3	153	25	**721**	***8***
28470	2038	0	444	93	3	153	25	**718**	***8***
28835	2039	0	443	93	3	152	25	**715**	***8***
29200	2040	0	442	92	3	152	25	**713**	***8***
29565	2041	0	441	91	3	151	25	**711**	***8***
29930	2042	0	440	91	3	151	25	**710**	***8***
30295	2043	0	440	90	3	151	25	**708**	***8***
30660	2044	0	439	90	3	150	24	**707**	***8***
31025	2045	0	438	90	3	150	24	**705**	***8***
31390	2046	0	438	89	3	150	24	**704**	***8***
31755	2047	0	437	89	3	150	24	**703**	***8***
32120	2048	0	437	89	3	149	24	**702**	***8***
32485	2049	0	436	89	3	149	24	**702**	***8***
32850	2050	0	436	89	3	149	24	**701**	***8***
33215	2051	0	436	88	3	149	24	**700**	***8***
33580	2052	0	435	88	3	149	24	**699**	***8***
33945	2053	0	435	88	3	149	24	**699**	***8***
34310	2054	0	435	88	3	148	24	**698**	***8***
34675	2055	0	435	88	3	148	24	**698**	***8***
35040	2056	0	434	88	3	148	24	**697**	***8***
35405	2057	0	434	88	3	148	24	**697**	***8***
35770	2058	0	434	88	3	148	24	**696**	***8***
36135	2059	0	434	88	3	148	24	**696**	***8***
36500	2060	0	433	88	3	148	24	**696**	***8***
36865	2061	0	433	88	3	148	24	**695**	***8***
37230	2062	0	433	88	3	148	24	**695**	***8***
37595	2063	0	433	87	3	148	24	**695**	***8***
37960	2064	0	433	87	3	147	24	**695**	***8***
38325	2065	0	433	87	3	147	24	**694**	***8***
38690	2066	0	433	87	3	147	24	**694**	***8***
39055	2067	0	432	87	3	147	24	**694**	***8***
39420	2068	0	432	87	3	147	24	**694**	***8***
39785	2069	0	432	87	3	147	24	**693**	***8***
40150	2070	0	432	87	3	147	24	**693**	***8***

B-3(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
40515	2071	0	432	87	3	147	24	693	8
40880	2072	0	432	87	3	147	24	693	8
41245	2073	0	432	87	3	147	24	693	8
41610	2074	0	432	87	3	147	24	693	8
41975	2075	0	432	87	3	147	24	693	8
42340	2076	0	432	87	3	147	24	692	8
42705	2077	0	432	87	3	147	24	692	8
43070	2078	0	431	87	3	147	24	692	8
43435	2079	0	431	87	3	147	24	692	8
43800	2080	0	431	87	3	147	24	692	8
44165	2081	0	431	87	3	147	24	692	8
44530	2082	0	431	87	3	147	24	692	8
44895	2083	0	431	87	3	147	24	692	8
45260	2084	0	431	87	3	147	24	692	8
45625	2085	0	431	87	3	147	24	692	8
45990	2086	0	431	87	3	147	24	692	8
46355	2087	0	431	87	3	147	24	691	8
46720	2088	0	431	87	3	147	24	691	8
47085	2089	0	431	87	3	147	24	691	8
47450	2090	0	431	87	3	147	24	691	8
47815	2091	0	431	87	3	147	24	691	8
48180	2092	0	431	87	3	147	24	691	8
48545	2093	0	431	87	3	147	24	691	8
48910	2094	0	431	87	3	147	24	691	8
49275	2095	0	431	87	3	147	24	691	8
49640	2096	0	431	87	3	146	24	691	8
50005	2097	0	431	87	3	146	24	691	8
50370	2098	0	431	87	3	146	24	691	8
50735	2099	0	431	87	3	146	24	691	8
51100	2100	0	431	87	3	146	24	691	8
51465	2101	0	431	87	3	146	24	691	8
51830	2102	0	431	87	3	146	24	691	8
52195	2103	0	431	87	3	146	24	691	8
52560	2104	0	431	87	3	146	24	691	8
52925	2105	0	431	87	3	146	24	691	8
53290	2106	0	431	87	3	146	24	691	8

B-3(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
365	1961	0.0	0.2	0.0	0.0	0.1	0.1	0.3
730	1962	0.0	0.2	0.0	0.0	0.1	0.1	0.4
1095	1963	0.0	0.2	0.0	0.0	0.1	0.1	0.4
1460	1964	0.0	0.2	0.0	0.0	0.1	0.1	0.4
1825	1965	0.0	0.2	0.0	0.0	0.1	0.1	0.4
2190	1966	0.0	0.2	0.0	0.0	0.1	0.2	0.4
2555	1967	0.0	0.2	0.0	0.0	0.1	0.2	0.4
2920	1968	0.0	0.2	0.0	0.0	0.1	0.2	0.4
3285	1969	0.0	0.2	0.0	0.0	0.1	0.2	0.4
3650	1970	0.0	0.2	0.0	0.0	0.1	0.2	0.5
4015	1971	0.0	0.2	0.0	0.0	0.1	0.2	0.5
4380	1972	0.0	0.2	0.0	0.0	0.1	0.2	0.5
4745	1973	0.0	0.2	0.0	0.0	0.1	0.2	0.5
5110	1974	0.0	0.2	0.0	0.0	0.1	0.2	0.5
5475	1975	0.0	0.2	0.0	0.0	0.1	0.2	0.5
5840	1976	0.0	0.2	0.0	0.0	0.1	0.2	0.5
6205	1977	0.0	0.2	0.0	0.0	0.1	0.2	0.5
6570	1978	0.0	0.2	0.0	0.0	0.1	0.3	0.5
6935	1979	0.0	0.2	0.0	0.0	0.1	0.3	0.6
7300	1980	0.0	0.5	0.1	0.0	0.3	0.4	1.3
7665	1981	0.0	0.6	0.2	0.0	0.6	0.4	1.9
8030	1982	0.0	1.3	0.5	0.0	1.4	0.6	3.8
8395	1983	0.0	1.8	0.8	0.0	2.1	0.6	5.3
8760	1984	0.0	2.1	1.0	0.0	2.6	0.7	6.4
9125	1985	0.0	2.4	1.2	0.0	3.0	0.7	7.4
9490	1986	0.0	2.6	1.3	0.1	3.6	0.8	8.3
9855	1987	0.0	2.8	1.5	0.1	4.1	0.8	9.3
10220	1988	0.0	3.0	1.6	0.1	4.5	0.8	9.9
10585	1989	0.0	3.1	1.7	0.1	4.8	0.8	10.5
10950	1990	0.0	3.2	1.8	0.1	5.0	0.9	10.9
11315	1991	0.0	3.3	1.8	0.1	5.1	0.9	11.2
11680	1992	0.0	3.3	1.9	0.1	5.2	0.9	11.4
12045	1993	0.0	3.3	1.9	0.1	5.3	0.9	11.6
12410	1994	0.0	3.3	2.0	0.1	5.2	0.9	11.5
12775	1995	0.0	3.3	2.0	0.1	5.1	0.9	11.4
13140	1996	0.0	3.2	2.1	0.1	4.9	0.9	11.2
13505	1997	0.0	3.2	2.1	0.1	4.9	0.9	11.1
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

B-3(S3B). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
13870	1998	0.0	3.1	2.1	0.1	4.8	0.9	10.9
14235	1999	0.0	3.1	2.1	0.1	4.7	0.9	10.8
14600	2000	0.0	3.0	2.1	0.1	4.6	0.9	10.7
14965	2001	0.0	2.9	2.1	0.1	4.5	0.9	10.5
15330	2002	0.0	2.9	2.1	0.1	4.5	0.9	10.5
15695	2003	0.0	2.9	2.1	0.1	4.5	0.9	10.4
16060	2004	0.0	2.9	2.2	0.1	4.4	0.9	10.4
16425	2005	0.0	2.9	2.2	0.1	4.4	0.9	10.4
16790	2006	0.0	2.9	2.2	0.1	4.4	0.9	10.3
17155	2007	0.0	2.9	2.2	0.1	4.4	0.9	10.3
17520	2008	0.0	2.8	2.2	0.1	4.4	0.9	10.3
17885	2009	0.0	2.8	2.2	0.1	4.4	0.9	10.3
18250	2010	0.0	2.8	2.2	0.1	4.4	0.8	10.3
18615	2011	0.0	2.8	2.2	0.1	4.2	0.8	10.2
18980	2012	0.0	2.8	2.2	0.1	4.1	0.8	10.0
19345	2013	0.0	2.7	2.2	0.1	4.0	0.8	9.8
19710	2014	0.0	2.7	2.2	0.1	3.9	0.8	9.7
20075	2015	0.0	2.7	2.2	0.1	3.9	0.8	9.7
20440	2016	0.0	2.7	2.2	0.1	3.8	0.8	9.6
20805	2017	0.0	2.7	2.1	0.1	3.8	0.8	9.4
21170	2018	0.0	2.6	2.1	0.1	3.7	0.8	9.3
21535	2019	0.0	2.6	1.9	0.1	3.7	0.7	9.1
21900	2020	0.0	2.6	1.9	0.1	3.7	0.7	8.9
22265	2021	0.0	2.6	1.7	0.1	3.6	0.7	8.7
22630	2022	0.0	2.5	1.6	0.1	3.6	0.7	8.5
22995	2023	0.0	2.5	1.5	0.1	3.5	0.6	8.2
23360	2024	0.0	2.5	1.4	0.1	3.5	0.6	8.0
23725	2025	0.0	2.4	1.3	0.1	3.5	0.6	7.9
24090	2026	0.0	2.4	1.2	0.1	3.4	0.6	7.7
24455	2027	0.0	2.4	1.2	0.1	3.3	0.6	7.5
24820	2028	0.0	2.3	1.1	0.1	3.3	0.5	7.4
25185	2029	0.0	2.3	1.1	0.1	3.2	0.5	7.2
25550	2030	0.0	2.3	1.1	0.1	3.2	0.5	7.2
25915	2031	0.0	2.3	1.0	0.1	3.2	0.5	7.1
26280	2032	0.0	2.3	1.0	0.1	3.1	0.5	7.0
26645	2033	0.0	2.3	1.0	0.1	3.1	0.5	7.0
27010	2034	0.0	2.2	1.0	0.1	3.1	0.5	6.9
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

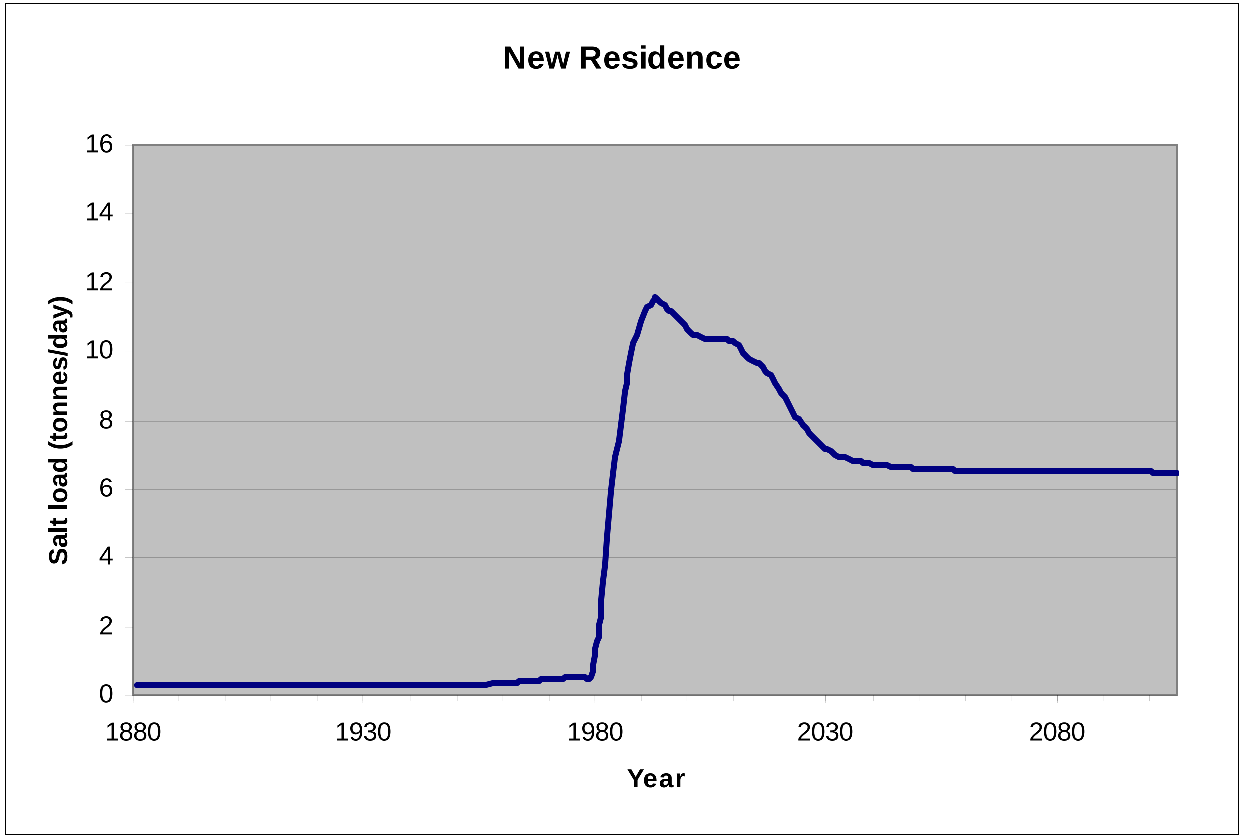
B-3(S3B). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
27375	2035	0.0	2.2	1.0	0.1	3.1	0.5	**6.9**
27740	2036	0.0	2.2	1.0	0.1	3.1	0.5	**6.8**
28105	2037	0.0	2.2	0.9	0.1	3.1	0.5	**6.8**
28470	2038	0.0	2.2	0.9	0.1	3.1	0.5	**6.8**
28835	2039	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
29200	2040	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
29565	2041	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
29930	2042	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
30295	2043	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
30660	2044	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
31025	2045	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
31390	2046	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
31755	2047	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
32120	2048	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
32485	2049	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
32850	2050	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
33215	2051	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
33580	2052	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
33945	2053	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
34310	2054	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
34675	2055	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
35040	2056	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
35405	2057	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
35770	2058	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
36135	2059	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
36500	2060	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
36865	2061	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
37230	2062	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
37595	2063	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
37960	2064	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
38325	2065	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
38690	2066	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
39055	2067	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
39420	2068	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
39785	2069	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
40150	2070	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
40515	2071	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(S3B). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
40880	2072	0.0	2.2	0.9	0.1	2.9	0.5	6.5
41245	2073	0.0	2.2	0.9	0.1	2.9	0.5	6.5
41610	2074	0.0	2.2	0.9	0.1	2.9	0.5	6.5
41975	2075	0.0	2.2	0.9	0.1	2.9	0.5	6.5
42340	2076	0.0	2.2	0.9	0.1	2.9	0.5	6.5
42705	2077	0.0	2.2	0.9	0.1	2.9	0.5	6.5
43070	2078	0.0	2.2	0.9	0.1	2.9	0.5	6.5
43435	2079	0.0	2.2	0.9	0.1	2.9	0.5	6.5
43800	2080	0.0	2.2	0.9	0.1	2.9	0.5	6.5
44165	2081	0.0	2.2	0.9	0.1	2.9	0.5	6.5
44530	2082	0.0	2.2	0.9	0.1	2.9	0.5	6.5
44895	2083	0.0	2.2	0.9	0.1	2.9	0.5	6.5
45260	2084	0.0	2.2	0.9	0.1	2.9	0.5	6.5
45625	2085	0.0	2.2	0.9	0.1	2.9	0.5	6.5
45990	2086	0.0	2.2	0.9	0.1	2.9	0.5	6.5
46355	2087	0.0	2.2	0.9	0.1	2.9	0.5	6.5
46720	2088	0.0	2.2	0.9	0.1	2.9	0.5	6.5
47085	2089	0.0	2.2	0.9	0.1	2.9	0.5	6.5
47450	2090	0.0	2.2	0.9	0.1	2.9	0.5	6.5
47815	2091	0.0	2.2	0.9	0.1	2.9	0.5	6.5
48180	2092	0.0	2.2	0.9	0.1	2.9	0.5	6.5
48545	2093	0.0	2.2	0.9	0.1	2.9	0.5	6.5
48910	2094	0.0	2.2	0.9	0.1	2.9	0.5	6.5
49275	2095	0.0	2.2	0.9	0.1	2.9	0.5	6.5
49640	2096	0.0	2.2	0.9	0.1	2.9	0.5	6.5
50005	2097	0.0	2.2	0.9	0.1	2.9	0.5	6.5
50370	2098	0.0	2.2	0.9	0.1	2.9	0.5	6.5
50735	2099	0.0	2.2	0.9	0.1	2.9	0.5	6.5
51100	2100	0.0	2.2	0.9	0.1	2.9	0.5	6.5
51465	2101	0.0	2.2	0.9	0.1	2.9	0.5	6.5
51830	2102	0.0	2.2	0.9	0.1	2.9	0.5	6.5
52195	2103	0.0	2.2	0.9	0.1	2.9	0.5	6.5
52560	2104	0.0	2.2	0.9	0.1	2.9	0.5	6.5
52925	2105	0.0	2.2	0.9	0.1	2.9	0.5	6.5
53290	2106	0.0	2.2	0.9	0.1	2.9	0.5	6.5
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(S3B). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3B)



B-3(S3B). Graph of modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
365	1961	0	31	1	1	3	5	41	0
730	1962	0	31	1	1	3	6	42	0
1095	1963	0	31	1	1	3	6	43	0
1460	1964	0	31	1	1	3	7	43	1
1825	1965	0	32	1	1	3	7	44	1
2190	1966	0	32	1	1	3	8	45	1
2555	1967	0	32	1	1	3	8	46	1
2920	1968	0	32	1	1	3	9	46	1
3285	1969	0	32	1	1	3	9	47	1
3650	1970	0	33	2	1	3	9	48	1
4015	1971	0	33	2	1	3	10	49	1
4380	1972	0	33	2	1	3	10	49	1
4745	1973	0	33	2	1	3	11	50	1
5110	1974	0	33	2	1	3	11	51	1
5475	1975	0	33	2	1	3	12	52	1
5840	1976	0	34	2	1	3	12	53	1
6205	1977	0	34	3	1	3	12	53	1
6570	1978	0	34	3	1	3	13	54	1
6935	1979	0	34	3	1	3	13	55	1
7300	1980	0	92	13	1	16	19	142	2
7665	1981	0	127	22	1	29	21	201	2
8030	1982	0	260	48	2	69	29	407	5
8395	1983	1	355	75	2	105	32	570	7
8760	1984	1	418	98	2	131	35	684	8
9125	1985	1	471	117	2	152	36	781	9
9490	1986	1	515	133	3	179	38	869	10
9855	1987	2	563	147	3	206	40	960	11
10220	1988	2	594	158	3	224	41	1022	12
10585	1989	2	623	168	3	239	42	1077	12
10950	1990	2	638	176	3	248	43	1110	13
11315	1991	2	655	183	3	256	44	1144	13
11680	1992	2	660	189	3	260	44	1159	13
12045	1993	2	669	195	3	264	45	1179	14
12410	1994	2	660	199	3	259	45	1168	14
12775	1995	2	655	203	3	253	45	1161	13
13140	1996	1	640	206	3	247	45	1143	13
13505	1997	1	634	208	3	244	45	1136	13
13870	1998	1	619	210	3	239	45	1117	13

B-3(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
14235	1999	1	611	211	3	235	44	1107	13
14600	2000	1	595	212	3	230	44	1086	13
14965	2001	1	586	213	3	227	43	1073	12
15330	2002	1	580	214	3	224	43	1066	12
15695	2003	1	577	215	3	223	43	1061	12
16060	2004	1	574	215	3	221	43	1057	12
16425	2005	1	572	216	3	220	43	1055	12
16790	2006	1	571	216	3	220	43	1054	12
17155	2007	1	570	217	3	219	42	1053	12
17520	2008	1	570	217	3	219	42	1052	12
17885	2009	1	569	218	3	219	42	1052	12
18250	2010	1	569	218	3	219	42	1052	12
18615	2011	1	563	218	3	212	42	1039	12
18980	2012	1	555	218	3	205	42	1024	12
19345	2013	1	548	218	3	200	42	1012	12
19710	2014	1	543	218	3	196	41	1003	12
20075	2015	1	539	218	3	194	41	996	12
20440	2016	1	536	218	3	192	41	991	11
20805	2017	1	531	211	3	189	39	975	11
21170	2018	1	527	206	3	187	39	962	11
21535	2019	1	521	195	3	185	36	941	11
21900	2020	1	516	187	3	183	36	925	11
22265	2021	1	511	173	3	181	33	902	10
22630	2022	1	505	164	3	179	32	884	10
22995	2023	1	499	149	3	176	30	859	10
23360	2024	1	494	138	3	174	29	839	10
23725	2025	1	490	130	3	173	28	824	10
24090	2026	1	487	123	3	171	27	813	9
24455	2027	0	476	118	3	167	27	791	9
24820	2028	0	469	113	3	164	26	775	9
25185	2029	0	463	109	3	162	26	764	9
25550	2030	0	459	106	3	160	26	754	9
25915	2031	0	456	104	3	158	25	746	9
26280	2032	0	454	101	3	157	25	740	9
26645	2033	0	451	99	3	156	25	735	9
27010	2034	0	449	98	3	155	25	730	8

B-3(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
27375	2035	0	448	96	3	155	24	**726**	***8***
27740	2036	0	446	95	3	154	24	**722**	***8***
28105	2037	0	445	94	3	153	24	**719**	***8***
28470	2038	0	444	93	3	153	24	**716**	***8***
28835	2039	0	443	92	3	152	24	**714**	***8***
29200	2040	0	442	91	3	152	24	**712**	***8***
29565	2041	0	441	91	3	151	24	**710**	***8***
29930	2042	0	440	90	3	151	24	**708**	***8***
30295	2043	0	440	90	3	151	24	**707**	***8***
30660	2044	0	439	90	3	150	24	**705**	***8***
31025	2045	0	438	89	3	150	24	**704**	***8***
31390	2046	0	438	89	3	150	23	**703**	***8***
31755	2047	0	437	89	3	150	23	**702**	***8***
32120	2048	0	437	88	3	149	23	**701**	***8***
32485	2049	0	436	88	3	149	23	**700**	***8***
32850	2050	0	436	88	3	149	23	**699**	***8***
33215	2051	0	436	88	3	149	23	**699**	***8***
33580	2052	0	435	88	3	149	23	**698**	***8***
33945	2053	0	435	88	3	149	23	**697**	***8***
34310	2054	0	435	87	3	148	23	**697**	***8***
34675	2055	0	434	87	3	148	23	**696**	***8***
35040	2056	0	434	87	3	148	23	**696**	***8***
35405	2057	0	434	87	3	148	23	**695**	***8***
35770	2058	0	434	87	3	148	23	**695**	***8***
36135	2059	0	434	87	3	148	23	**695**	***8***
36500	2060	0	433	87	3	148	23	**694**	***8***
36865	2061	0	433	87	3	148	23	**694**	***8***
37230	2062	0	433	87	3	148	23	**694**	***8***
37595	2063	0	433	87	3	148	23	**693**	***8***
37960	2064	0	433	87	3	147	23	**693**	***8***
38325	2065	0	433	87	3	147	23	**693**	***8***
38690	2066	0	433	87	3	147	23	**693**	***8***
39055	2067	0	432	87	3	147	23	**692**	***8***
39420	2068	0	432	87	3	147	23	**692**	***8***
39785	2069	0	432	87	3	147	23	**692**	***8***
40150	2070	0	432	87	3	147	23	**692**	***8***

B-3(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
40515	2071	0	432	87	3	147	23	692	8
40880	2072	0	432	87	3	147	23	691	8
41245	2073	0	432	87	3	147	23	691	8
41610	2074	0	432	87	3	147	23	691	8
41975	2075	0	432	87	3	147	23	691	8
42340	2076	0	432	87	3	147	23	691	8
42705	2077	0	431	87	3	147	23	691	8
43070	2078	0	431	87	3	147	23	691	8
43435	2079	0	431	87	3	147	23	691	8
43800	2080	0	431	87	3	147	23	690	8
44165	2081	0	431	87	3	147	23	690	8
44530	2082	0	431	87	3	147	23	690	8
44895	2083	0	431	87	3	147	23	690	8
45260	2084	0	431	87	3	147	23	690	8
45625	2085	0	431	87	3	147	23	690	8
45990	2086	0	431	87	3	147	23	690	8
46355	2087	0	431	87	3	147	23	690	8
46720	2088	0	431	87	3	147	23	690	8
47085	2089	0	431	86	3	147	23	690	8
47450	2090	0	431	86	3	147	23	690	8
47815	2091	0	431	86	3	147	23	690	8
48180	2092	0	431	86	3	147	23	690	8
48545	2093	0	431	86	3	147	23	690	8
48910	2094	0	431	86	3	146	23	690	8
49275	2095	0	431	86	3	146	23	690	8
49640	2096	0	431	86	3	146	23	689	8
50005	2097	0	431	86	3	146	23	689	8
50370	2098	0	431	86	3	146	23	689	8
50735	2099	0	431	86	3	146	23	689	8
51100	2100	0	431	86	3	146	23	689	8
51465	2101	0	431	86	3	146	23	689	8
51830	2102	0	431	86	3	146	23	689	8
52195	2103	0	431	86	3	146	23	689	8
52560	2104	0	431	86	3	146	23	689	8
52925	2105	0	431	86	3	146	23	689	8
53290	2106	0	431	86	3	146	23	689	8

B-3(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
365	1961	0.0	0.2	0.0	0.0	0.1	0.1	**0.3**
730	1962	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1095	1963	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1460	1964	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1825	1965	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
2190	1966	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
2555	1967	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
2920	1968	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
3285	1969	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
3650	1970	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4015	1971	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4380	1972	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4745	1973	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5110	1974	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5475	1975	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5840	1976	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
6205	1977	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
6570	1978	0.0	0.2	0.0	0.0	0.1	0.3	**0.5**
6935	1979	0.0	0.2	0.0	0.0	0.1	0.3	**0.6**
7300	1980	0.0	0.5	0.1	0.0	0.3	0.4	**1.3**
7665	1981	0.0	0.6	0.2	0.0	0.6	0.4	**1.9**
8030	1982	0.0	1.3	0.5	0.0	1.4	0.6	**3.8**
8395	1983	0.0	1.8	0.8	0.0	2.1	0.6	**5.3**
8760	1984	0.0	2.1	1.0	0.0	2.6	0.7	**6.4**
9125	1985	0.0	2.4	1.2	0.0	3.0	0.7	**7.4**
9490	1986	0.0	2.6	1.3	0.1	3.6	0.8	**8.3**
9855	1987	0.0	2.8	1.5	0.1	4.1	0.8	**9.3**
10220	1988	0.0	3.0	1.6	0.1	4.5	0.8	**9.9**
10585	1989	0.0	3.1	1.7	0.1	4.8	0.8	**10.5**
10950	1990	0.0	3.2	1.8	0.1	5.0	0.9	**10.9**
11315	1991	0.0	3.3	1.8	0.1	5.1	0.9	**11.2**
11680	1992	0.0	3.3	1.9	0.1	5.2	0.9	**11.4**
12045	1993	0.0	3.3	1.9	0.1	5.3	0.9	**11.6**
12410	1994	0.0	3.3	2.0	0.1	5.2	0.9	**11.5**
12775	1995	0.0	3.3	2.0	0.1	5.1	0.9	**11.4**
13140	1996	0.0	3.2	2.1	0.1	4.9	0.9	**11.2**
13505	1997	0.0	3.2	2.1	0.1	4.9	0.9	**11.1**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(S3C). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
13870	1998	0.0	3.1	2.1	0.1	4.8	0.9	**10.9**
14235	1999	0.0	3.1	2.1	0.1	4.7	0.9	**10.8**
14600	2000	0.0	3.0	2.1	0.1	4.6	0.9	**10.7**
14965	2001	0.0	2.9	2.1	0.1	4.5	0.9	**10.5**
15330	2002	0.0	2.9	2.1	0.1	4.5	0.9	**10.5**
15695	2003	0.0	2.9	2.1	0.1	4.5	0.9	**10.4**
16060	2004	0.0	2.9	2.2	0.1	4.4	0.9	**10.4**
16425	2005	0.0	2.9	2.2	0.1	4.4	0.9	**10.4**
16790	2006	0.0	2.9	2.2	0.1	4.4	0.9	**10.3**
17155	2007	0.0	2.9	2.2	0.1	4.4	0.8	**10.3**
17520	2008	0.0	2.8	2.2	0.1	4.4	0.8	**10.3**
17885	2009	0.0	2.8	2.2	0.1	4.4	0.8	**10.3**
18250	2010	0.0	2.8	2.2	0.1	4.4	0.8	**10.3**
18615	2011	0.0	2.8	2.2	0.1	4.2	0.8	**10.2**
18980	2012	0.0	2.8	2.2	0.1	4.1	0.8	**10.0**
19345	2013	0.0	2.7	2.2	0.1	4.0	0.8	**9.8**
19710	2014	0.0	2.7	2.2	0.1	3.9	0.8	**9.7**
20075	2015	0.0	2.7	2.2	0.1	3.9	0.8	**9.6**
20440	2016	0.0	2.7	2.2	0.1	3.8	0.8	**9.6**
20805	2017	0.0	2.7	2.1	0.1	3.8	0.8	**9.4**
21170	2018	0.0	2.6	2.1	0.1	3.7	0.8	**9.3**
21535	2019	0.0	2.6	1.9	0.1	3.7	0.7	**9.0**
21900	2020	0.0	2.6	1.9	0.1	3.7	0.7	**8.9**
22265	2021	0.0	2.6	1.7	0.1	3.6	0.7	**8.6**
22630	2022	0.0	2.5	1.6	0.1	3.6	0.6	**8.5**
22995	2023	0.0	2.5	1.5	0.1	3.5	0.6	**8.2**
23360	2024	0.0	2.5	1.4	0.1	3.5	0.6	**8.0**
23725	2025	0.0	2.4	1.3	0.1	3.5	0.6	**7.8**
24090	2026	0.0	2.4	1.2	0.1	3.4	0.5	**7.7**
24455	2027	0.0	2.4	1.2	0.1	3.3	0.5	**7.5**
24820	2028	0.0	2.3	1.1	0.1	3.3	0.5	**7.3**
25185	2029	0.0	2.3	1.1	0.1	3.2	0.5	**7.2**
25550	2030	0.0	2.3	1.1	0.1	3.2	0.5	**7.1**
25915	2031	0.0	2.3	1.0	0.1	3.2	0.5	**7.1**
26280	2032	0.0	2.3	1.0	0.1	3.1	0.5	**7.0**
26645	2033	0.0	2.3	1.0	0.1	3.1	0.5	**6.9**
27010	2034	0.0	2.2	1.0	0.1	3.1	0.5	**6.9**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

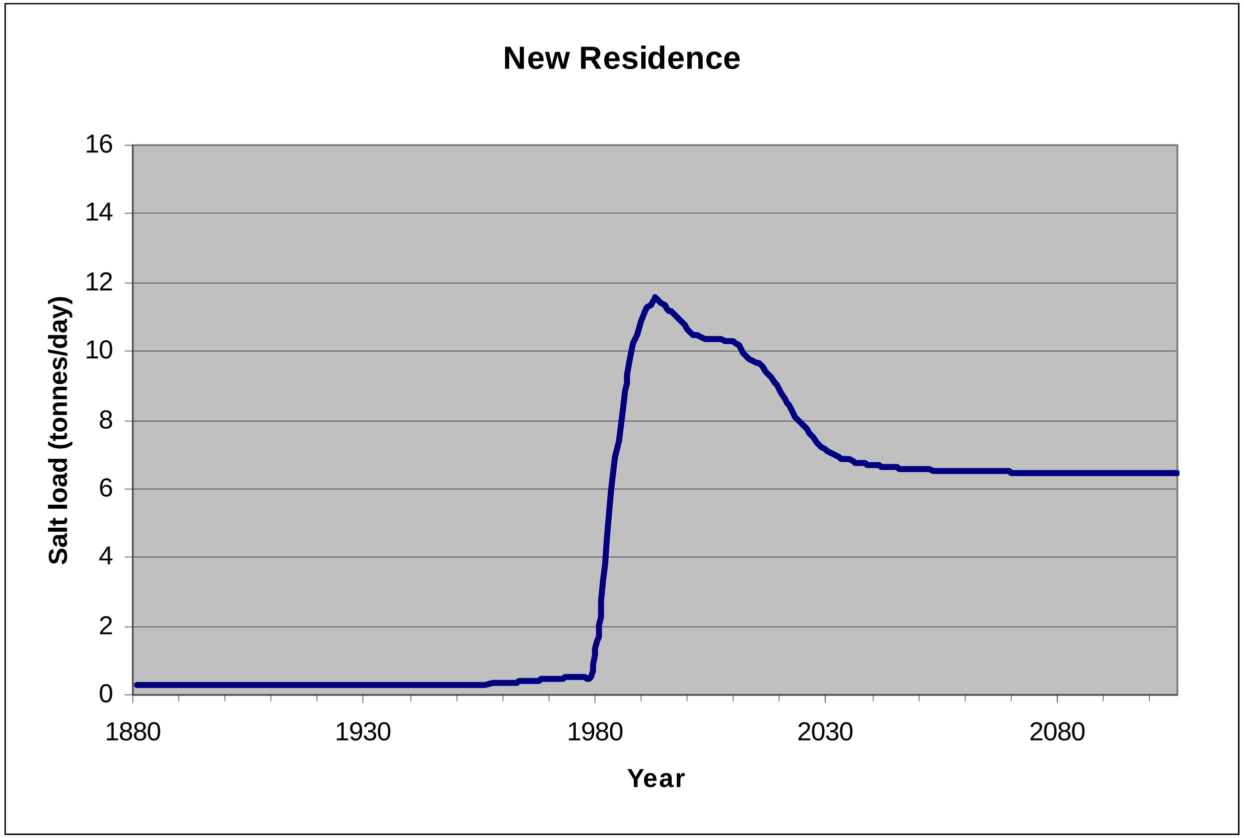
B-3(S3C). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
27375	2035	0.0	2.2	1.0	0.1	3.1	0.5	**6.8**
27740	2036	0.0	2.2	0.9	0.1	3.1	0.5	**6.8**
28105	2037	0.0	2.2	0.9	0.1	3.1	0.5	**6.8**
28470	2038	0.0	2.2	0.9	0.1	3.1	0.5	**6.7**
28835	2039	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
29200	2040	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
29565	2041	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
29930	2042	0.0	2.2	0.9	0.1	3.0	0.5	**6.7**
30295	2043	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
30660	2044	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
31025	2045	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
31390	2046	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
31755	2047	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
32120	2048	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
32485	2049	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
32850	2050	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
33215	2051	0.0	2.2	0.9	0.1	3.0	0.5	**6.6**
33580	2052	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
33945	2053	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
34310	2054	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
34675	2055	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
35040	2056	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
35405	2057	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
35770	2058	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
36135	2059	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
36500	2060	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
36865	2061	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
37230	2062	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
37595	2063	0.0	2.2	0.9	0.1	3.0	0.5	**6.5**
37960	2064	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
38325	2065	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
38690	2066	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
39055	2067	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
39420	2068	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
39785	2069	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
40150	2070	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
40515	2071	0.0	2.2	0.9	0.1	2.9	0.5	**6.5**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(S3C). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
40880	2072	0.0	2.2	0.9	0.1	2.9	0.5	6.5
41245	2073	0.0	2.2	0.9	0.1	2.9	0.5	6.5
41610	2074	0.0	2.2	0.9	0.1	2.9	0.5	6.5
41975	2075	0.0	2.2	0.9	0.1	2.9	0.5	6.5
42340	2076	0.0	2.2	0.9	0.1	2.9	0.5	6.5
42705	2077	0.0	2.2	0.9	0.1	2.9	0.5	6.5
43070	2078	0.0	2.2	0.9	0.1	2.9	0.5	6.5
43435	2079	0.0	2.2	0.9	0.1	2.9	0.5	6.5
43800	2080	0.0	2.2	0.9	0.1	2.9	0.5	6.5
44165	2081	0.0	2.2	0.9	0.1	2.9	0.5	6.5
44530	2082	0.0	2.2	0.9	0.1	2.9	0.5	6.5
44895	2083	0.0	2.2	0.9	0.1	2.9	0.5	6.5
45260	2084	0.0	2.2	0.9	0.1	2.9	0.5	6.5
45625	2085	0.0	2.2	0.9	0.1	2.9	0.5	6.5
45990	2086	0.0	2.2	0.9	0.1	2.9	0.5	6.5
46355	2087	0.0	2.2	0.9	0.1	2.9	0.5	6.5
46720	2088	0.0	2.2	0.9	0.1	2.9	0.5	6.5
47085	2089	0.0	2.2	0.9	0.1	2.9	0.5	6.5
47450	2090	0.0	2.2	0.9	0.1	2.9	0.5	6.5
47815	2091	0.0	2.2	0.9	0.1	2.9	0.5	6.5
48180	2092	0.0	2.2	0.9	0.1	2.9	0.5	6.5
48545	2093	0.0	2.2	0.9	0.1	2.9	0.5	6.5
48910	2094	0.0	2.2	0.9	0.1	2.9	0.5	6.5
49275	2095	0.0	2.2	0.9	0.1	2.9	0.5	6.5
49640	2096	0.0	2.2	0.9	0.1	2.9	0.5	6.5
50005	2097	0.0	2.2	0.9	0.1	2.9	0.5	6.5
50370	2098	0.0	2.2	0.9	0.1	2.9	0.5	6.5
50735	2099	0.0	2.2	0.9	0.1	2.9	0.5	6.5
51100	2100	0.0	2.2	0.9	0.1	2.9	0.5	6.5
51465	2101	0.0	2.2	0.9	0.1	2.9	0.5	6.5
51830	2102	0.0	2.2	0.9	0.1	2.9	0.5	6.5
52195	2103	0.0	2.2	0.9	0.1	2.9	0.5	6.5
52560	2104	0.0	2.2	0.9	0.1	2.9	0.5	6.5
52925	2105	0.0	2.2	0.9	0.1	2.9	0.5	6.5
53290	2106	0.0	2.2	0.9	0.1	2.9	0.5	6.5
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

B-3(S3C). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3C)



B-3(S3C). Graph of modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
365	1961	0	31	1	1	3	5	**41**	***0***
730	1962	0	31	1	1	3	6	**42**	***0***
1095	1963	0	31	1	1	3	6	**43**	***0***
1460	1964	0	31	1	1	3	7	**43**	***1***
1825	1965	0	32	1	1	3	7	**44**	***1***
2190	1966	0	32	1	1	3	8	**45**	***1***
2555	1967	0	32	1	1	3	8	**46**	***1***
2920	1968	0	32	1	1	3	9	**46**	***1***
3285	1969	0	32	1	1	3	9	**47**	***1***
3650	1970	0	33	2	1	3	9	**48**	***1***
4015	1971	0	33	2	1	3	10	**49**	***1***
4380	1972	0	33	2	1	3	10	**49**	***1***
4745	1973	0	33	2	1	3	11	**50**	***1***
5110	1974	0	33	2	1	3	11	**51**	***1***
5475	1975	0	33	2	1	3	12	**52**	***1***
5840	1976	0	34	2	1	3	12	**53**	***1***
6205	1977	0	34	3	1	3	12	**53**	***1***
6570	1978	0	34	3	1	3	13	**54**	***1***
6935	1979	0	34	3	1	3	13	**55**	***1***
7300	1980	0	92	13	1	16	19	**142**	***2***
7665	1981	0	127	22	1	29	21	**201**	***2***
8030	1982	0	260	48	2	69	29	**407**	***5***
8395	1983	1	355	75	2	105	32	**570**	***7***
8760	1984	1	418	98	2	131	35	**684**	***8***
9125	1985	1	471	117	2	152	36	**781**	***9***
9490	1986	1	515	133	3	179	38	**869**	***10***
9855	1987	2	563	147	3	206	40	**960**	***11***
10220	1988	2	594	158	3	224	41	**1022**	***12***
10585	1989	2	623	168	3	239	42	**1077**	***12***
10950	1990	2	638	176	3	248	43	**1110**	***13***
11315	1991	2	655	183	3	256	44	**1144**	***13***
11680	1992	2	660	189	3	260	44	**1159**	***13***
12045	1993	2	669	195	3	264	45	**1179**	***14***
12410	1994	2	660	199	3	259	45	**1168**	***14***
12775	1995	2	655	203	3	253	45	**1161**	***13***
13140	1996	1	640	206	3	247	45	**1143**	***13***
13505	1997	1	634	208	3	244	45	**1136**	***13***
13870	1998	1	619	210	3	239	45	**1117**	***13***

B-3(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
14235	1999	1	611	211	3	235	44	1107	13
14600	2000	1	595	212	3	230	44	1086	13
14965	2001	1	586	213	3	227	43	1073	12
15330	2002	1	580	214	3	224	43	1066	12
15695	2003	1	577	215	3	223	43	1061	12
16060	2004	1	574	215	3	221	43	1057	12
16425	2005	1	572	216	3	220	43	1055	12
16790	2006	1	571	216	3	220	43	1054	12
17155	2007	1	570	217	3	219	42	1053	12
17520	2008	1	570	217	3	219	42	1052	12
17885	2009	1	569	218	3	219	42	1052	12
18250	2010	1	569	218	3	219	42	1052	12
18615	2011	1	563	218	3	212	42	1039	12
18980	2012	1	555	218	3	205	42	1024	12
19345	2013	1	548	218	3	200	42	1012	12
19710	2014	1	543	218	3	196	41	1003	12
20075	2015	1	549	223	3	196	45	1017	12
20440	2016	1	551	225	3	195	45	1021	12
20805	2017	1	550	219	3	194	44	1011	12
21170	2018	1	548	215	3	193	43	1003	12
21535	2019	1	545	205	3	191	41	987	11
21900	2020	1	542	198	3	190	41	974	11
22265	2021	1	538	185	3	188	39	953	11
22630	2022	1	534	176	3	187	38	938	11
22995	2023	1	529	162	3	185	35	915	11
23360	2024	1	524	151	3	183	34	897	10
23725	2025	1	521	143	3	182	34	884	10
24090	2026	1	519	137	3	181	33	873	10
24455	2027	1	509	137	3	177	40	866	10
24820	2028	1	502	140	3	174	42	862	10
25185	2029	1	504	144	3	172	43	867	10
25550	2030	1	503	149	3	171	43	869	10
25915	2031	1	531	155	3	171	46	906	10
26280	2032	1	550	162	3	171	47	932	11
26645	2033	1	560	169	3	171	50	954	11
27010	2034	1	567	178	3	171	51	971	11

B-3(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
27375	2035	1	577	186	3	172	53	**992**	***11***
27740	2036	1	584	195	3	174	53	**1010**	***12***
28105	2037	1	591	202	3	175	54	**1026**	***12***
28470	2038	1	598	208	3	177	55	**1042**	***12***
28835	2039	1	605	214	3	180	55	**1058**	***12***
29200	2040	1	613	218	4	182	56	**1073**	***12***
29565	2041	1	620	222	4	184	56	**1087**	***13***
29930	2042	1	627	225	4	187	57	**1101**	***13***
30295	2043	1	635	228	4	189	57	**1114**	***13***
30660	2044	1	642	231	4	191	58	**1126**	***13***
31025	2045	1	649	233	4	193	58	**1138**	***13***
31390	2046	1	656	235	4	195	58	**1149**	***13***
31755	2047	1	664	236	4	197	58	**1160**	***13***
32120	2048	1	670	238	4	198	58	**1170**	***14***
32485	2049	1	677	239	4	200	59	**1180**	***14***
32850	2050	1	684	240	4	201	59	**1189**	***14***
33215	2051	1	690	241	4	203	59	**1198**	***14***
33580	2052	1	697	242	4	204	59	**1207**	***14***
33945	2053	1	703	242	4	205	59	**1215**	***14***
34310	2054	1	708	243	4	206	59	**1223**	***14***
34675	2055	1	714	244	4	207	59	**1230**	***14***
35040	2056	1	719	244	5	208	59	**1237**	***14***
35405	2057	1	725	244	5	209	59	**1243**	***14***
35770	2058	1	729	245	5	210	60	**1250**	***14***
36135	2059	1	734	245	5	211	60	**1256**	***15***
36500	2060	1	739	245	5	212	60	**1261**	***15***
36865	2061	1	743	246	5	212	60	**1267**	***15***
37230	2062	1	747	246	5	213	60	**1272**	***15***
37595	2063	1	751	246	5	213	60	**1277**	***15***
37960	2064	1	755	246	5	214	60	**1281**	***15***
38325	2065	1	759	247	5	215	60	**1286**	***15***
38690	2066	1	762	247	5	215	60	**1290**	***15***
39055	2067	1	765	247	5	216	60	**1294**	***15***
39420	2068	1	768	247	5	216	60	**1298**	***15***
39785	2069	1	771	247	5	216	60	**1301**	***15***
40150	2070	1	774	247	5	217	60	**1305**	***15***

B-3(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
40515	2071	1	777	247	5	217	60	**1308**	***15***
40880	2072	1	779	247	5	217	60	**1311**	***15***
41245	2073	1	782	247	5	218	60	**1314**	***15***
41610	2074	1	784	248	5	218	60	**1316**	***15***
41975	2075	2	786	248	5	218	60	**1319**	***15***
42340	2076	2	788	248	5	219	60	**1321**	***15***
42705	2077	2	790	248	5	219	60	**1324**	***15***
43070	2078	2	792	248	5	219	60	**1326**	***15***
43435	2079	2	794	248	5	219	60	**1328**	***15***
43800	2080	2	796	248	5	220	60	**1330**	***15***
44165	2081	2	797	248	5	220	60	**1332**	***15***
44530	2082	2	799	248	5	220	60	**1334**	***15***
44895	2083	2	800	248	5	220	60	**1335**	***15***
45260	2084	2	801	248	5	220	60	**1337**	***15***
45625	2085	2	803	248	5	220	60	**1338**	***15***
45990	2086	2	804	248	5	221	60	**1340**	***16***
46355	2087	2	805	248	5	221	60	**1341**	***16***
46720	2088	2	806	248	5	221	60	**1342**	***16***
47085	2089	2	807	248	5	221	61	**1344**	***16***
47450	2090	2	808	248	5	221	61	**1345**	***16***
47815	2091	2	809	248	5	221	61	**1346**	***16***
48180	2092	2	810	248	5	221	61	**1347**	***16***
48545	2093	2	811	248	5	221	61	**1348**	***16***
48910	2094	2	811	248	5	221	61	**1349**	***16***
49275	2095	2	812	248	5	222	61	**1350**	***16***
49640	2096	2	813	248	5	222	61	**1350**	***16***
50005	2097	2	814	248	5	222	61	**1351**	***16***
50370	2098	2	814	248	5	222	61	**1352**	***16***
50735	2099	2	815	248	5	222	61	**1353**	***16***
51100	2100	2	815	249	5	222	61	**1353**	***16***
51465	2101	2	816	249	5	222	61	**1354**	***16***
51830	2102	2	816	249	5	222	61	**1355**	***16***
52195	2103	2	817	249	5	222	61	**1355**	***16***
52560	2104	2	817	249	5	222	61	**1356**	***16***
52925	2105	2	818	249	5	222	61	**1356**	***16***
53290	2106	2	818	249	5	222	61	**1357**	***16***

B-3(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
365	1961	0.0	0.2	0.0	0.0	0.1	0.1	**0.3**
730	1962	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1095	1963	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1460	1964	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
1825	1965	0.0	0.2	0.0	0.0	0.1	0.1	**0.4**
2190	1966	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
2555	1967	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
2920	1968	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
3285	1969	0.0	0.2	0.0	0.0	0.1	0.2	**0.4**
3650	1970	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4015	1971	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4380	1972	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
4745	1973	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5110	1974	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5475	1975	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
5840	1976	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
6205	1977	0.0	0.2	0.0	0.0	0.1	0.2	**0.5**
6570	1978	0.0	0.2	0.0	0.0	0.1	0.3	**0.5**
6935	1979	0.0	0.2	0.0	0.0	0.1	0.3	**0.6**
7300	1980	0.0	0.5	0.1	0.0	0.3	0.4	**1.3**
7665	1981	0.0	0.6	0.2	0.0	0.6	0.4	**1.9**
8030	1982	0.0	1.3	0.5	0.0	1.4	0.6	**3.8**
8395	1983	0.0	1.8	0.8	0.0	2.1	0.6	**5.3**
8760	1984	0.0	2.1	1.0	0.0	2.6	0.7	**6.4**
9125	1985	0.0	2.4	1.2	0.0	3.0	0.7	**7.4**
9490	1986	0.0	2.6	1.3	0.1	3.6	0.8	**8.3**
9855	1987	0.0	2.8	1.5	0.1	4.1	0.8	**9.3**
10220	1988	0.0	3.0	1.6	0.1	4.5	0.8	**9.9**
10585	1989	0.0	3.1	1.7	0.1	4.8	0.8	**10.5**
10950	1990	0.0	3.2	1.8	0.1	5.0	0.9	**10.9**
11315	1991	0.0	3.3	1.8	0.1	5.1	0.9	**11.2**
11680	1992	0.0	3.3	1.9	0.1	5.2	0.9	**11.4**
12045	1993	0.0	3.3	1.9	0.1	5.3	0.9	**11.6**
12410	1994	0.0	3.3	2.0	0.1	5.2	0.9	**11.5**
12775	1995	0.0	3.3	2.0	0.1	5.1	0.9	**11.4**
13140	1996	0.0	3.2	2.1	0.1	4.9	0.9	**11.2**
13505	1997	0.0	3.2	2.1	0.1	4.9	0.9	**11.1**
Salinity (mg/L)		***15,000***	***5,000***	***10,000***	***20,000***	***20,000***	***20,000***	

B-3(S4). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
13870	1998	0.0	3.1	2.1	0.1	4.8	0.9	10.9
14235	1999	0.0	3.1	2.1	0.1	4.7	0.9	10.8
14600	2000	0.0	3.0	2.1	0.1	4.6	0.9	10.7
14965	2001	0.0	2.9	2.1	0.1	4.5	0.9	10.5
15330	2002	0.0	2.9	2.1	0.1	4.5	0.9	10.5
15695	2003	0.0	2.9	2.1	0.1	4.5	0.9	10.4
16060	2004	0.0	2.9	2.2	0.1	4.4	0.9	10.4
16425	2005	0.0	2.9	2.2	0.1	4.4	0.9	10.4
16790	2006	0.0	2.9	2.2	0.1	4.4	0.9	10.3
17155	2007	0.0	2.9	2.2	0.1	4.4	0.8	10.3
17520	2008	0.0	2.8	2.2	0.1	4.4	0.8	10.3
17885	2009	0.0	2.8	2.2	0.1	4.4	0.8	10.3
18250	2010	0.0	2.8	2.2	0.1	4.4	0.8	10.3
18615	2011	0.0	2.8	2.2	0.1	4.2	0.8	10.2
18980	2012	0.0	2.8	2.2	0.1	4.1	0.8	10.0
19345	2013	0.0	2.7	2.2	0.1	4.0	0.8	9.8
19710	2014	0.0	2.7	2.2	0.1	3.9	0.8	9.7
20075	2015	0.0	2.7	2.2	0.1	3.9	0.9	9.9
20440	2016	0.0	2.8	2.3	0.1	3.9	0.9	9.9
20805	2017	0.0	2.7	2.2	0.1	3.9	0.9	9.8
21170	2018	0.0	2.7	2.2	0.1	3.9	0.9	9.7
21535	2019	0.0	2.7	2.0	0.1	3.8	0.8	9.5
21900	2020	0.0	2.7	2.0	0.1	3.8	0.8	9.4
22265	2021	0.0	2.7	1.9	0.1	3.8	0.8	9.1
22630	2022	0.0	2.7	1.8	0.1	3.7	0.8	9.0
22995	2023	0.0	2.6	1.6	0.1	3.7	0.7	8.7
23360	2024	0.0	2.6	1.5	0.1	3.7	0.7	8.6
23725	2025	0.0	2.6	1.4	0.1	3.6	0.7	8.4
24090	2026	0.0	2.6	1.4	0.1	3.6	0.7	8.3
24455	2027	0.0	2.5	1.4	0.1	3.5	0.8	8.3
24820	2028	0.0	2.5	1.4	0.1	3.5	0.8	8.3
25185	2029	0.0	2.5	1.4	0.1	3.4	0.9	8.3
25550	2030	0.0	2.5	1.5	0.1	3.4	0.9	8.4
25915	2031	0.0	2.7	1.5	0.1	3.4	0.9	8.6
26280	2032	0.0	2.7	1.6	0.1	3.4	0.9	8.8
26645	2033	0.0	2.8	1.7	0.1	3.4	1.0	9.0
27010	2034	0.0	2.8	1.8	0.1	3.4	1.0	9.1
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

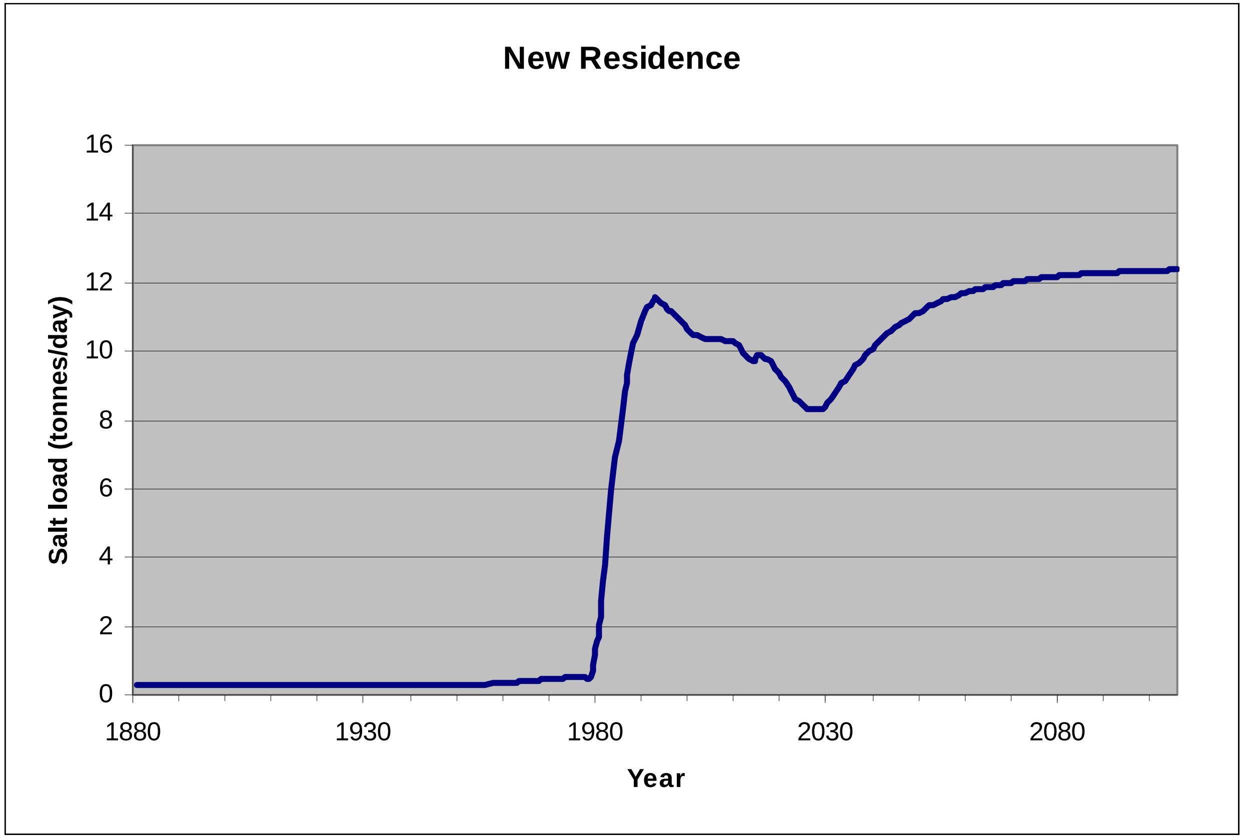
B-3(S4). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
27375	2035	0.0	2.9	1.9	0.1	3.4	1.1	9.3
27740	2036	0.0	2.9	1.9	0.1	3.5	1.1	9.5
28105	2037	0.0	3.0	2.0	0.1	3.5	1.1	9.6
28470	2038	0.0	3.0	2.1	0.1	3.5	1.1	9.8
28835	2039	0.0	3.0	2.1	0.1	3.6	1.1	9.9
29200	2040	0.0	3.1	2.2	0.1	3.6	1.1	10.1
29565	2041	0.0	3.1	2.2	0.1	3.7	1.1	10.2
29930	2042	0.0	3.1	2.3	0.1	3.7	1.1	10.3
30295	2043	0.0	3.2	2.3	0.1	3.8	1.1	10.5
30660	2044	0.0	3.2	2.3	0.1	3.8	1.2	10.6
31025	2045	0.0	3.2	2.3	0.1	3.9	1.2	10.7
31390	2046	0.0	3.3	2.3	0.1	3.9	1.2	10.8
31755	2047	0.0	3.3	2.4	0.1	3.9	1.2	10.9
32120	2048	0.0	3.4	2.4	0.1	4.0	1.2	11.0
32485	2049	0.0	3.4	2.4	0.1	4.0	1.2	11.0
32850	2050	0.0	3.4	2.4	0.1	4.0	1.2	11.1
33215	2051	0.0	3.5	2.4	0.1	4.1	1.2	11.2
33580	2052	0.0	3.5	2.4	0.1	4.1	1.2	11.3
33945	2053	0.0	3.5	2.4	0.1	4.1	1.2	11.3
34310	2054	0.0	3.5	2.4	0.1	4.1	1.2	11.4
34675	2055	0.0	3.6	2.4	0.1	4.1	1.2	11.4
35040	2056	0.0	3.6	2.4	0.1	4.2	1.2	11.5
35405	2057	0.0	3.6	2.4	0.1	4.2	1.2	11.5
35770	2058	0.0	3.6	2.4	0.1	4.2	1.2	11.6
36135	2059	0.0	3.7	2.5	0.1	4.2	1.2	11.6
36500	2060	0.0	3.7	2.5	0.1	4.2	1.2	11.7
36865	2061	0.0	3.7	2.5	0.1	4.2	1.2	11.7
37230	2062	0.0	3.7	2.5	0.1	4.3	1.2	11.8
37595	2063	0.0	3.8	2.5	0.1	4.3	1.2	11.8
37960	2064	0.0	3.8	2.5	0.1	4.3	1.2	11.8
38325	2065	0.0	3.8	2.5	0.1	4.3	1.2	11.9
38690	2066	0.0	3.8	2.5	0.1	4.3	1.2	11.9
39055	2067	0.0	3.8	2.5	0.1	4.3	1.2	11.9
39420	2068	0.0	3.8	2.5	0.1	4.3	1.2	12.0
39785	2069	0.0	3.9	2.5	0.1	4.3	1.2	12.0
40150	2070	0.0	3.9	2.5	0.1	4.3	1.2	12.0
40515	2071	0.0	3.9	2.5	0.1	4.3	1.2	12.0
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(S4). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
40880	2072	0.0	3.9	2.5	0.1	4.3	1.2	12.0
41245	2073	0.0	3.9	2.5	0.1	4.4	1.2	12.1
41610	2074	0.0	3.9	2.5	0.1	4.4	1.2	12.1
41975	2075	0.0	3.9	2.5	0.1	4.4	1.2	12.1
42340	2076	0.0	3.9	2.5	0.1	4.4	1.2	12.1
42705	2077	0.0	4.0	2.5	0.1	4.4	1.2	12.1
43070	2078	0.0	4.0	2.5	0.1	4.4	1.2	12.2
43435	2079	0.0	4.0	2.5	0.1	4.4	1.2	12.2
43800	2080	0.0	4.0	2.5	0.1	4.4	1.2	12.2
44165	2081	0.0	4.0	2.5	0.1	4.4	1.2	12.2
44530	2082	0.0	4.0	2.5	0.1	4.4	1.2	12.2
44895	2083	0.0	4.0	2.5	0.1	4.4	1.2	12.2
45260	2084	0.0	4.0	2.5	0.1	4.4	1.2	12.2
45625	2085	0.0	4.0	2.5	0.1	4.4	1.2	12.2
45990	2086	0.0	4.0	2.5	0.1	4.4	1.2	12.2
46355	2087	0.0	4.0	2.5	0.1	4.4	1.2	12.3
46720	2088	0.0	4.0	2.5	0.1	4.4	1.2	12.3
47085	2089	0.0	4.0	2.5	0.1	4.4	1.2	12.3
47450	2090	0.0	4.0	2.5	0.1	4.4	1.2	12.3
47815	2091	0.0	4.0	2.5	0.1	4.4	1.2	12.3
48180	2092	0.0	4.0	2.5	0.1	4.4	1.2	12.3
48545	2093	0.0	4.1	2.5	0.1	4.4	1.2	12.3
48910	2094	0.0	4.1	2.5	0.1	4.4	1.2	12.3
49275	2095	0.0	4.1	2.5	0.1	4.4	1.2	12.3
49640	2096	0.0	4.1	2.5	0.1	4.4	1.2	12.3
50005	2097	0.0	4.1	2.5	0.1	4.4	1.2	12.3
50370	2098	0.0	4.1	2.5	0.1	4.4	1.2	12.3
50735	2099	0.0	4.1	2.5	0.1	4.4	1.2	12.3
51100	2100	0.0	4.1	2.5	0.1	4.4	1.2	12.3
51465	2101	0.0	4.1	2.5	0.1	4.4	1.2	12.3
51830	2102	0.0	4.1	2.5	0.1	4.4	1.2	12.4
52195	2103	0.0	4.1	2.5	0.1	4.4	1.2	12.4
52560	2104	0.0	4.1	2.5	0.1	4.4	1.2	12.4
52925	2105	0.0	4.1	2.5	0.1	4.4	1.2	12.4
53290	2106	0.0	4.1	2.5	0.1	4.4	1.2	12.4
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

B-3(S4). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 4)



B-3(S4). Graph of modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
365	1961	0	31	1	1	3	5	41	0
730	1962	0	31	1	1	3	6	42	0
1095	1963	0	31	1	1	3	6	43	0
1460	1964	0	31	1	1	3	7	43	1
1825	1965	0	32	1	1	3	7	44	1
2190	1966	0	32	1	1	3	8	45	1
2555	1967	0	32	1	1	3	8	46	1
2920	1968	0	32	1	1	3	9	46	1
3285	1969	0	32	1	1	3	9	47	1
3650	1970	0	33	2	1	3	9	48	1
4015	1971	0	33	2	1	3	10	49	1
4380	1972	0	33	2	1	3	10	49	1
4745	1973	0	33	2	1	3	11	50	1
5110	1974	0	33	2	1	3	11	51	1
5475	1975	0	33	2	1	3	12	52	1
5840	1976	0	34	2	1	3	12	53	1
6205	1977	0	34	3	1	3	12	53	1
6570	1978	0	34	3	1	3	13	54	1
6935	1979	0	34	3	1	3	13	55	1
7300	1980	0	92	13	1	16	19	142	2
7665	1981	0	127	22	1	29	21	201	2
8030	1982	0	260	48	2	69	29	407	5
8395	1983	1	355	75	2	105	32	570	7
8760	1984	1	418	98	2	131	35	684	8
9125	1985	1	471	117	2	152	36	781	9
9490	1986	1	515	133	3	179	38	869	10
9855	1987	2	563	147	3	206	40	960	11
10220	1988	2	594	158	3	224	41	1022	12
10585	1989	2	623	168	3	239	42	1077	12
10950	1990	2	638	176	3	248	43	1110	13
11315	1991	2	655	183	3	256	44	1144	13
11680	1992	2	660	189	3	260	44	1159	13
12045	1993	2	669	195	3	264	45	1179	14
12410	1994	2	660	199	3	259	45	1168	14
12775	1995	2	655	203	3	253	45	1161	13
13140	1996	1	640	206	3	247	45	1143	13
13505	1997	1	634	208	3	244	45	1136	13
13870	1998	1	619	210	3	239	45	1117	13

B-3(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
14235	1999	1	611	211	3	235	44	**1107**	***13***
14600	2000	1	595	212	3	230	44	**1086**	***13***
14965	2001	1	586	213	3	227	43	**1073**	***12***
15330	2002	1	580	214	3	224	43	**1066**	***12***
15695	2003	1	577	215	3	223	43	**1061**	***12***
16060	2004	1	574	215	3	221	43	**1057**	***12***
16425	2005	1	572	216	3	220	43	**1055**	***12***
16790	2006	1	571	216	3	220	43	**1054**	***12***
17155	2007	1	570	217	3	219	42	**1053**	***12***
17520	2008	1	570	217	3	219	42	**1052**	***12***
17885	2009	1	569	218	3	219	42	**1052**	***12***
18250	2010	1	569	218	3	219	42	**1052**	***12***
18615	2011	1	563	218	3	212	42	**1039**	***12***
18980	2012	1	555	218	3	205	42	**1024**	***12***
19345	2013	1	548	218	3	200	42	**1012**	***12***
19710	2014	1	543	218	3	196	41	**1003**	***12***
20075	2015	1	549	223	3	196	45	**1017**	***12***
20440	2016	1	551	225	3	195	45	**1021**	***12***
20805	2017	1	550	219	3	194	44	**1011**	***12***
21170	2018	1	548	215	3	193	43	**1003**	***12***
21535	2019	1	545	205	3	191	41	**987**	***11***
21900	2020	1	542	198	3	190	41	**974**	***11***
22265	2021	1	538	185	3	188	39	**953**	***11***
22630	2022	1	534	176	3	187	38	**938**	***11***
22995	2023	1	529	162	3	185	35	**915**	***11***
23360	2024	1	524	151	3	183	34	**897**	***10***
23725	2025	1	521	143	3	182	34	**884**	***10***
24090	2026	1	519	137	3	181	33	**873**	***10***
24455	2027	1	509	137	3	177	40	**866**	***10***
24820	2028	1	502	140	3	174	42	**862**	***10***
25185	2029	1	504	144	3	172	43	**867**	***10***
25550	2030	1	503	149	3	171	43	**869**	***10***
25915	2031	1	531	155	3	171	46	**906**	***10***
26280	2032	1	550	162	3	171	47	**932**	***11***
26645	2033	1	560	169	3	171	50	**954**	***11***
27010	2034	1	567	178	3	171	51	**971**	***11***

B-3(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
27375	2035	1	577	186	3	172	53	**992**	***11***
27740	2036	1	584	195	3	174	53	**1010**	***12***
28105	2037	1	591	202	3	175	54	**1026**	***12***
28470	2038	1	598	208	3	177	55	**1043**	***12***
28835	2039	1	605	214	3	180	55	**1058**	***12***
29200	2040	1	613	218	4	182	56	**1073**	***12***
29565	2041	1	620	222	4	184	56	**1087**	***13***
29930	2042	1	627	225	4	187	57	**1101**	***13***
30295	2043	1	635	228	4	189	57	**1114**	***13***
30660	2044	1	642	231	4	191	58	**1126**	***13***
31025	2045	1	649	233	4	193	58	**1138**	***13***
31390	2046	1	657	235	4	195	58	**1149**	***13***
31755	2047	1	665	236	4	197	58	**1162**	***13***
32120	2048	1	675	238	4	198	58	**1175**	***14***
32485	2049	1	685	239	4	200	59	**1188**	***14***
32850	2050	1	694	240	4	202	59	**1200**	***14***
33215	2051	1	702	267	4	203	60	**1237**	***14***
33580	2052	1	709	283	4	204	60	**1262**	***15***
33945	2053	1	717	292	4	206	61	**1281**	***15***
34310	2054	1	723	299	4	207	61	**1296**	***15***
34675	2055	1	730	304	5	208	62	**1309**	***15***
35040	2056	1	736	308	5	209	62	**1321**	***15***
35405	2057	1	742	312	5	210	65	**1334**	***15***
35770	2058	1	747	315	5	211	66	**1345**	***16***
36135	2059	1	753	317	5	212	67	**1354**	***16***
36500	2060	1	758	319	5	212	67	**1362**	***16***
36865	2061	1	762	321	5	213	67	**1370**	***16***
37230	2062	1	767	322	5	214	68	**1377**	***16***
37595	2063	1	771	323	5	214	68	**1383**	***16***
37960	2064	1	775	324	5	215	68	**1389**	***16***
38325	2065	1	779	325	5	216	68	**1394**	***16***
38690	2066	1	783	325	5	216	68	**1399**	***16***
39055	2067	1	787	326	5	217	68	**1404**	***16***
39420	2068	1	790	326	5	217	68	**1408**	***16***
39785	2069	1	793	327	5	217	68	**1412**	***16***
40150	2070	1	796	327	5	218	68	**1416**	***16***

B-3(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15		
40515	2071	1	799	327	5	218	68	1420	16
40880	2072	1	802	327	5	219	68	1423	16
41245	2073	2	805	328	5	219	68	1426	17
41610	2074	2	807	328	5	219	68	1429	17
41975	2075	2	810	328	5	220	68	1432	17
42340	2076	2	812	328	5	220	69	1435	17
42705	2077	2	814	328	5	220	69	1438	17
43070	2078	2	816	328	5	220	69	1440	17
43435	2079	2	818	328	5	221	69	1442	17
43800	2080	2	820	329	5	221	69	1444	17
44165	2081	2	821	329	5	221	69	1447	17
44530	2082	2	823	329	5	221	69	1448	17
44895	2083	2	825	329	5	221	69	1450	17
45260	2084	2	826	329	5	222	69	1452	17
45625	2085	2	827	329	5	222	69	1454	17
45990	2086	2	829	329	5	222	69	1455	17
46355	2087	2	830	329	5	222	69	1457	17
46720	2088	2	831	329	5	222	69	1458	17
47085	2089	2	832	329	5	222	69	1459	17
47450	2090	2	833	329	5	222	69	1461	17
47815	2091	2	834	329	5	223	69	1462	17
48180	2092	2	835	329	5	223	69	1463	17
48545	2093	2	836	329	5	223	69	1464	17
48910	2094	2	837	329	5	223	69	1465	17
49275	2095	2	838	329	5	223	69	1466	17
49640	2096	2	839	329	5	223	69	1467	17
50005	2097	2	839	329	5	223	69	1468	17
50370	2098	2	840	329	5	223	69	1469	17
50735	2099	2	841	329	5	223	69	1469	17
51100	2100	2	841	329	5	223	69	1470	17
51465	2101	2	842	329	5	223	69	1471	17
51830	2102	2	842	329	5	223	69	1472	17
52195	2103	2	843	330	5	224	69	1472	17
52560	2104	2	843	330	5	224	69	1473	17
52925	2105	2	844	330	5	224	69	1473	17
53290	2106	2	844	330	5	224	69	1474	17

B-3(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the New Residence area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z13	Z1-Z14	Z1-Z15	Z3-Z13	Z3-Z14	Z3-Z15	
365	1961	0.0	0.2	0.0	0.0	0.1	0.1	0.3
730	1962	0.0	0.2	0.0	0.0	0.1	0.1	0.4
1095	1963	0.0	0.2	0.0	0.0	0.1	0.1	0.4
1460	1964	0.0	0.2	0.0	0.0	0.1	0.1	0.4
1825	1965	0.0	0.2	0.0	0.0	0.1	0.1	0.4
2190	1966	0.0	0.2	0.0	0.0	0.1	0.2	0.4
2555	1967	0.0	0.2	0.0	0.0	0.1	0.2	0.4
2920	1968	0.0	0.2	0.0	0.0	0.1	0.2	0.4
3285	1969	0.0	0.2	0.0	0.0	0.1	0.2	0.4
3650	1970	0.0	0.2	0.0	0.0	0.1	0.2	0.5
4015	1971	0.0	0.2	0.0	0.0	0.1	0.2	0.5
4380	1972	0.0	0.2	0.0	0.0	0.1	0.2	0.5
4745	1973	0.0	0.2	0.0	0.0	0.1	0.2	0.5
5110	1974	0.0	0.2	0.0	0.0	0.1	0.2	0.5
5475	1975	0.0	0.2	0.0	0.0	0.1	0.2	0.5
5840	1976	0.0	0.2	0.0	0.0	0.1	0.2	0.5
6205	1977	0.0	0.2	0.0	0.0	0.1	0.2	0.5
6570	1978	0.0	0.2	0.0	0.0	0.1	0.3	0.5
6935	1979	0.0	0.2	0.0	0.0	0.1	0.3	0.6
7300	1980	0.0	0.5	0.1	0.0	0.3	0.4	1.3
7665	1981	0.0	0.6	0.2	0.0	0.6	0.4	1.9
8030	1982	0.0	1.3	0.5	0.0	1.4	0.6	3.8
8395	1983	0.0	1.8	0.8	0.0	2.1	0.6	5.3
8760	1984	0.0	2.1	1.0	0.0	2.6	0.7	6.4
9125	1985	0.0	2.4	1.2	0.0	3.0	0.7	7.4
9490	1986	0.0	2.6	1.3	0.1	3.6	0.8	8.3
9855	1987	0.0	2.8	1.5	0.1	4.1	0.8	9.3
10220	1988	0.0	3.0	1.6	0.1	4.5	0.8	9.9
10585	1989	0.0	3.1	1.7	0.1	4.8	0.8	10.5
10950	1990	0.0	3.2	1.8	0.1	5.0	0.9	10.9
11315	1991	0.0	3.3	1.8	0.1	5.1	0.9	11.2
11680	1992	0.0	3.3	1.9	0.1	5.2	0.9	11.4
12045	1993	0.0	3.3	1.9	0.1	5.3	0.9	11.6
12410	1994	0.0	3.3	2.0	0.1	5.2	0.9	11.5
12775	1995	0.0	3.3	2.0	0.1	5.1	0.9	11.4
13140	1996	0.0	3.2	2.1	0.1	4.9	0.9	11.2
13505	1997	0.0	3.2	2.1	0.1	4.9	0.9	11.1
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

B-3(S5). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
13870	1998	0.0	3.1	2.1	0.1	4.8	0.9	**10.9**
14235	1999	0.0	3.1	2.1	0.1	4.7	0.9	**10.8**
14600	2000	0.0	3.0	2.1	0.1	4.6	0.9	**10.7**
14965	2001	0.0	2.9	2.1	0.1	4.5	0.9	**10.5**
15330	2002	0.0	2.9	2.1	0.1	4.5	0.9	**10.5**
15695	2003	0.0	2.9	2.1	0.1	4.5	0.9	**10.4**
16060	2004	0.0	2.9	2.2	0.1	4.4	0.9	**10.4**
16425	2005	0.0	2.9	2.2	0.1	4.4	0.9	**10.4**
16790	2006	0.0	2.9	2.2	0.1	4.4	0.9	**10.3**
17155	2007	0.0	2.9	2.2	0.1	4.4	0.8	**10.3**
17520	2008	0.0	2.8	2.2	0.1	4.4	0.8	**10.3**
17885	2009	0.0	2.8	2.2	0.1	4.4	0.8	**10.3**
18250	2010	0.0	2.8	2.2	0.1	4.4	0.8	**10.3**
18615	2011	0.0	2.8	2.2	0.1	4.2	0.8	**10.2**
18980	2012	0.0	2.8	2.2	0.1	4.1	0.8	**10.0**
19345	2013	0.0	2.7	2.2	0.1	4.0	0.8	**9.8**
19710	2014	0.0	2.7	2.2	0.1	3.9	0.8	**9.7**
20075	2015	0.0	2.7	2.2	0.1	3.9	0.9	**9.9**
20440	2016	0.0	2.8	2.3	0.1	3.9	0.9	**9.9**
20805	2017	0.0	2.7	2.2	0.1	3.9	0.9	**9.8**
21170	2018	0.0	2.7	2.2	0.1	3.9	0.9	**9.7**
21535	2019	0.0	2.7	2.0	0.1	3.8	0.8	**9.5**
21900	2020	0.0	2.7	2.0	0.1	3.8	0.8	**9.4**
22265	2021	0.0	2.7	1.9	0.1	3.8	0.8	**9.1**
22630	2022	0.0	2.7	1.8	0.1	3.7	0.8	**9.0**
22995	2023	0.0	2.6	1.6	0.1	3.7	0.7	**8.7**
23360	2024	0.0	2.6	1.5	0.1	3.7	0.7	**8.6**
23725	2025	0.0	2.6	1.4	0.1	3.6	0.7	**8.4**
24090	2026	0.0	2.6	1.4	0.1	3.6	0.7	**8.3**
24455	2027	0.0	2.5	1.4	0.1	3.5	0.8	**8.3**
24820	2028	0.0	2.5	1.4	0.1	3.5	0.8	**8.3**
25185	2029	0.0	2.5	1.4	0.1	3.4	0.9	**8.3**
25550	2030	0.0	2.5	1.5	0.1	3.4	0.9	**8.4**
25915	2031	0.0	2.7	1.5	0.1	3.4	0.9	**8.6**
26280	2032	0.0	2.7	1.6	0.1	3.4	0.9	**8.8**
26645	2033	0.0	2.8	1.7	0.1	3.4	1.0	**9.0**
27010	2034	0.0	2.8	1.8	0.1	3.4	1.0	**9.1**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

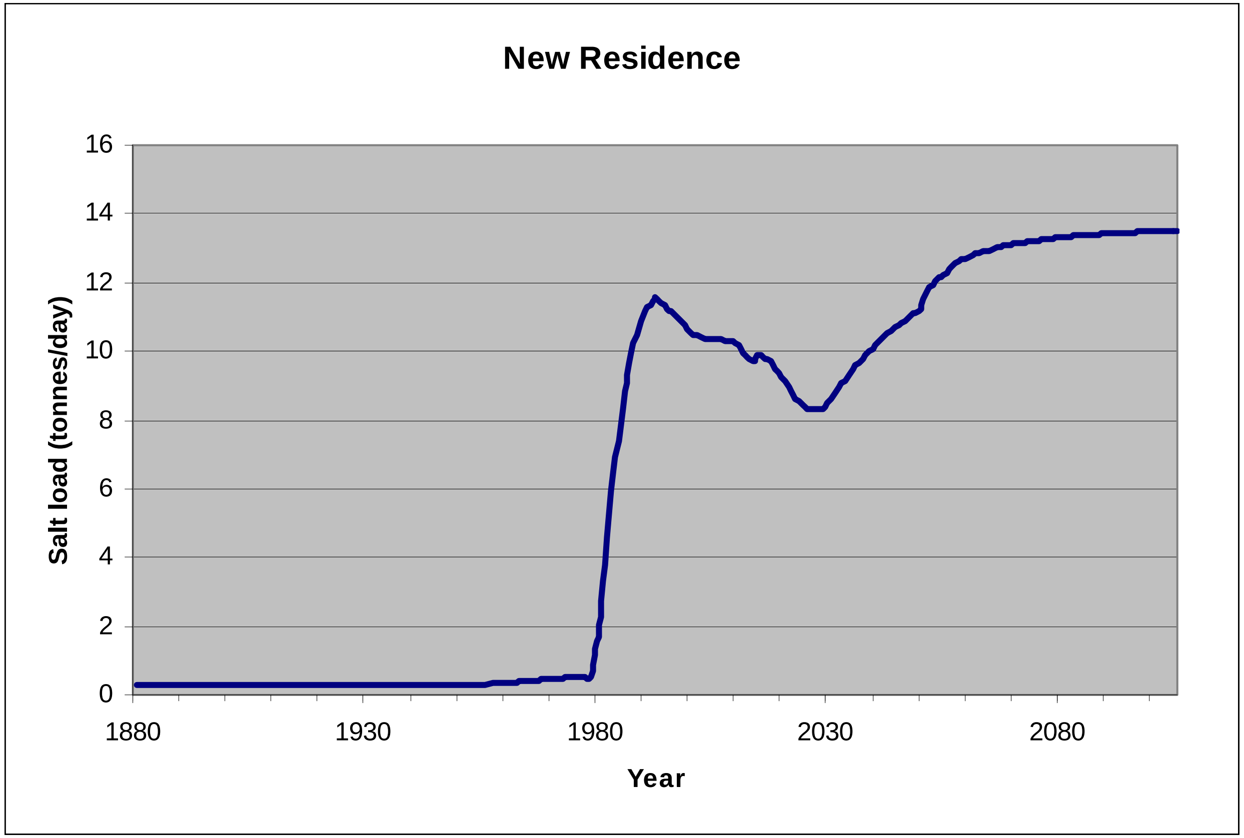
B-3(S5). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
27375	2035	0.0	2.9	1.9	0.1	3.4	1.1	**9.3**
27740	2036	0.0	2.9	1.9	0.1	3.5	1.1	**9.5**
28105	2037	0.0	3.0	2.0	0.1	3.5	1.1	**9.6**
28470	2038	0.0	3.0	2.1	0.1	3.5	1.1	**9.8**
28835	2039	0.0	3.0	2.1	0.1	3.6	1.1	**9.9**
29200	2040	0.0	3.1	2.2	0.1	3.6	1.1	**10.1**
29565	2041	0.0	3.1	2.2	0.1	3.7	1.1	**10.2**
29930	2042	0.0	3.1	2.3	0.1	3.7	1.1	**10.3**
30295	2043	0.0	3.2	2.3	0.1	3.8	1.1	**10.5**
30660	2044	0.0	3.2	2.3	0.1	3.8	1.2	**10.6**
31025	2045	0.0	3.2	2.3	0.1	3.9	1.2	**10.7**
31390	2046	0.0	3.3	2.3	0.1	3.9	1.2	**10.8**
31755	2047	0.0	3.3	2.4	0.1	3.9	1.2	**10.9**
32120	2048	0.0	3.4	2.4	0.1	4.0	1.2	**11.0**
32485	2049	0.0	3.4	2.4	0.1	4.0	1.2	**11.1**
32850	2050	0.0	3.5	2.4	0.1	4.0	1.2	**11.2**
33215	2051	0.0	3.5	2.7	0.1	4.1	1.2	**11.5**
33580	2052	0.0	3.5	2.8	0.1	4.1	1.2	**11.8**
33945	2053	0.0	3.6	2.9	0.1	4.1	1.2	**11.9**
34310	2054	0.0	3.6	3.0	0.1	4.1	1.2	**12.1**
34675	2055	0.0	3.6	3.0	0.1	4.2	1.2	**12.2**
35040	2056	0.0	3.7	3.1	0.1	4.2	1.2	**12.3**
35405	2057	0.0	3.7	3.1	0.1	4.2	1.3	**12.4**
35770	2058	0.0	3.7	3.1	0.1	4.2	1.3	**12.5**
36135	2059	0.0	3.8	3.2	0.1	4.2	1.3	**12.6**
36500	2060	0.0	3.8	3.2	0.1	4.2	1.3	**12.7**
36865	2061	0.0	3.8	3.2	0.1	4.3	1.3	**12.7**
37230	2062	0.0	3.8	3.2	0.1	4.3	1.4	**12.8**
37595	2063	0.0	3.9	3.2	0.1	4.3	1.4	**12.8**
37960	2064	0.0	3.9	3.2	0.1	4.3	1.4	**12.9**
38325	2065	0.0	3.9	3.2	0.1	4.3	1.4	**12.9**
38690	2066	0.0	3.9	3.3	0.1	4.3	1.4	**13.0**
39055	2067	0.0	3.9	3.3	0.1	4.3	1.4	**13.0**
39420	2068	0.0	4.0	3.3	0.1	4.3	1.4	**13.0**
39785	2069	0.0	4.0	3.3	0.1	4.3	1.4	**13.1**
40150	2070	0.0	4.0	3.3	0.1	4.4	1.4	**13.1**
40515	2071	0.0	4.0	3.3	0.1	4.4	1.4	**13.1**
Salinity (mg/L)		*15,000*	*5,000*	*10,000*	*20,000*	*20,000*	*20,000*	

B-3(S5). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			New Residence Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
40880	2072	0.0	4.0	3.3	0.1	4.4	1.4	13.1
41245	2073	0.0	4.0	3.3	0.1	4.4	1.4	13.2
41610	2074	0.0	4.0	3.3	0.1	4.4	1.4	13.2
41975	2075	0.0	4.0	3.3	0.1	4.4	1.4	13.2
42340	2076	0.0	4.1	3.3	0.1	4.4	1.4	13.2
42705	2077	0.0	4.1	3.3	0.1	4.4	1.4	13.3
43070	2078	0.0	4.1	3.3	0.1	4.4	1.4	13.3
43435	2079	0.0	4.1	3.3	0.1	4.4	1.4	13.3
43800	2080	0.0	4.1	3.3	0.1	4.4	1.4	13.3
44165	2081	0.0	4.1	3.3	0.1	4.4	1.4	13.3
44530	2082	0.0	4.1	3.3	0.1	4.4	1.4	13.3
44895	2083	0.0	4.1	3.3	0.1	4.4	1.4	13.3
45260	2084	0.0	4.1	3.3	0.1	4.4	1.4	13.4
45625	2085	0.0	4.1	3.3	0.1	4.4	1.4	13.4
45990	2086	0.0	4.1	3.3	0.1	4.4	1.4	13.4
46355	2087	0.0	4.2	3.3	0.1	4.4	1.4	13.4
46720	2088	0.0	4.2	3.3	0.1	4.4	1.4	13.4
47085	2089	0.0	4.2	3.3	0.1	4.4	1.4	13.4
47450	2090	0.0	4.2	3.3	0.1	4.4	1.4	13.4
47815	2091	0.0	4.2	3.3	0.1	4.5	1.4	13.4
48180	2092	0.0	4.2	3.3	0.1	4.5	1.4	13.4
48545	2093	0.0	4.2	3.3	0.1	4.5	1.4	13.4
48910	2094	0.0	4.2	3.3	0.1	4.5	1.4	13.4
49275	2095	0.0	4.2	3.3	0.1	4.5	1.4	13.5
49640	2096	0.0	4.2	3.3	0.1	4.5	1.4	13.5
50005	2097	0.0	4.2	3.3	0.1	4.5	1.4	13.5
50370	2098	0.0	4.2	3.3	0.1	4.5	1.4	13.5
50735	2099	0.0	4.2	3.3	0.1	4.5	1.4	13.5
51100	2100	0.0	4.2	3.3	0.1	4.5	1.4	13.5
51465	2101	0.0	4.2	3.3	0.1	4.5	1.4	13.5
51830	2102	0.0	4.2	3.3	0.1	4.5	1.4	13.5
52195	2103	0.0	4.2	3.3	0.1	4.5	1.4	13.5
52560	2104	0.0	4.2	3.3	0.1	4.5	1.4	13.5
52925	2105	0.0	4.2	3.3	0.1	4.5	1.4	13.5
53290	2106	0.0	4.2	3.3	0.1	4.5	1.4	13.5
Salinity (mg/L)		15,000	5,000	10,000	20,000	20,000	20,000	

B-3(S5). Modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 5)



B-3(S5). Graph of modelled salt load (tonnes/day) entering the River Murray in the New Residence area (Scenario 5)

B-4. MODEL OUTPUT – MOOROOK AREA

- Model Scenario conditions
- Flow budget zones
- Transient groundwater flux and salt load
- Modelled groundwater flux (m^3/d and L/s)
- Modelled salt load (t/d)

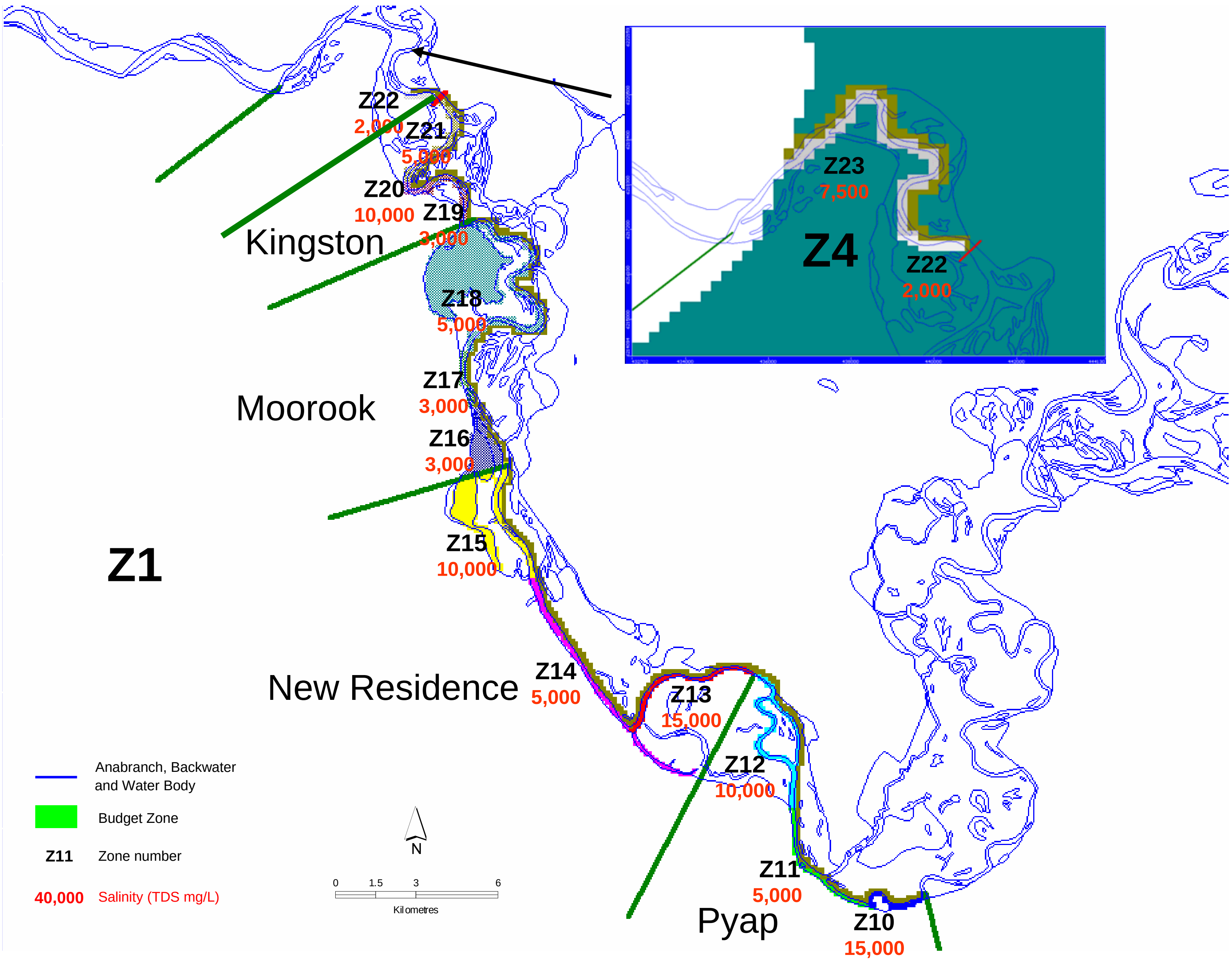
(Transient from 1888 to 1960)

(Scenario-2, 3A, 3B, 3C, 4 and 5)

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

Note: 1 Improved Irrigation Practices, 2 Rehabilitation, 3 Salt Interception Scheme (see Glossary for definitions)

B-4. Model Scenarios and Conditions



B4-1: Flow budget zones (model layer 1) and groundwater salinity values (TDS mg/L) in the Pyap to Kingston area

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
365	1881	0	54	85	0	1	21	**162**	***2***
7300	1900	0	54	85	0	1	21	**162**	***2***
9125	1905	0	54	85	0	1	21	**162**	***2***
10950	1910	0	54	103	0	1	23	**182**	***2***
12775	1915	0	54	125	0	1	25	**206**	***2***
14600	1920	0	54	147	0	1	27	**230**	***3***
16425	1925	0	55	170	0	1	29	**255**	***3***
18250	1930	0	55	193	0	1	32	**280**	***3***
20075	1935	0	55	216	1	1	34	**306**	***4***
21900	1940	0	60	268	1	1	39	**369**	***4***
23725	1945	0	68	305	1	1	43	**418**	***5***
25550	1950	1	88	363	1	2	48	**502**	***6***
27375	1955	1	123	470	1	3	59	**657**	***8***
29200	1960	4	193	648	3	6	76	**930**	***11***

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1881	0.0	0.2	0.3	0.0	0.0	0.3	**0.8**
7300	1900	0.0	0.2	0.3	0.0	0.0	0.3	**0.8**
9125	1905	0.0	0.2	0.3	0.0	0.0	0.3	**0.8**
10950	1910	0.0	0.2	0.3	0.0	0.0	0.3	**0.8**
12775	1915	0.0	0.2	0.4	0.0	0.0	0.4	**0.9**
14600	1920	0.0	0.2	0.4	0.0	0.0	0.4	**1.0**
16425	1925	0.0	0.2	0.5	0.0	0.0	0.4	**1.1**
18250	1930	0.0	0.2	0.6	0.0	0.0	0.5	**1.2**
20075	1935	0.0	0.2	0.6	0.0	0.0	0.5	**1.3**
21900	1940	0.0	0.2	0.8	0.0	0.0	0.6	**1.6**
23725	1945	0.0	0.2	0.9	0.0	0.0	0.6	**1.8**
25550	1950	0.0	0.3	1.1	0.0	0.0	0.7	**2.1**
27375	1955	0.0	0.4	1.4	0.0	0.0	0.9	**2.7**
29200	1960	0.0	0.6	1.9	0.0	0.1	1.1	**3.8**
Salinity (mg/L)		***3,000***	***3,000***	***3,000***	***15,000***	***15,000***	***15,000***	

B-4(Transient from 1880 to 1960). Modelled groundwater flux (m^3/day) and salt load (tonnes/day) entering the River Murray from flow budget zones in the Moorook area

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
365	1881	0	54	85	0	1	21	162	2
3650	1890	0	54	85	0	1	21	162	2
7300	1900	0	55	85	0	1	21	162	2
9125	1905	0	56	86	0	1	22	165	2
10950	1910	0	57	86	0	1	22	166	2
12775	1915	0	59	87	1	1	22	169	2
14600	1920	0	59	87	1	1	22	170	2
16425	1925	0	61	89	1	1	22	174	2
18250	1930	0	61	89	1	1	22	174	2
20075	1935	0	63	91	1	1	22	178	2
21900	1940	0	63	91	1	1	23	179	2
23725	1945	1	64	93	1	1	23	183	2
25550	1950	1	65	94	1	1	23	184	2
27375	1955	1	66	96	1	1	23	188	2
29200	1960	1	67	97	1	1	24	190	2
29565	1961	1	67	98	1	1	24	192	2
29930	1962	1	67	99	1	1	24	193	2
30295	1963	2	67	99	1	1	24	195	2
30660	1964	2	68	100	1	1	24	195	2
31025	1965	2	68	100	1	1	24	196	2
31390	1966	2	68	100	1	1	24	197	2
31755	1967	2	68	100	1	1	24	197	2
32120	1968	2	69	101	1	1	24	198	2
32485	1969	2	69	101	1	1	24	198	2
32850	1970	2	69	101	1	1	24	198	2
33215	1971	2	69	102	1	1	25	201	2
33580	1972	2	69	103	2	1	25	202	2
33945	1973	2	70	104	2	1	25	204	2
34310	1974	2	70	104	2	1	25	205	2
34675	1975	3	70	104	2	1	25	206	2
35040	1976	3	71	105	2	1	25	206	2
35405	1977	3	71	105	2	1	26	207	2
35770	1978	3	71	105	2	1	26	208	2
36135	1979	3	71	105	2	1	26	208	2
36500	1980	3	71	105	2	1	26	208	2
36865	1981	3	72	107	2	1	26	211	2
37230	1982	3	72	108	2	1	26	213	2
37595	1983	4	72	108	2	1	27	214	2
37960	1984	4	73	109	2	1	27	216	2
38325	1985	4	73	109	3	1	27	217	3
38690	1986	4	73	109	3	1	27	217	3

B-4(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
39055	1987	4	74	109	3	2	27	**218**	***3***
39420	1988	4	74	110	3	2	27	**219**	***3***
39785	1989	4	74	110	3	2	27	**219**	***3***
40150	1990	4	74	110	3	2	27	**220**	***3***
40515	1991	5	74	111	3	2	28	**222**	***3***
40880	1992	5	75	112	3	2	28	**225**	***3***
41245	1993	5	75	113	3	2	28	**226**	***3***
41610	1994	5	76	113	4	2	28	**228**	***3***
41975	1995	5	76	114	4	2	28	**229**	***3***
42340	1996	6	76	114	4	2	29	**230**	***3***
42705	1997	6	77	114	4	2	29	**231**	***3***
43070	1998	6	77	114	4	2	29	**231**	***3***
43435	1999	6	77	114	4	2	29	**232**	***3***
43800	2000	6	77	115	4	2	29	**232**	***3***
44165	2001	6	78	116	4	2	29	**235**	***3***
44530	2002	7	78	117	5	2	30	**238**	***3***
44895	2003	7	78	117	5	2	30	**240**	***3***
45260	2004	8	79	118	5	2	30	**242**	***3***
45625	2005	8	79	118	5	2	30	**243**	***3***
45990	2006	8	80	119	5	2	31	**244**	***3***
46355	2007	8	80	119	5	2	31	**245**	***3***
46720	2008	9	80	119	5	2	31	**246**	***3***
47085	2009	9	80	119	5	2	31	**247**	***3***
47450	2010	9	81	119	6	2	31	**248**	***3***
47815	2011	9	81	121	6	2	31	**251**	***3***
48180	2012	10	81	121	6	2	32	**253**	***3***
48545	2013	10	82	122	7	2	32	**256**	***3***
48910	2014	11	82	123	7	2	32	**257**	***3***
49275	2015	11	83	123	7	3	33	**259**	***3***
49640	2016	11	83	124	7	3	33	**260**	***3***
50005	2017	11	83	124	7	3	33	**261**	***3***
50370	2018	12	84	124	7	3	33	**262**	***3***
50735	2019	12	84	124	7	3	33	**263**	***3***
51100	2020	12	84	125	7	3	33	**264**	***3***
51465	2021	12	85	126	8	3	34	**267**	***3***
51830	2022	13	85	126	8	3	34	**270**	***3***
52195	2023	13	85	127	9	3	35	**272**	***3***
52560	2024	14	86	128	9	3	35	**274**	***3***
52925	2025	14	86	128	9	3	35	**275**	***3***
53290	2026	14	87	129	9	3	35	**277**	***3***

B-4(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
53655	2027	14	87	129	9	3	35	278	3
54020	2028	15	87	129	9	3	35	279	3
54385	2029	15	88	129	9	3	36	280	3
54750	2030	15	88	130	9	3	36	281	3
55115	2031	15	88	130	10	3	36	283	3
55480	2032	16	89	131	10	3	37	286	3
55845	2033	16	89	132	11	3	37	288	3
56210	2034	17	89	133	11	3	37	290	3
56575	2035	17	90	133	11	4	38	292	3
56940	2036	17	90	133	11	4	38	293	3
57305	2037	17	90	134	11	4	38	294	3
57670	2038	18	91	134	11	4	38	295	3
58035	2039	18	91	134	11	4	38	296	3
58400	2040	18	91	135	11	4	38	297	3
58765	2041	18	91	135	12	4	39	300	3
59130	2042	19	92	136	12	4	39	302	3
59495	2043	19	92	137	13	4	40	304	4
59860	2044	19	93	137	13	4	40	306	4
60225	2045	20	93	138	13	4	40	307	4
60590	2046	20	93	138	13	4	40	309	4
60955	2047	20	94	138	13	4	40	310	4
61320	2048	20	94	139	13	4	41	311	4
61685	2049	20	94	139	13	4	41	312	4
62050	2050	21	94	139	14	4	41	313	4
62415	2051	21	95	140	14	4	41	315	4
62780	2052	21	95	140	14	4	42	317	4
63145	2053	21	95	141	15	5	42	319	4
63510	2054	22	96	141	15	5	42	320	4
63875	2055	22	96	142	15	5	42	322	4
64240	2056	22	96	142	15	5	43	323	4
64605	2057	22	96	142	15	5	43	324	4
64970	2058	22	97	143	15	5	43	325	4
65335	2059	23	97	143	15	5	43	326	4
65700	2060	23	97	143	16	5	43	327	4
66065	2061	23	97	144	16	5	44	328	4
66430	2062	23	98	144	16	5	44	330	4
66795	2063	23	98	145	16	5	44	332	4
67160	2064	24	98	145	17	5	45	333	4
67525	2065	24	98	146	17	5	45	334	4
67890	2066	24	99	146	17	5	45	336	4

B-4(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
68255	2067	24	99	146	17	5	45	337	4
68620	2068	24	99	146	17	5	45	337	4
68985	2069	24	99	147	17	5	45	338	4
69350	2070	25	100	147	17	5	45	339	4
69715	2071	25	100	147	18	5	46	341	4
70080	2072	25	100	148	18	5	46	342	4
70445	2073	25	100	148	18	5	46	344	4
70810	2074	25	100	149	18	6	47	345	4
71175	2075	26	101	149	19	6	47	346	4
71540	2076	26	101	149	19	6	47	347	4
71905	2077	26	101	150	19	6	47	348	4
72270	2078	26	101	150	19	6	47	349	4
72635	2079	26	101	150	19	6	47	350	4
73000	2080	26	102	150	19	6	47	351	4
73365	2081	26	102	150	19	6	48	351	4
73730	2082	27	102	151	19	6	48	352	4
74095	2083	27	102	151	20	6	48	353	4
74460	2084	27	102	151	20	6	48	354	4
74825	2085	27	102	151	20	6	48	354	4
75190	2086	27	103	151	20	6	48	355	4
75555	2087	27	103	152	20	6	48	356	4
75920	2088	27	103	152	20	6	48	356	4
76285	2089	27	103	152	20	6	49	357	4
76650	2090	27	103	152	20	6	49	358	4
77015	2091	28	103	152	20	6	49	358	4
77380	2092	28	103	152	21	6	49	359	4
77745	2093	28	103	152	21	6	49	359	4
78110	2094	28	104	153	21	6	49	360	4
78475	2095	28	104	153	21	6	49	361	4
78840	2096	28	104	153	21	6	49	361	4
79205	2097	28	104	153	21	6	49	362	4
79570	2098	28	104	153	21	6	50	363	4
79935	2099	28	104	153	21	6	50	363	4
80300	2100	28	104	153	21	6	50	364	4
80665	2101	28	104	154	22	6	50	364	4
81030	2102	29	105	154	22	6	50	365	4
81395	2103	29	105	154	22	6	50	365	4
81760	2104	29	105	154	22	6	50	366	4
82125	2105	29	105	154	22	6	50	367	4
82490	2106	29	105	154	22	6	50	367	4

B-4(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1881	0.0	0.2	0.3	0.0	0.0	0.3	0.8
3650	1890	0.0	0.2	0.3	0.0	0.0	0.3	0.8
7300	1900	0.0	0.2	0.3	0.0	0.0	0.3	0.8
9125	1905	0.0	0.2	0.3	0.0	0.0	0.3	0.8
10950	1910	0.0	0.2	0.3	0.0	0.0	0.3	0.8
12775	1915	0.0	0.2	0.3	0.0	0.0	0.3	0.8
14600	1920	0.0	0.2	0.3	0.0	0.0	0.3	0.8
16425	1925	0.0	0.2	0.3	0.0	0.0	0.3	0.8
18250	1930	0.0	0.2	0.3	0.0	0.0	0.3	0.8
20075	1935	0.0	0.2	0.3	0.0	0.0	0.3	0.8
21900	1940	0.0	0.2	0.3	0.0	0.0	0.3	0.8
23725	1945	0.0	0.2	0.3	0.0	0.0	0.3	0.8
25550	1950	0.0	0.2	0.3	0.0	0.0	0.3	0.8
27375	1955	0.0	0.2	0.3	0.0	0.0	0.3	0.9
29200	1960	0.0	0.2	0.3	0.0	0.0	0.4	0.9
29565	1961	0.0	0.2	0.3	0.0	0.0	0.4	0.9
29930	1962	0.0	0.2	0.3	0.0	0.0	0.4	0.9
30295	1963	0.0	0.2	0.3	0.0	0.0	0.4	0.9
30660	1964	0.0	0.2	0.3	0.0	0.0	0.4	0.9
31025	1965	0.0	0.2	0.3	0.0	0.0	0.4	0.9
31390	1966	0.0	0.2	0.3	0.0	0.0	0.4	0.9
31755	1967	0.0	0.2	0.3	0.0	0.0	0.4	0.9
32120	1968	0.0	0.2	0.3	0.0	0.0	0.4	0.9
32485	1969	0.0	0.2	0.3	0.0	0.0	0.4	0.9
32850	1970	0.0	0.2	0.3	0.0	0.0	0.4	0.9
33215	1971	0.0	0.2	0.3	0.0	0.0	0.4	0.9
33580	1972	0.0	0.2	0.3	0.0	0.0	0.4	0.9
33945	1973	0.0	0.2	0.3	0.0	0.0	0.4	0.9
34310	1974	0.0	0.2	0.3	0.0	0.0	0.4	1.0
34675	1975	0.0	0.2	0.3	0.0	0.0	0.4	1.0
35040	1976	0.0	0.2	0.3	0.0	0.0	0.4	1.0
35405	1977	0.0	0.2	0.3	0.0	0.0	0.4	1.0
35770	1978	0.0	0.2	0.3	0.0	0.0	0.4	1.0
36135	1979	0.0	0.2	0.3	0.0	0.0	0.4	1.0
36500	1980	0.0	0.2	0.3	0.0	0.0	0.4	1.0
36865	1981	0.0	0.2	0.3	0.0	0.0	0.4	1.0
37230	1982	0.0	0.2	0.3	0.0	0.0	0.4	1.0
37595	1983	0.0	0.2	0.3	0.0	0.0	0.4	1.0
37960	1984	0.0	0.2	0.3	0.0	0.0	0.4	1.0
38325	1985	0.0	0.2	0.3	0.0	0.0	0.4	1.0
38690	1986	0.0	0.2	0.3	0.0	0.0	0.4	1.0
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S2). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
39055	1987	0.0	0.2	0.3	0.0	0.0	0.4	1.0
39420	1988	0.0	0.2	0.3	0.0	0.0	0.4	1.0
39785	1989	0.0	0.2	0.3	0.0	0.0	0.4	1.0
40150	1990	0.0	0.2	0.3	0.0	0.0	0.4	1.0
40515	1991	0.0	0.2	0.3	0.0	0.0	0.4	1.1
40880	1992	0.0	0.2	0.3	0.0	0.0	0.4	1.1
41245	1993	0.0	0.2	0.3	0.1	0.0	0.4	1.1
41610	1994	0.0	0.2	0.3	0.1	0.0	0.4	1.1
41975	1995	0.0	0.2	0.3	0.1	0.0	0.4	1.1
42340	1996	0.0	0.2	0.3	0.1	0.0	0.4	1.1
42705	1997	0.0	0.2	0.3	0.1	0.0	0.4	1.1
43070	1998	0.0	0.2	0.3	0.1	0.0	0.4	1.1
43435	1999	0.0	0.2	0.3	0.1	0.0	0.4	1.1
43800	2000	0.0	0.2	0.3	0.1	0.0	0.4	1.1
44165	2001	0.0	0.2	0.3	0.1	0.0	0.4	1.1
44530	2002	0.0	0.2	0.4	0.1	0.0	0.4	1.2
44895	2003	0.0	0.2	0.4	0.1	0.0	0.5	1.2
45260	2004	0.0	0.2	0.4	0.1	0.0	0.5	1.2
45625	2005	0.0	0.2	0.4	0.1	0.0	0.5	1.2
45990	2006	0.0	0.2	0.4	0.1	0.0	0.5	1.2
46355	2007	0.0	0.2	0.4	0.1	0.0	0.5	1.2
46720	2008	0.0	0.2	0.4	0.1	0.0	0.5	1.2
47085	2009	0.0	0.2	0.4	0.1	0.0	0.5	1.2
47450	2010	0.0	0.2	0.4	0.1	0.0	0.5	1.2
47815	2011	0.0	0.2	0.4	0.1	0.0	0.5	1.2
48180	2012	0.0	0.2	0.4	0.1	0.0	0.5	1.2
48545	2013	0.0	0.2	0.4	0.1	0.0	0.5	1.3
48910	2014	0.0	0.2	0.4	0.1	0.0	0.5	1.3
49275	2015	0.0	0.2	0.4	0.1	0.0	0.5	1.3
49640	2016	0.0	0.2	0.4	0.1	0.0	0.5	1.3
50005	2017	0.0	0.3	0.4	0.1	0.0	0.5	1.3
50370	2018	0.0	0.3	0.4	0.1	0.0	0.5	1.3
50735	2019	0.0	0.3	0.4	0.1	0.0	0.5	1.3
51100	2020	0.0	0.3	0.4	0.1	0.0	0.5	1.3
51465	2021	0.0	0.3	0.4	0.1	0.0	0.5	1.3
51830	2022	0.0	0.3	0.4	0.1	0.0	0.5	1.4
52195	2023	0.0	0.3	0.4	0.1	0.0	0.5	1.4
52560	2024	0.0	0.3	0.4	0.1	0.0	0.5	1.4
52925	2025	0.0	0.3	0.4	0.1	0.0	0.5	1.4
53290	2026	0.0	0.3	0.4	0.1	0.0	0.5	1.4
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

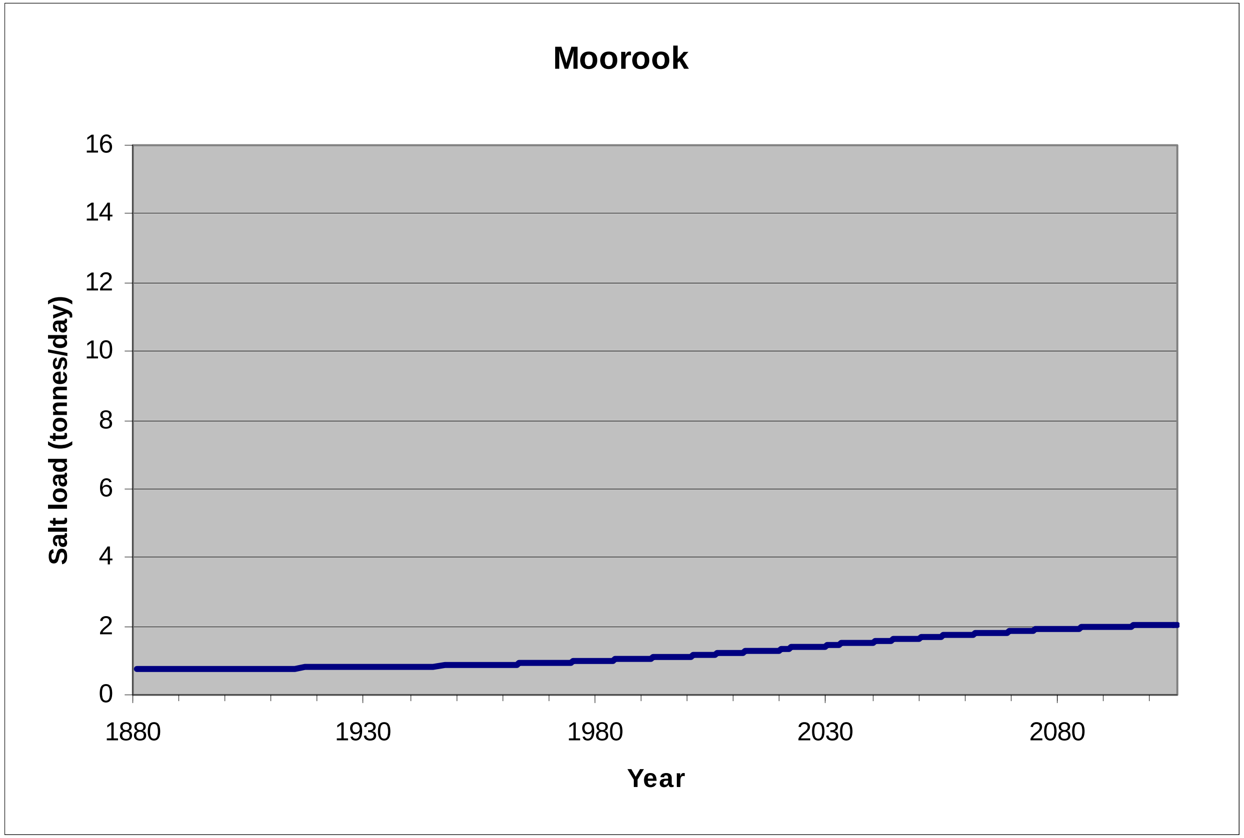
B-4(S2). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
53655	2027	0.0	0.3	0.4	0.1	0.0	0.5	1.4
54020	2028	0.0	0.3	0.4	0.1	0.0	0.5	1.4
54385	2029	0.0	0.3	0.4	0.1	0.0	0.5	1.4
54750	2030	0.0	0.3	0.4	0.1	0.0	0.5	1.4
55115	2031	0.0	0.3	0.4	0.1	0.0	0.5	1.4
55480	2032	0.0	0.3	0.4	0.2	0.1	0.6	1.5
55845	2033	0.0	0.3	0.4	0.2	0.1	0.6	1.5
56210	2034	0.0	0.3	0.4	0.2	0.1	0.6	1.5
56575	2035	0.1	0.3	0.4	0.2	0.1	0.6	1.5
56940	2036	0.1	0.3	0.4	0.2	0.1	0.6	1.5
57305	2037	0.1	0.3	0.4	0.2	0.1	0.6	1.5
57670	2038	0.1	0.3	0.4	0.2	0.1	0.6	1.5
58035	2039	0.1	0.3	0.4	0.2	0.1	0.6	1.5
58400	2040	0.1	0.3	0.4	0.2	0.1	0.6	1.5
58765	2041	0.1	0.3	0.4	0.2	0.1	0.6	1.6
59130	2042	0.1	0.3	0.4	0.2	0.1	0.6	1.6
59495	2043	0.1	0.3	0.4	0.2	0.1	0.6	1.6
59860	2044	0.1	0.3	0.4	0.2	0.1	0.6	1.6
60225	2045	0.1	0.3	0.4	0.2	0.1	0.6	1.6
60590	2046	0.1	0.3	0.4	0.2	0.1	0.6	1.6
60955	2047	0.1	0.3	0.4	0.2	0.1	0.6	1.6
61320	2048	0.1	0.3	0.4	0.2	0.1	0.6	1.6
61685	2049	0.1	0.3	0.4	0.2	0.1	0.6	1.6
62050	2050	0.1	0.3	0.4	0.2	0.1	0.6	1.6
62415	2051	0.1	0.3	0.4	0.2	0.1	0.6	1.7
62780	2052	0.1	0.3	0.4	0.2	0.1	0.6	1.7
63145	2053	0.1	0.3	0.4	0.2	0.1	0.6	1.7
63510	2054	0.1	0.3	0.4	0.2	0.1	0.6	1.7
63875	2055	0.1	0.3	0.4	0.2	0.1	0.6	1.7
64240	2056	0.1	0.3	0.4	0.2	0.1	0.6	1.7
64605	2057	0.1	0.3	0.4	0.2	0.1	0.6	1.7
64970	2058	0.1	0.3	0.4	0.2	0.1	0.6	1.7
65335	2059	0.1	0.3	0.4	0.2	0.1	0.6	1.7
65700	2060	0.1	0.3	0.4	0.2	0.1	0.6	1.7
66065	2061	0.1	0.3	0.4	0.2	0.1	0.7	1.8
66430	2062	0.1	0.3	0.4	0.2	0.1	0.7	1.8
66795	2063	0.1	0.3	0.4	0.2	0.1	0.7	1.8
67160	2064	0.1	0.3	0.4	0.2	0.1	0.7	1.8
67525	2065	0.1	0.3	0.4	0.3	0.1	0.7	1.8
67890	2066	0.1	0.3	0.4	0.3	0.1	0.7	1.8
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S2). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
68255	2067	0.1	0.3	0.4	0.3	0.1	0.7	1.8
68620	2068	0.1	0.3	0.4	0.3	0.1	0.7	1.8
68985	2069	0.1	0.3	0.4	0.3	0.1	0.7	1.8
69350	2070	0.1	0.3	0.4	0.3	0.1	0.7	1.8
69715	2071	0.1	0.3	0.4	0.3	0.1	0.7	1.8
70080	2072	0.1	0.3	0.4	0.3	0.1	0.7	1.9
70445	2073	0.1	0.3	0.4	0.3	0.1	0.7	1.9
70810	2074	0.1	0.3	0.4	0.3	0.1	0.7	1.9
71175	2075	0.1	0.3	0.4	0.3	0.1	0.7	1.9
71540	2076	0.1	0.3	0.4	0.3	0.1	0.7	1.9
71905	2077	0.1	0.3	0.4	0.3	0.1	0.7	1.9
72270	2078	0.1	0.3	0.4	0.3	0.1	0.7	1.9
72635	2079	0.1	0.3	0.4	0.3	0.1	0.7	1.9
73000	2080	0.1	0.3	0.5	0.3	0.1	0.7	1.9
73365	2081	0.1	0.3	0.5	0.3	0.1	0.7	1.9
73730	2082	0.1	0.3	0.5	0.3	0.1	0.7	1.9
74095	2083	0.1	0.3	0.5	0.3	0.1	0.7	1.9
74460	2084	0.1	0.3	0.5	0.3	0.1	0.7	1.9
74825	2085	0.1	0.3	0.5	0.3	0.1	0.7	1.9
75190	2086	0.1	0.3	0.5	0.3	0.1	0.7	2.0
75555	2087	0.1	0.3	0.5	0.3	0.1	0.7	2.0
75920	2088	0.1	0.3	0.5	0.3	0.1	0.7	2.0
76285	2089	0.1	0.3	0.5	0.3	0.1	0.7	2.0
76650	2090	0.1	0.3	0.5	0.3	0.1	0.7	2.0
77015	2091	0.1	0.3	0.5	0.3	0.1	0.7	2.0
77380	2092	0.1	0.3	0.5	0.3	0.1	0.7	2.0
77745	2093	0.1	0.3	0.5	0.3	0.1	0.7	2.0
78110	2094	0.1	0.3	0.5	0.3	0.1	0.7	2.0
78475	2095	0.1	0.3	0.5	0.3	0.1	0.7	2.0
78840	2096	0.1	0.3	0.5	0.3	0.1	0.7	2.0
79205	2097	0.1	0.3	0.5	0.3	0.1	0.7	2.0
79570	2098	0.1	0.3	0.5	0.3	0.1	0.7	2.0
79935	2099	0.1	0.3	0.5	0.3	0.1	0.7	2.0
80300	2100	0.1	0.3	0.5	0.3	0.1	0.7	2.0
80665	2101	0.1	0.3	0.5	0.3	0.1	0.7	2.0
81030	2102	0.1	0.3	0.5	0.3	0.1	0.8	2.0
81395	2103	0.1	0.3	0.5	0.3	0.1	0.8	2.0
81760	2104	0.1	0.3	0.5	0.3	0.1	0.8	2.0
82125	2105	0.1	0.3	0.5	0.3	0.1	0.8	2.0
82490	2106	0.1	0.3	0.5	0.3	0.1	0.8	2.0
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S2). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 2)



B-4(S2). Graph of modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
365	1961	5	236	802	3	8	87	**1142**	***13***
730	1962	6	282	912	4	11	98	**1313**	***15***
1095	1963	8	318	983	5	12	105	**1431**	***17***
1460	1964	10	353	1066	6	14	112	**1562**	***18***
1825	1965	12	381	1121	7	15	118	**1654**	***19***
2190	1966	14	411	1226	8	17	128	**1804**	***21***
2555	1967	17	434	1297	9	18	135	**1910**	***22***
2920	1968	20	460	1380	9	19	141	**2030**	***23***
3285	1969	23	480	1430	10	20	146	**2108**	***24***
3650	1970	27	513	1534	11	22	153	**2260**	***26***
4015	1971	31	539	1590	12	23	158	**2352**	***27***
4380	1972	36	578	1679	13	25	164	**2494**	***29***
4745	1973	41	607	1723	14	26	168	**2580**	***30***
5110	1974	47	638	1771	15	27	172	**2670**	***31***
5475	1975	52	662	1797	16	28	174	**2729**	***32***
5840	1976	58	689	1852	17	29	178	**2823**	***33***
6205	1977	63	710	1882	18	30	181	**2883**	***33***
6570	1978	68	736	1939	19	31	185	**2977**	***34***
6935	1979	73	755	1970	19	32	187	**3036**	***35***
7300	1980	77	769	1990	21	33	189	**3078**	***36***
7665	1981	81	779	2004	22	33	190	**3109**	***36***
8030	1982	85	787	2035	24	34	192	**3157**	***37***
8395	1983	88	793	2056	26	34	194	**3191**	***37***
8760	1984	92	809	2108	27	35	197	**3268**	***38***
9125	1985	95	823	2136	27	36	199	**3316**	***38***
9490	1986	99	844	2193	28	36	203	**3403**	***39***
9855	1987	102	860	2224	29	37	206	**3458**	***40***
10220	1988	106	871	2243	30	38	207	**3495**	***40***
10585	1989	109	880	2257	30	38	208	**3522**	***41***
10950	1990	111	886	2266	31	38	209	**3542**	***41***
11315	1991	114	892	2273	31	39	210	**3557**	***41***
11680	1992	115	896	2277	32	39	210	**3568**	***41***
12045	1993	117	900	2282	32	39	211	**3581**	***41***
12410	1994	118	901	2184	32	38	204	**3478**	***40***
12775	1995	119	896	2127	31	38	200	**3411**	***39***
13140	1996	120	885	2030	30	37	191	**3294**	***38***
13505	1997	120	872	1965	30	36	186	**3209**	***37***
13870	1998	119	859	1885	29	35	180	**3107**	***36***

B-4(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
14235	1999	119	846	1832	29	34	175	3035	35
14600	2000	118	834	1778	28	34	171	2963	34
14965	2001	117	825	1744	28	33	169	2915	34
15330	2002	116	817	1704	27	33	165	2861	33
15695	2003	115	810	1679	27	33	163	2827	33
16060	2004	114	805	1646	27	32	161	2784	32
16425	2005	113	800	1627	27	32	160	2758	32
16790	2006	112	797	1586	27	32	157	2710	31
17155	2007	110	774	1530	26	31	153	2624	30
17520	2008	108	758	1502	26	31	151	2575	30
17885	2009	105	728	1426	26	30	146	2460	28
18250	2010	101	709	1390	25	29	144	2398	28
18615	2011	97	677	1311	24	28	139	2275	26
18980	2012	93	655	1275	24	27	136	2209	26
19345	2013	88	622	1251	23	26	134	2144	25
19710	2014	83	600	1233	23	25	132	2096	24
20075	2015	78	567	1211	22	24	130	2032	24
20440	2016	73	544	1196	21	23	128	1985	23
20805	2017	68	529	1176	21	23	126	1943	22
21170	2018	64	519	1163	20	22	125	1913	22
21535	2019	61	512	1146	20	22	123	1883	22
21900	2020	58	506	1133	20	22	122	1861	22
22265	2021	56	502	1117	19	21	120	1836	21
22630	2022	54	498	1106	19	21	119	1818	21
22995	2023	52	496	1099	19	21	119	1805	21
23360	2024	51	494	1094	19	21	118	1797	21
23725	2025	49	492	1091	19	21	118	1790	21
24090	2026	48	491	1089	19	21	118	1786	21
24455	2027	48	490	1088	19	21	118	1782	21
24820	2028	47	489	1087	18	21	118	1780	21
25185	2029	47	489	1086	18	21	118	1778	21
25550	2030	46	488	1085	18	21	117	1776	21
25915	2031	46	488	1085	18	21	117	1775	21
26280	2032	46	487	1085	18	21	117	1774	21
26645	2033	45	487	1084	18	21	117	1773	21
27010	2034	45	487	1084	18	21	117	1773	21

B-4(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
27375	2035	45	487	1084	18	21	117	1772	21
27740	2036	45	486	1084	18	21	117	1772	21
28105	2037	45	486	1084	18	21	117	1771	21
28470	2038	45	486	1084	18	21	117	1771	20
28835	2039	45	486	1084	18	21	117	1771	20
29200	2040	45	486	1084	18	21	117	1771	20
29565	2041	45	486	1084	18	21	117	1771	20
29930	2042	45	486	1084	18	21	117	1771	20
30295	2043	45	486	1084	18	21	117	1771	20
30660	2044	45	486	1084	18	21	117	1770	20
31025	2045	45	486	1084	18	21	117	1770	20
31390	2046	45	486	1084	18	21	117	1770	20
31755	2047	45	486	1084	18	21	117	1770	20
32120	2048	45	486	1084	18	21	117	1770	20
32485	2049	45	486	1084	18	21	117	1770	20
32850	2050	45	486	1084	18	21	117	1770	20
33215	2051	45	486	1084	18	21	117	1770	20
33580	2052	45	486	1084	18	21	117	1770	20
33945	2053	45	486	1084	18	21	117	1770	20
34310	2054	45	486	1084	18	21	117	1770	20
34675	2055	45	486	1084	18	21	117	1770	20
35040	2056	45	486	1084	18	21	117	1771	20
35405	2057	45	486	1084	18	21	117	1771	20
35770	2058	45	486	1084	18	21	117	1771	20
36135	2059	45	486	1084	18	21	117	1771	20
36500	2060	45	486	1084	18	21	117	1771	20
36865	2061	45	486	1084	18	21	117	1771	20
37230	2062	45	486	1084	18	21	117	1771	20
37595	2063	45	486	1084	18	21	117	1771	20
37960	2064	45	486	1084	18	21	117	1771	20
38325	2065	45	486	1084	18	21	117	1771	20
38690	2066	45	486	1084	18	21	117	1771	20
39055	2067	45	486	1084	18	21	117	1771	20
39420	2068	45	486	1084	18	21	117	1771	20
39785	2069	45	486	1084	18	21	117	1771	20
40150	2070	45	486	1084	18	21	117	1771	20

B-4(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
40515	2071	45	486	1084	18	21	117	1771	20
40880	2072	45	486	1084	18	21	117	1771	20
41245	2073	45	486	1084	18	21	117	1771	20
41610	2074	45	486	1084	18	21	117	1771	20
41975	2075	45	486	1084	18	21	117	1771	20
42340	2076	45	486	1084	18	21	117	1771	20
42705	2077	45	486	1084	18	21	117	1771	20
43070	2078	45	486	1084	18	21	117	1771	20
43435	2079	45	486	1084	18	21	117	1771	20
43800	2080	45	486	1084	18	21	117	1771	20
44165	2081	45	486	1084	18	21	117	1771	20
44530	2082	45	486	1084	18	21	117	1771	20
44895	2083	45	486	1084	18	21	117	1771	20
45260	2084	45	486	1084	18	21	117	1771	20
45625	2085	45	486	1084	18	21	117	1771	20
45990	2086	45	486	1084	18	21	117	1771	20
46355	2087	45	486	1084	18	21	117	1771	20
46720	2088	45	486	1084	18	21	117	1771	20
47085	2089	45	486	1084	18	21	117	1771	20
47450	2090	45	486	1084	18	21	117	1771	20
47815	2091	45	486	1084	18	21	117	1771	21
48180	2092	45	486	1084	18	21	117	1771	21
48545	2093	45	486	1084	18	21	117	1771	21
48910	2094	45	486	1084	18	21	117	1771	21
49275	2095	45	486	1084	18	21	117	1771	21
49640	2096	45	486	1084	18	21	117	1771	21
50005	2097	45	486	1084	18	21	117	1771	21
50370	2098	45	486	1084	18	21	117	1771	21
50735	2099	45	486	1084	18	21	118	1771	21
51100	2100	45	486	1084	19	21	118	1771	21
51465	2101	45	486	1084	19	21	118	1771	21
51830	2102	45	486	1084	19	21	118	1771	21
52195	2103	45	486	1084	19	21	118	1771	21
52560	2104	45	486	1084	19	21	118	1771	21
52925	2105	45	486	1084	19	21	118	1771	21
53290	2106	45	486	1084	19	21	118	1771	21

B-4(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	0.0	0.7	2.4	0.0	0.1	1.3	4.6
730	1962	0.0	0.8	2.7	0.1	0.2	1.5	5.3
1095	1963	0.0	1.0	2.9	0.1	0.2	1.6	5.8
1460	1964	0.0	1.1	3.2	0.1	0.2	1.7	6.3
1825	1965	0.0	1.1	3.4	0.1	0.2	1.8	6.6
2190	1966	0.0	1.2	3.7	0.1	0.3	1.9	7.2
2555	1967	0.1	1.3	3.9	0.1	0.3	2.0	7.7
2920	1968	0.1	1.4	4.1	0.1	0.3	2.1	8.1
3285	1969	0.1	1.4	4.3	0.2	0.3	2.2	8.4
3650	1970	0.1	1.5	4.6	0.2	0.3	2.3	9.0
4015	1971	0.1	1.6	4.8	0.2	0.3	2.4	9.4
4380	1972	0.1	1.7	5.0	0.2	0.4	2.5	9.9
4745	1973	0.1	1.8	5.2	0.2	0.4	2.5	10.2
5110	1974	0.1	1.9	5.3	0.2	0.4	2.6	10.6
5475	1975	0.2	2.0	5.4	0.2	0.4	2.6	10.8
5840	1976	0.2	2.1	5.6	0.3	0.4	2.7	11.2
6205	1977	0.2	2.1	5.6	0.3	0.5	2.7	11.4
6570	1978	0.2	2.2	5.8	0.3	0.5	2.8	11.7
6935	1979	0.2	2.3	5.9	0.3	0.5	2.8	12.0
7300	1980	0.2	2.3	6.0	0.3	0.5	2.8	12.1
7665	1981	0.2	2.3	6.0	0.3	0.5	2.9	12.3
8030	1982	0.3	2.4	6.1	0.4	0.5	2.9	12.5
8395	1983	0.3	2.4	6.2	0.4	0.5	2.9	12.6
8760	1984	0.3	2.4	6.3	0.4	0.5	3.0	12.9
9125	1985	0.3	2.5	6.4	0.4	0.5	3.0	13.1
9490	1986	0.3	2.5	6.6	0.4	0.5	3.0	13.4
9855	1987	0.3	2.6	6.7	0.4	0.6	3.1	13.6
10220	1988	0.3	2.6	6.7	0.4	0.6	3.1	13.8
10585	1989	0.3	2.6	6.8	0.5	0.6	3.1	13.9
10950	1990	0.3	2.7	6.8	0.5	0.6	3.1	14.0
11315	1991	0.3	2.7	6.8	0.5	0.6	3.1	14.0
11680	1992	0.3	2.7	6.8	0.5	0.6	3.2	14.1
12045	1993	0.4	2.7	6.8	0.5	0.6	3.2	14.1
12410	1994	0.4	2.7	6.6	0.5	0.6	3.1	13.7
12775	1995	0.4	2.7	6.4	0.5	0.6	3.0	13.5
13140	1996	0.4	2.7	6.1	0.5	0.6	2.9	13.0
13505	1997	0.4	2.6	5.9	0.4	0.5	2.8	12.6
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	0.4	2.6	5.7	0.4	0.5	2.7	**12.2**
14235	1999	0.4	2.5	5.5	0.4	0.5	2.6	**12.0**
14600	2000	0.4	2.5	5.3	0.4	0.5	2.6	**11.7**
14965	2001	0.4	2.5	5.2	0.4	0.5	2.5	**11.5**
15330	2002	0.3	2.4	5.1	0.4	0.5	2.5	**11.3**
15695	2003	0.3	2.4	5.0	0.4	0.5	2.4	**11.2**
16060	2004	0.3	2.4	4.9	0.4	0.5	2.4	**11.0**
16425	2005	0.3	2.4	4.9	0.4	0.5	2.4	**10.9**
16790	2006	0.3	2.4	4.8	0.4	0.5	2.3	**10.7**
17155	2007	0.3	2.3	4.6	0.4	0.5	2.3	**10.4**
17520	2008	0.3	2.3	4.5	0.4	0.5	2.3	**10.2**
17885	2009	0.3	2.2	4.3	0.4	0.4	2.2	**9.8**
18250	2010	0.3	2.1	4.2	0.4	0.4	2.2	**9.6**
18615	2011	0.3	2.0	3.9	0.4	0.4	2.1	**9.1**
18980	2012	0.3	2.0	3.8	0.4	0.4	2.0	**8.9**
19345	2013	0.3	1.9	3.8	0.3	0.4	2.0	**8.6**
19710	2014	0.2	1.8	3.7	0.3	0.4	2.0	**8.4**
20075	2015	0.2	1.7	3.6	0.3	0.4	1.9	**8.2**
20440	2016	0.2	1.6	3.6	0.3	0.3	1.9	**8.0**
20805	2017	0.2	1.6	3.5	0.3	0.3	1.9	**7.9**
21170	2018	0.2	1.6	3.5	0.3	0.3	1.9	**7.7**
21535	2019	0.2	1.5	3.4	0.3	0.3	1.8	**7.6**
21900	2020	0.2	1.5	3.4	0.3	0.3	1.8	**7.5**
22265	2021	0.2	1.5	3.4	0.3	0.3	1.8	**7.4**
22630	2022	0.2	1.5	3.3	0.3	0.3	1.8	**7.4**
22995	2023	0.2	1.5	3.3	0.3	0.3	1.8	**7.3**
23360	2024	0.2	1.5	3.3	0.3	0.3	1.8	**7.3**
23725	2025	0.1	1.5	3.3	0.3	0.3	1.8	**7.3**
24090	2026	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
24455	2027	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
24820	2028	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
25185	2029	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
25550	2030	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
25915	2031	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
26280	2032	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
26645	2033	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
27010	2034	0.1	1.5	3.3	0.3	0.3	1.8	**7.2**
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

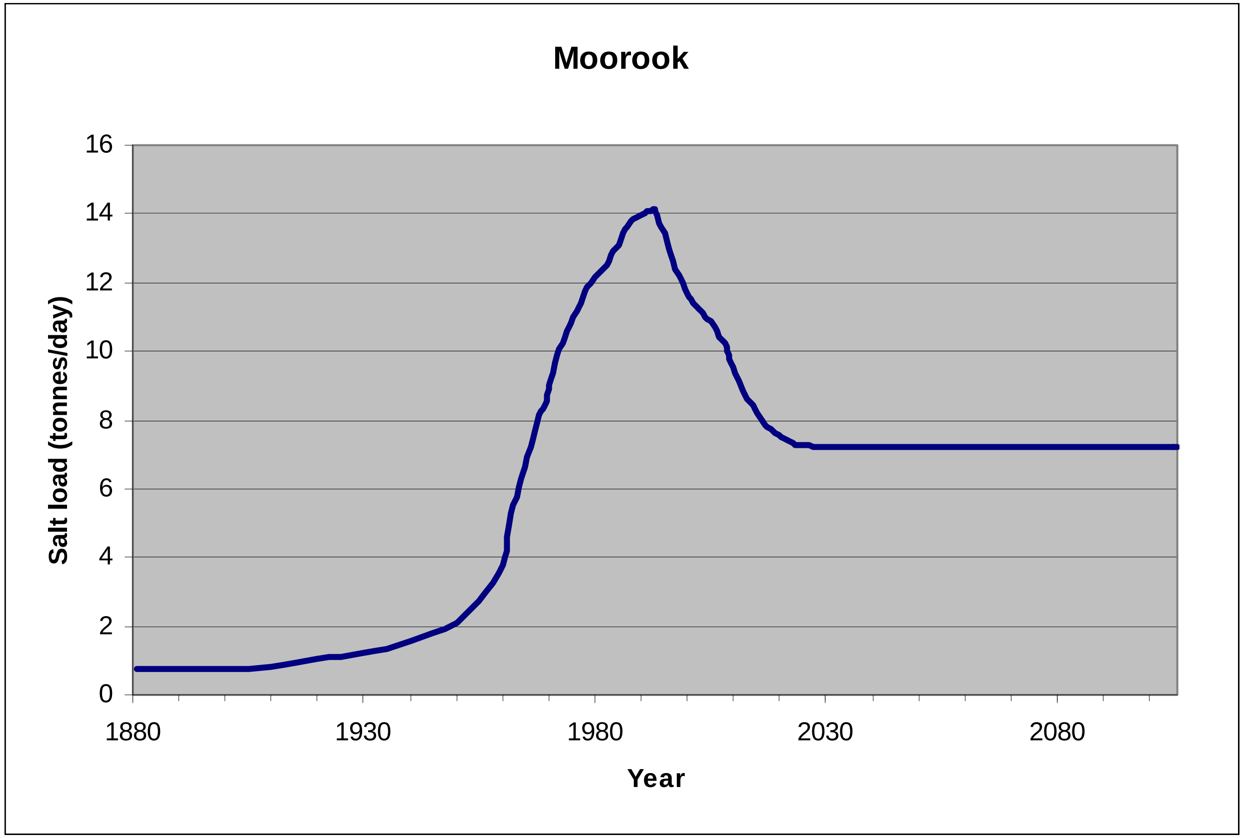
B-4(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.1	1.5	3.3	0.3	0.3	1.8	7.2
27740	2036	0.1	1.5	3.3	0.3	0.3	1.8	7.2
28105	2037	0.1	1.5	3.3	0.3	0.3	1.8	7.2
28470	2038	0.1	1.5	3.3	0.3	0.3	1.8	7.2
28835	2039	0.1	1.5	3.3	0.3	0.3	1.8	7.2
29200	2040	0.1	1.5	3.3	0.3	0.3	1.8	7.2
29565	2041	0.1	1.5	3.3	0.3	0.3	1.8	7.2
29930	2042	0.1	1.5	3.3	0.3	0.3	1.8	7.2
30295	2043	0.1	1.5	3.3	0.3	0.3	1.8	7.2
30660	2044	0.1	1.5	3.3	0.3	0.3	1.8	7.2
31025	2045	0.1	1.5	3.3	0.3	0.3	1.8	7.2
31390	2046	0.1	1.5	3.3	0.3	0.3	1.8	7.2
31755	2047	0.1	1.5	3.3	0.3	0.3	1.8	7.2
32120	2048	0.1	1.5	3.3	0.3	0.3	1.8	7.2
32485	2049	0.1	1.5	3.3	0.3	0.3	1.8	7.2
32850	2050	0.1	1.5	3.3	0.3	0.3	1.8	7.2
33215	2051	0.1	1.5	3.3	0.3	0.3	1.8	7.2
33580	2052	0.1	1.5	3.3	0.3	0.3	1.8	7.2
33945	2053	0.1	1.5	3.3	0.3	0.3	1.8	7.2
34310	2054	0.1	1.5	3.3	0.3	0.3	1.8	7.2
34675	2055	0.1	1.5	3.3	0.3	0.3	1.8	7.2
35040	2056	0.1	1.5	3.3	0.3	0.3	1.8	7.2
35405	2057	0.1	1.5	3.3	0.3	0.3	1.8	7.2
35770	2058	0.1	1.5	3.3	0.3	0.3	1.8	7.2
36135	2059	0.1	1.5	3.3	0.3	0.3	1.8	7.2
36500	2060	0.1	1.5	3.3	0.3	0.3	1.8	7.2
36865	2061	0.1	1.5	3.3	0.3	0.3	1.8	7.2
37230	2062	0.1	1.5	3.3	0.3	0.3	1.8	7.2
37595	2063	0.1	1.5	3.3	0.3	0.3	1.8	7.2
37960	2064	0.1	1.5	3.3	0.3	0.3	1.8	7.2
38325	2065	0.1	1.5	3.3	0.3	0.3	1.8	7.2
38690	2066	0.1	1.5	3.3	0.3	0.3	1.8	7.2
39055	2067	0.1	1.5	3.3	0.3	0.3	1.8	7.2
39420	2068	0.1	1.5	3.3	0.3	0.3	1.8	7.2
39785	2069	0.1	1.5	3.3	0.3	0.3	1.8	7.2
40150	2070	0.1	1.5	3.3	0.3	0.3	1.8	7.2
40515	2071	0.1	1.5	3.3	0.3	0.3	1.8	7.2
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	0.1	1.5	3.3	0.3	0.3	1.8	7.2
41245	2073	0.1	1.5	3.3	0.3	0.3	1.8	7.2
41610	2074	0.1	1.5	3.3	0.3	0.3	1.8	7.2
41975	2075	0.1	1.5	3.3	0.3	0.3	1.8	7.2
42340	2076	0.1	1.5	3.3	0.3	0.3	1.8	7.2
42705	2077	0.1	1.5	3.3	0.3	0.3	1.8	7.2
43070	2078	0.1	1.5	3.3	0.3	0.3	1.8	7.2
43435	2079	0.1	1.5	3.3	0.3	0.3	1.8	7.2
43800	2080	0.1	1.5	3.3	0.3	0.3	1.8	7.2
44165	2081	0.1	1.5	3.3	0.3	0.3	1.8	7.2
44530	2082	0.1	1.5	3.3	0.3	0.3	1.8	7.2
44895	2083	0.1	1.5	3.3	0.3	0.3	1.8	7.2
45260	2084	0.1	1.5	3.3	0.3	0.3	1.8	7.2
45625	2085	0.1	1.5	3.3	0.3	0.3	1.8	7.2
45990	2086	0.1	1.5	3.3	0.3	0.3	1.8	7.2
46355	2087	0.1	1.5	3.3	0.3	0.3	1.8	7.2
46720	2088	0.1	1.5	3.3	0.3	0.3	1.8	7.2
47085	2089	0.1	1.5	3.3	0.3	0.3	1.8	7.2
47450	2090	0.1	1.5	3.3	0.3	0.3	1.8	7.2
47815	2091	0.1	1.5	3.3	0.3	0.3	1.8	7.2
48180	2092	0.1	1.5	3.3	0.3	0.3	1.8	7.2
48545	2093	0.1	1.5	3.3	0.3	0.3	1.8	7.2
48910	2094	0.1	1.5	3.3	0.3	0.3	1.8	7.2
49275	2095	0.1	1.5	3.3	0.3	0.3	1.8	7.2
49640	2096	0.1	1.5	3.3	0.3	0.3	1.8	7.2
50005	2097	0.1	1.5	3.3	0.3	0.3	1.8	7.2
50370	2098	0.1	1.5	3.3	0.3	0.3	1.8	7.2
50735	2099	0.1	1.5	3.3	0.3	0.3	1.8	7.2
51100	2100	0.1	1.5	3.3	0.3	0.3	1.8	7.2
51465	2101	0.1	1.5	3.3	0.3	0.3	1.8	7.2
51830	2102	0.1	1.5	3.3	0.3	0.3	1.8	7.2
52195	2103	0.1	1.5	3.3	0.3	0.3	1.8	7.2
52560	2104	0.1	1.5	3.3	0.3	0.3	1.8	7.2
52925	2105	0.1	1.5	3.3	0.3	0.3	1.8	7.2
53290	2106	0.1	1.5	3.3	0.3	0.3	1.8	7.2
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3A)



B-4(S3A). Graph of modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
365	1961	5	236	802	3	8	87	1142	13
730	1962	6	282	912	4	11	98	1313	15
1095	1963	8	318	983	5	12	105	1431	17
1460	1964	10	353	1066	6	14	112	1562	18
1825	1965	12	381	1121	7	15	118	1654	19
2190	1966	14	411	1226	8	17	128	1804	21
2555	1967	17	434	1297	9	18	135	1910	22
2920	1968	20	460	1380	9	19	141	2030	23
3285	1969	23	480	1430	10	20	146	2108	24
3650	1970	27	513	1534	11	22	153	2260	26
4015	1971	31	539	1590	12	23	158	2352	27
4380	1972	36	578	1679	13	25	164	2494	29
4745	1973	41	607	1723	14	26	168	2580	30
5110	1974	47	638	1771	15	27	172	2670	31
5475	1975	52	662	1797	16	28	174	2729	32
5840	1976	58	689	1852	17	29	178	2823	33
6205	1977	63	710	1882	18	30	181	2883	33
6570	1978	68	736	1939	19	31	185	2977	34
6935	1979	73	755	1970	19	32	187	3036	35
7300	1980	77	769	1990	21	33	189	3078	36
7665	1981	81	779	2004	22	33	190	3109	36
8030	1982	85	787	2035	24	34	192	3157	37
8395	1983	88	793	2056	26	34	194	3191	37
8760	1984	92	809	2108	27	35	197	3268	38
9125	1985	95	823	2136	27	36	199	3316	38
9490	1986	99	844	2193	28	36	203	3403	39
9855	1987	102	860	2224	29	37	206	3458	40
10220	1988	106	871	2243	30	38	207	3495	40
10585	1989	109	880	2257	30	38	208	3522	41
10950	1990	111	886	2266	31	38	209	3542	41
11315	1991	114	892	2273	31	39	210	3557	41
11680	1992	115	896	2277	32	39	210	3568	41
12045	1993	117	900	2282	32	39	211	3581	41
12410	1994	118	901	2184	32	38	204	3478	40
12775	1995	119	896	2127	31	38	200	3411	39
13140	1996	120	885	2030	30	37	191	3294	38
13505	1997	120	872	1965	30	36	186	3209	37
13870	1998	119	858	1867	29	35	178	3085	36

B-4(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
14235	1999	118	843	1801	28	34	172	2996	35
14600	2000	117	828	1714	27	33	164	2883	33
14965	2001	116	813	1656	26	32	159	2803	32
15330	2002	115	800	1598	26	31	155	2725	32
15695	2003	113	789	1561	25	31	152	2671	31
16060	2004	112	780	1518	25	30	148	2614	30
16425	2005	110	772	1492	25	30	146	2575	30
16790	2006	109	766	1446	24	30	143	2518	29
17155	2007	107	741	1386	24	29	139	2425	28
17520	2008	104	724	1354	24	28	137	2370	27
17885	2009	100	693	1275	23	27	132	2251	26
18250	2010	97	672	1238	23	26	128	2184	25
18615	2011	92	639	1158	22	25	124	2060	24
18980	2012	88	617	1121	21	24	120	1992	23
19345	2013	83	584	1042	21	23	115	1868	22
19710	2014	78	561	1006	20	22	112	1799	21
20075	2015	72	527	920	19	21	107	1667	19
20440	2016	67	504	880	19	20	103	1594	18
20805	2017	62	470	826	17	19	99	1493	17
21170	2018	56	446	796	17	18	96	1429	17
21535	2019	50	411	768	16	17	93	1355	16
21900	2020	45	386	748	15	16	91	1301	15
22265	2021	40	363	727	14	15	89	1247	14
22630	2022	36	345	712	13	14	87	1206	14
22995	2023	32	333	693	12	13	85	1168	14
23360	2024	30	324	680	11	13	83	1141	13
23725	2025	27	317	671	11	13	82	1121	13
24090	2026	25	312	665	11	12	81	1106	13
24455	2027	24	308	652	10	12	80	1087	13
24820	2028	22	304	644	10	12	79	1072	12
25185	2029	21	301	630	10	12	78	1052	12
25550	2030	20	299	620	10	12	77	1038	12
25915	2031	20	297	606	10	12	76	1020	12
26280	2032	19	296	596	9	11	75	1007	12
26645	2033	18	295	590	9	11	74	998	12
27010	2034	18	294	586	9	11	74	992	11

B-4(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
27375	2035	17	293	583	9	11	73	**987**	***11***
27740	2036	17	292	581	9	11	73	**984**	***11***
28105	2037	17	292	580	9	11	73	**982**	***11***
28470	2038	17	291	579	9	11	73	**980**	***11***
28835	2039	16	291	578	9	11	73	**979**	***11***
29200	2040	16	290	578	9	11	73	**978**	***11***
29565	2041	16	290	578	9	11	73	**977**	***11***
29930	2042	16	290	577	9	11	73	**976**	***11***
30295	2043	16	290	577	9	11	73	**976**	***11***
30660	2044	16	290	577	9	11	73	**975**	***11***
31025	2045	16	289	577	9	11	73	**975**	***11***
31390	2046	16	289	577	9	11	73	**974**	***11***
31755	2047	16	289	577	9	11	73	**974**	***11***
32120	2048	16	289	577	9	11	72	**974**	***11***
32485	2049	16	289	577	9	11	72	**974**	***11***
32850	2050	16	289	577	9	11	72	**974**	***11***
33215	2051	16	289	577	9	11	72	**974**	***11***
33580	2052	16	289	577	9	11	72	**974**	***11***
33945	2053	16	289	577	9	11	72	**973**	***11***
34310	2054	16	289	576	9	11	72	**973**	***11***
34675	2055	16	289	576	9	11	72	**973**	***11***
35040	2056	16	289	576	9	11	72	**973**	***11***
35405	2057	16	289	576	9	11	72	**973**	***11***
35770	2058	16	289	576	9	11	72	**973**	***11***
36135	2059	16	289	576	9	11	72	**973**	***11***
36500	2060	16	289	576	9	11	72	**973**	***11***
36865	2061	16	289	576	9	11	72	**973**	***11***
37230	2062	16	289	576	9	11	72	**973**	***11***
37595	2063	16	289	576	9	11	72	**973**	***11***
37960	2064	16	289	576	9	11	72	**973**	***11***
38325	2065	16	289	576	9	11	72	**973**	***11***
38690	2066	16	289	576	9	11	72	**973**	***11***
39055	2067	16	289	576	9	11	72	**973**	***11***
39420	2068	16	289	576	9	11	72	**973**	***11***
39785	2069	16	289	576	9	11	72	**973**	***11***
40150	2070	16	289	576	9	11	72	**973**	***11***

B-4(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
40515	2071	16	289	576	9	11	72	973	11
40880	2072	16	289	576	9	11	72	973	11
41245	2073	16	289	576	9	11	72	973	11
41610	2074	16	289	576	9	11	72	973	11
41975	2075	16	289	576	9	11	72	973	11
42340	2076	16	289	576	9	11	72	973	11
42705	2077	16	289	576	9	11	72	973	11
43070	2078	16	289	576	9	11	72	973	11
43435	2079	16	289	576	9	11	72	973	11
43800	2080	16	289	576	9	11	72	973	11
44165	2081	16	289	576	9	11	72	973	11
44530	2082	16	289	576	9	11	72	973	11
44895	2083	16	289	576	9	11	72	973	11
45260	2084	16	289	576	9	11	72	973	11
45625	2085	16	289	576	9	11	72	973	11
45990	2086	16	289	576	9	11	72	973	11
46355	2087	16	289	576	9	11	72	973	11
46720	2088	16	289	576	9	11	72	973	11
47085	2089	16	289	576	9	11	72	973	11
47450	2090	16	289	576	9	11	72	973	11
47815	2091	16	289	576	9	11	72	973	11
48180	2092	16	289	576	9	11	72	973	11
48545	2093	16	289	576	9	11	72	973	11
48910	2094	16	289	576	9	11	72	973	11
49275	2095	16	289	576	9	11	72	973	11
49640	2096	16	289	576	9	11	72	973	11
50005	2097	16	289	576	9	11	72	973	11
50370	2098	16	289	576	9	11	72	973	11
50735	2099	16	289	576	9	11	72	973	11
51100	2100	16	289	576	9	11	72	973	11
51465	2101	16	289	576	9	11	72	973	11
51830	2102	16	289	576	9	11	72	973	11
52195	2103	16	289	576	9	11	72	973	11
52560	2104	16	289	576	9	11	72	973	11
52925	2105	16	289	576	9	11	72	973	11
53290	2106	16	289	576	9	11	72	973	11

B-4(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	0.0	0.7	2.4	0.0	0.1	1.3	4.6
730	1962	0.0	0.8	2.7	0.1	0.2	1.5	5.3
1095	1963	0.0	1.0	2.9	0.1	0.2	1.6	5.8
1460	1964	0.0	1.1	3.2	0.1	0.2	1.7	6.3
1825	1965	0.0	1.1	3.4	0.1	0.2	1.8	6.6
2190	1966	0.0	1.2	3.7	0.1	0.3	1.9	7.2
2555	1967	0.1	1.3	3.9	0.1	0.3	2.0	7.7
2920	1968	0.1	1.4	4.1	0.1	0.3	2.1	8.1
3285	1969	0.1	1.4	4.3	0.2	0.3	2.2	8.4
3650	1970	0.1	1.5	4.6	0.2	0.3	2.3	9.0
4015	1971	0.1	1.6	4.8	0.2	0.3	2.4	9.4
4380	1972	0.1	1.7	5.0	0.2	0.4	2.5	9.9
4745	1973	0.1	1.8	5.2	0.2	0.4	2.5	10.2
5110	1974	0.1	1.9	5.3	0.2	0.4	2.6	10.6
5475	1975	0.2	2.0	5.4	0.2	0.4	2.6	10.8
5840	1976	0.2	2.1	5.6	0.3	0.4	2.7	11.2
6205	1977	0.2	2.1	5.6	0.3	0.5	2.7	11.4
6570	1978	0.2	2.2	5.8	0.3	0.5	2.8	11.7
6935	1979	0.2	2.3	5.9	0.3	0.5	2.8	12.0
7300	1980	0.2	2.3	6.0	0.3	0.5	2.8	12.1
7665	1981	0.2	2.3	6.0	0.3	0.5	2.9	12.3
8030	1982	0.3	2.4	6.1	0.4	0.5	2.9	12.5
8395	1983	0.3	2.4	6.2	0.4	0.5	2.9	12.6
8760	1984	0.3	2.4	6.3	0.4	0.5	3.0	12.9
9125	1985	0.3	2.5	6.4	0.4	0.5	3.0	13.1
9490	1986	0.3	2.5	6.6	0.4	0.5	3.0	13.4
9855	1987	0.3	2.6	6.7	0.4	0.6	3.1	13.6
10220	1988	0.3	2.6	6.7	0.4	0.6	3.1	13.8
10585	1989	0.3	2.6	6.8	0.5	0.6	3.1	13.9
10950	1990	0.3	2.7	6.8	0.5	0.6	3.1	14.0
11315	1991	0.3	2.7	6.8	0.5	0.6	3.1	14.0
11680	1992	0.3	2.7	6.8	0.5	0.6	3.2	14.1
12045	1993	0.4	2.7	6.8	0.5	0.6	3.2	14.1
12410	1994	0.4	2.7	6.6	0.5	0.6	3.1	13.7
12775	1995	0.4	2.7	6.4	0.5	0.6	3.0	13.5
13140	1996	0.4	2.7	6.1	0.5	0.6	2.9	13.0
13505	1997	0.4	2.6	5.9	0.4	0.5	2.8	12.6
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	0.4	2.6	5.6	0.4	0.5	2.7	**12.1**
14235	1999	0.4	2.5	5.4	0.4	0.5	2.6	**11.8**
14600	2000	0.4	2.5	5.1	0.4	0.5	2.5	**11.3**
14965	2001	0.3	2.4	5.0	0.4	0.5	2.4	**11.0**
15330	2002	0.3	2.4	4.8	0.4	0.5	2.3	**10.7**
15695	2003	0.3	2.4	4.7	0.4	0.5	2.3	**10.5**
16060	2004	0.3	2.3	4.6	0.4	0.5	2.2	**10.3**
16425	2005	0.3	2.3	4.5	0.4	0.4	2.2	**10.1**
16790	2006	0.3	2.3	4.3	0.4	0.4	2.1	**9.9**
17155	2007	0.3	2.2	4.2	0.4	0.4	2.1	**9.6**
17520	2008	0.3	2.2	4.1	0.4	0.4	2.0	**9.4**
17885	2009	0.3	2.1	3.8	0.3	0.4	2.0	**8.9**
18250	2010	0.3	2.0	3.7	0.3	0.4	1.9	**8.7**
18615	2011	0.3	1.9	3.5	0.3	0.4	1.9	**8.2**
18980	2012	0.3	1.9	3.4	0.3	0.4	1.8	**8.0**
19345	2013	0.2	1.8	3.1	0.3	0.3	1.7	**7.5**
19710	2014	0.2	1.7	3.0	0.3	0.3	1.7	**7.3**
20075	2015	0.2	1.6	2.8	0.3	0.3	1.6	**6.8**
20440	2016	0.2	1.5	2.6	0.3	0.3	1.6	**6.5**
20805	2017	0.2	1.4	2.5	0.3	0.3	1.5	**6.1**
21170	2018	0.2	1.3	2.4	0.3	0.3	1.4	**5.9**
21535	2019	0.2	1.2	2.3	0.2	0.2	1.4	**5.6**
21900	2020	0.1	1.2	2.2	0.2	0.2	1.4	**5.4**
22265	2021	0.1	1.1	2.2	0.2	0.2	1.3	**5.1**
22630	2022	0.1	1.0	2.1	0.2	0.2	1.3	**5.0**
22995	2023	0.1	1.0	2.1	0.2	0.2	1.3	**4.8**
23360	2024	0.1	1.0	2.0	0.2	0.2	1.2	**4.7**
23725	2025	0.1	1.0	2.0	0.2	0.2	1.2	**4.6**
24090	2026	0.1	0.9	2.0	0.2	0.2	1.2	**4.6**
24455	2027	0.1	0.9	2.0	0.2	0.2	1.2	**4.5**
24820	2028	0.1	0.9	1.9	0.2	0.2	1.2	**4.4**
25185	2029	0.1	0.9	1.9	0.1	0.2	1.2	**4.4**
25550	2030	0.1	0.9	1.9	0.1	0.2	1.2	**4.3**
25915	2031	0.1	0.9	1.8	0.1	0.2	1.1	**4.2**
26280	2032	0.1	0.9	1.8	0.1	0.2	1.1	**4.2**
26645	2033	0.1	0.9	1.8	0.1	0.2	1.1	**4.1**
27010	2034	0.1	0.9	1.8	0.1	0.2	1.1	**4.1**
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

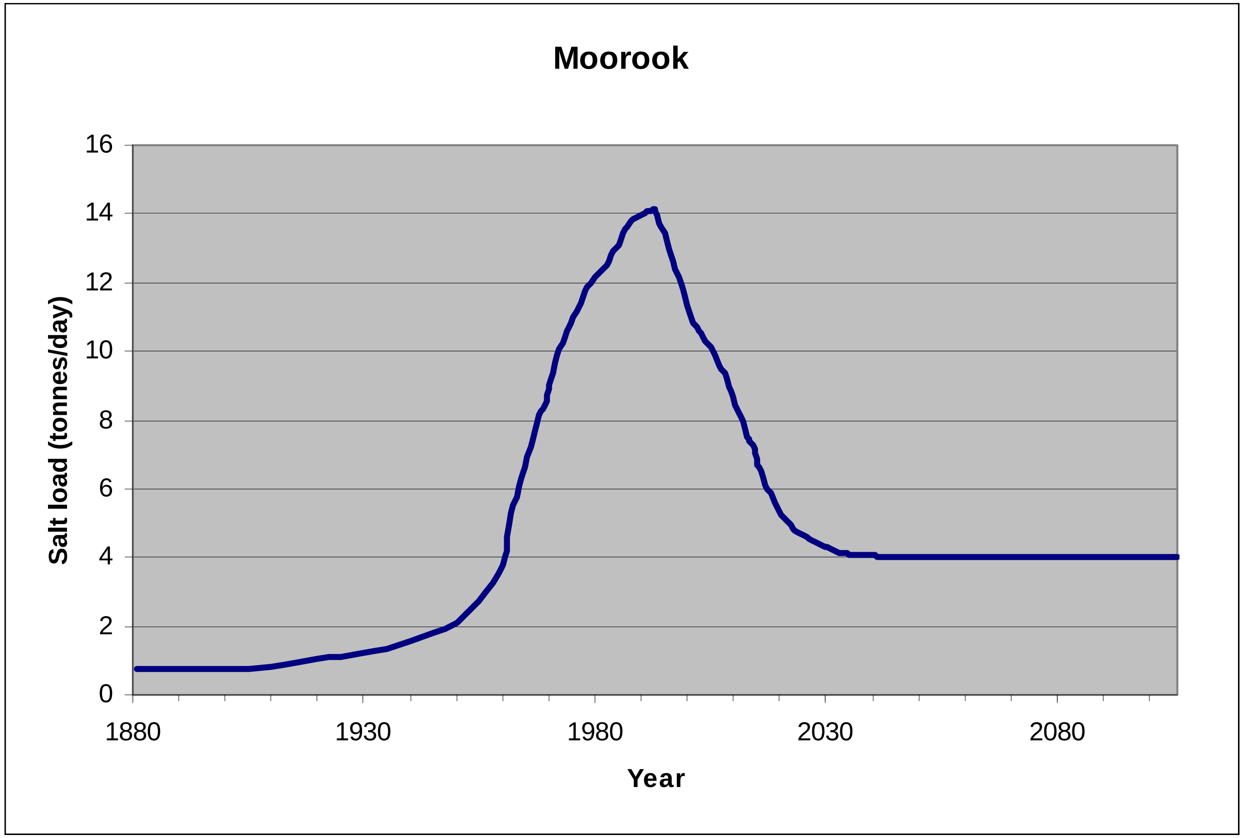
B-4(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.1	0.9	1.7	0.1	0.2	1.1	4.1
27740	2036	0.1	0.9	1.7	0.1	0.2	1.1	4.1
28105	2037	0.1	0.9	1.7	0.1	0.2	1.1	4.1
28470	2038	0.0	0.9	1.7	0.1	0.2	1.1	4.1
28835	2039	0.0	0.9	1.7	0.1	0.2	1.1	4.1
29200	2040	0.0	0.9	1.7	0.1	0.2	1.1	4.0
29565	2041	0.0	0.9	1.7	0.1	0.2	1.1	4.0
29930	2042	0.0	0.9	1.7	0.1	0.2	1.1	4.0
30295	2043	0.0	0.9	1.7	0.1	0.2	1.1	4.0
30660	2044	0.0	0.9	1.7	0.1	0.2	1.1	4.0
31025	2045	0.0	0.9	1.7	0.1	0.2	1.1	4.0
31390	2046	0.0	0.9	1.7	0.1	0.2	1.1	4.0
31755	2047	0.0	0.9	1.7	0.1	0.2	1.1	4.0
32120	2048	0.0	0.9	1.7	0.1	0.2	1.1	4.0
32485	2049	0.0	0.9	1.7	0.1	0.2	1.1	4.0
32850	2050	0.0	0.9	1.7	0.1	0.2	1.1	4.0
33215	2051	0.0	0.9	1.7	0.1	0.2	1.1	4.0
33580	2052	0.0	0.9	1.7	0.1	0.2	1.1	4.0
33945	2053	0.0	0.9	1.7	0.1	0.2	1.1	4.0
34310	2054	0.0	0.9	1.7	0.1	0.2	1.1	4.0
34675	2055	0.0	0.9	1.7	0.1	0.2	1.1	4.0
35040	2056	0.0	0.9	1.7	0.1	0.2	1.1	4.0
35405	2057	0.0	0.9	1.7	0.1	0.2	1.1	4.0
35770	2058	0.0	0.9	1.7	0.1	0.2	1.1	4.0
36135	2059	0.0	0.9	1.7	0.1	0.2	1.1	4.0
36500	2060	0.0	0.9	1.7	0.1	0.2	1.1	4.0
36865	2061	0.0	0.9	1.7	0.1	0.2	1.1	4.0
37230	2062	0.0	0.9	1.7	0.1	0.2	1.1	4.0
37595	2063	0.0	0.9	1.7	0.1	0.2	1.1	4.0
37960	2064	0.0	0.9	1.7	0.1	0.2	1.1	4.0
38325	2065	0.0	0.9	1.7	0.1	0.2	1.1	4.0
38690	2066	0.0	0.9	1.7	0.1	0.2	1.1	4.0
39055	2067	0.0	0.9	1.7	0.1	0.2	1.1	4.0
39420	2068	0.0	0.9	1.7	0.1	0.2	1.1	4.0
39785	2069	0.0	0.9	1.7	0.1	0.2	1.1	4.0
40150	2070	0.0	0.9	1.7	0.1	0.2	1.1	4.0
40515	2071	0.0	0.9	1.7	0.1	0.2	1.1	4.0
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
41245	2073	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
41610	2074	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
41975	2075	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
42340	2076	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
42705	2077	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
43070	2078	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
43435	2079	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
43800	2080	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
44165	2081	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
44530	2082	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
44895	2083	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
45260	2084	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
45625	2085	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
45990	2086	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
46355	2087	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
46720	2088	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
47085	2089	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
47450	2090	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
47815	2091	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
48180	2092	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
48545	2093	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
48910	2094	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
49275	2095	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
49640	2096	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
50005	2097	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
50370	2098	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
50735	2099	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
51100	2100	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
51465	2101	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
51830	2102	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
52195	2103	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
52560	2104	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
52925	2105	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
53290	2106	0.0	0.9	1.7	0.1	0.2	1.1	**4.0**
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3B)



B-4(S3B). Graph of modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
365	1961	5	236	802	3	8	87	**1142**	***13***
730	1962	6	282	912	4	11	98	**1313**	***15***
1095	1963	8	318	983	5	12	105	**1431**	***17***
1460	1964	10	353	1066	6	14	112	**1562**	***18***
1825	1965	12	381	1121	7	15	118	**1654**	***19***
2190	1966	14	411	1226	8	17	128	**1804**	***21***
2555	1967	17	434	1297	9	18	135	**1910**	***22***
2920	1968	20	460	1380	9	19	141	**2030**	***23***
3285	1969	23	480	1430	10	20	146	**2108**	***24***
3650	1970	27	513	1534	11	22	153	**2260**	***26***
4015	1971	31	539	1590	12	23	158	**2352**	***27***
4380	1972	36	578	1679	13	25	164	**2494**	***29***
4745	1973	41	607	1723	14	26	168	**2580**	***30***
5110	1974	47	638	1771	15	27	172	**2670**	***31***
5475	1975	52	662	1797	16	28	174	**2729**	***32***
5840	1976	58	689	1852	17	29	178	**2823**	***33***
6205	1977	63	710	1882	18	30	181	**2883**	***33***
6570	1978	68	736	1939	19	31	185	**2977**	***34***
6935	1979	73	755	1970	19	32	187	**3036**	***35***
7300	1980	77	769	1990	21	33	189	**3078**	***36***
7665	1981	81	779	2004	22	33	190	**3109**	***36***
8030	1982	85	787	2035	24	34	192	**3157**	***37***
8395	1983	88	793	2056	26	34	194	**3191**	***37***
8760	1984	92	809	2108	27	35	197	**3268**	***38***
9125	1985	95	823	2136	27	36	199	**3316**	***38***
9490	1986	99	844	2193	28	36	203	**3403**	***39***
9855	1987	102	860	2224	29	37	206	**3458**	***40***
10220	1988	106	871	2243	30	38	207	**3495**	***40***
10585	1989	109	880	2257	30	38	208	**3522**	***41***
10950	1990	111	886	2266	31	38	209	**3542**	***41***
11315	1991	114	892	2273	31	39	210	**3557**	***41***
11680	1992	115	896	2277	32	39	210	**3568**	***41***
12045	1993	117	900	2282	32	39	211	**3581**	***41***
12410	1994	118	901	2184	32	38	204	**3478**	***40***
12775	1995	119	896	2127	31	38	200	**3411**	***39***
13140	1996	120	885	2030	30	37	191	**3294**	***38***
13505	1997	120	872	1965	30	36	186	**3209**	***37***
13870	1998	119	858	1867	29	35	178	**3085**	***36***

B-4(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
14235	1999	118	843	1801	28	34	172	2996	35
14600	2000	117	827	1703	27	33	163	2871	33
14965	2001	116	811	1638	26	32	157	2781	32
15330	2002	114	797	1576	25	31	152	2696	31
15695	2003	113	785	1535	25	30	149	2636	31
16060	2004	111	775	1489	25	30	145	2574	30
16425	2005	110	766	1460	24	29	143	2533	29
16790	2006	108	759	1412	24	29	139	2472	29
17155	2007	106	733	1351	23	28	136	2378	28
17520	2008	103	715	1319	23	28	133	2321	27
17885	2009	99	684	1240	22	26	128	2200	25
18250	2010	96	663	1203	22	26	125	2133	25
18615	2011	91	630	1122	21	24	120	2008	23
18980	2012	87	607	1085	21	24	117	1940	22
19345	2013	82	574	1006	20	22	112	1816	21
19710	2014	77	551	969	19	22	108	1746	20
20075	2015	71	518	885	19	20	103	1615	19
20440	2016	66	494	845	18	19	99	1542	18
20805	2017	60	460	760	17	18	93	1408	16
21170	2018	55	436	719	16	17	90	1333	15
21535	2019	49	401	685	15	16	86	1251	14
21900	2020	44	376	662	14	15	84	1194	14
22265	2021	38	341	637	13	13	81	1124	13
22630	2022	34	316	620	12	12	79	1073	12
22995	2023	30	298	600	11	12	77	1028	12
23360	2024	27	285	586	10	11	75	995	12
23725	2025	25	276	576	10	11	74	970	11
24090	2026	23	268	569	9	10	73	952	11
24455	2027	21	263	556	9	10	72	930	11
24820	2028	19	258	547	9	10	70	913	11
25185	2029	18	254	533	9	10	69	892	10
25550	2030	17	251	523	8	9	68	876	10
25915	2031	16	249	508	8	9	67	857	10
26280	2032	15	247	498	8	9	66	843	10
26645	2033	14	245	492	8	9	65	833	10
27010	2034	14	244	487	8	9	64	826	10

B-4(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
27375	2035	14	242	485	8	9	64	**821**	***10***
27740	2036	13	241	483	8	9	64	**818**	***9***
28105	2037	13	241	481	8	9	64	**815**	***9***
28470	2038	13	240	480	8	9	64	**813**	***9***
28835	2039	13	239	479	8	9	63	**811**	***9***
29200	2040	12	239	479	7	9	63	**810**	***9***
29565	2041	12	239	479	7	9	63	**809**	***9***
29930	2042	12	238	478	7	9	63	**808**	***9***
30295	2043	12	238	478	7	9	63	**807**	***9***
30660	2044	12	238	478	7	9	63	**807**	***9***
31025	2045	12	238	478	7	9	63	**806**	***9***
31390	2046	12	238	477	7	9	63	**806**	***9***
31755	2047	12	237	477	7	9	63	**806**	***9***
32120	2048	12	237	477	7	9	63	**805**	***9***
32485	2049	12	237	477	7	9	63	**805**	***9***
32850	2050	12	237	477	7	9	63	**805**	***9***
33215	2051	12	237	477	7	9	63	**805**	***9***
33580	2052	12	237	477	7	9	63	**805**	***9***
33945	2053	12	237	477	7	9	63	**805**	***9***
34310	2054	12	237	477	7	9	63	**805**	***9***
34675	2055	12	237	477	7	9	63	**804**	***9***
35040	2056	12	237	477	7	9	63	**804**	***9***
35405	2057	12	237	477	7	9	63	**804**	***9***
35770	2058	12	237	477	7	9	63	**804**	***9***
36135	2059	12	237	477	7	9	63	**804**	***9***
36500	2060	12	237	477	7	9	63	**804**	***9***
36865	2061	12	237	477	7	9	63	**804**	***9***
37230	2062	12	237	477	7	9	63	**804**	***9***
37595	2063	12	237	477	7	9	63	**804**	***9***
37960	2064	12	237	477	7	9	63	**804**	***9***
38325	2065	12	237	477	7	9	63	**804**	***9***
38690	2066	12	237	477	7	9	63	**804**	***9***
39055	2067	12	237	477	7	9	63	**804**	***9***
39420	2068	12	237	477	7	9	63	**804**	***9***
39785	2069	12	237	477	7	9	63	**804**	***9***
40150	2070	12	237	477	7	9	63	**804**	***9***

B-4(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
40515	2071	12	237	477	7	9	63	804	9
40880	2072	12	237	477	7	9	63	804	9
41245	2073	12	237	477	7	9	63	804	9
41610	2074	12	237	477	7	9	63	804	9
41975	2075	12	237	477	7	9	63	804	9
42340	2076	12	237	477	7	9	63	804	9
42705	2077	12	237	477	7	9	63	804	9
43070	2078	12	237	477	7	9	63	804	9
43435	2079	12	237	477	7	9	63	804	9
43800	2080	12	237	477	7	9	63	804	9
44165	2081	12	237	477	7	9	63	804	9
44530	2082	12	237	477	7	9	63	804	9
44895	2083	12	237	477	7	9	63	804	9
45260	2084	12	237	477	7	9	63	804	9
45625	2085	12	237	477	7	9	63	804	9
45990	2086	12	237	477	7	9	63	804	9
46355	2087	12	237	477	7	9	63	804	9
46720	2088	12	237	477	7	9	63	804	9
47085	2089	12	237	477	7	9	63	804	9
47450	2090	12	237	477	7	9	63	804	9
47815	2091	12	237	477	7	9	63	804	9
48180	2092	12	237	477	7	9	63	804	9
48545	2093	12	237	477	7	9	63	804	9
48910	2094	12	237	477	7	9	63	804	9
49275	2095	12	237	477	7	9	63	804	9
49640	2096	12	237	477	7	9	63	804	9
50005	2097	12	237	477	7	9	63	804	9
50370	2098	12	237	477	7	9	63	804	9
50735	2099	12	237	477	7	9	63	804	9
51100	2100	12	237	477	7	9	63	804	9
51465	2101	12	237	477	7	9	63	804	9
51830	2102	12	237	477	7	9	63	804	9
52195	2103	12	237	477	7	9	63	804	9
52560	2104	12	237	477	7	9	63	804	9
52925	2105	12	237	477	7	9	63	804	9
53290	2106	12	237	477	7	9	63	804	9

B-4(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	0.0	0.7	2.4	0.0	0.1	1.3	4.6
730	1962	0.0	0.8	2.7	0.1	0.2	1.5	5.3
1095	1963	0.0	1.0	2.9	0.1	0.2	1.6	5.8
1460	1964	0.0	1.1	3.2	0.1	0.2	1.7	6.3
1825	1965	0.0	1.1	3.4	0.1	0.2	1.8	6.6
2190	1966	0.0	1.2	3.7	0.1	0.3	1.9	7.2
2555	1967	0.1	1.3	3.9	0.1	0.3	2.0	7.7
2920	1968	0.1	1.4	4.1	0.1	0.3	2.1	8.1
3285	1969	0.1	1.4	4.3	0.2	0.3	2.2	8.4
3650	1970	0.1	1.5	4.6	0.2	0.3	2.3	9.0
4015	1971	0.1	1.6	4.8	0.2	0.3	2.4	9.4
4380	1972	0.1	1.7	5.0	0.2	0.4	2.5	9.9
4745	1973	0.1	1.8	5.2	0.2	0.4	2.5	10.2
5110	1974	0.1	1.9	5.3	0.2	0.4	2.6	10.6
5475	1975	0.2	2.0	5.4	0.2	0.4	2.6	10.8
5840	1976	0.2	2.1	5.6	0.3	0.4	2.7	11.2
6205	1977	0.2	2.1	5.6	0.3	0.5	2.7	11.4
6570	1978	0.2	2.2	5.8	0.3	0.5	2.8	11.7
6935	1979	0.2	2.3	5.9	0.3	0.5	2.8	12.0
7300	1980	0.2	2.3	6.0	0.3	0.5	2.8	12.1
7665	1981	0.2	2.3	6.0	0.3	0.5	2.9	12.3
8030	1982	0.3	2.4	6.1	0.4	0.5	2.9	12.5
8395	1983	0.3	2.4	6.2	0.4	0.5	2.9	12.6
8760	1984	0.3	2.4	6.3	0.4	0.5	3.0	12.9
9125	1985	0.3	2.5	6.4	0.4	0.5	3.0	13.1
9490	1986	0.3	2.5	6.6	0.4	0.5	3.0	13.4
9855	1987	0.3	2.6	6.7	0.4	0.6	3.1	13.6
10220	1988	0.3	2.6	6.7	0.4	0.6	3.1	13.8
10585	1989	0.3	2.6	6.8	0.5	0.6	3.1	13.9
10950	1990	0.3	2.7	6.8	0.5	0.6	3.1	14.0
11315	1991	0.3	2.7	6.8	0.5	0.6	3.1	14.0
11680	1992	0.3	2.7	6.8	0.5	0.6	3.2	14.1
12045	1993	0.4	2.7	6.8	0.5	0.6	3.2	14.1
12410	1994	0.4	2.7	6.6	0.5	0.6	3.1	13.7
12775	1995	0.4	2.7	6.4	0.5	0.6	3.0	13.5
13140	1996	0.4	2.7	6.1	0.5	0.6	2.9	13.0
13505	1997	0.4	2.6	5.9	0.4	0.5	2.8	12.6
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	0.4	2.6	5.6	0.4	0.5	2.7	12.1
14235	1999	0.4	2.5	5.4	0.4	0.5	2.6	11.8
14600	2000	0.4	2.5	5.1	0.4	0.5	2.4	11.3
14965	2001	0.3	2.4	4.9	0.4	0.5	2.4	10.9
15330	2002	0.3	2.4	4.7	0.4	0.5	2.3	10.6
15695	2003	0.3	2.4	4.6	0.4	0.5	2.2	10.4
16060	2004	0.3	2.3	4.5	0.4	0.4	2.2	10.1
16425	2005	0.3	2.3	4.4	0.4	0.4	2.1	10.0
16790	2006	0.3	2.3	4.2	0.4	0.4	2.1	9.7
17155	2007	0.3	2.2	4.1	0.4	0.4	2.0	9.4
17520	2008	0.3	2.1	4.0	0.3	0.4	2.0	9.2
17885	2009	0.3	2.1	3.7	0.3	0.4	1.9	8.7
18250	2010	0.3	2.0	3.6	0.3	0.4	1.9	8.5
18615	2011	0.3	1.9	3.4	0.3	0.4	1.8	8.0
18980	2012	0.3	1.8	3.3	0.3	0.4	1.7	7.8
19345	2013	0.2	1.7	3.0	0.3	0.3	1.7	7.3
19710	2014	0.2	1.7	2.9	0.3	0.3	1.6	7.0
20075	2015	0.2	1.6	2.7	0.3	0.3	1.5	6.5
20440	2016	0.2	1.5	2.5	0.3	0.3	1.5	6.3
20805	2017	0.2	1.4	2.3	0.3	0.3	1.4	5.8
21170	2018	0.2	1.3	2.2	0.2	0.3	1.3	5.5
21535	2019	0.1	1.2	2.1	0.2	0.2	1.3	5.2
21900	2020	0.1	1.1	2.0	0.2	0.2	1.3	4.9
22265	2021	0.1	1.0	1.9	0.2	0.2	1.2	4.7
22630	2022	0.1	0.9	1.9	0.2	0.2	1.2	4.5
22995	2023	0.1	0.9	1.8	0.2	0.2	1.1	4.3
23360	2024	0.1	0.9	1.8	0.2	0.2	1.1	4.1
23725	2025	0.1	0.8	1.7	0.1	0.2	1.1	4.0
24090	2026	0.1	0.8	1.7	0.1	0.2	1.1	4.0
24455	2027	0.1	0.8	1.7	0.1	0.1	1.1	3.9
24820	2028	0.1	0.8	1.6	0.1	0.1	1.1	3.8
25185	2029	0.1	0.8	1.6	0.1	0.1	1.0	3.7
25550	2030	0.0	0.8	1.6	0.1	0.1	1.0	3.7
25915	2031	0.0	0.7	1.5	0.1	0.1	1.0	3.6
26280	2032	0.0	0.7	1.5	0.1	0.1	1.0	3.5
26645	2033	0.0	0.7	1.5	0.1	0.1	1.0	3.5
27010	2034	0.0	0.7	1.5	0.1	0.1	1.0	3.5
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

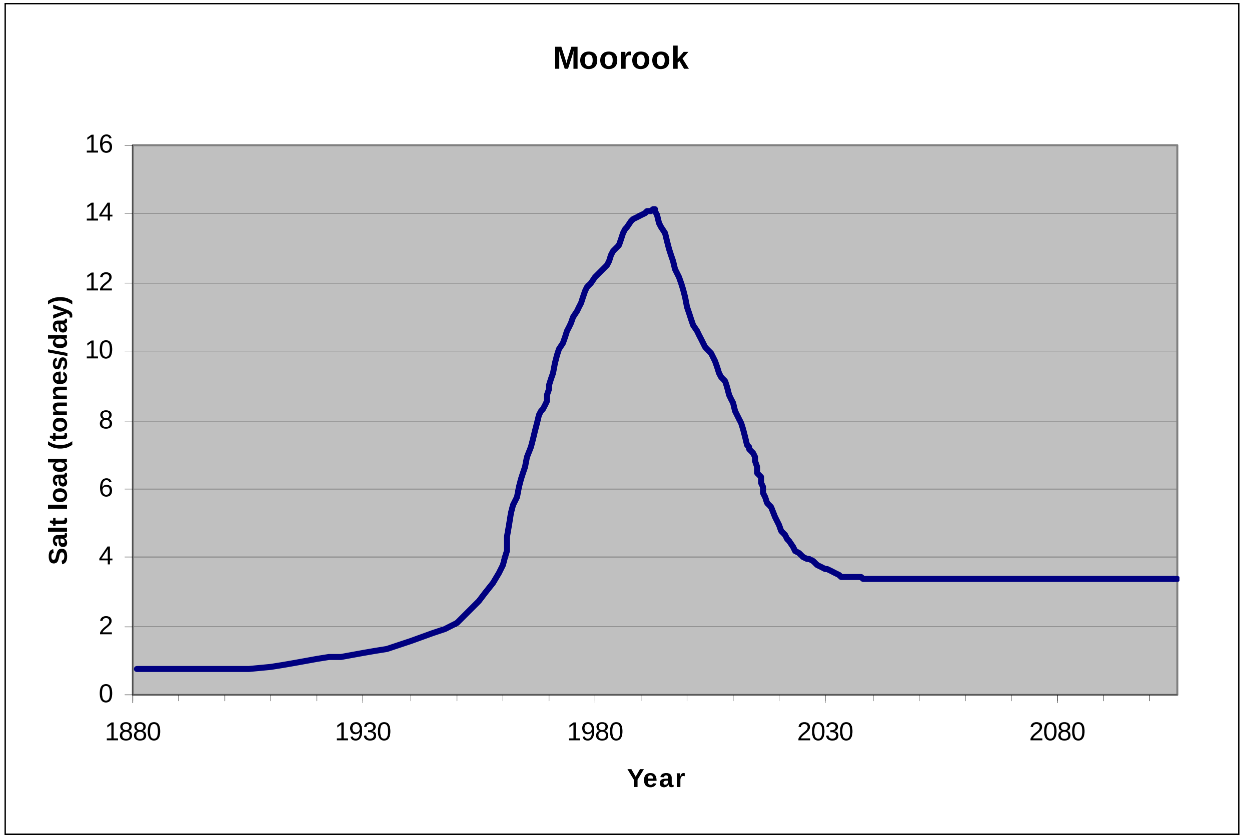
B-4(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.0	0.7	1.5	0.1	0.1	1.0	3.4
27740	2036	0.0	0.7	1.4	0.1	0.1	1.0	3.4
28105	2037	0.0	0.7	1.4	0.1	0.1	1.0	3.4
28470	2038	0.0	0.7	1.4	0.1	0.1	1.0	3.4
28835	2039	0.0	0.7	1.4	0.1	0.1	1.0	3.4
29200	2040	0.0	0.7	1.4	0.1	0.1	1.0	3.4
29565	2041	0.0	0.7	1.4	0.1	0.1	1.0	3.4
29930	2042	0.0	0.7	1.4	0.1	0.1	0.9	3.4
30295	2043	0.0	0.7	1.4	0.1	0.1	0.9	3.4
30660	2044	0.0	0.7	1.4	0.1	0.1	0.9	3.4
31025	2045	0.0	0.7	1.4	0.1	0.1	0.9	3.4
31390	2046	0.0	0.7	1.4	0.1	0.1	0.9	3.4
31755	2047	0.0	0.7	1.4	0.1	0.1	0.9	3.4
32120	2048	0.0	0.7	1.4	0.1	0.1	0.9	3.4
32485	2049	0.0	0.7	1.4	0.1	0.1	0.9	3.4
32850	2050	0.0	0.7	1.4	0.1	0.1	0.9	3.4
33215	2051	0.0	0.7	1.4	0.1	0.1	0.9	3.4
33580	2052	0.0	0.7	1.4	0.1	0.1	0.9	3.4
33945	2053	0.0	0.7	1.4	0.1	0.1	0.9	3.4
34310	2054	0.0	0.7	1.4	0.1	0.1	0.9	3.4
34675	2055	0.0	0.7	1.4	0.1	0.1	0.9	3.4
35040	2056	0.0	0.7	1.4	0.1	0.1	0.9	3.4
35405	2057	0.0	0.7	1.4	0.1	0.1	0.9	3.4
35770	2058	0.0	0.7	1.4	0.1	0.1	0.9	3.4
36135	2059	0.0	0.7	1.4	0.1	0.1	0.9	3.4
36500	2060	0.0	0.7	1.4	0.1	0.1	0.9	3.4
36865	2061	0.0	0.7	1.4	0.1	0.1	0.9	3.4
37230	2062	0.0	0.7	1.4	0.1	0.1	0.9	3.4
37595	2063	0.0	0.7	1.4	0.1	0.1	0.9	3.4
37960	2064	0.0	0.7	1.4	0.1	0.1	0.9	3.4
38325	2065	0.0	0.7	1.4	0.1	0.1	0.9	3.4
38690	2066	0.0	0.7	1.4	0.1	0.1	0.9	3.4
39055	2067	0.0	0.7	1.4	0.1	0.1	0.9	3.4
39420	2068	0.0	0.7	1.4	0.1	0.1	0.9	3.4
39785	2069	0.0	0.7	1.4	0.1	0.1	0.9	3.4
40150	2070	0.0	0.7	1.4	0.1	0.1	0.9	3.4
40515	2071	0.0	0.7	1.4	0.1	0.1	0.9	3.4
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	0.0	0.7	1.4	0.1	0.1	0.9	3.4
41245	2073	0.0	0.7	1.4	0.1	0.1	0.9	3.4
41610	2074	0.0	0.7	1.4	0.1	0.1	0.9	3.4
41975	2075	0.0	0.7	1.4	0.1	0.1	0.9	3.4
42340	2076	0.0	0.7	1.4	0.1	0.1	0.9	3.4
42705	2077	0.0	0.7	1.4	0.1	0.1	0.9	3.4
43070	2078	0.0	0.7	1.4	0.1	0.1	0.9	3.4
43435	2079	0.0	0.7	1.4	0.1	0.1	0.9	3.4
43800	2080	0.0	0.7	1.4	0.1	0.1	0.9	3.4
44165	2081	0.0	0.7	1.4	0.1	0.1	0.9	3.4
44530	2082	0.0	0.7	1.4	0.1	0.1	0.9	3.4
44895	2083	0.0	0.7	1.4	0.1	0.1	0.9	3.4
45260	2084	0.0	0.7	1.4	0.1	0.1	0.9	3.4
45625	2085	0.0	0.7	1.4	0.1	0.1	0.9	3.4
45990	2086	0.0	0.7	1.4	0.1	0.1	0.9	3.4
46355	2087	0.0	0.7	1.4	0.1	0.1	0.9	3.4
46720	2088	0.0	0.7	1.4	0.1	0.1	0.9	3.4
47085	2089	0.0	0.7	1.4	0.1	0.1	0.9	3.4
47450	2090	0.0	0.7	1.4	0.1	0.1	0.9	3.4
47815	2091	0.0	0.7	1.4	0.1	0.1	0.9	3.4
48180	2092	0.0	0.7	1.4	0.1	0.1	0.9	3.4
48545	2093	0.0	0.7	1.4	0.1	0.1	0.9	3.4
48910	2094	0.0	0.7	1.4	0.1	0.1	0.9	3.4
49275	2095	0.0	0.7	1.4	0.1	0.1	0.9	3.4
49640	2096	0.0	0.7	1.4	0.1	0.1	0.9	3.4
50005	2097	0.0	0.7	1.4	0.1	0.1	0.9	3.4
50370	2098	0.0	0.7	1.4	0.1	0.1	0.9	3.4
50735	2099	0.0	0.7	1.4	0.1	0.1	0.9	3.4
51100	2100	0.0	0.7	1.4	0.1	0.1	0.9	3.4
51465	2101	0.0	0.7	1.4	0.1	0.1	0.9	3.4
51830	2102	0.0	0.7	1.4	0.1	0.1	0.9	3.4
52195	2103	0.0	0.7	1.4	0.1	0.1	0.9	3.4
52560	2104	0.0	0.7	1.4	0.1	0.1	0.9	3.4
52925	2105	0.0	0.7	1.4	0.1	0.1	0.9	3.4
53290	2106	0.0	0.7	1.4	0.1	0.1	0.9	3.4
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3C)



B-4(S3C). Graph of modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
365	1961	5	236	802	3	8	87	**1142**	***13***
730	1962	6	282	912	4	11	98	**1313**	***15***
1095	1963	8	318	983	5	12	105	**1431**	***17***
1460	1964	10	353	1066	6	14	112	**1562**	***18***
1825	1965	12	381	1121	7	15	118	**1654**	***19***
2190	1966	14	411	1226	8	17	128	**1804**	***21***
2555	1967	17	434	1297	9	18	135	**1910**	***22***
2920	1968	20	460	1380	9	19	141	**2030**	***23***
3285	1969	23	480	1430	10	20	146	**2108**	***24***
3650	1970	27	513	1534	11	22	153	**2260**	***26***
4015	1971	31	539	1590	12	23	158	**2352**	***27***
4380	1972	36	578	1679	13	25	164	**2494**	***29***
4745	1973	41	607	1723	14	26	168	**2580**	***30***
5110	1974	47	638	1771	15	27	172	**2670**	***31***
5475	1975	52	662	1797	16	28	174	**2729**	***32***
5840	1976	58	689	1852	17	29	178	**2823**	***33***
6205	1977	63	710	1882	18	30	181	**2883**	***33***
6570	1978	68	736	1939	19	31	185	**2977**	***34***
6935	1979	73	755	1970	19	32	187	**3036**	***35***
7300	1980	77	769	1990	21	33	189	**3078**	***36***
7665	1981	81	779	2004	22	33	190	**3109**	***36***
8030	1982	85	787	2035	24	34	192	**3157**	***37***
8395	1983	88	793	2056	26	34	194	**3191**	***37***
8760	1984	92	809	2108	27	35	197	**3268**	***38***
9125	1985	95	823	2136	27	36	199	**3316**	***38***
9490	1986	99	844	2193	28	36	203	**3403**	***39***
9855	1987	102	860	2224	29	37	206	**3458**	***40***
10220	1988	106	871	2243	30	38	207	**3495**	***40***
10585	1989	109	880	2257	30	38	208	**3522**	***41***
10950	1990	111	886	2266	31	38	209	**3542**	***41***
11315	1991	114	892	2273	31	39	210	**3557**	***41***
11680	1992	115	896	2277	32	39	210	**3568**	***41***
12045	1993	117	900	2282	32	39	211	**3581**	***41***
12410	1994	118	901	2184	32	38	204	**3478**	***40***
12775	1995	119	896	2127	31	38	200	**3411**	***39***
13140	1996	120	885	2030	30	37	191	**3294**	***38***
13505	1997	120	872	1965	30	36	186	**3209**	***37***
13870	1998	119	858	1867	29	35	178	**3085**	***36***

B-4(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
14235	1999	118	843	1801	28	34	172	**2996**	***35***
14600	2000	117	827	1703	27	33	163	**2871**	***33***
14965	2001	116	811	1638	26	32	157	**2781**	***32***
15330	2002	114	797	1576	25	31	152	**2696**	***31***
15695	2003	113	785	1535	25	30	149	**2636**	***31***
16060	2004	111	775	1489	25	30	145	**2574**	***30***
16425	2005	110	766	1460	24	29	143	**2533**	***29***
16790	2006	108	759	1412	24	29	139	**2472**	***29***
17155	2007	106	733	1351	23	28	136	**2378**	***28***
17520	2008	103	715	1319	23	28	133	**2321**	***27***
17885	2009	99	684	1240	22	26	128	**2200**	***25***
18250	2010	96	663	1203	22	26	125	**2133**	***25***
18615	2011	91	630	1122	21	24	120	**2008**	***23***
18980	2012	87	607	1085	21	24	117	**1940**	***22***
19345	2013	82	574	1006	20	22	112	**1816**	***21***
19710	2014	77	551	969	19	22	108	**1746**	***20***
20075	2015	71	518	885	19	20	103	**1616**	***19***
20440	2016	67	494	845	19	20	99	**1544**	***18***
20805	2017	63	474	768	18	19	94	**1435**	***17***
21170	2018	61	454	733	18	18	91	**1374**	***16***
21535	2019	57	421	703	17	17	88	**1302**	***15***
21900	2020	54	397	683	16	16	85	**1250**	***14***
22265	2021	49	364	664	15	14	83	**1190**	***14***
22630	2022	45	339	652	14	13	82	**1145**	***13***
22995	2023	41	322	634	13	13	80	**1104**	***13***
23360	2024	38	310	622	13	12	78	**1074**	***12***
23725	2025	35	302	613	12	12	77	**1051**	***12***
24090	2026	33	295	607	12	11	77	**1035**	***12***
24455	2027	32	289	595	13	11	75	**1015**	***12***
24820	2028	31	285	586	13	11	74	**1001**	***12***
25185	2029	30	282	572	13	11	73	**981**	***11***
25550	2030	29	279	563	13	11	72	**967**	***11***
25915	2031	31	278	564	15	11	76	**975**	***11***
26280	2032	35	278	569	16	12	79	**989**	***11***
26645	2033	40	279	578	17	12	82	**1007**	***12***
27010	2034	45	280	587	17	12	84	**1024**	***12***

B-4(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
27375	2035	49	281	596	18	12	85	**1041**	***12***
27740	2036	52	282	604	18	12	86	**1054**	***12***
28105	2037	54	283	609	19	12	87	**1064**	***12***
28470	2038	56	284	613	19	12	87	**1071**	***12***
28835	2039	58	287	617	19	12	88	**1083**	***13***
29200	2040	61	289	620	20	13	89	**1092**	***13***
29565	2041	64	291	623	20	13	90	**1101**	***13***
29930	2042	67	292	625	20	13	90	**1108**	***13***
30295	2043	69	293	627	20	13	90	**1113**	***13***
30660	2044	71	294	628	21	13	91	**1118**	***13***
31025	2045	73	295	629	21	13	91	**1122**	***13***
31390	2046	74	296	630	21	13	91	**1125**	***13***
31755	2047	75	297	631	21	13	91	**1128**	***13***
32120	2048	75	297	632	21	13	92	**1130**	***13***
32485	2049	76	297	632	21	13	92	**1132**	***13***
32850	2050	76	298	633	21	13	92	**1133**	***13***
33215	2051	77	298	633	21	13	92	**1135**	***13***
33580	2052	77	298	634	21	13	92	**1136**	***13***
33945	2053	77	298	634	21	13	92	**1137**	***13***
34310	2054	77	299	634	21	13	92	**1138**	***13***
34675	2055	78	299	635	22	13	93	**1139**	***13***
35040	2056	78	299	635	22	13	93	**1139**	***13***
35405	2057	78	299	635	22	13	93	**1140**	***13***
35770	2058	78	299	636	22	13	93	**1141**	***13***
36135	2059	78	299	636	22	13	93	**1141**	***13***
36500	2060	78	299	636	22	13	93	**1142**	***13***
36865	2061	78	299	637	22	13	93	**1142**	***13***
37230	2062	78	299	637	22	13	93	**1143**	***13***
37595	2063	78	299	637	22	13	93	**1143**	***13***
37960	2064	78	300	637	22	13	93	**1144**	***13***
38325	2065	78	300	637	22	13	94	**1144**	***13***
38690	2066	78	300	638	22	13	94	**1144**	***13***
39055	2067	78	300	638	22	13	94	**1145**	***13***
39420	2068	78	300	638	22	13	94	**1145**	***13***
39785	2069	79	300	638	22	13	94	**1145**	***13***
40150	2070	79	300	638	22	13	94	**1146**	***13***

B-4(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
40515	2071	79	300	639	22	13	94	**1146**	***13***
40880	2072	79	300	639	22	13	94	**1146**	***13***
41245	2073	79	300	639	22	13	94	**1147**	***13***
41610	2074	79	300	639	22	13	94	**1147**	***13***
41975	2075	79	300	639	22	13	94	**1147**	***13***
42340	2076	79	300	639	22	13	94	**1148**	***13***
42705	2077	79	300	640	22	13	94	**1148**	***13***
43070	2078	79	300	640	22	13	94	**1148**	***13***
43435	2079	79	300	640	22	13	95	**1148**	***13***
43800	2080	79	300	640	22	13	95	**1149**	***13***
44165	2081	79	300	640	22	13	95	**1149**	***13***
44530	2082	79	300	640	22	13	95	**1149**	***13***
44895	2083	79	300	640	22	13	95	**1149**	***13***
45260	2084	79	300	641	22	13	95	**1150**	***13***
45625	2085	79	300	641	22	13	95	**1150**	***13***
45990	2086	79	300	641	22	13	95	**1150**	***13***
46355	2087	79	300	641	22	13	95	**1150**	***13***
46720	2088	79	300	641	22	13	95	**1150**	***13***
47085	2089	79	300	641	22	13	95	**1151**	***13***
47450	2090	79	300	641	22	13	95	**1151**	***13***
47815	2091	79	300	641	22	13	95	**1151**	***13***
48180	2092	79	300	641	22	13	95	**1151**	***13***
48545	2093	79	300	642	22	13	95	**1151**	***13***
48910	2094	79	300	642	22	13	95	**1152**	***13***
49275	2095	79	300	642	22	13	95	**1152**	***13***
49640	2096	79	300	642	22	13	95	**1152**	***13***
50005	2097	79	300	642	22	13	95	**1152**	***13***
50370	2098	79	300	642	22	14	95	**1152**	***13***
50735	2099	79	300	642	22	14	96	**1153**	***13***
51100	2100	79	300	642	22	14	96	**1153**	***13***
51465	2101	79	300	642	22	14	96	**1153**	***13***
51830	2102	79	300	642	22	14	96	**1153**	***13***
52195	2103	79	300	643	22	14	96	**1153**	***13***
52560	2104	79	300	643	22	14	96	**1153**	***13***
52925	2105	79	300	643	22	14	96	**1154**	***13***
53290	2106	79	300	643	22	14	96	**1154**	***13***

B-4(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	0.0	0.7	2.4	0.0	0.1	1.3	**4.6**
730	1962	0.0	0.8	2.7	0.1	0.2	1.5	**5.3**
1095	1963	0.0	1.0	2.9	0.1	0.2	1.6	**5.8**
1460	1964	0.0	1.1	3.2	0.1	0.2	1.7	**6.3**
1825	1965	0.0	1.1	3.4	0.1	0.2	1.8	**6.6**
2190	1966	0.0	1.2	3.7	0.1	0.3	1.9	**7.2**
2555	1967	0.1	1.3	3.9	0.1	0.3	2.0	**7.7**
2920	1968	0.1	1.4	4.1	0.1	0.3	2.1	**8.1**
3285	1969	0.1	1.4	4.3	0.2	0.3	2.2	**8.4**
3650	1970	0.1	1.5	4.6	0.2	0.3	2.3	**9.0**
4015	1971	0.1	1.6	4.8	0.2	0.3	2.4	**9.4**
4380	1972	0.1	1.7	5.0	0.2	0.4	2.5	**9.9**
4745	1973	0.1	1.8	5.2	0.2	0.4	2.5	**10.2**
5110	1974	0.1	1.9	5.3	0.2	0.4	2.6	**10.6**
5475	1975	0.2	2.0	5.4	0.2	0.4	2.6	**10.8**
5840	1976	0.2	2.1	5.6	0.3	0.4	2.7	**11.2**
6205	1977	0.2	2.1	5.6	0.3	0.5	2.7	**11.4**
6570	1978	0.2	2.2	5.8	0.3	0.5	2.8	**11.7**
6935	1979	0.2	2.3	5.9	0.3	0.5	2.8	**12.0**
7300	1980	0.2	2.3	6.0	0.3	0.5	2.8	**12.1**
7665	1981	0.2	2.3	6.0	0.3	0.5	2.9	**12.3**
8030	1982	0.3	2.4	6.1	0.4	0.5	2.9	**12.5**
8395	1983	0.3	2.4	6.2	0.4	0.5	2.9	**12.6**
8760	1984	0.3	2.4	6.3	0.4	0.5	3.0	**12.9**
9125	1985	0.3	2.5	6.4	0.4	0.5	3.0	**13.1**
9490	1986	0.3	2.5	6.6	0.4	0.5	3.0	**13.4**
9855	1987	0.3	2.6	6.7	0.4	0.6	3.1	**13.6**
10220	1988	0.3	2.6	6.7	0.4	0.6	3.1	**13.8**
10585	1989	0.3	2.6	6.8	0.5	0.6	3.1	**13.9**
10950	1990	0.3	2.7	6.8	0.5	0.6	3.1	**14.0**
11315	1991	0.3	2.7	6.8	0.5	0.6	3.1	**14.0**
11680	1992	0.3	2.7	6.8	0.5	0.6	3.2	**14.1**
12045	1993	0.4	2.7	6.8	0.5	0.6	3.2	**14.1**
12410	1994	0.4	2.7	6.6	0.5	0.6	3.1	**13.7**
12775	1995	0.4	2.7	6.4	0.5	0.6	3.0	**13.5**
13140	1996	0.4	2.7	6.1	0.5	0.6	2.9	**13.0**
13505	1997	0.4	2.6	5.9	0.4	0.5	2.8	**12.6**
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S4). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	0.4	2.6	5.6	0.4	0.5	2.7	**12.1**
14235	1999	0.4	2.5	5.4	0.4	0.5	2.6	**11.8**
14600	2000	0.4	2.5	5.1	0.4	0.5	2.4	**11.3**
14965	2001	0.3	2.4	4.9	0.4	0.5	2.4	**10.9**
15330	2002	0.3	2.4	4.7	0.4	0.5	2.3	**10.6**
15695	2003	0.3	2.4	4.6	0.4	0.5	2.2	**10.4**
16060	2004	0.3	2.3	4.5	0.4	0.4	2.2	**10.1**
16425	2005	0.3	2.3	4.4	0.4	0.4	2.1	**10.0**
16790	2006	0.3	2.3	4.2	0.4	0.4	2.1	**9.7**
17155	2007	0.3	2.2	4.1	0.4	0.4	2.0	**9.4**
17520	2008	0.3	2.1	4.0	0.3	0.4	2.0	**9.2**
17885	2009	0.3	2.1	3.7	0.3	0.4	1.9	**8.7**
18250	2010	0.3	2.0	3.6	0.3	0.4	1.9	**8.5**
18615	2011	0.3	1.9	3.4	0.3	0.4	1.8	**8.0**
18980	2012	0.3	1.8	3.3	0.3	0.4	1.7	**7.8**
19345	2013	0.2	1.7	3.0	0.3	0.3	1.7	**7.3**
19710	2014	0.2	1.7	2.9	0.3	0.3	1.6	**7.0**
20075	2015	0.2	1.6	2.7	0.3	0.3	1.5	**6.6**
20440	2016	0.2	1.5	2.5	0.3	0.3	1.5	**6.3**
20805	2017	0.2	1.4	2.3	0.3	0.3	1.4	**5.9**
21170	2018	0.2	1.4	2.2	0.3	0.3	1.4	**5.6**
21535	2019	0.2	1.3	2.1	0.2	0.2	1.3	**5.4**
21900	2020	0.2	1.2	2.0	0.2	0.2	1.3	**5.2**
22265	2021	0.1	1.1	2.0	0.2	0.2	1.3	**4.9**
22630	2022	0.1	1.0	2.0	0.2	0.2	1.2	**4.7**
22995	2023	0.1	1.0	1.9	0.2	0.2	1.2	**4.6**
23360	2024	0.1	0.9	1.9	0.2	0.2	1.2	**4.5**
23725	2025	0.1	0.9	1.8	0.2	0.2	1.2	**4.4**
24090	2026	0.1	0.9	1.8	0.2	0.2	1.1	**4.3**
24455	2027	0.1	0.9	1.8	0.2	0.2	1.1	**4.2**
24820	2028	0.1	0.9	1.8	0.2	0.2	1.1	**4.2**
25185	2029	0.1	0.8	1.7	0.2	0.2	1.1	**4.1**
25550	2030	0.1	0.8	1.7	0.2	0.2	1.1	**4.1**
25915	2031	0.1	0.8	1.7	0.2	0.2	1.1	**4.1**
26280	2032	0.1	0.8	1.7	0.2	0.2	1.2	**4.2**
26645	2033	0.1	0.8	1.7	0.3	0.2	1.2	**4.3**
27010	2034	0.1	0.8	1.8	0.3	0.2	1.3	**4.4**
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

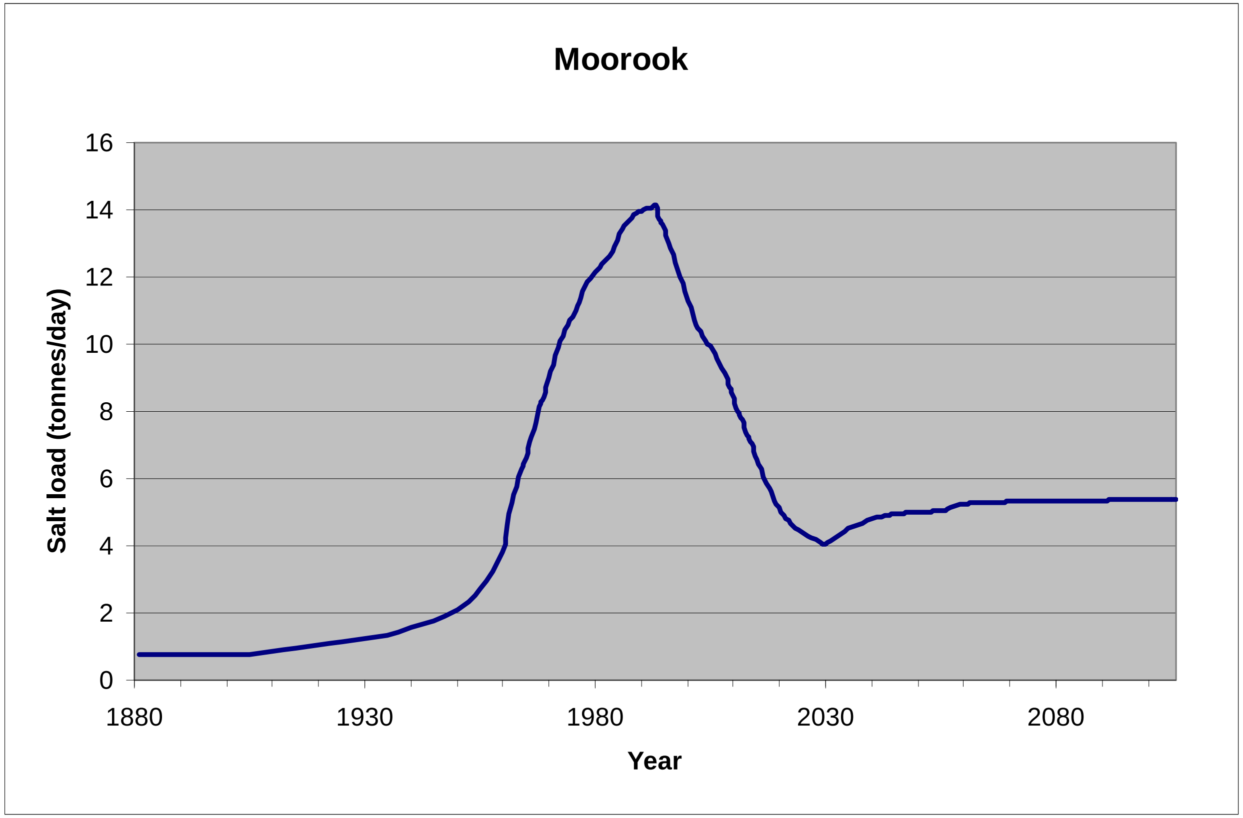
B-4(S4). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.1	0.8	1.8	0.3	0.2	1.3	4.5
27740	2036	0.2	0.8	1.8	0.3	0.2	1.3	4.6
28105	2037	0.2	0.8	1.8	0.3	0.2	1.3	4.6
28470	2038	0.2	0.9	1.8	0.3	0.2	1.3	4.6
28835	2039	0.2	0.9	1.9	0.3	0.2	1.3	4.7
29200	2040	0.2	0.9	1.9	0.3	0.2	1.3	4.7
29565	2041	0.2	0.9	1.9	0.3	0.2	1.3	4.8
29930	2042	0.2	0.9	1.9	0.3	0.2	1.4	4.8
30295	2043	0.2	0.9	1.9	0.3	0.2	1.4	4.8
30660	2044	0.2	0.9	1.9	0.3	0.2	1.4	4.8
31025	2045	0.2	0.9	1.9	0.3	0.2	1.4	4.9
31390	2046	0.2	0.9	1.9	0.3	0.2	1.4	4.9
31755	2047	0.2	0.9	1.9	0.3	0.2	1.4	4.9
32120	2048	0.2	0.9	1.9	0.3	0.2	1.4	4.9
32485	2049	0.2	0.9	1.9	0.3	0.2	1.4	4.9
32850	2050	0.2	0.9	1.9	0.3	0.2	1.4	4.9
33215	2051	0.2	0.9	1.9	0.3	0.2	1.4	4.9
33580	2052	0.2	0.9	1.9	0.3	0.2	1.4	4.9
33945	2053	0.2	0.9	1.9	0.3	0.2	1.4	4.9
34310	2054	0.2	0.9	1.9	0.3	0.2	1.4	4.9
34675	2055	0.2	0.9	1.9	0.3	0.2	1.4	4.9
35040	2056	0.2	0.9	1.9	0.3	0.2	1.4	4.9
35405	2057	0.2	0.9	1.9	0.3	0.2	1.4	5.0
35770	2058	0.2	0.9	1.9	0.3	0.2	1.4	5.0
36135	2059	0.2	0.9	1.9	0.3	0.2	1.4	5.0
36500	2060	0.2	0.9	1.9	0.3	0.2	1.4	5.0
36865	2061	0.2	0.9	1.9	0.3	0.2	1.4	5.0
37230	2062	0.2	0.9	1.9	0.3	0.2	1.4	5.0
37595	2063	0.2	0.9	1.9	0.3	0.2	1.4	5.0
37960	2064	0.2	0.9	1.9	0.3	0.2	1.4	5.0
38325	2065	0.2	0.9	1.9	0.3	0.2	1.4	5.0
38690	2066	0.2	0.9	1.9	0.3	0.2	1.4	5.0
39055	2067	0.2	0.9	1.9	0.3	0.2	1.4	5.0
39420	2068	0.2	0.9	1.9	0.3	0.2	1.4	5.0
39785	2069	0.2	0.9	1.9	0.3	0.2	1.4	5.0
40150	2070	0.2	0.9	1.9	0.3	0.2	1.4	5.0
40515	2071	0.2	0.9	1.9	0.3	0.2	1.4	5.0
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S4). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	0.2	0.9	1.9	0.3	0.2	1.4	5.0
41245	2073	0.2	0.9	1.9	0.3	0.2	1.4	5.0
41610	2074	0.2	0.9	1.9	0.3	0.2	1.4	5.0
41975	2075	0.2	0.9	1.9	0.3	0.2	1.4	5.0
42340	2076	0.2	0.9	1.9	0.3	0.2	1.4	5.0
42705	2077	0.2	0.9	1.9	0.3	0.2	1.4	5.0
43070	2078	0.2	0.9	1.9	0.3	0.2	1.4	5.0
43435	2079	0.2	0.9	1.9	0.3	0.2	1.4	5.0
43800	2080	0.2	0.9	1.9	0.3	0.2	1.4	5.0
44165	2081	0.2	0.9	1.9	0.3	0.2	1.4	5.0
44530	2082	0.2	0.9	1.9	0.3	0.2	1.4	5.0
44895	2083	0.2	0.9	1.9	0.3	0.2	1.4	5.0
45260	2084	0.2	0.9	1.9	0.3	0.2	1.4	5.0
45625	2085	0.2	0.9	1.9	0.3	0.2	1.4	5.0
45990	2086	0.2	0.9	1.9	0.3	0.2	1.4	5.0
46355	2087	0.2	0.9	1.9	0.3	0.2	1.4	5.0
46720	2088	0.2	0.9	1.9	0.3	0.2	1.4	5.0
47085	2089	0.2	0.9	1.9	0.3	0.2	1.4	5.0
47450	2090	0.2	0.9	1.9	0.3	0.2	1.4	5.0
47815	2091	0.2	0.9	1.9	0.3	0.2	1.4	5.0
48180	2092	0.2	0.9	1.9	0.3	0.2	1.4	5.0
48545	2093	0.2	0.9	1.9	0.3	0.2	1.4	5.0
48910	2094	0.2	0.9	1.9	0.3	0.2	1.4	5.0
49275	2095	0.2	0.9	1.9	0.3	0.2	1.4	5.0
49640	2096	0.2	0.9	1.9	0.3	0.2	1.4	5.0
50005	2097	0.2	0.9	1.9	0.3	0.2	1.4	5.0
50370	2098	0.2	0.9	1.9	0.3	0.2	1.4	5.0
50735	2099	0.2	0.9	1.9	0.3	0.2	1.4	5.0
51100	2100	0.2	0.9	1.9	0.3	0.2	1.4	5.0
51465	2101	0.2	0.9	1.9	0.3	0.2	1.4	5.0
51830	2102	0.2	0.9	1.9	0.3	0.2	1.4	5.0
52195	2103	0.2	0.9	1.9	0.3	0.2	1.4	5.0
52560	2104	0.2	0.9	1.9	0.3	0.2	1.4	5.0
52925	2105	0.2	0.9	1.9	0.3	0.2	1.4	5.0
53290	2106	0.2	0.9	1.9	0.3	0.2	1.4	5.0
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

B-4(S4). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 4)



B-4(S4). Graph of modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
365	1961	5	236	802	3	8	87	**1142**	***13***
730	1962	6	282	912	4	11	98	**1313**	***15***
1095	1963	8	318	983	5	12	105	**1431**	***17***
1460	1964	10	353	1066	6	14	112	**1562**	***18***
1825	1965	12	381	1121	7	15	118	**1654**	***19***
2190	1966	14	411	1226	8	17	128	**1804**	***21***
2555	1967	17	434	1297	9	18	135	**1910**	***22***
2920	1968	20	460	1380	9	19	141	**2030**	***23***
3285	1969	23	480	1430	10	20	146	**2108**	***24***
3650	1970	27	513	1534	11	22	153	**2260**	***26***
4015	1971	31	539	1590	12	23	158	**2352**	***27***
4380	1972	36	578	1679	13	25	164	**2494**	***29***
4745	1973	41	607	1723	14	26	168	**2580**	***30***
5110	1974	47	638	1771	15	27	172	**2670**	***31***
5475	1975	52	662	1797	16	28	174	**2729**	***32***
5840	1976	58	689	1852	17	29	178	**2823**	***33***
6205	1977	63	710	1882	18	30	181	**2883**	***33***
6570	1978	68	736	1939	19	31	185	**2977**	***34***
6935	1979	73	755	1970	19	32	187	**3036**	***35***
7300	1980	77	769	1990	21	33	189	**3078**	***36***
7665	1981	81	779	2004	22	33	190	**3109**	***36***
8030	1982	85	787	2035	24	34	192	**3157**	***37***
8395	1983	88	793	2056	26	34	194	**3191**	***37***
8760	1984	92	809	2108	27	35	197	**3268**	***38***
9125	1985	95	823	2136	27	36	199	**3316**	***38***
9490	1986	99	844	2193	28	36	203	**3403**	***39***
9855	1987	102	860	2224	29	37	206	**3458**	***40***
10220	1988	106	871	2243	30	38	207	**3495**	***40***
10585	1989	109	880	2257	30	38	208	**3522**	***41***
10950	1990	111	886	2266	31	38	209	**3542**	***41***
11315	1991	114	892	2273	31	39	210	**3557**	***41***
11680	1992	115	896	2277	32	39	210	**3568**	***41***
12045	1993	117	900	2282	32	39	211	**3581**	***41***
12410	1994	118	901	2184	32	38	204	**3478**	***40***
12775	1995	119	896	2127	31	38	200	**3411**	***39***
13140	1996	120	885	2030	30	37	191	**3294**	***38***
13505	1997	120	872	1965	30	36	186	**3209**	***37***
13870	1998	119	858	1867	29	35	178	**3085**	***36***

B-4(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
14235	1999	118	843	1801	28	34	172	2996	35
14600	2000	117	827	1703	27	33	163	2871	33
14965	2001	116	811	1638	26	32	157	2781	32
15330	2002	114	797	1576	25	31	152	2696	31
15695	2003	113	785	1535	25	30	149	2636	31
16060	2004	111	775	1489	25	30	145	2574	30
16425	2005	110	766	1460	24	29	143	2533	29
16790	2006	108	759	1412	24	29	139	2472	29
17155	2007	106	733	1351	23	28	136	2378	28
17520	2008	103	715	1319	23	28	133	2321	27
17885	2009	99	684	1240	22	26	128	2200	25
18250	2010	96	663	1203	22	26	125	2133	25
18615	2011	91	630	1122	21	24	120	2008	23
18980	2012	87	607	1085	21	24	117	1940	22
19345	2013	82	574	1006	20	22	112	1816	21
19710	2014	77	551	969	19	22	108	1746	20
20075	2015	71	518	885	19	20	103	1616	19
20440	2016	67	494	845	19	20	99	1544	18
20805	2017	63	474	768	18	19	94	1435	17
21170	2018	61	454	733	18	18	91	1374	16
21535	2019	57	421	703	17	17	88	1302	15
21900	2020	54	397	683	16	16	85	1250	14
22265	2021	49	364	664	15	14	83	1190	14
22630	2022	45	339	652	14	13	82	1145	13
22995	2023	41	322	634	13	13	80	1104	13
23360	2024	38	310	622	13	12	78	1074	12
23725	2025	35	302	613	12	12	77	1051	12
24090	2026	33	295	607	12	11	77	1035	12
24455	2027	32	289	595	13	11	75	1015	12
24820	2028	31	285	586	13	11	74	1001	12
25185	2029	30	282	572	13	11	73	981	11
25550	2030	29	279	563	13	11	72	967	11
25915	2031	31	278	564	15	11	76	975	11
26280	2032	35	278	569	16	12	79	989	11
26645	2033	40	279	578	17	12	82	1007	12
27010	2034	45	280	587	17	12	84	1024	12

B-4(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
27375	2035	49	281	596	18	12	85	1041	12
27740	2036	52	282	604	18	12	86	1054	12
28105	2037	54	283	619	19	12	87	1075	12
28470	2038	56	284	626	19	12	88	1086	13
28835	2039	58	287	632	19	12	90	1099	13
29200	2040	61	289	636	20	13	91	1110	13
29565	2041	64	291	640	20	13	91	1119	13
29930	2042	67	292	642	20	13	92	1126	13
30295	2043	69	293	644	21	13	92	1133	13
30660	2044	71	294	646	21	13	92	1137	13
31025	2045	73	295	647	21	13	93	1142	13
31390	2046	74	296	648	21	13	93	1145	13
31755	2047	75	297	649	21	13	93	1148	13
32120	2048	75	297	650	21	13	93	1150	13
32485	2049	76	298	650	21	13	93	1152	13
32850	2050	76	298	651	21	13	94	1153	13
33215	2051	77	298	652	21	13	94	1155	13
33580	2052	77	298	652	22	13	94	1156	13
33945	2053	77	299	652	22	13	94	1157	13
34310	2054	78	299	653	22	13	94	1158	13
34675	2055	78	299	653	22	13	94	1159	13
35040	2056	78	299	654	22	13	94	1160	13
35405	2057	80	300	654	27	15	95	1172	14
35770	2058	82	302	655	28	15	96	1178	14
36135	2059	84	303	655	29	15	96	1182	14
36500	2060	86	304	656	29	15	97	1186	14
36865	2061	87	304	656	29	15	97	1188	14
37230	2062	88	305	657	29	15	97	1191	14
37595	2063	88	305	657	29	15	97	1193	14
37960	2064	89	306	658	29	15	97	1194	14
38325	2065	89	306	658	29	15	97	1195	14
38690	2066	90	306	658	29	15	97	1197	14
39055	2067	90	307	659	29	15	98	1198	14
39420	2068	90	307	659	30	15	98	1198	14
39785	2069	91	307	659	30	15	98	1199	14
40150	2070	91	307	659	30	15	98	1200	14

B-4(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18		
40515	2071	91	307	660	30	15	98	**1200**	***14***
40880	2072	91	307	660	30	15	98	**1201**	***14***
41245	2073	91	307	660	30	15	98	**1201**	***14***
41610	2074	91	308	660	30	15	98	**1202**	***14***
41975	2075	91	308	660	30	15	98	**1202**	***14***
42340	2076	91	308	660	30	15	98	**1203**	***14***
42705	2077	91	308	661	30	15	98	**1203**	***14***
43070	2078	91	308	661	30	15	98	**1203**	***14***
43435	2079	91	308	661	30	15	98	**1204**	***14***
43800	2080	91	308	661	30	15	99	**1204**	***14***
44165	2081	91	308	661	30	15	99	**1204**	***14***
44530	2082	91	308	661	30	15	99	**1205**	***14***
44895	2083	91	308	662	30	15	99	**1205**	***14***
45260	2084	92	308	662	30	15	99	**1205**	***14***
45625	2085	92	308	662	30	15	99	**1206**	***14***
45990	2086	92	308	662	30	15	99	**1206**	***14***
46355	2087	92	308	662	30	15	99	**1206**	***14***
46720	2088	92	308	662	30	15	99	**1206**	***14***
47085	2089	92	308	662	30	15	99	**1207**	***14***
47450	2090	92	308	663	30	15	99	**1207**	***14***
47815	2091	92	308	663	30	15	99	**1207**	***14***
48180	2092	92	308	663	30	15	99	**1207**	***14***
48545	2093	92	308	663	30	15	99	**1207**	***14***
48910	2094	92	308	663	30	15	99	**1208**	***14***
49275	2095	92	308	663	30	15	99	**1208**	***14***
49640	2096	92	308	663	30	15	99	**1208**	***14***
50005	2097	92	308	663	30	15	99	**1208**	***14***
50370	2098	92	308	663	30	15	99	**1209**	***14***
50735	2099	92	308	664	30	15	100	**1209**	***14***
51100	2100	92	308	664	30	15	100	**1209**	***14***
51465	2101	92	308	664	30	15	100	**1209**	***14***
51830	2102	92	308	664	30	16	100	**1209**	***14***
52195	2103	92	308	664	30	16	100	**1209**	***14***
52560	2104	92	308	664	30	16	100	**1210**	***14***
52925	2105	92	308	664	30	16	100	**1210**	***14***
53290	2106	92	308	664	30	16	100	**1210**	***14***

B-4(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Moorook area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	0.0	0.7	2.4	0.0	0.1	1.3	**4.6**
730	1962	0.0	0.8	2.7	0.1	0.2	1.5	**5.3**
1095	1963	0.0	1.0	2.9	0.1	0.2	1.6	**5.8**
1460	1964	0.0	1.1	3.2	0.1	0.2	1.7	**6.3**
1825	1965	0.0	1.1	3.4	0.1	0.2	1.8	**6.6**
2190	1966	0.0	1.2	3.7	0.1	0.3	1.9	**7.2**
2555	1967	0.1	1.3	3.9	0.1	0.3	2.0	**7.7**
2920	1968	0.1	1.4	4.1	0.1	0.3	2.1	**8.1**
3285	1969	0.1	1.4	4.3	0.2	0.3	2.2	**8.4**
3650	1970	0.1	1.5	4.6	0.2	0.3	2.3	**9.0**
4015	1971	0.1	1.6	4.8	0.2	0.3	2.4	**9.4**
4380	1972	0.1	1.7	5.0	0.2	0.4	2.5	**9.9**
4745	1973	0.1	1.8	5.2	0.2	0.4	2.5	**10.2**
5110	1974	0.1	1.9	5.3	0.2	0.4	2.6	**10.6**
5475	1975	0.2	2.0	5.4	0.2	0.4	2.6	**10.8**
5840	1976	0.2	2.1	5.6	0.3	0.4	2.7	**11.2**
6205	1977	0.2	2.1	5.6	0.3	0.5	2.7	**11.4**
6570	1978	0.2	2.2	5.8	0.3	0.5	2.8	**11.7**
6935	1979	0.2	2.3	5.9	0.3	0.5	2.8	**12.0**
7300	1980	0.2	2.3	6.0	0.3	0.5	2.8	**12.1**
7665	1981	0.2	2.3	6.0	0.3	0.5	2.9	**12.3**
8030	1982	0.3	2.4	6.1	0.4	0.5	2.9	**12.5**
8395	1983	0.3	2.4	6.2	0.4	0.5	2.9	**12.6**
8760	1984	0.3	2.4	6.3	0.4	0.5	3.0	**12.9**
9125	1985	0.3	2.5	6.4	0.4	0.5	3.0	**13.1**
9490	1986	0.3	2.5	6.6	0.4	0.5	3.0	**13.4**
9855	1987	0.3	2.6	6.7	0.4	0.6	3.1	**13.6**
10220	1988	0.3	2.6	6.7	0.4	0.6	3.1	**13.8**
10585	1989	0.3	2.6	6.8	0.5	0.6	3.1	**13.9**
10950	1990	0.3	2.7	6.8	0.5	0.6	3.1	**14.0**
11315	1991	0.3	2.7	6.8	0.5	0.6	3.1	**14.0**
11680	1992	0.3	2.7	6.8	0.5	0.6	3.2	**14.1**
12045	1993	0.4	2.7	6.8	0.5	0.6	3.2	**14.1**
12410	1994	0.4	2.7	6.6	0.5	0.6	3.1	**13.7**
12775	1995	0.4	2.7	6.4	0.5	0.6	3.0	**13.5**
13140	1996	0.4	2.7	6.1	0.5	0.6	2.9	**13.0**
13505	1997	0.4	2.6	5.9	0.4	0.5	2.8	**12.6**
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S5). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	0.4	2.6	5.6	0.4	0.5	2.7	12.1
14235	1999	0.4	2.5	5.4	0.4	0.5	2.6	11.8
14600	2000	0.4	2.5	5.1	0.4	0.5	2.4	11.3
14965	2001	0.3	2.4	4.9	0.4	0.5	2.4	10.9
15330	2002	0.3	2.4	4.7	0.4	0.5	2.3	10.6
15695	2003	0.3	2.4	4.6	0.4	0.5	2.2	10.4
16060	2004	0.3	2.3	4.5	0.4	0.4	2.2	10.1
16425	2005	0.3	2.3	4.4	0.4	0.4	2.1	10.0
16790	2006	0.3	2.3	4.2	0.4	0.4	2.1	9.7
17155	2007	0.3	2.2	4.1	0.4	0.4	2.0	9.4
17520	2008	0.3	2.1	4.0	0.3	0.4	2.0	9.2
17885	2009	0.3	2.1	3.7	0.3	0.4	1.9	8.7
18250	2010	0.3	2.0	3.6	0.3	0.4	1.9	8.5
18615	2011	0.3	1.9	3.4	0.3	0.4	1.8	8.0
18980	2012	0.3	1.8	3.3	0.3	0.4	1.7	7.8
19345	2013	0.2	1.7	3.0	0.3	0.3	1.7	7.3
19710	2014	0.2	1.7	2.9	0.3	0.3	1.6	7.0
20075	2015	0.2	1.6	2.7	0.3	0.3	1.5	6.6
20440	2016	0.2	1.5	2.5	0.3	0.3	1.5	6.3
20805	2017	0.2	1.4	2.3	0.3	0.3	1.4	5.9
21170	2018	0.2	1.4	2.2	0.3	0.3	1.4	5.6
21535	2019	0.2	1.3	2.1	0.2	0.2	1.3	5.4
21900	2020	0.2	1.2	2.0	0.2	0.2	1.3	5.2
22265	2021	0.1	1.1	2.0	0.2	0.2	1.3	4.9
22630	2022	0.1	1.0	2.0	0.2	0.2	1.2	4.7
22995	2023	0.1	1.0	1.9	0.2	0.2	1.2	4.6
23360	2024	0.1	0.9	1.9	0.2	0.2	1.2	4.5
23725	2025	0.1	0.9	1.8	0.2	0.2	1.2	4.4
24090	2026	0.1	0.9	1.8	0.2	0.2	1.1	4.3
24455	2027	0.1	0.9	1.8	0.2	0.2	1.1	4.2
24820	2028	0.1	0.9	1.8	0.2	0.2	1.1	4.2
25185	2029	0.1	0.8	1.7	0.2	0.2	1.1	4.1
25550	2030	0.1	0.8	1.7	0.2	0.2	1.1	4.1
25915	2031	0.1	0.8	1.7	0.2	0.2	1.1	4.2
26280	2032	0.1	0.8	1.7	0.2	0.2	1.2	4.2
26645	2033	0.1	0.8	1.7	0.3	0.2	1.2	4.3
27010	2034	0.1	0.8	1.8	0.3	0.2	1.3	4.4
Salinity (mg/L)		3,000	3,000	3,000	15,000	15,000	15,000	

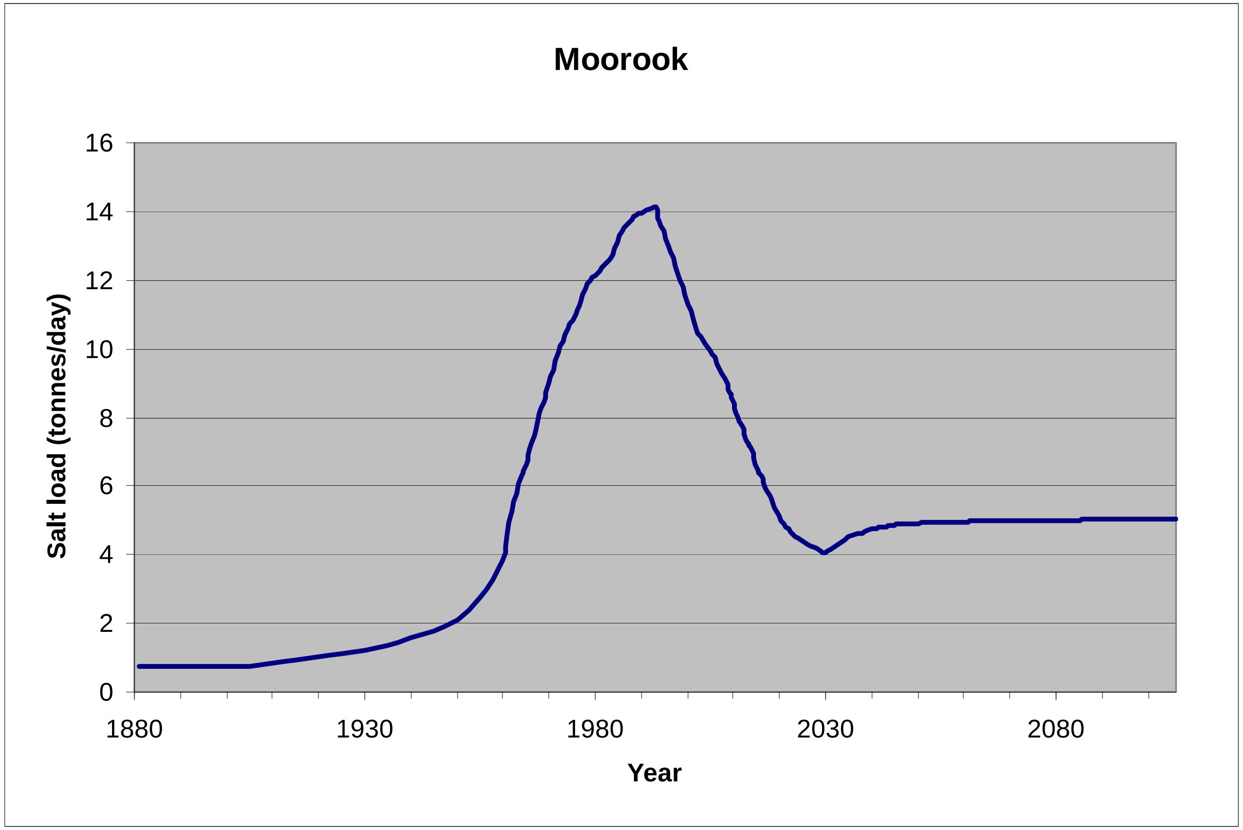
B-4(S5). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.1	0.8	1.8	0.3	0.2	1.3	4.5
27740	2036	0.2	0.8	1.8	0.3	0.2	1.3	4.6
28105	2037	0.2	0.8	1.9	0.3	0.2	1.3	4.6
28470	2038	0.2	0.9	1.9	0.3	0.2	1.3	4.7
28835	2039	0.2	0.9	1.9	0.3	0.2	1.3	4.8
29200	2040	0.2	0.9	1.9	0.3	0.2	1.4	4.8
29565	2041	0.2	0.9	1.9	0.3	0.2	1.4	4.8
29930	2042	0.2	0.9	1.9	0.3	0.2	1.4	4.9
30295	2043	0.2	0.9	1.9	0.3	0.2	1.4	4.9
30660	2044	0.2	0.9	1.9	0.3	0.2	1.4	4.9
31025	2045	0.2	0.9	1.9	0.3	0.2	1.4	4.9
31390	2046	0.2	0.9	1.9	0.3	0.2	1.4	5.0
31755	2047	0.2	0.9	1.9	0.3	0.2	1.4	5.0
32120	2048	0.2	0.9	1.9	0.3	0.2	1.4	5.0
32485	2049	0.2	0.9	2.0	0.3	0.2	1.4	5.0
32850	2050	0.2	0.9	2.0	0.3	0.2	1.4	5.0
33215	2051	0.2	0.9	2.0	0.3	0.2	1.4	5.0
33580	2052	0.2	0.9	2.0	0.3	0.2	1.4	5.0
33945	2053	0.2	0.9	2.0	0.3	0.2	1.4	5.0
34310	2054	0.2	0.9	2.0	0.3	0.2	1.4	5.0
34675	2055	0.2	0.9	2.0	0.3	0.2	1.4	5.0
35040	2056	0.2	0.9	2.0	0.3	0.2	1.4	5.0
35405	2057	0.2	0.9	2.0	0.4	0.2	1.4	5.2
35770	2058	0.2	0.9	2.0	0.4	0.2	1.4	5.2
36135	2059	0.3	0.9	2.0	0.4	0.2	1.4	5.2
36500	2060	0.3	0.9	2.0	0.4	0.2	1.4	5.2
36865	2061	0.3	0.9	2.0	0.4	0.2	1.5	5.3
37230	2062	0.3	0.9	2.0	0.4	0.2	1.5	5.3
37595	2063	0.3	0.9	2.0	0.4	0.2	1.5	5.3
37960	2064	0.3	0.9	2.0	0.4	0.2	1.5	5.3
38325	2065	0.3	0.9	2.0	0.4	0.2	1.5	5.3
38690	2066	0.3	0.9	2.0	0.4	0.2	1.5	5.3
39055	2067	0.3	0.9	2.0	0.4	0.2	1.5	5.3
39420	2068	0.3	0.9	2.0	0.4	0.2	1.5	5.3
39785	2069	0.3	0.9	2.0	0.4	0.2	1.5	5.3
40150	2070	0.3	0.9	2.0	0.4	0.2	1.5	5.3
40515	2071	0.3	0.9	2.0	0.4	0.2	1.5	5.3
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S5). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Moorook Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	0.3	0.9	2.0	0.4	0.2	1.5	5.3
41245	2073	0.3	0.9	2.0	0.4	0.2	1.5	5.3
41610	2074	0.3	0.9	2.0	0.4	0.2	1.5	5.3
41975	2075	0.3	0.9	2.0	0.4	0.2	1.5	5.3
42340	2076	0.3	0.9	2.0	0.4	0.2	1.5	5.3
42705	2077	0.3	0.9	2.0	0.4	0.2	1.5	5.3
43070	2078	0.3	0.9	2.0	0.4	0.2	1.5	5.3
43435	2079	0.3	0.9	2.0	0.4	0.2	1.5	5.3
43800	2080	0.3	0.9	2.0	0.4	0.2	1.5	5.3
44165	2081	0.3	0.9	2.0	0.4	0.2	1.5	5.3
44530	2082	0.3	0.9	2.0	0.4	0.2	1.5	5.3
44895	2083	0.3	0.9	2.0	0.4	0.2	1.5	5.3
45260	2084	0.3	0.9	2.0	0.4	0.2	1.5	5.3
45625	2085	0.3	0.9	2.0	0.4	0.2	1.5	5.3
45990	2086	0.3	0.9	2.0	0.4	0.2	1.5	5.3
46355	2087	0.3	0.9	2.0	0.4	0.2	1.5	5.3
46720	2088	0.3	0.9	2.0	0.4	0.2	1.5	5.4
47085	2089	0.3	0.9	2.0	0.4	0.2	1.5	5.4
47450	2090	0.3	0.9	2.0	0.4	0.2	1.5	5.4
47815	2091	0.3	0.9	2.0	0.4	0.2	1.5	5.4
48180	2092	0.3	0.9	2.0	0.4	0.2	1.5	5.4
48545	2093	0.3	0.9	2.0	0.4	0.2	1.5	5.4
48910	2094	0.3	0.9	2.0	0.5	0.2	1.5	5.4
49275	2095	0.3	0.9	2.0	0.5	0.2	1.5	5.4
49640	2096	0.3	0.9	2.0	0.5	0.2	1.5	5.4
50005	2097	0.3	0.9	2.0	0.5	0.2	1.5	5.4
50370	2098	0.3	0.9	2.0	0.5	0.2	1.5	5.4
50735	2099	0.3	0.9	2.0	0.5	0.2	1.5	5.4
51100	2100	0.3	0.9	2.0	0.5	0.2	1.5	5.4
51465	2101	0.3	0.9	2.0	0.5	0.2	1.5	5.4
51830	2102	0.3	0.9	2.0	0.5	0.2	1.5	5.4
52195	2103	0.3	0.9	2.0	0.5	0.2	1.5	5.4
52560	2104	0.3	0.9	2.0	0.5	0.2	1.5	5.4
52925	2105	0.3	0.9	2.0	0.5	0.2	1.5	5.4
53290	2106	0.3	0.9	2.0	0.5	0.2	1.5	5.4
Salinity (mg/L)		*3,000*	*3,000*	*3,000*	*15,000*	*15,000*	*15,000*	

B-4(S5). Modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 5)



B-4(S5). Graph of modelled salt load (tonnes/day) entering the River Murray in the Moorook area (Scenario 5)

B-5. MODEL OUTPUT – KINGSTON AREA

- Model Scenario conditions
- Flow budget zones
- Transient groundwater flux and salt load
- Modelled groundwater flux (m^3/d and L/s)
- Modelled salt load (t/d)

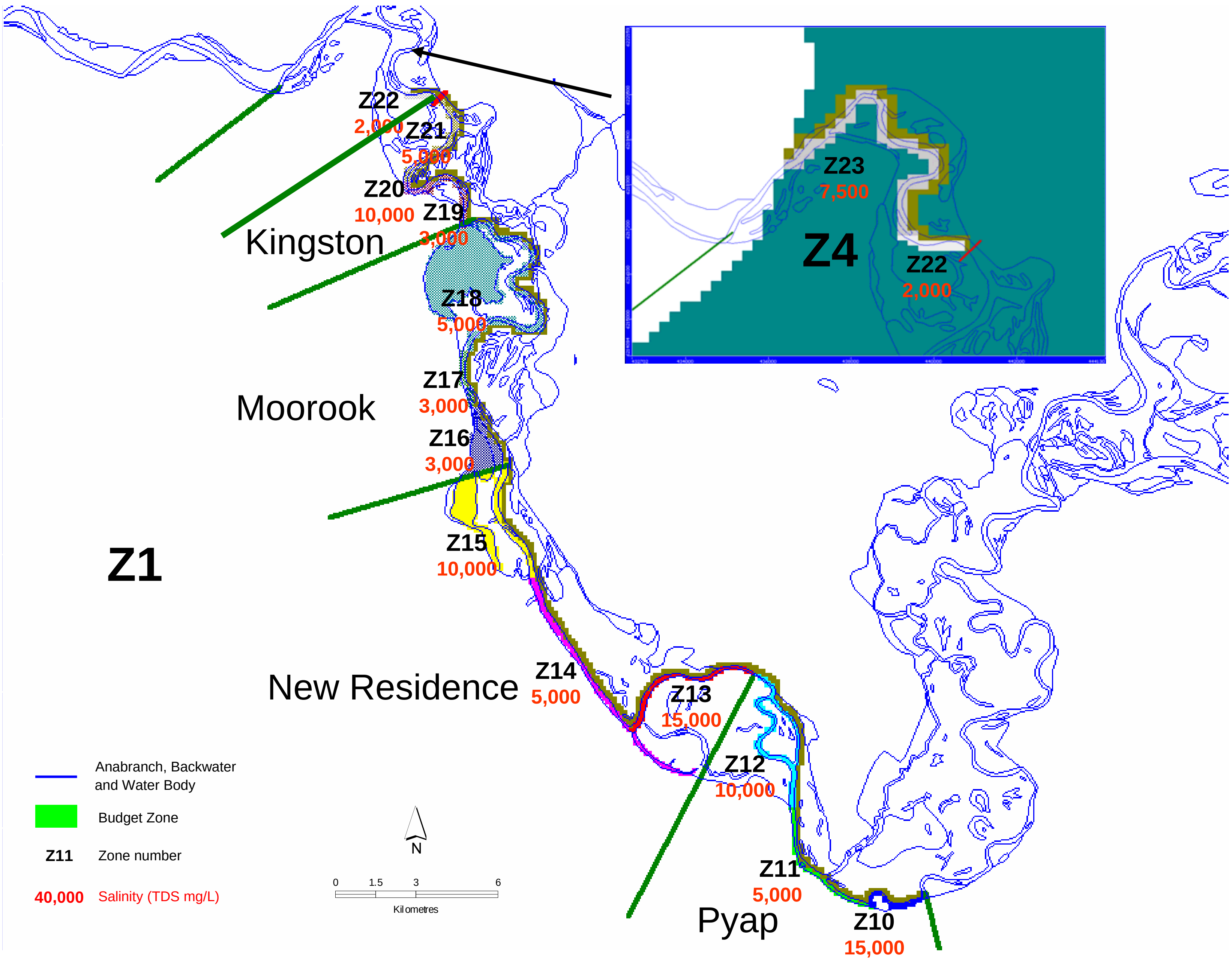
(Transient from 1888 to 1960)

(Scenario-2, 3A, 3B, 3C, 4 and 5)

Scenario	Name	Model Run	Irrigation development area	IIP[1]	RH[2]	SIS[3]
S–1	Natural system	Steady State	None	–	–	–
S–2	Mallee clearance	1920–2106	None (but includes Mallee clearance area)	–	–	–
S–3A	Pre-1988, no IIP, no RH	1988–2106	Pre-1988	No	No	–
S–3B	Pre-1988, with IIP, no RH	1988–2106	Pre-1988	Yes	No	–
S–3C	Pre-1988, with IIP and with RH	1988–2106	Pre-1988	Yes	Yes	–
S–4	Current irrigation	1880–2106	Pre-1988 + Post-1988	Yes	Yes	No
S–5	Current plus future irrigation	2006–2106	Pre-1988 + Post-1988 + Future development	Yes	Yes	No

Note: 1 Improved Irrigation Practices, 2 Rehabilitation, 3 Salt Interception Scheme (see Glossary for definitions)

B-5. Model Scenarios and Conditions



B5-1: Flow budget zones (model layer 1) and groundwater salinity values (TDS mg/L) in the Pyap to Kingston area

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
365	1881	6	16	0	2	3	0	28	0
7300	1900	6	16	0	2	3	0	28	0
9125	1905	6	16	0	2	3	0	28	0
10950	1910	25	34	0	6	7	0	72	1
12775	1915	47	52	0	10	11	0	120	1
14600	1920	69	70	0	15	15	0	169	2
16425	1925	92	88	0	19	18	0	218	3
18250	1930	114	107	0	24	22	0	267	3
20075	1935	137	125	0	28	26	0	317	4
21900	1940	179	162	1	37	34	0	414	5
23725	1945	204	182	1	42	38	1	468	5
25550	1950	228	202	1	47	42	1	521	6
27375	1955	273	242	2	56	49	2	624	7
29200	1960	321	284	3	66	57	4	734	9

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1881	0.0	0.2	0.0	0.0	0.1	0.0	0.3
7300	1900	0.0	0.2	0.0	0.0	0.1	0.0	0.3
9125	1905	0.0	0.2	0.0	0.0	0.1	0.0	0.3
10950	1910	0.1	0.3	0.0	0.1	0.1	0.0	0.7
12775	1915	0.2	0.5	0.0	0.2	0.2	0.0	1.2
14600	1920	0.3	0.7	0.0	0.3	0.3	0.0	1.6
16425	1925	0.5	0.9	0.0	0.4	0.4	0.0	2.1
18250	1930	0.6	1.1	0.0	0.5	0.4	0.0	2.6
20075	1935	0.7	1.3	0.0	0.6	0.5	0.0	3.0
21900	1940	0.9	1.6	0.0	0.7	0.7	0.0	3.9
23725	1945	1.0	1.8	0.0	0.8	0.8	0.0	4.5
25550	1950	1.1	2.0	0.0	0.9	0.8	0.0	5.0
27375	1955	1.4	2.4	0.0	1.1	1.0	0.0	5.9
29200	1960	1.6	2.8	0.0	1.3	1.1	0.1	7.0
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(Transient from 1880 to 1960). Modelled groundwater flux (m^3/day) and salt load (tonnes/day) entering the River Murray from flow budget zones in the Kingston area

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
365	1881	6	16	0	2	3	0	28	0
3650	1890	6	16	0	2	3	0	28	0
7300	1900	7	16	0	2	3	0	28	0
9125	1905	8	17	0	2	4	0	30	0
10950	1910	8	17	0	2	4	0	31	0
12775	1915	9	18	0	3	4	0	33	0
14600	1920	9	18	0	3	4	0	34	0
16425	1925	10	19	0	3	4	0	36	0
18250	1930	10	19	0	3	4	0	36	0
20075	1935	10	20	0	3	4	0	37	0
21900	1940	11	20	0	3	4	0	38	0
23725	1945	11	20	0	3	4	0	39	0
25550	1950	11	20	0	3	4	0	39	0
27375	1955	11	21	0	3	4	0	40	0
29200	1960	11	21	0	3	4	0	40	0
29565	1961	12	21	0	3	5	0	41	0
29930	1962	12	22	0	3	5	0	41	0
30295	1963	12	22	0	3	5	0	41	0
30660	1964	12	22	0	3	5	0	41	0
31025	1965	12	22	0	3	5	0	41	0
31390	1966	12	22	0	3	5	0	41	0
31755	1967	12	22	0	3	5	0	41	0
32120	1968	12	22	0	3	5	0	42	0
32485	1969	12	22	0	3	5	0	42	0
32850	1970	12	22	0	3	5	0	42	0
33215	1971	12	22	0	3	5	0	42	0
33580	1972	12	22	0	3	5	0	42	0
33945	1973	12	22	0	3	5	0	43	0
34310	1974	12	22	0	3	5	0	43	0
34675	1975	12	22	0	3	5	0	43	0
35040	1976	12	22	0	3	5	0	43	0
35405	1977	12	22	0	3	5	0	43	0
35770	1978	12	22	0	3	5	0	43	0
36135	1979	12	22	0	3	5	0	43	0
36500	1980	13	22	0	3	5	0	43	0
36865	1981	13	23	0	3	5	0	44	1
37230	1982	13	23	0	3	5	0	44	1
37595	1983	13	23	0	3	5	0	44	1
37960	1984	13	23	0	3	5	0	44	1
38325	1985	13	23	0	3	5	0	44	1
38690	1986	13	23	0	4	5	0	44	1

B-5(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
39055	1987	13	23	0	4	5	0	**44**	***1***
39420	1988	13	23	0	4	5	0	**44**	***1***
39785	1989	13	23	0	4	5	0	**45**	***1***
40150	1990	13	23	0	4	5	0	**45**	***1***
40515	1991	13	23	0	4	5	0	**45**	***1***
40880	1992	13	24	0	4	5	0	**45**	***1***
41245	1993	13	24	0	4	5	0	**46**	***1***
41610	1994	13	24	0	4	5	0	**46**	***1***
41975	1995	14	24	0	4	5	0	**46**	***1***
42340	1996	14	24	0	4	5	0	**46**	***1***
42705	1997	14	24	0	4	5	0	**46**	***1***
43070	1998	14	24	0	4	5	0	**46**	***1***
43435	1999	14	24	0	4	5	0	**46**	***1***
43800	2000	14	24	0	4	5	0	**46**	***1***
44165	2001	14	24	0	4	5	0	**47**	***1***
44530	2002	14	24	0	4	5	0	**47**	***1***
44895	2003	14	25	0	4	5	0	**48**	***1***
45260	2004	14	25	0	4	5	0	**48**	***1***
45625	2005	14	25	0	4	5	0	**48**	***1***
45990	2006	14	25	0	4	5	0	**48**	***1***
46355	2007	14	25	0	4	5	0	**48**	***1***
46720	2008	14	25	0	4	5	0	**48**	***1***
47085	2009	14	25	0	4	5	0	**48**	***1***
47450	2010	14	25	0	4	5	0	**48**	***1***
47815	2011	14	25	0	4	5	0	**49**	***1***
48180	2012	15	25	0	4	5	0	**49**	***1***
48545	2013	15	26	0	4	5	0	**50**	***1***
48910	2014	15	26	0	4	5	0	**50**	***1***
49275	2015	15	26	0	4	5	0	**50**	***1***
49640	2016	15	26	0	4	5	0	**50**	***1***
50005	2017	15	26	0	4	5	0	**50**	***1***
50370	2018	15	26	0	4	5	0	**50**	***1***
50735	2019	15	26	0	4	5	0	**50**	***1***
51100	2020	15	26	0	4	5	0	**50**	***1***
51465	2021	15	26	0	4	6	0	**51**	***1***
51830	2022	15	26	0	4	6	0	**51**	***1***
52195	2023	15	27	0	4	6	0	**52**	***1***
52560	2024	15	27	0	4	6	0	**52**	***1***
52925	2025	15	27	0	4	6	0	**52**	***1***
53290	2026	16	27	0	4	6	0	**52**	***1***

B-5(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
53655	2027	16	27	0	4	6	0	**52**	***1***
54020	2028	16	27	0	4	6	0	**52**	***1***
54385	2029	16	27	0	4	6	0	**52**	***1***
54750	2030	16	27	0	4	6	0	**52**	***1***
55115	2031	16	27	0	4	6	0	**53**	***1***
55480	2032	16	27	0	4	6	0	**53**	***1***
55845	2033	16	28	0	4	6	0	**54**	***1***
56210	2034	16	28	0	4	6	0	**54**	***1***
56575	2035	16	28	0	4	6	0	**54**	***1***
56940	2036	16	28	0	4	6	0	**54**	***1***
57305	2037	16	28	0	4	6	0	**54**	***1***
57670	2038	16	28	0	4	6	0	**54**	***1***
58035	2039	16	28	0	4	6	0	**54**	***1***
58400	2040	16	28	0	4	6	0	**54**	***1***
58765	2041	16	28	0	4	6	0	**55**	***1***
59130	2042	16	28	0	4	6	0	**55**	***1***
59495	2043	16	28	0	4	6	0	**55**	***1***
59860	2044	16	29	0	4	6	0	**55**	***1***
60225	2045	16	29	0	4	6	0	**56**	***1***
60590	2046	17	29	0	4	6	0	**56**	***1***
60955	2047	17	29	0	5	6	0	**56**	***1***
61320	2048	17	29	0	5	6	0	**56**	***1***
61685	2049	17	29	0	5	6	0	**56**	***1***
62050	2050	17	29	0	5	6	0	**56**	***1***
62415	2051	17	29	0	5	6	0	**56**	***1***
62780	2052	17	29	0	5	6	0	**57**	***1***
63145	2053	17	29	0	5	6	0	**57**	***1***
63510	2054	17	29	0	5	6	0	**57**	***1***
63875	2055	17	29	0	5	6	0	**57**	***1***
64240	2056	17	30	0	5	6	0	**57**	***1***
64605	2057	17	30	0	5	6	0	**57**	***1***
64970	2058	17	30	0	5	6	0	**58**	***1***
65335	2059	17	30	0	5	6	0	**58**	***1***
65700	2060	17	30	0	5	6	0	**58**	***1***
66065	2061	17	30	0	5	6	0	**58**	***1***
66430	2062	17	30	0	5	6	0	**58**	***1***
66795	2063	17	30	0	5	6	0	**58**	***1***
67160	2064	17	30	0	5	6	0	**59**	***1***
67525	2065	17	30	0	5	6	0	**59**	***1***
67890	2066	17	30	0	5	6	0	**59**	***1***

B-5(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
68255	2067	17	30	0	5	6	0	**59**	***1***
68620	2068	17	30	0	5	6	0	**59**	***1***
68985	2069	17	30	0	5	6	0	**59**	***1***
69350	2070	17	30	0	5	6	0	**59**	***1***
69715	2071	17	31	0	5	6	0	**59**	***1***
70080	2072	18	31	0	5	6	0	**60**	***1***
70445	2073	18	31	0	5	6	0	**60**	***1***
70810	2074	18	31	0	5	6	0	**60**	***1***
71175	2075	18	31	0	5	7	0	**60**	***1***
71540	2076	18	31	0	5	7	0	**60**	***1***
71905	2077	18	31	0	5	7	0	**60**	***1***
72270	2078	18	31	0	5	7	0	**60**	***1***
72635	2079	18	31	0	5	7	0	**60**	***1***
73000	2080	18	31	0	5	7	0	**60**	***1***
73365	2081	18	31	0	5	7	0	**60**	***1***
73730	2082	18	31	0	5	7	0	**61**	***1***
74095	2083	18	31	0	5	7	0	**61**	***1***
74460	2084	18	31	0	5	7	0	**61**	***1***
74825	2085	18	31	0	5	7	0	**61**	***1***
75190	2086	18	31	0	5	7	0	**61**	***1***
75555	2087	18	31	0	5	7	0	**61**	***1***
75920	2088	18	31	0	5	7	0	**61**	***1***
76285	2089	18	31	0	5	7	0	**61**	***1***
76650	2090	18	31	0	5	7	0	**61**	***1***
77015	2091	18	31	0	5	7	0	**61**	***1***
77380	2092	18	32	0	5	7	0	**61**	***1***
77745	2093	18	32	0	5	7	0	**61**	***1***
78110	2094	18	32	0	5	7	0	**61**	***1***
78475	2095	18	32	0	5	7	0	**61**	***1***
78840	2096	18	32	0	5	7	0	**61**	***1***
79205	2097	18	32	0	5	7	0	**61**	***1***
79570	2098	18	32	0	5	7	0	**61**	***1***
79935	2099	18	32	0	5	7	0	**61**	***1***
80300	2100	18	32	0	5	7	0	**61**	***1***
80665	2101	18	32	0	5	7	0	**62**	***1***
81030	2102	18	32	0	5	7	0	**62**	***1***
81395	2103	18	32	0	5	7	0	**62**	***1***
81760	2104	18	32	0	5	7	0	**62**	***1***
82125	2105	18	32	0	5	7	0	**62**	***1***
82490	2106	18	32	0	5	7	0	**62**	***1***

B-5(S2). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21	
365	1881	0.0	0.2	0.0	0.0	0.1	0.0	0.3
3650	1890	0.0	0.2	0.0	0.0	0.1	0.0	0.3
7300	1900	0.0	0.2	0.0	0.0	0.1	0.0	0.3
9125	1905	0.0	0.2	0.0	0.0	0.1	0.0	0.3
10950	1910	0.0	0.2	0.0	0.0	0.1	0.0	0.3
12775	1915	0.0	0.2	0.0	0.1	0.1	0.0	0.4
14600	1920	0.0	0.2	0.0	0.1	0.1	0.0	0.4
16425	1925	0.0	0.2	0.0	0.1	0.1	0.0	0.4
18250	1930	0.0	0.2	0.0	0.1	0.1	0.0	0.4
20075	1935	0.1	0.2	0.0	0.1	0.1	0.0	0.4
21900	1940	0.1	0.2	0.0	0.1	0.1	0.0	0.4
23725	1945	0.1	0.2	0.0	0.1	0.1	0.0	0.4
25550	1950	0.1	0.2	0.0	0.1	0.1	0.0	0.4
27375	1955	0.1	0.2	0.0	0.1	0.1	0.0	0.4
29200	1960	0.1	0.2	0.0	0.1	0.1	0.0	0.4
29565	1961	0.1	0.2	0.0	0.1	0.1	0.0	0.4
29930	1962	0.1	0.2	0.0	0.1	0.1	0.0	0.4
30295	1963	0.1	0.2	0.0	0.1	0.1	0.0	0.4
30660	1964	0.1	0.2	0.0	0.1	0.1	0.0	0.4
31025	1965	0.1	0.2	0.0	0.1	0.1	0.0	0.4
31390	1966	0.1	0.2	0.0	0.1	0.1	0.0	0.4
31755	1967	0.1	0.2	0.0	0.1	0.1	0.0	0.4
32120	1968	0.1	0.2	0.0	0.1	0.1	0.0	0.4
32485	1969	0.1	0.2	0.0	0.1	0.1	0.0	0.4
32850	1970	0.1	0.2	0.0	0.1	0.1	0.0	0.4
33215	1971	0.1	0.2	0.0	0.1	0.1	0.0	0.4
33580	1972	0.1	0.2	0.0	0.1	0.1	0.0	0.4
33945	1973	0.1	0.2	0.0	0.1	0.1	0.0	0.4
34310	1974	0.1	0.2	0.0	0.1	0.1	0.0	0.4
34675	1975	0.1	0.2	0.0	0.1	0.1	0.0	0.4
35040	1976	0.1	0.2	0.0	0.1	0.1	0.0	0.4
35405	1977	0.1	0.2	0.0	0.1	0.1	0.0	0.4
35770	1978	0.1	0.2	0.0	0.1	0.1	0.0	0.4
36135	1979	0.1	0.2	0.0	0.1	0.1	0.0	0.4
36500	1980	0.1	0.2	0.0	0.1	0.1	0.0	0.4
36865	1981	0.1	0.2	0.0	0.1	0.1	0.0	0.5
37230	1982	0.1	0.2	0.0	0.1	0.1	0.0	0.5
37595	1983	0.1	0.2	0.0	0.1	0.1	0.0	0.5
37960	1984	0.1	0.2	0.0	0.1	0.1	0.0	0.5
38325	1985	0.1	0.2	0.0	0.1	0.1	0.0	0.5
38690	1986	0.1	0.2	0.0	0.1	0.1	0.0	0.5
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S2). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
39055	1987	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
39420	1988	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
39785	1989	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
40150	1990	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
40515	1991	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
40880	1992	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
41245	1993	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
41610	1994	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
41975	1995	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
42340	1996	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
42705	1997	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
43070	1998	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
43435	1999	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
43800	2000	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
44165	2001	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
44530	2002	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
44895	2003	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
45260	2004	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
45625	2005	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
45990	2006	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
46355	2007	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
46720	2008	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
47085	2009	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
47450	2010	0.1	0.2	0.0	0.1	0.1	0.0	**0.5**
47815	2011	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
48180	2012	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
48545	2013	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
48910	2014	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
49275	2015	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
49640	2016	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
50005	2017	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
50370	2018	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
50735	2019	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
51100	2020	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
51465	2021	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
51830	2022	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
52195	2023	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
52560	2024	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
52925	2025	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
53290	2026	0.1	0.3	0.0	0.1	0.1	0.0	**0.5**
Salinity (mg/L)		***5,000***	***10,000***	***5,000***	***20,000***	***20,000***	***20,000***	

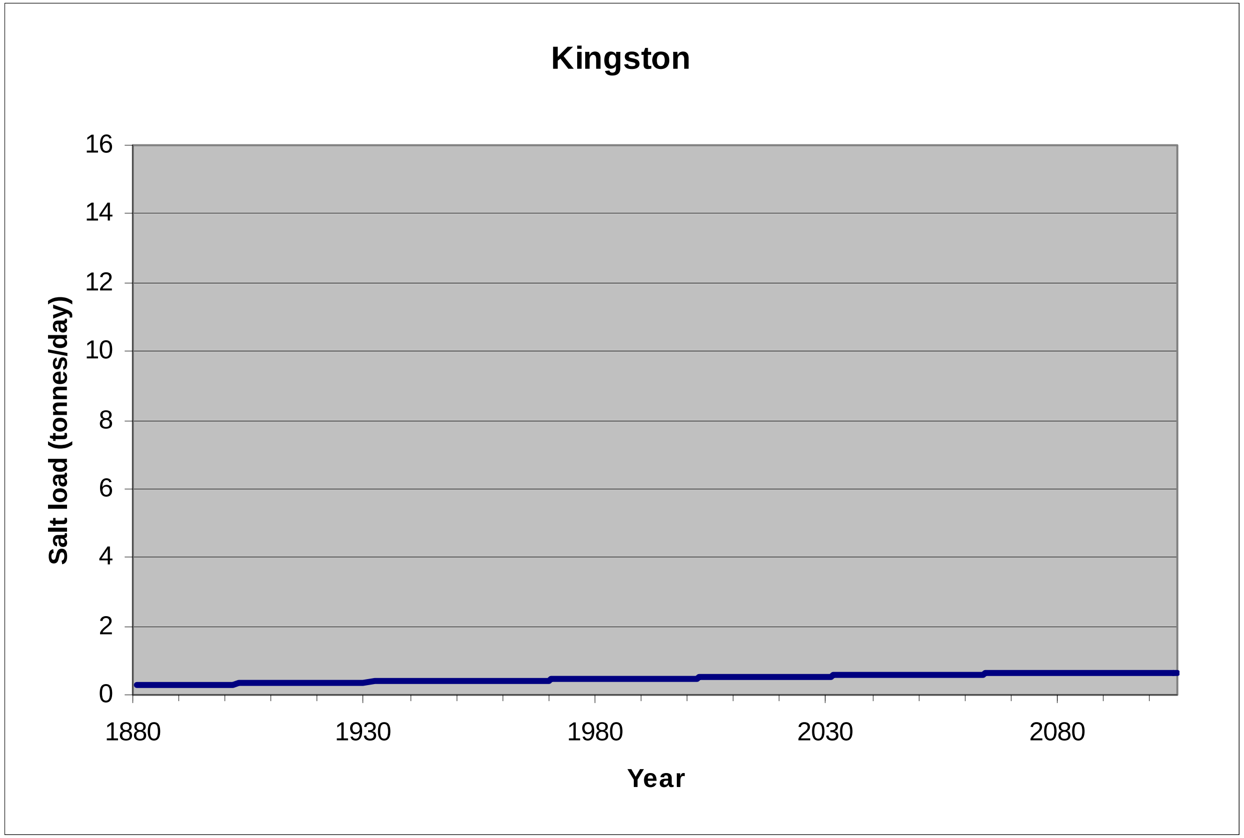
B-5(S2). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
53655	2027	0.1	0.3	0.0	0.1	0.1	0.0	0.5
54020	2028	0.1	0.3	0.0	0.1	0.1	0.0	0.5
54385	2029	0.1	0.3	0.0	0.1	0.1	0.0	0.5
54750	2030	0.1	0.3	0.0	0.1	0.1	0.0	0.5
55115	2031	0.1	0.3	0.0	0.1	0.1	0.0	0.5
55480	2032	0.1	0.3	0.0	0.1	0.1	0.0	0.6
55845	2033	0.1	0.3	0.0	0.1	0.1	0.0	0.6
56210	2034	0.1	0.3	0.0	0.1	0.1	0.0	0.6
56575	2035	0.1	0.3	0.0	0.1	0.1	0.0	0.6
56940	2036	0.1	0.3	0.0	0.1	0.1	0.0	0.6
57305	2037	0.1	0.3	0.0	0.1	0.1	0.0	0.6
57670	2038	0.1	0.3	0.0	0.1	0.1	0.0	0.6
58035	2039	0.1	0.3	0.0	0.1	0.1	0.0	0.6
58400	2040	0.1	0.3	0.0	0.1	0.1	0.0	0.6
58765	2041	0.1	0.3	0.0	0.1	0.1	0.0	0.6
59130	2042	0.1	0.3	0.0	0.1	0.1	0.0	0.6
59495	2043	0.1	0.3	0.0	0.1	0.1	0.0	0.6
59860	2044	0.1	0.3	0.0	0.1	0.1	0.0	0.6
60225	2045	0.1	0.3	0.0	0.1	0.1	0.0	0.6
60590	2046	0.1	0.3	0.0	0.1	0.1	0.0	0.6
60955	2047	0.1	0.3	0.0	0.1	0.1	0.0	0.6
61320	2048	0.1	0.3	0.0	0.1	0.1	0.0	0.6
61685	2049	0.1	0.3	0.0	0.1	0.1	0.0	0.6
62050	2050	0.1	0.3	0.0	0.1	0.1	0.0	0.6
62415	2051	0.1	0.3	0.0	0.1	0.1	0.0	0.6
62780	2052	0.1	0.3	0.0	0.1	0.1	0.0	0.6
63145	2053	0.1	0.3	0.0	0.1	0.1	0.0	0.6
63510	2054	0.1	0.3	0.0	0.1	0.1	0.0	0.6
63875	2055	0.1	0.3	0.0	0.1	0.1	0.0	0.6
64240	2056	0.1	0.3	0.0	0.1	0.1	0.0	0.6
64605	2057	0.1	0.3	0.0	0.1	0.1	0.0	0.6
64970	2058	0.1	0.3	0.0	0.1	0.1	0.0	0.6
65335	2059	0.1	0.3	0.0	0.1	0.1	0.0	0.6
65700	2060	0.1	0.3	0.0	0.1	0.1	0.0	0.6
66065	2061	0.1	0.3	0.0	0.1	0.1	0.0	0.6
66430	2062	0.1	0.3	0.0	0.1	0.1	0.0	0.6
66795	2063	0.1	0.3	0.0	0.1	0.1	0.0	0.6
67160	2064	0.1	0.3	0.0	0.1	0.1	0.0	0.6
67525	2065	0.1	0.3	0.0	0.1	0.1	0.0	0.6
67890	2066	0.1	0.3	0.0	0.1	0.1	0.0	0.6
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S2). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 2)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z10	Z1-Z11	Z1-Z12	Z3-Z10	Z3-Z11	Z3-Z12	
68255	2067	0.1	0.3	0.0	0.1	0.1	0.0	0.6
68620	2068	0.1	0.3	0.0	0.1	0.1	0.0	0.6
68985	2069	0.1	0.3	0.0	0.1	0.1	0.0	0.6
69350	2070	0.1	0.3	0.0	0.1	0.1	0.0	0.6
69715	2071	0.1	0.3	0.0	0.1	0.1	0.0	0.6
70080	2072	0.1	0.3	0.0	0.1	0.1	0.0	0.6
70445	2073	0.1	0.3	0.0	0.1	0.1	0.0	0.6
70810	2074	0.1	0.3	0.0	0.1	0.1	0.0	0.6
71175	2075	0.1	0.3	0.0	0.1	0.1	0.0	0.6
71540	2076	0.1	0.3	0.0	0.1	0.1	0.0	0.6
71905	2077	0.1	0.3	0.0	0.1	0.1	0.0	0.6
72270	2078	0.1	0.3	0.0	0.1	0.1	0.0	0.6
72635	2079	0.1	0.3	0.0	0.1	0.1	0.0	0.6
73000	2080	0.1	0.3	0.0	0.1	0.1	0.0	0.6
73365	2081	0.1	0.3	0.0	0.1	0.1	0.0	0.6
73730	2082	0.1	0.3	0.0	0.1	0.1	0.0	0.6
74095	2083	0.1	0.3	0.0	0.1	0.1	0.0	0.6
74460	2084	0.1	0.3	0.0	0.1	0.1	0.0	0.6
74825	2085	0.1	0.3	0.0	0.1	0.1	0.0	0.6
75190	2086	0.1	0.3	0.0	0.1	0.1	0.0	0.6
75555	2087	0.1	0.3	0.0	0.1	0.1	0.0	0.6
75920	2088	0.1	0.3	0.0	0.1	0.1	0.0	0.6
76285	2089	0.1	0.3	0.0	0.1	0.1	0.0	0.6
76650	2090	0.1	0.3	0.0	0.1	0.1	0.0	0.6
77015	2091	0.1	0.3	0.0	0.1	0.1	0.0	0.6
77380	2092	0.1	0.3	0.0	0.1	0.1	0.0	0.6
77745	2093	0.1	0.3	0.0	0.1	0.1	0.0	0.6
78110	2094	0.1	0.3	0.0	0.1	0.1	0.0	0.6
78475	2095	0.1	0.3	0.0	0.1	0.1	0.0	0.6
78840	2096	0.1	0.3	0.0	0.1	0.1	0.0	0.6
79205	2097	0.1	0.3	0.0	0.1	0.1	0.0	0.6
79570	2098	0.1	0.3	0.0	0.1	0.1	0.0	0.6
79935	2099	0.1	0.3	0.0	0.1	0.1	0.0	0.6
80300	2100	0.1	0.3	0.0	0.1	0.1	0.0	0.6
80665	2101	0.1	0.3	0.0	0.1	0.1	0.0	0.6
81030	2102	0.1	0.3	0.0	0.1	0.1	0.0	0.6
81395	2103	0.1	0.3	0.0	0.1	0.1	0.0	0.6
81760	2104	0.1	0.3	0.0	0.1	0.1	0.0	0.6
82125	2105	0.1	0.3	0.0	0.1	0.1	0.0	0.6
82490	2106	0.1	0.3	0.0	0.1	0.1	0.0	0.6
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S2). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 2)



B-5(S2). Graph of modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 2)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
365	1961	343	317	4	69	63	5	**800**	***9***
730	1962	365	337	4	73	67	5	**851**	***10***
1095	1963	379	343	4	77	68	5	**875**	***10***
1460	1964	395	358	5	80	70	6	**914**	***11***
1825	1965	405	363	5	82	71	6	**931**	***11***
2190	1966	425	428	5	87	82	6	**1035**	***12***
2555	1967	445	442	6	93	84	7	**1077**	***12***
2920	1968	468	460	6	98	87	7	**1126**	***13***
3285	1969	481	465	6	101	88	7	**1148**	***13***
3650	1970	497	481	7	104	91	8	**1187**	***14***
4015	1971	506	485	7	107	91	8	**1204**	***14***
4380	1972	491	458	6	105	87	7	**1154**	***13***
4745	1973	483	456	6	103	87	7	**1141**	***13***
5110	1974	458	425	5	100	82	6	**1076**	***12***
5475	1975	445	421	5	96	81	6	**1054**	***12***
5840	1976	436	417	5	94	80	6	**1038**	***12***
6205	1977	432	416	5	93	80	6	**1032**	***12***
6570	1978	428	414	5	93	80	6	**1025**	***12***
6935	1979	426	414	5	92	80	6	**1023**	***12***
7300	1980	423	411	5	92	79	6	**1016**	***12***
7665	1981	422	410	5	92	79	6	**1014**	***12***
8030	1982	419	407	5	91	79	6	**1007**	***12***
8395	1983	418	407	5	91	79	6	**1005**	***12***
8760	1984	415	404	5	90	78	6	**999**	***12***
9125	1985	414	404	5	90	78	6	**997**	***12***
9490	1986	412	402	5	90	78	6	**992**	***11***
9855	1987	411	403	5	90	78	6	**992**	***11***
10220	1988	408	400	5	89	78	6	**986**	***11***
10585	1989	407	400	5	89	78	6	**984**	***11***
10950	1990	405	397	4	89	77	6	**977**	***11***
11315	1991	403	396	4	88	77	6	**975**	***11***
11680	1992	401	393	4	88	76	6	**968**	***11***
12045	1993	399	392	4	87	76	6	**965**	***11***
12410	1994	396	387	4	87	76	6	**955**	***11***
12775	1995	393	385	4	86	75	6	**950**	***11***
13140	1996	389	375	4	85	73	5	**932**	***11***
13505	1997	385	373	4	84	73	5	**925**	***11***
13870	1998	380	363	4	83	71	5	**906**	***10***

B-5(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
14235	1999	376	360	4	82	71	5	**897**	***10***
14600	2000	370	350	4	80	69	5	**878**	***10***
14965	2001	366	347	4	79	69	5	**869**	***10***
15330	2002	360	337	4	78	67	5	**850**	***10***
15695	2003	356	335	4	77	66	5	**842**	***10***
16060	2004	351	325	3	76	65	4	**824**	***10***
16425	2005	346	323	3	75	64	4	**816**	***9***
16790	2006	341	312	3	73	63	4	**797**	***9***
17155	2007	335	306	3	72	61	4	**781**	***9***
17520	2008	330	299	3	70	60	4	**766**	***9***
17885	2009	324	292	3	69	59	4	**750**	***9***
18250	2010	318	284	3	68	57	4	**734**	***8***
18615	2011	312	277	3	66	56	3	**718**	***8***
18980	2012	307	272	3	65	55	3	**706**	***8***
19345	2013	302	267	3	64	54	3	**693**	***8***
19710	2014	298	263	3	63	54	3	**683**	***8***
20075	2015	286	247	2	61	51	3	**650**	***8***
20440	2016	279	244	2	59	50	3	**637**	***7***
20805	2017	265	229	2	57	47	2	**601**	***7***
21170	2018	257	225	2	55	47	2	**587**	***7***
21535	2019	243	210	1	52	43	2	**551**	***6***
21900	2020	235	206	1	50	43	2	**537**	***6***
22265	2021	221	191	1	48	40	1	**501**	***6***
22630	2022	212	188	1	46	39	1	**487**	***6***
22995	2023	207	186	1	44	39	1	**479**	***6***
23360	2024	205	185	1	44	39	1	**474**	***5***
23725	2025	203	185	1	43	39	1	**472**	***5***
24090	2026	202	185	1	43	39	1	**470**	***5***
24455	2027	202	184	1	43	39	1	**470**	***5***
24820	2028	201	184	1	43	38	1	**469**	***5***
25185	2029	201	184	1	43	38	1	**469**	***5***
25550	2030	201	184	1	43	38	1	**469**	***5***
25915	2031	201	184	1	43	38	1	**468**	***5***
26280	2032	201	184	1	43	38	1	**468**	***5***
26645	2033	201	184	1	43	38	1	**468**	***5***
27010	2034	201	184	1	43	38	1	**468**	***5***

B-5(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
27375	2035	201	184	1	43	38	1	468	5
27740	2036	201	184	1	43	38	1	468	5
28105	2037	201	184	1	43	38	1	468	5
28470	2038	201	184	1	43	38	1	468	5
28835	2039	201	184	1	43	38	1	468	5
29200	2040	201	184	1	43	38	1	468	5
29565	2041	201	184	1	43	38	1	468	5
29930	2042	201	184	1	43	38	1	468	5
30295	2043	201	184	1	43	38	1	468	5
30660	2044	201	184	1	43	38	1	468	5
31025	2045	201	184	1	43	38	1	468	5
31390	2046	201	184	1	43	38	1	468	5
31755	2047	201	184	1	43	38	1	468	5
32120	2048	201	184	1	43	38	1	468	5
32485	2049	201	184	1	43	38	1	468	5
32850	2050	201	184	1	43	38	1	468	5
33215	2051	201	184	1	43	38	1	468	5
33580	2052	201	184	1	43	38	1	468	5
33945	2053	201	184	1	43	38	1	468	5
34310	2054	201	184	1	43	38	1	468	5
34675	2055	201	184	1	43	38	1	468	5
35040	2056	201	184	1	43	38	1	468	5
35405	2057	201	184	1	43	38	1	468	5
35770	2058	201	184	1	43	38	1	468	5
36135	2059	201	184	1	43	38	1	468	5
36500	2060	201	184	1	43	38	1	468	5
36865	2061	201	184	1	43	38	1	468	5
37230	2062	201	184	1	43	38	1	468	5
37595	2063	201	184	1	43	38	1	468	5
37960	2064	201	184	1	43	38	1	468	5
38325	2065	201	184	1	43	38	1	468	5
38690	2066	201	184	1	43	38	1	468	5
39055	2067	201	184	1	43	38	1	468	5
39420	2068	201	184	1	43	38	1	468	5
39785	2069	201	184	1	43	38	1	468	5
40150	2070	201	184	1	43	38	1	468	5

B-5(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
40515	2071	201	184	1	43	38	1	468	5
40880	2072	201	184	1	43	38	1	468	5
41245	2073	201	184	1	43	38	1	468	5
41610	2074	201	184	1	43	38	1	468	5
41975	2075	201	184	1	43	38	1	468	5
42340	2076	201	184	1	43	38	1	468	5
42705	2077	201	184	1	43	38	1	468	5
43070	2078	201	184	1	43	38	1	468	5
43435	2079	201	184	1	43	38	1	468	5
43800	2080	201	184	1	43	38	1	468	5
44165	2081	201	184	1	43	38	1	468	5
44530	2082	201	184	1	43	38	1	468	5
44895	2083	201	184	1	43	38	1	468	5
45260	2084	201	184	1	43	38	1	468	5
45625	2085	201	184	1	43	38	1	468	5
45990	2086	201	184	1	43	38	1	468	5
46355	2087	201	184	1	43	38	1	468	5
46720	2088	201	184	1	43	38	1	468	5
47085	2089	201	184	1	43	38	1	468	5
47450	2090	201	184	1	43	38	1	468	5
47815	2091	201	184	1	43	38	1	468	5
48180	2092	201	184	1	43	38	1	468	5
48545	2093	201	184	1	43	38	1	468	5
48910	2094	201	184	1	43	38	1	468	5
49275	2095	201	184	1	43	38	1	468	5
49640	2096	201	184	1	43	38	1	468	5
50005	2097	201	184	1	43	38	1	468	5
50370	2098	201	184	1	43	38	1	468	5
50735	2099	201	184	1	43	38	1	468	5
51100	2100	201	184	1	43	38	1	468	5
51465	2101	201	184	1	43	38	1	468	5
51830	2102	201	184	1	43	38	1	468	5
52195	2103	201	184	1	43	38	1	468	5
52560	2104	201	184	1	43	38	1	468	5
52925	2105	201	184	1	43	38	1	468	5
53290	2106	201	184	1	43	38	1	468	5

B-5(S3A). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	1.7	3.2	0.0	1.4	1.3	0.1	7.6
730	1962	1.8	3.4	0.0	1.5	1.3	0.1	8.1
1095	1963	1.9	3.4	0.0	1.5	1.4	0.1	8.3
1460	1964	2.0	3.6	0.0	1.6	1.4	0.1	8.7
1825	1965	2.0	3.6	0.0	1.6	1.4	0.1	8.9
2190	1966	2.1	4.3	0.0	1.7	1.6	0.1	9.9
2555	1967	2.2	4.4	0.0	1.9	1.7	0.1	10.4
2920	1968	2.3	4.6	0.0	2.0	1.7	0.1	10.8
3285	1969	2.4	4.6	0.0	2.0	1.8	0.1	11.0
3650	1970	2.5	4.8	0.0	2.1	1.8	0.2	11.4
4015	1971	2.5	4.9	0.0	2.1	1.8	0.2	11.5
4380	1972	2.5	4.6	0.0	2.1	1.7	0.1	11.1
4745	1973	2.4	4.6	0.0	2.1	1.7	0.1	10.9
5110	1974	2.3	4.2	0.0	2.0	1.6	0.1	10.3
5475	1975	2.2	4.2	0.0	1.9	1.6	0.1	10.1
5840	1976	2.2	4.2	0.0	1.9	1.6	0.1	10.0
6205	1977	2.2	4.2	0.0	1.9	1.6	0.1	9.9
6570	1978	2.1	4.1	0.0	1.9	1.6	0.1	9.9
6935	1979	2.1	4.1	0.0	1.8	1.6	0.1	9.9
7300	1980	2.1	4.1	0.0	1.8	1.6	0.1	9.8
7665	1981	2.1	4.1	0.0	1.8	1.6	0.1	9.8
8030	1982	2.1	4.1	0.0	1.8	1.6	0.1	9.7
8395	1983	2.1	4.1	0.0	1.8	1.6	0.1	9.7
8760	1984	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9125	1985	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9490	1986	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9855	1987	2.1	4.0	0.0	1.8	1.6	0.1	9.6
10220	1988	2.0	4.0	0.0	1.8	1.6	0.1	9.5
10585	1989	2.0	4.0	0.0	1.8	1.6	0.1	9.5
10950	1990	2.0	4.0	0.0	1.8	1.5	0.1	9.4
11315	1991	2.0	4.0	0.0	1.8	1.5	0.1	9.4
11680	1992	2.0	3.9	0.0	1.8	1.5	0.1	9.4
12045	1993	2.0	3.9	0.0	1.7	1.5	0.1	9.3
12410	1994	2.0	3.9	0.0	1.7	1.5	0.1	9.2
12775	1995	2.0	3.9	0.0	1.7	1.5	0.1	9.2
13140	1996	1.9	3.8	0.0	1.7	1.5	0.1	9.0
13505	1997	1.9	3.7	0.0	1.7	1.5	0.1	8.9
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	1.9	3.6	0.0	1.7	1.4	0.1	8.7
14235	1999	1.9	3.6	0.0	1.6	1.4	0.1	8.7
14600	2000	1.9	3.5	0.0	1.6	1.4	0.1	8.5
14965	2001	1.8	3.5	0.0	1.6	1.4	0.1	8.4
15330	2002	1.8	3.4	0.0	1.6	1.3	0.1	8.2
15695	2003	1.8	3.3	0.0	1.5	1.3	0.1	8.1
16060	2004	1.8	3.2	0.0	1.5	1.3	0.1	7.9
16425	2005	1.7	3.2	0.0	1.5	1.3	0.1	7.8
16790	2006	1.7	3.1	0.0	1.5	1.3	0.1	7.6
17155	2007	1.7	3.1	0.0	1.4	1.2	0.1	7.5
17520	2008	1.6	3.0	0.0	1.4	1.2	0.1	7.3
17885	2009	1.6	2.9	0.0	1.4	1.2	0.1	7.2
18250	2010	1.6	2.8	0.0	1.4	1.1	0.1	7.0
18615	2011	1.6	2.8	0.0	1.3	1.1	0.1	6.9
18980	2012	1.5	2.7	0.0	1.3	1.1	0.1	6.7
19345	2013	1.5	2.7	0.0	1.3	1.1	0.1	6.6
19710	2014	1.5	2.6	0.0	1.3	1.1	0.1	6.5
20075	2015	1.4	2.5	0.0	1.2	1.0	0.1	6.2
20440	2016	1.4	2.4	0.0	1.2	1.0	0.1	6.1
20805	2017	1.3	2.3	0.0	1.1	0.9	0.0	5.7
21170	2018	1.3	2.3	0.0	1.1	0.9	0.0	5.6
21535	2019	1.2	2.1	0.0	1.0	0.9	0.0	5.3
21900	2020	1.2	2.1	0.0	1.0	0.9	0.0	5.1
22265	2021	1.1	1.9	0.0	1.0	0.8	0.0	4.8
22630	2022	1.1	1.9	0.0	0.9	0.8	0.0	4.7
22995	2023	1.0	1.9	0.0	0.9	0.8	0.0	4.6
23360	2024	1.0	1.9	0.0	0.9	0.8	0.0	4.6
23725	2025	1.0	1.8	0.0	0.9	0.8	0.0	4.5
24090	2026	1.0	1.8	0.0	0.9	0.8	0.0	4.5
24455	2027	1.0	1.8	0.0	0.9	0.8	0.0	4.5
24820	2028	1.0	1.8	0.0	0.9	0.8	0.0	4.5
25185	2029	1.0	1.8	0.0	0.9	0.8	0.0	4.5
25550	2030	1.0	1.8	0.0	0.9	0.8	0.0	4.5
25915	2031	1.0	1.8	0.0	0.9	0.8	0.0	4.5
26280	2032	1.0	1.8	0.0	0.9	0.8	0.0	4.5
26645	2033	1.0	1.8	0.0	0.9	0.8	0.0	4.5
27010	2034	1.0	1.8	0.0	0.9	0.8	0.0	4.5
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

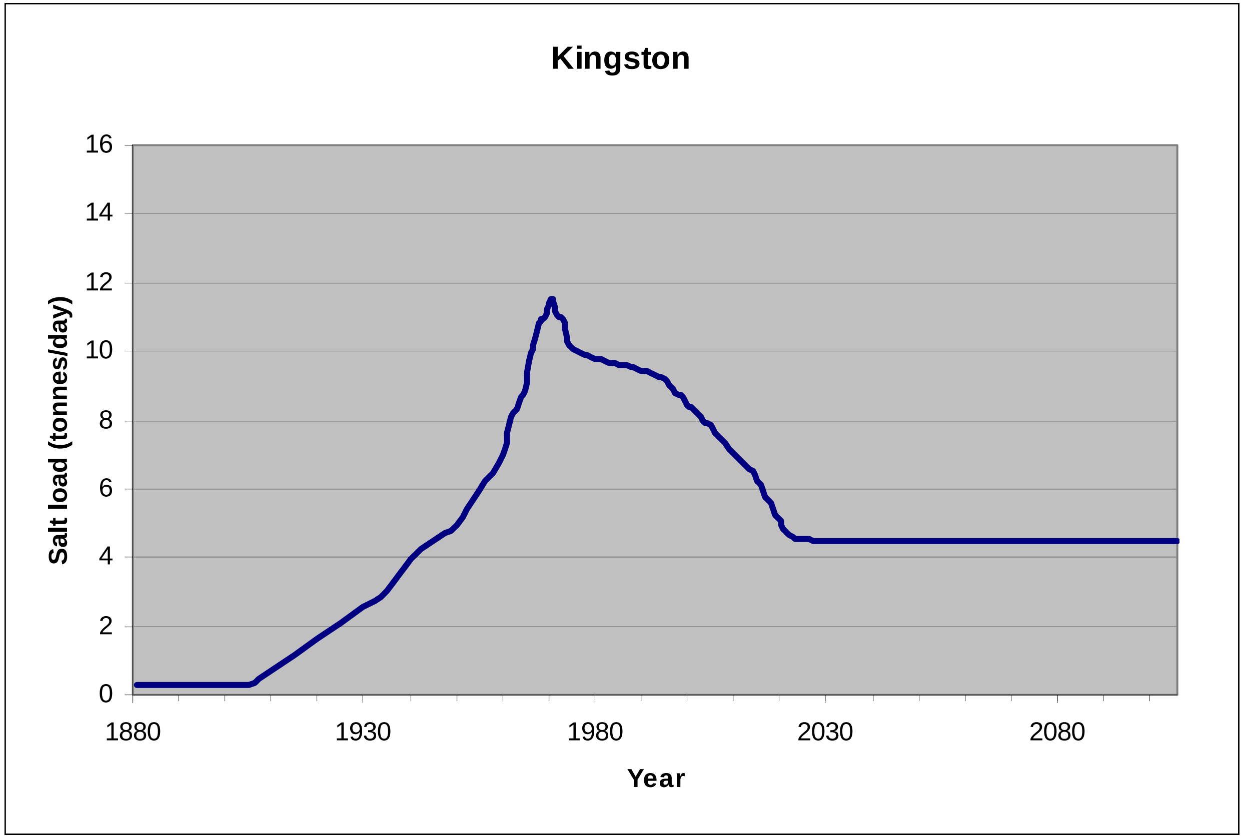
B-5(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
27740	2036	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
28105	2037	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
28470	2038	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
28835	2039	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
29200	2040	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
29565	2041	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
29930	2042	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
30295	2043	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
30660	2044	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
31025	2045	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
31390	2046	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
31755	2047	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
32120	2048	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
32485	2049	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
32850	2050	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
33215	2051	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
33580	2052	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
33945	2053	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
34310	2054	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
34675	2055	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
35040	2056	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
35405	2057	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
35770	2058	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
36135	2059	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
36500	2060	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
36865	2061	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
37230	2062	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
37595	2063	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
37960	2064	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
38325	2065	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
38690	2066	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
39055	2067	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
39420	2068	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
39785	2069	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
40150	2070	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
40515	2071	1.0	1.8	0.0	0.9	0.8	0.0	**4.5**
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

B-5(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3A)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	1.0	1.8	0.0	0.9	0.8	0.0	4.5
41245	2073	1.0	1.8	0.0	0.9	0.8	0.0	4.5
41610	2074	1.0	1.8	0.0	0.9	0.8	0.0	4.5
41975	2075	1.0	1.8	0.0	0.9	0.8	0.0	4.5
42340	2076	1.0	1.8	0.0	0.9	0.8	0.0	4.5
42705	2077	1.0	1.8	0.0	0.9	0.8	0.0	4.5
43070	2078	1.0	1.8	0.0	0.9	0.8	0.0	4.5
43435	2079	1.0	1.8	0.0	0.9	0.8	0.0	4.5
43800	2080	1.0	1.8	0.0	0.9	0.8	0.0	4.5
44165	2081	1.0	1.8	0.0	0.9	0.8	0.0	4.5
44530	2082	1.0	1.8	0.0	0.9	0.8	0.0	4.5
44895	2083	1.0	1.8	0.0	0.9	0.8	0.0	4.5
45260	2084	1.0	1.8	0.0	0.9	0.8	0.0	4.5
45625	2085	1.0	1.8	0.0	0.9	0.8	0.0	4.5
45990	2086	1.0	1.8	0.0	0.9	0.8	0.0	4.5
46355	2087	1.0	1.8	0.0	0.9	0.8	0.0	4.5
46720	2088	1.0	1.8	0.0	0.9	0.8	0.0	4.5
47085	2089	1.0	1.8	0.0	0.9	0.8	0.0	4.5
47450	2090	1.0	1.8	0.0	0.9	0.8	0.0	4.5
47815	2091	1.0	1.8	0.0	0.9	0.8	0.0	4.5
48180	2092	1.0	1.8	0.0	0.9	0.8	0.0	4.5
48545	2093	1.0	1.8	0.0	0.9	0.8	0.0	4.5
48910	2094	1.0	1.8	0.0	0.9	0.8	0.0	4.5
49275	2095	1.0	1.8	0.0	0.9	0.8	0.0	4.5
49640	2096	1.0	1.8	0.0	0.9	0.8	0.0	4.5
50005	2097	1.0	1.8	0.0	0.9	0.8	0.0	4.5
50370	2098	1.0	1.8	0.0	0.9	0.8	0.0	4.5
50735	2099	1.0	1.8	0.0	0.9	0.8	0.0	4.5
51100	2100	1.0	1.8	0.0	0.9	0.8	0.0	4.5
51465	2101	1.0	1.8	0.0	0.9	0.8	0.0	4.5
51830	2102	1.0	1.8	0.0	0.9	0.8	0.0	4.5
52195	2103	1.0	1.8	0.0	0.9	0.8	0.0	4.5
52560	2104	1.0	1.8	0.0	0.9	0.8	0.0	4.5
52925	2105	1.0	1.8	0.0	0.9	0.8	0.0	4.5
53290	2106	1.0	1.8	0.0	0.9	0.8	0.0	4.5
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

B-5(S3A). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3A)



B-5(S3A). Graph of modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3A)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
365	1961	343	317	4	69	63	5	800	9
730	1962	365	337	4	73	67	5	851	10
1095	1963	379	343	4	77	68	5	875	10
1460	1964	395	358	5	80	70	6	914	11
1825	1965	405	363	5	82	71	6	931	11
2190	1966	425	428	5	87	82	6	1035	12
2555	1967	445	442	6	93	84	7	1077	12
2920	1968	468	460	6	98	87	7	1126	13
3285	1969	481	465	6	101	88	7	1148	13
3650	1970	497	481	7	104	91	8	1187	14
4015	1971	506	485	7	107	91	8	1204	14
4380	1972	491	458	6	105	87	7	1154	13
4745	1973	483	456	6	103	87	7	1141	13
5110	1974	458	425	5	100	82	6	1076	12
5475	1975	445	421	5	96	81	6	1054	12
5840	1976	436	417	5	94	80	6	1038	12
6205	1977	432	416	5	93	80	6	1032	12
6570	1978	428	414	5	93	80	6	1025	12
6935	1979	426	414	5	92	80	6	1023	12
7300	1980	423	411	5	92	79	6	1016	12
7665	1981	422	410	5	92	79	6	1014	12
8030	1982	419	407	5	91	79	6	1007	12
8395	1983	418	407	5	91	79	6	1005	12
8760	1984	415	404	5	90	78	6	999	12
9125	1985	414	404	5	90	78	6	997	12
9490	1986	412	402	5	90	78	6	992	11
9855	1987	411	403	5	90	78	6	992	11
10220	1988	408	400	5	89	78	6	986	11
10585	1989	407	400	5	89	78	6	984	11
10950	1990	405	397	4	89	77	6	977	11
11315	1991	403	396	4	88	77	6	975	11
11680	1992	401	393	4	88	76	6	968	11
12045	1993	399	392	4	87	76	6	965	11
12410	1994	396	387	4	87	76	6	955	11
12775	1995	393	385	4	86	75	6	950	11
13140	1996	389	375	4	85	73	5	932	11
13505	1997	385	373	4	84	73	5	925	11
13870	1998	380	363	4	83	71	5	906	10

B-5(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
14235	1999	376	360	4	82	71	5	**897**	***10***
14600	2000	370	349	4	80	69	5	**877**	***10***
14965	2001	366	347	4	79	69	5	**868**	***10***
15330	2002	360	336	4	78	67	5	**849**	***10***
15695	2003	356	334	4	77	66	5	**841**	***10***
16060	2004	350	324	3	75	65	4	**822**	***10***
16425	2005	346	322	3	74	64	4	**814**	***9***
16790	2006	340	311	3	73	62	4	**795**	***9***
17155	2007	334	305	3	72	61	4	**779**	***9***
17520	2008	329	297	3	70	60	4	**763**	***9***
17885	2009	323	291	3	69	59	4	**748**	***9***
18250	2010	318	283	3	67	57	4	**732**	***8***
18615	2011	311	276	3	66	56	3	**716**	***8***
18980	2012	307	271	3	65	55	3	**703**	***8***
19345	2013	301	265	3	63	54	3	**689**	***8***
19710	2014	297	260	3	62	53	3	**677**	***8***
20075	2015	283	242	2	60	50	2	**640**	***7***
20440	2016	275	238	2	58	49	2	**624**	***7***
20805	2017	260	221	2	55	46	2	**585**	***7***
21170	2018	251	217	2	53	45	2	**569**	***7***
21535	2019	237	200	1	51	42	1	**532**	***6***
21900	2020	228	197	1	48	41	1	**517**	***6***
22265	2021	213	181	1	46	38	1	**480**	***6***
22630	2022	205	178	1	44	37	1	**466**	***5***
22995	2023	191	162	1	41	34	0	**430**	***5***
23360	2024	183	159	1	39	33	0	**415**	***5***
23725	2025	178	157	1	38	33	0	**407**	***5***
24090	2026	175	157	1	37	33	0	**402**	***5***
24455	2027	164	142	0	36	30	0	**372**	***4***
24820	2028	158	139	0	34	29	0	**361**	***4***
25185	2029	145	124	0	32	26	0	**328**	***4***
25550	2030	137	121	0	30	26	0	**315**	***4***
25915	2031	124	106	0	28	23	0	**281**	***3***
26280	2032	116	103	0	26	22	0	**267**	***3***
26645	2033	111	102	0	24	21	0	**258**	***3***
27010	2034	108	101	0	24	21	0	**254**	***3***

B-5(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
27375	2035	106	100	0	23	21	0	251	3
27740	2036	105	100	0	23	21	0	249	3
28105	2037	104	100	0	23	21	0	248	3
28470	2038	104	100	0	23	21	0	247	3
28835	2039	104	100	0	23	21	0	247	3
29200	2040	103	100	0	23	21	0	247	3
29565	2041	103	100	0	23	21	0	246	3
29930	2042	103	99	0	22	21	0	246	3
30295	2043	103	99	0	22	21	0	246	3
30660	2044	103	99	0	22	21	0	246	3
31025	2045	103	99	0	22	21	0	246	3
31390	2046	103	99	0	22	21	0	246	3
31755	2047	103	99	0	22	21	0	246	3
32120	2048	103	99	0	22	21	0	246	3
32485	2049	103	99	0	22	21	0	246	3
32850	2050	103	99	0	22	21	0	246	3
33215	2051	103	99	0	22	21	0	246	3
33580	2052	103	99	0	22	21	0	246	3
33945	2053	103	99	0	22	21	0	246	3
34310	2054	103	99	0	22	21	0	246	3
34675	2055	103	99	0	22	21	0	246	3
35040	2056	103	99	0	22	21	0	246	3
35405	2057	103	99	0	22	21	0	246	3
35770	2058	103	99	0	22	21	0	246	3
36135	2059	103	99	0	22	21	0	246	3
36500	2060	103	99	0	22	21	0	246	3
36865	2061	103	99	0	22	21	0	246	3
37230	2062	103	99	0	22	21	0	246	3
37595	2063	103	99	0	22	21	0	246	3
37960	2064	103	99	0	22	21	0	246	3
38325	2065	103	99	0	22	21	0	246	3
38690	2066	103	99	0	22	21	0	246	3
39055	2067	103	99	0	22	21	0	246	3
39420	2068	103	99	0	22	21	0	246	3
39785	2069	103	99	0	22	21	0	246	3
40150	2070	103	99	0	22	21	0	246	3

B-5(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
40515	2071	103	99	0	22	21	0	**246**	***3***
40880	2072	103	99	0	22	21	0	**246**	***3***
41245	2073	103	99	0	22	21	0	**246**	***3***
41610	2074	103	99	0	22	21	0	**246**	***3***
41975	2075	103	99	0	22	21	0	**246**	***3***
42340	2076	103	99	0	22	21	0	**246**	***3***
42705	2077	103	99	0	22	21	0	**246**	***3***
43070	2078	103	99	0	22	21	0	**246**	***3***
43435	2079	103	99	0	22	21	0	**246**	***3***
43800	2080	103	99	0	22	21	0	**246**	***3***
44165	2081	103	99	0	22	21	0	**246**	***3***
44530	2082	103	99	0	22	21	0	**246**	***3***
44895	2083	103	99	0	22	21	0	**246**	***3***
45260	2084	103	99	0	22	21	0	**246**	***3***
45625	2085	103	99	0	22	21	0	**246**	***3***
45990	2086	103	99	0	22	21	0	**246**	***3***
46355	2087	103	99	0	22	21	0	**246**	***3***
46720	2088	103	99	0	22	21	0	**246**	***3***
47085	2089	103	99	0	22	21	0	**246**	***3***
47450	2090	103	99	0	22	21	0	**246**	***3***
47815	2091	103	99	0	22	21	0	**246**	***3***
48180	2092	103	99	0	22	21	0	**246**	***3***
48545	2093	103	99	0	22	21	0	**246**	***3***
48910	2094	103	99	0	22	21	0	**246**	***3***
49275	2095	103	99	0	22	21	0	**246**	***3***
49640	2096	103	99	0	22	21	0	**246**	***3***
50005	2097	103	99	0	22	21	0	**246**	***3***
50370	2098	103	99	0	22	21	0	**246**	***3***
50735	2099	103	99	0	22	21	0	**246**	***3***
51100	2100	103	99	0	22	21	0	**246**	***3***
51465	2101	103	99	0	22	21	0	**246**	***3***
51830	2102	103	99	0	22	21	0	**246**	***3***
52195	2103	103	99	0	22	21	0	**246**	***3***
52560	2104	103	99	0	22	21	0	**246**	***3***
52925	2105	103	99	0	22	21	0	**246**	***3***
53290	2106	103	99	0	22	21	0	**246**	***3***

B-5(S3B). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	1.7	3.2	0.0	1.4	1.3	0.1	7.6
730	1962	1.8	3.4	0.0	1.5	1.3	0.1	8.1
1095	1963	1.9	3.4	0.0	1.5	1.4	0.1	8.3
1460	1964	2.0	3.6	0.0	1.6	1.4	0.1	8.7
1825	1965	2.0	3.6	0.0	1.6	1.4	0.1	8.9
2190	1966	2.1	4.3	0.0	1.7	1.6	0.1	9.9
2555	1967	2.2	4.4	0.0	1.9	1.7	0.1	10.4
2920	1968	2.3	4.6	0.0	2.0	1.7	0.1	10.8
3285	1969	2.4	4.6	0.0	2.0	1.8	0.1	11.0
3650	1970	2.5	4.8	0.0	2.1	1.8	0.2	11.4
4015	1971	2.5	4.9	0.0	2.1	1.8	0.2	11.5
4380	1972	2.5	4.6	0.0	2.1	1.7	0.1	11.1
4745	1973	2.4	4.6	0.0	2.1	1.7	0.1	10.9
5110	1974	2.3	4.2	0.0	2.0	1.6	0.1	10.3
5475	1975	2.2	4.2	0.0	1.9	1.6	0.1	10.1
5840	1976	2.2	4.2	0.0	1.9	1.6	0.1	10.0
6205	1977	2.2	4.2	0.0	1.9	1.6	0.1	9.9
6570	1978	2.1	4.1	0.0	1.9	1.6	0.1	9.9
6935	1979	2.1	4.1	0.0	1.8	1.6	0.1	9.9
7300	1980	2.1	4.1	0.0	1.8	1.6	0.1	9.8
7665	1981	2.1	4.1	0.0	1.8	1.6	0.1	9.8
8030	1982	2.1	4.1	0.0	1.8	1.6	0.1	9.7
8395	1983	2.1	4.1	0.0	1.8	1.6	0.1	9.7
8760	1984	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9125	1985	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9490	1986	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9855	1987	2.1	4.0	0.0	1.8	1.6	0.1	9.6
10220	1988	2.0	4.0	0.0	1.8	1.6	0.1	9.5
10585	1989	2.0	4.0	0.0	1.8	1.6	0.1	9.5
10950	1990	2.0	4.0	0.0	1.8	1.5	0.1	9.4
11315	1991	2.0	4.0	0.0	1.8	1.5	0.1	9.4
11680	1992	2.0	3.9	0.0	1.8	1.5	0.1	9.4
12045	1993	2.0	3.9	0.0	1.7	1.5	0.1	9.3
12410	1994	2.0	3.9	0.0	1.7	1.5	0.1	9.2
12775	1995	2.0	3.9	0.0	1.7	1.5	0.1	9.2
13140	1996	1.9	3.8	0.0	1.7	1.5	0.1	9.0
13505	1997	1.9	3.7	0.0	1.7	1.5	0.1	8.9
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	1.9	3.6	0.0	1.7	1.4	0.1	8.7
14235	1999	1.9	3.6	0.0	1.6	1.4	0.1	8.6
14600	2000	1.8	3.5	0.0	1.6	1.4	0.1	8.4
14965	2001	1.8	3.5	0.0	1.6	1.4	0.1	8.4
15330	2002	1.8	3.4	0.0	1.6	1.3	0.1	8.2
15695	2003	1.8	3.3	0.0	1.5	1.3	0.1	8.1
16060	2004	1.8	3.2	0.0	1.5	1.3	0.1	7.9
16425	2005	1.7	3.2	0.0	1.5	1.3	0.1	7.8
16790	2006	1.7	3.1	0.0	1.5	1.2	0.1	7.6
17155	2007	1.7	3.1	0.0	1.4	1.2	0.1	7.5
17520	2008	1.6	3.0	0.0	1.4	1.2	0.1	7.3
17885	2009	1.6	2.9	0.0	1.4	1.2	0.1	7.2
18250	2010	1.6	2.8	0.0	1.3	1.1	0.1	7.0
18615	2011	1.6	2.8	0.0	1.3	1.1	0.1	6.8
18980	2012	1.5	2.7	0.0	1.3	1.1	0.1	6.7
19345	2013	1.5	2.6	0.0	1.3	1.1	0.1	6.6
19710	2014	1.5	2.6	0.0	1.2	1.1	0.1	6.5
20075	2015	1.4	2.4	0.0	1.2	1.0	0.0	6.1
20440	2016	1.4	2.4	0.0	1.2	1.0	0.0	5.9
20805	2017	1.3	2.2	0.0	1.1	0.9	0.0	5.6
21170	2018	1.3	2.2	0.0	1.1	0.9	0.0	5.4
21535	2019	1.2	2.0	0.0	1.0	0.8	0.0	5.1
21900	2020	1.1	2.0	0.0	1.0	0.8	0.0	4.9
22265	2021	1.1	1.8	0.0	0.9	0.8	0.0	4.6
22630	2022	1.0	1.8	0.0	0.9	0.7	0.0	4.4
22995	2023	1.0	1.6	0.0	0.8	0.7	0.0	4.1
23360	2024	0.9	1.6	0.0	0.8	0.7	0.0	4.0
23725	2025	0.9	1.6	0.0	0.8	0.7	0.0	3.9
24090	2026	0.9	1.6	0.0	0.7	0.7	0.0	3.8
24455	2027	0.8	1.4	0.0	0.7	0.6	0.0	3.6
24820	2028	0.8	1.4	0.0	0.7	0.6	0.0	3.5
25185	2029	0.7	1.2	0.0	0.6	0.5	0.0	3.1
25550	2030	0.7	1.2	0.0	0.6	0.5	0.0	3.0
25915	2031	0.6	1.1	0.0	0.6	0.5	0.0	2.7
26280	2032	0.6	1.0	0.0	0.5	0.4	0.0	2.6
26645	2033	0.6	1.0	0.0	0.5	0.4	0.0	2.5
27010	2034	0.5	1.0	0.0	0.5	0.4	0.0	2.4
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

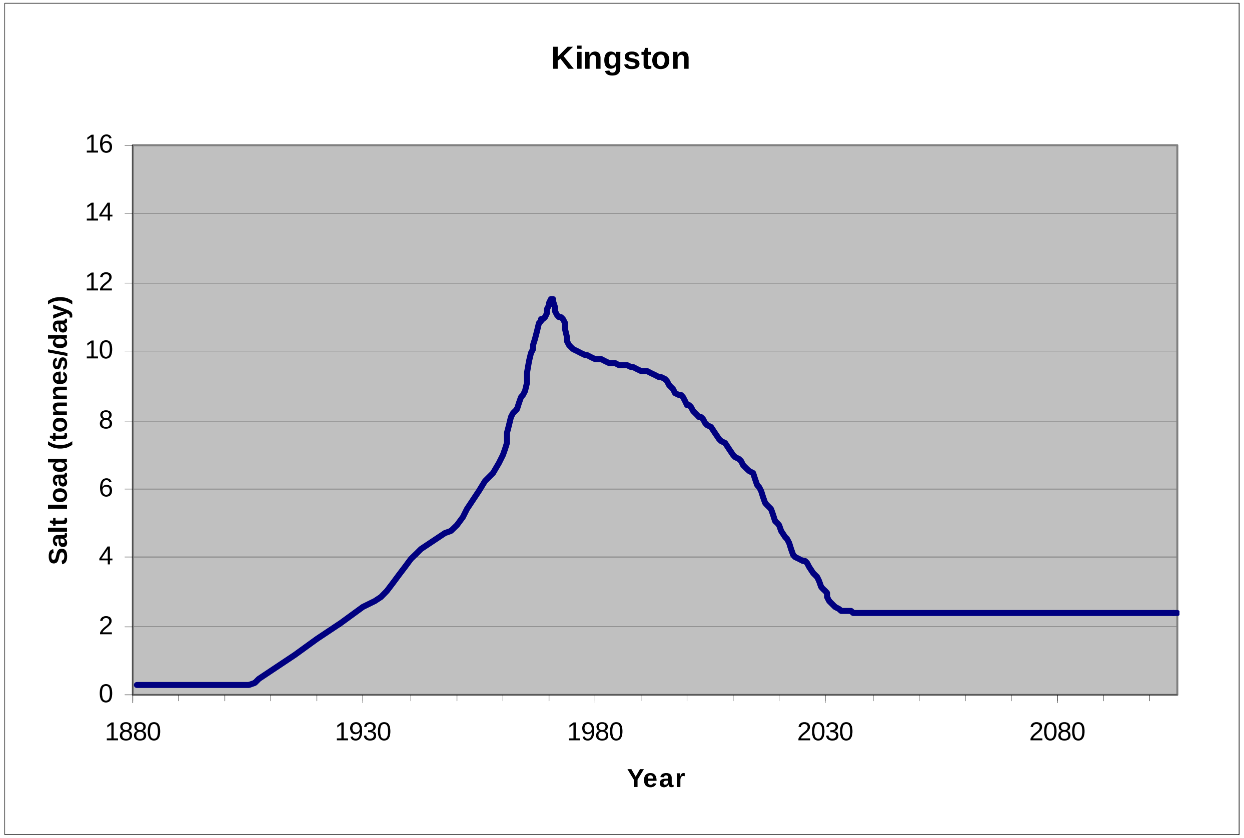
B-5(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.5	1.0	0.0	0.5	0.4	0.0	2.4
27740	2036	0.5	1.0	0.0	0.5	0.4	0.0	2.4
28105	2037	0.5	1.0	0.0	0.5	0.4	0.0	2.4
28470	2038	0.5	1.0	0.0	0.5	0.4	0.0	2.4
28835	2039	0.5	1.0	0.0	0.5	0.4	0.0	2.4
29200	2040	0.5	1.0	0.0	0.5	0.4	0.0	2.4
29565	2041	0.5	1.0	0.0	0.5	0.4	0.0	2.4
29930	2042	0.5	1.0	0.0	0.4	0.4	0.0	2.4
30295	2043	0.5	1.0	0.0	0.4	0.4	0.0	2.4
30660	2044	0.5	1.0	0.0	0.4	0.4	0.0	2.4
31025	2045	0.5	1.0	0.0	0.4	0.4	0.0	2.4
31390	2046	0.5	1.0	0.0	0.4	0.4	0.0	2.4
31755	2047	0.5	1.0	0.0	0.4	0.4	0.0	2.4
32120	2048	0.5	1.0	0.0	0.4	0.4	0.0	2.4
32485	2049	0.5	1.0	0.0	0.4	0.4	0.0	2.4
32850	2050	0.5	1.0	0.0	0.4	0.4	0.0	2.4
33215	2051	0.5	1.0	0.0	0.4	0.4	0.0	2.4
33580	2052	0.5	1.0	0.0	0.4	0.4	0.0	2.4
33945	2053	0.5	1.0	0.0	0.4	0.4	0.0	2.4
34310	2054	0.5	1.0	0.0	0.4	0.4	0.0	2.4
34675	2055	0.5	1.0	0.0	0.4	0.4	0.0	2.4
35040	2056	0.5	1.0	0.0	0.4	0.4	0.0	2.4
35405	2057	0.5	1.0	0.0	0.4	0.4	0.0	2.4
35770	2058	0.5	1.0	0.0	0.4	0.4	0.0	2.4
36135	2059	0.5	1.0	0.0	0.4	0.4	0.0	2.4
36500	2060	0.5	1.0	0.0	0.4	0.4	0.0	2.4
36865	2061	0.5	1.0	0.0	0.4	0.4	0.0	2.4
37230	2062	0.5	1.0	0.0	0.4	0.4	0.0	2.4
37595	2063	0.5	1.0	0.0	0.4	0.4	0.0	2.4
37960	2064	0.5	1.0	0.0	0.4	0.4	0.0	2.4
38325	2065	0.5	1.0	0.0	0.4	0.4	0.0	2.4
38690	2066	0.5	1.0	0.0	0.4	0.4	0.0	2.4
39055	2067	0.5	1.0	0.0	0.4	0.4	0.0	2.4
39420	2068	0.5	1.0	0.0	0.4	0.4	0.0	2.4
39785	2069	0.5	1.0	0.0	0.4	0.4	0.0	2.4
40150	2070	0.5	1.0	0.0	0.4	0.4	0.0	2.4
40515	2071	0.5	1.0	0.0	0.4	0.4	0.0	2.4
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

B-5(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3B)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	0.5	1.0	0.0	0.4	0.4	0.0	2.4
41245	2073	0.5	1.0	0.0	0.4	0.4	0.0	2.4
41610	2074	0.5	1.0	0.0	0.4	0.4	0.0	2.4
41975	2075	0.5	1.0	0.0	0.4	0.4	0.0	2.4
42340	2076	0.5	1.0	0.0	0.4	0.4	0.0	2.4
42705	2077	0.5	1.0	0.0	0.4	0.4	0.0	2.4
43070	2078	0.5	1.0	0.0	0.4	0.4	0.0	2.4
43435	2079	0.5	1.0	0.0	0.4	0.4	0.0	2.4
43800	2080	0.5	1.0	0.0	0.4	0.4	0.0	2.4
44165	2081	0.5	1.0	0.0	0.4	0.4	0.0	2.4
44530	2082	0.5	1.0	0.0	0.4	0.4	0.0	2.4
44895	2083	0.5	1.0	0.0	0.4	0.4	0.0	2.4
45260	2084	0.5	1.0	0.0	0.4	0.4	0.0	2.4
45625	2085	0.5	1.0	0.0	0.4	0.4	0.0	2.4
45990	2086	0.5	1.0	0.0	0.4	0.4	0.0	2.4
46355	2087	0.5	1.0	0.0	0.4	0.4	0.0	2.4
46720	2088	0.5	1.0	0.0	0.4	0.4	0.0	2.4
47085	2089	0.5	1.0	0.0	0.4	0.4	0.0	2.4
47450	2090	0.5	1.0	0.0	0.4	0.4	0.0	2.4
47815	2091	0.5	1.0	0.0	0.4	0.4	0.0	2.4
48180	2092	0.5	1.0	0.0	0.4	0.4	0.0	2.4
48545	2093	0.5	1.0	0.0	0.4	0.4	0.0	2.4
48910	2094	0.5	1.0	0.0	0.4	0.4	0.0	2.4
49275	2095	0.5	1.0	0.0	0.4	0.4	0.0	2.4
49640	2096	0.5	1.0	0.0	0.4	0.4	0.0	2.4
50005	2097	0.5	1.0	0.0	0.4	0.4	0.0	2.4
50370	2098	0.5	1.0	0.0	0.4	0.4	0.0	2.4
50735	2099	0.5	1.0	0.0	0.4	0.4	0.0	2.4
51100	2100	0.5	1.0	0.0	0.4	0.4	0.0	2.4
51465	2101	0.5	1.0	0.0	0.4	0.4	0.0	2.4
51830	2102	0.5	1.0	0.0	0.4	0.4	0.0	2.4
52195	2103	0.5	1.0	0.0	0.4	0.4	0.0	2.4
52560	2104	0.5	1.0	0.0	0.4	0.4	0.0	2.4
52925	2105	0.5	1.0	0.0	0.4	0.4	0.0	2.4
53290	2106	0.5	1.0	0.0	0.4	0.4	0.0	2.4
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

B-5(S3B). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3B)



B-5(S3B). Graph of modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3B)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
365	1961	343	317	4	69	63	5	**800**	***9***
730	1962	365	337	4	73	67	5	**851**	***10***
1095	1963	379	343	4	77	68	5	**875**	***10***
1460	1964	395	358	5	80	70	6	**914**	***11***
1825	1965	405	363	5	82	71	6	**931**	***11***
2190	1966	425	428	5	87	82	6	**1035**	***12***
2555	1967	445	442	6	93	84	7	**1077**	***12***
2920	1968	468	460	6	98	87	7	**1126**	***13***
3285	1969	481	465	6	101	88	7	**1148**	***13***
3650	1970	497	481	7	104	91	8	**1187**	***14***
4015	1971	506	485	7	107	91	8	**1204**	***14***
4380	1972	491	458	6	105	87	7	**1154**	***13***
4745	1973	483	456	6	103	87	7	**1141**	***13***
5110	1974	458	425	5	100	82	6	**1076**	***12***
5475	1975	445	421	5	96	81	6	**1054**	***12***
5840	1976	436	417	5	94	80	6	**1038**	***12***
6205	1977	432	416	5	93	80	6	**1032**	***12***
6570	1978	428	414	5	93	80	6	**1025**	***12***
6935	1979	426	414	5	92	80	6	**1023**	***12***
7300	1980	423	411	5	92	79	6	**1016**	***12***
7665	1981	422	410	5	92	79	6	**1014**	***12***
8030	1982	419	407	5	91	79	6	**1007**	***12***
8395	1983	418	407	5	91	79	6	**1005**	***12***
8760	1984	415	404	5	90	78	6	**999**	***12***
9125	1985	414	404	5	90	78	6	**997**	***12***
9490	1986	412	402	5	90	78	6	**992**	***11***
9855	1987	411	403	5	90	78	6	**992**	***11***
10220	1988	408	400	5	89	78	6	**986**	***11***
10585	1989	407	400	5	89	78	6	**984**	***11***
10950	1990	405	397	4	89	77	6	**977**	***11***
11315	1991	403	396	4	88	77	6	**975**	***11***
11680	1992	401	393	4	88	76	6	**968**	***11***
12045	1993	399	392	4	87	76	6	**965**	***11***
12410	1994	396	387	4	87	76	6	**955**	***11***
12775	1995	393	385	4	86	75	6	**950**	***11***
13140	1996	389	375	4	85	73	5	**932**	***11***
13505	1997	385	373	4	84	73	5	**925**	***11***
13870	1998	380	363	4	83	71	5	**906**	***10***

B-5(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
14235	1999	376	360	4	82	71	5	**897**	***10***
14600	2000	370	349	4	80	69	5	**877**	***10***
14965	2001	366	347	4	79	69	5	**868**	***10***
15330	2002	360	336	4	78	67	5	**849**	***10***
15695	2003	356	334	4	77	66	5	**840**	***10***
16060	2004	350	324	3	75	65	4	**821**	***10***
16425	2005	346	321	3	74	64	4	**813**	***9***
16790	2006	340	311	3	73	62	4	**794**	***9***
17155	2007	334	305	3	72	61	4	**778**	***9***
17520	2008	329	297	3	70	60	4	**763**	***9***
17885	2009	323	291	3	69	59	4	**747**	***9***
18250	2010	318	283	3	67	57	4	**731**	***8***
18615	2011	311	276	3	66	56	3	**715**	***8***
18980	2012	306	271	3	65	55	3	**703**	***8***
19345	2013	301	265	3	63	54	3	**688**	***8***
19710	2014	296	259	3	62	53	3	**676**	***8***
20075	2015	283	242	2	60	50	2	**639**	***7***
20440	2016	275	237	2	58	49	2	**623**	***7***
20805	2017	260	220	2	55	45	2	**584**	***7***
21170	2018	251	215	2	53	44	2	**566**	***7***
21535	2019	236	199	1	50	41	1	**528**	***6***
21900	2020	227	195	1	48	41	1	**512**	***6***
22265	2021	212	179	1	45	37	1	**475**	***6***
22630	2022	203	176	1	43	37	1	**461**	***5***
22995	2023	189	160	1	41	34	0	**424**	***5***
23360	2024	181	157	1	39	33	0	**410**	***5***
23725	2025	176	155	1	37	33	0	**401**	***5***
24090	2026	173	154	1	37	32	0	**397**	***5***
24455	2027	162	140	0	35	29	0	**367**	***4***
24820	2028	156	137	0	33	29	0	**355**	***4***
25185	2029	143	122	0	31	26	0	**322**	***4***
25550	2030	135	119	0	30	25	0	**309**	***4***
25915	2031	122	104	0	27	22	0	**275**	***3***
26280	2032	114	101	0	25	21	0	**261**	***3***
26645	2033	109	99	0	24	21	0	**253**	***3***
27010	2034	106	98	0	23	21	0	**248**	***3***

B-5(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
27375	2035	104	98	0	23	21	0	245	3
27740	2036	103	98	0	22	21	0	243	3
28105	2037	102	97	0	22	21	0	242	3
28470	2038	102	97	0	22	20	0	242	3
28835	2039	102	97	0	22	20	0	241	3
29200	2040	102	97	0	22	20	0	241	3
29565	2041	101	97	0	22	20	0	241	3
29930	2042	101	97	0	22	20	0	241	3
30295	2043	101	97	0	22	20	0	241	3
30660	2044	101	97	0	22	20	0	241	3
31025	2045	101	97	0	22	20	0	241	3
31390	2046	101	97	0	22	20	0	241	3
31755	2047	101	97	0	22	20	0	241	3
32120	2048	101	97	0	22	20	0	241	3
32485	2049	101	97	0	22	20	0	241	3
32850	2050	101	97	0	22	20	0	241	3
33215	2051	101	97	0	22	20	0	241	3
33580	2052	101	97	0	22	20	0	241	3
33945	2053	101	97	0	22	20	0	241	3
34310	2054	101	97	0	22	20	0	241	3
34675	2055	101	97	0	22	20	0	241	3
35040	2056	101	97	0	22	20	0	240	3
35405	2057	101	97	0	22	20	0	240	3
35770	2058	101	97	0	22	20	0	240	3
36135	2059	101	97	0	22	20	0	240	3
36500	2060	101	97	0	22	20	0	240	3
36865	2061	101	97	0	22	20	0	240	3
37230	2062	101	97	0	22	20	0	240	3
37595	2063	101	97	0	22	20	0	240	3
37960	2064	101	97	0	22	20	0	240	3
38325	2065	101	97	0	22	20	0	240	3
38690	2066	101	97	0	22	20	0	240	3
39055	2067	101	97	0	22	20	0	240	3
39420	2068	101	97	0	22	20	0	240	3
39785	2069	101	97	0	22	20	0	240	3
40150	2070	101	97	0	22	20	0	240	3

B-5(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
40515	2071	101	97	0	22	20	0	**240**	***3***
40880	2072	101	97	0	22	20	0	**240**	***3***
41245	2073	101	97	0	22	20	0	**240**	***3***
41610	2074	101	97	0	22	20	0	**240**	***3***
41975	2075	101	97	0	22	20	0	**240**	***3***
42340	2076	101	97	0	22	20	0	**240**	***3***
42705	2077	101	97	0	22	20	0	**240**	***3***
43070	2078	101	97	0	22	20	0	**240**	***3***
43435	2079	101	97	0	22	20	0	**240**	***3***
43800	2080	101	97	0	22	20	0	**240**	***3***
44165	2081	101	97	0	22	20	0	**240**	***3***
44530	2082	101	97	0	22	20	0	**240**	***3***
44895	2083	101	97	0	22	20	0	**240**	***3***
45260	2084	101	97	0	22	20	0	**240**	***3***
45625	2085	101	97	0	22	20	0	**240**	***3***
45990	2086	101	97	0	22	20	0	**240**	***3***
46355	2087	101	97	0	22	20	0	**240**	***3***
46720	2088	101	97	0	22	20	0	**240**	***3***
47085	2089	101	97	0	22	20	0	**240**	***3***
47450	2090	101	97	0	22	20	0	**240**	***3***
47815	2091	101	97	0	22	20	0	**240**	***3***
48180	2092	101	97	0	22	20	0	**240**	***3***
48545	2093	101	97	0	22	20	0	**240**	***3***
48910	2094	101	97	0	22	20	0	**240**	***3***
49275	2095	101	97	0	22	20	0	**240**	***3***
49640	2096	101	97	0	22	20	0	**240**	***3***
50005	2097	101	97	0	22	20	0	**240**	***3***
50370	2098	101	97	0	22	20	0	**240**	***3***
50735	2099	101	97	0	22	20	0	**240**	***3***
51100	2100	101	97	0	22	20	0	**240**	***3***
51465	2101	101	97	0	22	20	0	**240**	***3***
51830	2102	101	97	0	22	20	0	**240**	***3***
52195	2103	101	97	0	22	20	0	**240**	***3***
52560	2104	101	97	0	22	20	0	**240**	***3***
52925	2105	101	97	0	22	20	0	**240**	***3***
53290	2106	101	97	0	22	20	0	**240**	***3***

B-5(S3C). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	1.7	3.2	0.0	1.4	1.3	0.1	7.6
730	1962	1.8	3.4	0.0	1.5	1.3	0.1	8.1
1095	1963	1.9	3.4	0.0	1.5	1.4	0.1	8.3
1460	1964	2.0	3.6	0.0	1.6	1.4	0.1	8.7
1825	1965	2.0	3.6	0.0	1.6	1.4	0.1	8.9
2190	1966	2.1	4.3	0.0	1.7	1.6	0.1	9.9
2555	1967	2.2	4.4	0.0	1.9	1.7	0.1	10.4
2920	1968	2.3	4.6	0.0	2.0	1.7	0.1	10.8
3285	1969	2.4	4.6	0.0	2.0	1.8	0.1	11.0
3650	1970	2.5	4.8	0.0	2.1	1.8	0.2	11.4
4015	1971	2.5	4.9	0.0	2.1	1.8	0.2	11.5
4380	1972	2.5	4.6	0.0	2.1	1.7	0.1	11.1
4745	1973	2.4	4.6	0.0	2.1	1.7	0.1	10.9
5110	1974	2.3	4.2	0.0	2.0	1.6	0.1	10.3
5475	1975	2.2	4.2	0.0	1.9	1.6	0.1	10.1
5840	1976	2.2	4.2	0.0	1.9	1.6	0.1	10.0
6205	1977	2.2	4.2	0.0	1.9	1.6	0.1	9.9
6570	1978	2.1	4.1	0.0	1.9	1.6	0.1	9.9
6935	1979	2.1	4.1	0.0	1.8	1.6	0.1	9.9
7300	1980	2.1	4.1	0.0	1.8	1.6	0.1	9.8
7665	1981	2.1	4.1	0.0	1.8	1.6	0.1	9.8
8030	1982	2.1	4.1	0.0	1.8	1.6	0.1	9.7
8395	1983	2.1	4.1	0.0	1.8	1.6	0.1	9.7
8760	1984	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9125	1985	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9490	1986	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9855	1987	2.1	4.0	0.0	1.8	1.6	0.1	9.6
10220	1988	2.0	4.0	0.0	1.8	1.6	0.1	9.5
10585	1989	2.0	4.0	0.0	1.8	1.6	0.1	9.5
10950	1990	2.0	4.0	0.0	1.8	1.5	0.1	9.4
11315	1991	2.0	4.0	0.0	1.8	1.5	0.1	9.4
11680	1992	2.0	3.9	0.0	1.8	1.5	0.1	9.4
12045	1993	2.0	3.9	0.0	1.7	1.5	0.1	9.3
12410	1994	2.0	3.9	0.0	1.7	1.5	0.1	9.2
12775	1995	2.0	3.9	0.0	1.7	1.5	0.1	9.2
13140	1996	1.9	3.8	0.0	1.7	1.5	0.1	9.0
13505	1997	1.9	3.7	0.0	1.7	1.5	0.1	8.9
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	1.9	3.6	0.0	1.7	1.4	0.1	**8.7**
14235	1999	1.9	3.6	0.0	1.6	1.4	0.1	**8.6**
14600	2000	1.8	3.5	0.0	1.6	1.4	0.1	**8.4**
14965	2001	1.8	3.5	0.0	1.6	1.4	0.1	**8.4**
15330	2002	1.8	3.4	0.0	1.6	1.3	0.1	**8.2**
15695	2003	1.8	3.3	0.0	1.5	1.3	0.1	**8.1**
16060	2004	1.7	3.2	0.0	1.5	1.3	0.1	**7.9**
16425	2005	1.7	3.2	0.0	1.5	1.3	0.1	**7.8**
16790	2006	1.7	3.1	0.0	1.5	1.2	0.1	**7.6**
17155	2007	1.7	3.0	0.0	1.4	1.2	0.1	**7.5**
17520	2008	1.6	3.0	0.0	1.4	1.2	0.1	**7.3**
17885	2009	1.6	2.9	0.0	1.4	1.2	0.1	**7.2**
18250	2010	1.6	2.8	0.0	1.3	1.1	0.1	**7.0**
18615	2011	1.6	2.8	0.0	1.3	1.1	0.1	**6.8**
18980	2012	1.5	2.7	0.0	1.3	1.1	0.1	**6.7**
19345	2013	1.5	2.6	0.0	1.3	1.1	0.1	**6.6**
19710	2014	1.5	2.6	0.0	1.2	1.1	0.1	**6.4**
20075	2015	1.4	2.4	0.0	1.2	1.0	0.0	**6.1**
20440	2016	1.4	2.4	0.0	1.2	1.0	0.0	**5.9**
20805	2017	1.3	2.2	0.0	1.1	0.9	0.0	**5.6**
21170	2018	1.3	2.2	0.0	1.1	0.9	0.0	**5.4**
21535	2019	1.2	2.0	0.0	1.0	0.8	0.0	**5.0**
21900	2020	1.1	1.9	0.0	1.0	0.8	0.0	**4.9**
22265	2021	1.1	1.8	0.0	0.9	0.7	0.0	**4.5**
22630	2022	1.0	1.8	0.0	0.9	0.7	0.0	**4.4**
22995	2023	0.9	1.6	0.0	0.8	0.7	0.0	**4.0**
23360	2024	0.9	1.6	0.0	0.8	0.7	0.0	**3.9**
23725	2025	0.9	1.5	0.0	0.7	0.7	0.0	**3.8**
24090	2026	0.9	1.5	0.0	0.7	0.6	0.0	**3.8**
24455	2027	0.8	1.4	0.0	0.7	0.6	0.0	**3.5**
24820	2028	0.8	1.4	0.0	0.7	0.6	0.0	**3.4**
25185	2029	0.7	1.2	0.0	0.6	0.5	0.0	**3.1**
25550	2030	0.7	1.2	0.0	0.6	0.5	0.0	**3.0**
25915	2031	0.6	1.0	0.0	0.5	0.4	0.0	**2.6**
26280	2032	0.6	1.0	0.0	0.5	0.4	0.0	**2.5**
26645	2033	0.5	1.0	0.0	0.5	0.4	0.0	**2.4**
27010	2034	0.5	1.0	0.0	0.5	0.4	0.0	**2.4**
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

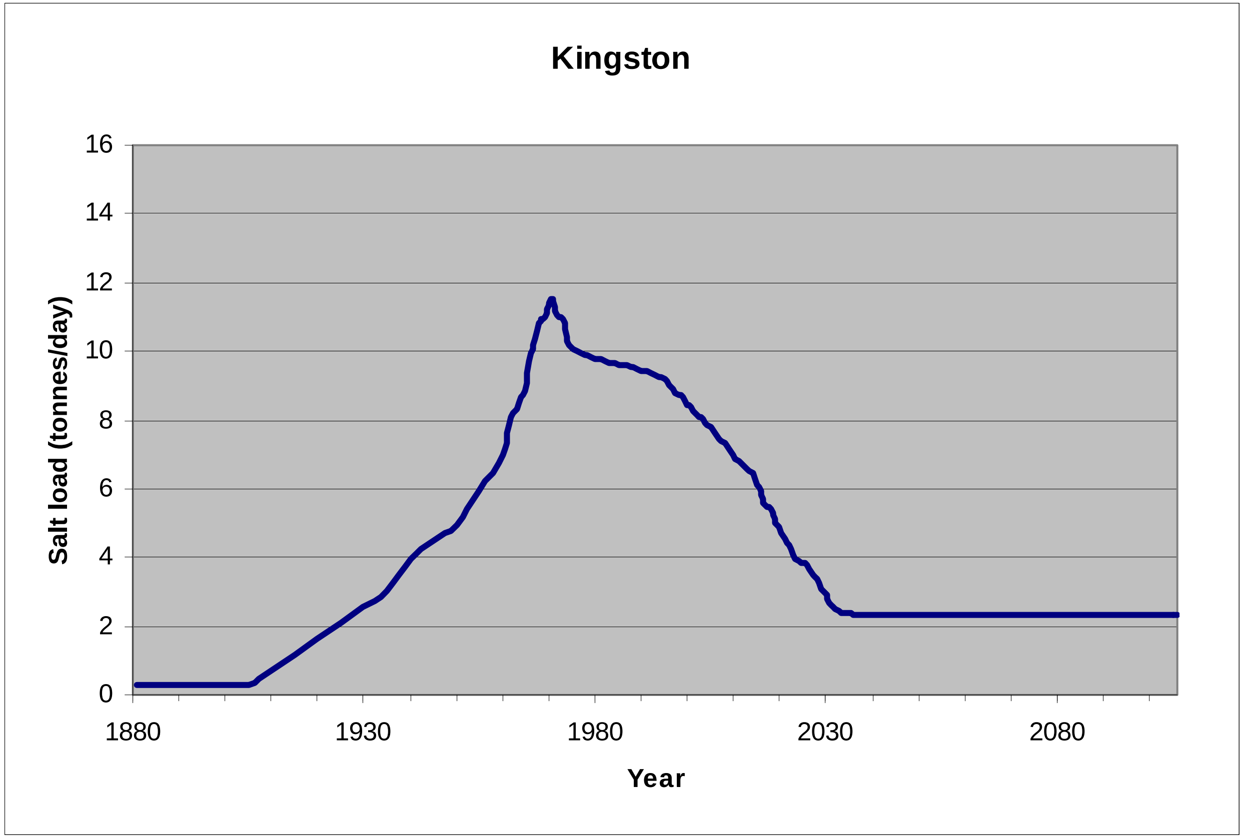
B-5(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.5	1.0	0.0	0.5	0.4	0.0	2.4
27740	2036	0.5	1.0	0.0	0.4	0.4	0.0	2.3
28105	2037	0.5	1.0	0.0	0.4	0.4	0.0	2.3
28470	2038	0.5	1.0	0.0	0.4	0.4	0.0	2.3
28835	2039	0.5	1.0	0.0	0.4	0.4	0.0	2.3
29200	2040	0.5	1.0	0.0	0.4	0.4	0.0	2.3
29565	2041	0.5	1.0	0.0	0.4	0.4	0.0	2.3
29930	2042	0.5	1.0	0.0	0.4	0.4	0.0	2.3
30295	2043	0.5	1.0	0.0	0.4	0.4	0.0	2.3
30660	2044	0.5	1.0	0.0	0.4	0.4	0.0	2.3
31025	2045	0.5	1.0	0.0	0.4	0.4	0.0	2.3
31390	2046	0.5	1.0	0.0	0.4	0.4	0.0	2.3
31755	2047	0.5	1.0	0.0	0.4	0.4	0.0	2.3
32120	2048	0.5	1.0	0.0	0.4	0.4	0.0	2.3
32485	2049	0.5	1.0	0.0	0.4	0.4	0.0	2.3
32850	2050	0.5	1.0	0.0	0.4	0.4	0.0	2.3
33215	2051	0.5	1.0	0.0	0.4	0.4	0.0	2.3
33580	2052	0.5	1.0	0.0	0.4	0.4	0.0	2.3
33945	2053	0.5	1.0	0.0	0.4	0.4	0.0	2.3
34310	2054	0.5	1.0	0.0	0.4	0.4	0.0	2.3
34675	2055	0.5	1.0	0.0	0.4	0.4	0.0	2.3
35040	2056	0.5	1.0	0.0	0.4	0.4	0.0	2.3
35405	2057	0.5	1.0	0.0	0.4	0.4	0.0	2.3
35770	2058	0.5	1.0	0.0	0.4	0.4	0.0	2.3
36135	2059	0.5	1.0	0.0	0.4	0.4	0.0	2.3
36500	2060	0.5	1.0	0.0	0.4	0.4	0.0	2.3
36865	2061	0.5	1.0	0.0	0.4	0.4	0.0	2.3
37230	2062	0.5	1.0	0.0	0.4	0.4	0.0	2.3
37595	2063	0.5	1.0	0.0	0.4	0.4	0.0	2.3
37960	2064	0.5	1.0	0.0	0.4	0.4	0.0	2.3
38325	2065	0.5	1.0	0.0	0.4	0.4	0.0	2.3
38690	2066	0.5	1.0	0.0	0.4	0.4	0.0	2.3
39055	2067	0.5	1.0	0.0	0.4	0.4	0.0	2.3
39420	2068	0.5	1.0	0.0	0.4	0.4	0.0	2.3
39785	2069	0.5	1.0	0.0	0.4	0.4	0.0	2.3
40150	2070	0.5	1.0	0.0	0.4	0.4	0.0	2.3
40515	2071	0.5	1.0	0.0	0.4	0.4	0.0	2.3
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3C)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
41245	2073	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
41610	2074	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
41975	2075	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
42340	2076	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
42705	2077	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
43070	2078	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
43435	2079	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
43800	2080	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
44165	2081	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
44530	2082	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
44895	2083	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
45260	2084	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
45625	2085	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
45990	2086	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
46355	2087	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
46720	2088	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
47085	2089	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
47450	2090	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
47815	2091	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
48180	2092	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
48545	2093	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
48910	2094	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
49275	2095	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
49640	2096	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
50005	2097	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
50370	2098	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
50735	2099	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
51100	2100	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
51465	2101	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
51830	2102	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
52195	2103	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
52560	2104	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
52925	2105	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
53290	2106	0.5	1.0	0.0	0.4	0.4	0.0	**2.3**
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

B-5(S3C). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3C)



B-5(S3C). Graph of modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 3C)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
365	1961	343	317	4	69	63	5	**800**	***9***
730	1962	365	337	4	73	67	5	**851**	***10***
1095	1963	379	343	4	77	68	5	**875**	***10***
1460	1964	395	358	5	80	70	6	**914**	***11***
1825	1965	405	363	5	82	71	6	**931**	***11***
2190	1966	425	428	5	87	82	6	**1035**	***12***
2555	1967	445	442	6	93	84	7	**1077**	***12***
2920	1968	468	460	6	98	87	7	**1126**	***13***
3285	1969	481	465	6	101	88	7	**1148**	***13***
3650	1970	497	481	7	104	91	8	**1187**	***14***
4015	1971	506	485	7	107	91	8	**1204**	***14***
4380	1972	491	458	6	105	87	7	**1154**	***13***
4745	1973	483	456	6	103	87	7	**1141**	***13***
5110	1974	458	425	5	100	82	6	**1076**	***12***
5475	1975	445	421	5	96	81	6	**1054**	***12***
5840	1976	436	417	5	94	80	6	**1038**	***12***
6205	1977	432	416	5	93	80	6	**1032**	***12***
6570	1978	428	414	5	93	80	6	**1025**	***12***
6935	1979	426	414	5	92	80	6	**1023**	***12***
7300	1980	423	411	5	92	79	6	**1016**	***12***
7665	1981	422	410	5	92	79	6	**1014**	***12***
8030	1982	419	407	5	91	79	6	**1007**	***12***
8395	1983	418	407	5	91	79	6	**1005**	***12***
8760	1984	415	404	5	90	78	6	**999**	***12***
9125	1985	414	404	5	90	78	6	**997**	***12***
9490	1986	412	402	5	90	78	6	**992**	***11***
9855	1987	411	403	5	90	78	6	**992**	***11***
10220	1988	408	400	5	89	78	6	**986**	***11***
10585	1989	407	400	5	89	78	6	**984**	***11***
10950	1990	405	397	4	89	77	6	**977**	***11***
11315	1991	403	396	4	88	77	6	**975**	***11***
11680	1992	401	393	4	88	76	6	**968**	***11***
12045	1993	399	392	4	87	76	6	**965**	***11***
12410	1994	396	387	4	87	76	6	**955**	***11***
12775	1995	393	385	4	86	75	6	**950**	***11***
13140	1996	389	375	4	85	73	5	**932**	***11***
13505	1997	385	373	4	84	73	5	**925**	***11***
13870	1998	380	363	4	83	71	5	**906**	***10***

B-5(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
14235	1999	376	360	4	82	71	5	**897**	***10***
14600	2000	370	349	4	80	69	5	**877**	***10***
14965	2001	366	347	4	79	69	5	**868**	***10***
15330	2002	360	336	4	78	67	5	**849**	***10***
15695	2003	356	334	4	77	66	5	**840**	***10***
16060	2004	350	324	3	75	65	4	**821**	***10***
16425	2005	346	321	3	74	64	4	**813**	***9***
16790	2006	340	311	3	73	62	4	**794**	***9***
17155	2007	334	305	3	72	61	4	**778**	***9***
17520	2008	329	297	3	70	60	4	**763**	***9***
17885	2009	323	291	3	69	59	4	**747**	***9***
18250	2010	318	283	3	67	57	4	**731**	***8***
18615	2011	311	276	3	66	56	3	**715**	***8***
18980	2012	306	271	3	65	55	3	**703**	***8***
19345	2013	301	265	3	63	54	3	**688**	***8***
19710	2014	296	259	3	62	53	3	**676**	***8***
20075	2015	283	242	2	60	50	2	**639**	***7***
20440	2016	275	237	2	58	49	2	**623**	***7***
20805	2017	260	220	2	55	45	2	**584**	***7***
21170	2018	251	215	2	53	45	2	**567**	***7***
21535	2019	236	199	1	50	41	1	**529**	***6***
21900	2020	227	195	1	48	41	1	**513**	***6***
22265	2021	217	185	1	46	38	1	**488**	***6***
22630	2022	211	182	1	44	38	1	**478**	***6***
22995	2023	198	167	1	43	35	1	**444**	***5***
23360	2024	191	164	1	41	34	1	**432**	***5***
23725	2025	187	163	1	39	34	1	**424**	***5***
24090	2026	184	162	1	39	34	1	**420**	***5***
24455	2027	173	148	1	37	31	0	**390**	***5***
24820	2028	167	145	1	36	30	0	**379**	***4***
25185	2029	154	130	0	34	27	0	**346**	***4***
25550	2030	147	127	0	32	27	0	**333**	***4***
25915	2031	134	121	0	30	25	0	**311**	***4***
26280	2032	127	123	0	28	26	0	**305**	***4***
26645	2033	124	128	1	27	27	0	**308**	***4***
27010	2034	123	130	1	27	27	1	**309**	***4***

B-5(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
27375	2035	122	132	1	27	28	1	**311**	***4***
27740	2036	123	133	1	27	28	1	**312**	***4***
28105	2037	124	133	1	28	28	1	**314**	***4***
28470	2038	124	133	1	28	28	1	**315**	***4***
28835	2039	127	135	1	28	28	1	**320**	***4***
29200	2040	128	136	1	29	29	1	**323**	***4***
29565	2041	129	136	1	29	29	1	**325**	***4***
29930	2042	129	137	1	29	29	1	**326**	***4***
30295	2043	130	137	1	29	29	1	**327**	***4***
30660	2044	130	137	1	29	29	1	**328**	***4***
31025	2045	130	138	1	29	29	1	**329**	***4***
31390	2046	130	138	1	29	29	1	**329**	***4***
31755	2047	130	138	1	29	29	2	**330**	***4***
32120	2048	131	138	1	29	29	2	**331**	***4***
32485	2049	131	139	1	29	29	2	**331**	***4***
32850	2050	131	139	1	29	29	2	**331**	***4***
33215	2051	131	139	1	29	30	2	**332**	***4***
33580	2052	131	139	1	30	30	2	**332**	***4***
33945	2053	131	139	1	30	30	2	**333**	***4***
34310	2054	131	139	2	30	30	2	**333**	***4***
34675	2055	131	140	2	30	30	2	**334**	***4***
35040	2056	131	140	2	30	30	2	**334**	***4***
35405	2057	131	140	2	30	30	2	**334**	***4***
35770	2058	131	140	2	30	30	2	**335**	***4***
36135	2059	131	140	2	30	30	2	**335**	***4***
36500	2060	131	140	2	30	30	3	**335**	***4***
36865	2061	131	140	2	30	30	3	**336**	***4***
37230	2062	131	140	2	30	30	3	**336**	***4***
37595	2063	131	141	2	30	30	3	**336**	***4***
37960	2064	131	141	2	30	30	3	**336**	***4***
38325	2065	131	141	2	30	30	3	**337**	***4***
38690	2066	131	141	2	30	30	3	**337**	***4***
39055	2067	131	141	2	30	30	3	**337**	***4***
39420	2068	131	141	2	30	30	3	**337**	***4***
39785	2069	132	141	2	30	30	3	**337**	***4***
40150	2070	132	141	2	30	30	3	**338**	***4***

B-5(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
40515	2071	132	141	2	30	30	3	**338**	*4*
40880	2072	132	141	2	30	30	3	**338**	*4*
41245	2073	132	141	2	30	30	3	**338**	*4*
41610	2074	132	141	2	30	30	3	**338**	*4*
41975	2075	132	142	2	30	30	3	**338**	*4*
42340	2076	132	142	2	30	30	3	**339**	*4*
42705	2077	132	142	2	30	30	3	**339**	*4*
43070	2078	132	142	2	30	30	3	**339**	*4*
43435	2079	132	142	2	30	30	3	**339**	*4*
43800	2080	132	142	2	30	30	3	**339**	*4*
44165	2081	132	142	2	30	30	3	**339**	*4*
44530	2082	132	142	2	30	30	3	**339**	*4*
44895	2083	132	142	2	30	30	3	**340**	*4*
45260	2084	132	142	2	30	30	3	**340**	*4*
45625	2085	132	142	2	30	30	3	**340**	*4*
45990	2086	132	142	2	30	30	3	**340**	*4*
46355	2087	132	142	2	30	30	3	**340**	*4*
46720	2088	132	142	2	30	31	3	**340**	*4*
47085	2089	132	142	2	30	31	3	**340**	*4*
47450	2090	132	142	2	30	31	3	**340**	*4*
47815	2091	132	142	2	30	31	3	**340**	*4*
48180	2092	132	142	2	30	31	3	**341**	*4*
48545	2093	132	143	2	30	31	3	**341**	*4*
48910	2094	132	143	2	30	31	3	**341**	*4*
49275	2095	132	143	2	30	31	3	**341**	*4*
49640	2096	132	143	2	30	31	3	**341**	*4*
50005	2097	132	143	2	30	31	3	**341**	*4*
50370	2098	132	143	2	30	31	3	**341**	*4*
50735	2099	132	143	2	30	31	3	**341**	*4*
51100	2100	132	143	2	30	31	3	**341**	*4*
51465	2101	132	143	2	30	31	3	**341**	*4*
51830	2102	132	143	2	30	31	3	**341**	*4*
52195	2103	132	143	2	30	31	3	**342**	*4*
52560	2104	132	143	2	30	31	3	**342**	*4*
52925	2105	132	143	2	30	31	4	**342**	*4*
53290	2106	132	143	2	30	31	4	**342**	*4*

B-5(S4). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	1.7	3.2	0.0	1.4	1.3	0.1	7.6
730	1962	1.8	3.4	0.0	1.5	1.3	0.1	8.1
1095	1963	1.9	3.4	0.0	1.5	1.4	0.1	8.3
1460	1964	2.0	3.6	0.0	1.6	1.4	0.1	8.7
1825	1965	2.0	3.6	0.0	1.6	1.4	0.1	8.9
2190	1966	2.1	4.3	0.0	1.7	1.6	0.1	9.9
2555	1967	2.2	4.4	0.0	1.9	1.7	0.1	10.4
2920	1968	2.3	4.6	0.0	2.0	1.7	0.1	10.8
3285	1969	2.4	4.6	0.0	2.0	1.8	0.1	11.0
3650	1970	2.5	4.8	0.0	2.1	1.8	0.2	11.4
4015	1971	2.5	4.9	0.0	2.1	1.8	0.2	11.5
4380	1972	2.5	4.6	0.0	2.1	1.7	0.1	11.1
4745	1973	2.4	4.6	0.0	2.1	1.7	0.1	10.9
5110	1974	2.3	4.2	0.0	2.0	1.6	0.1	10.3
5475	1975	2.2	4.2	0.0	1.9	1.6	0.1	10.1
5840	1976	2.2	4.2	0.0	1.9	1.6	0.1	10.0
6205	1977	2.2	4.2	0.0	1.9	1.6	0.1	9.9
6570	1978	2.1	4.1	0.0	1.9	1.6	0.1	9.9
6935	1979	2.1	4.1	0.0	1.8	1.6	0.1	9.9
7300	1980	2.1	4.1	0.0	1.8	1.6	0.1	9.8
7665	1981	2.1	4.1	0.0	1.8	1.6	0.1	9.8
8030	1982	2.1	4.1	0.0	1.8	1.6	0.1	9.7
8395	1983	2.1	4.1	0.0	1.8	1.6	0.1	9.7
8760	1984	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9125	1985	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9490	1986	2.1	4.0	0.0	1.8	1.6	0.1	9.6
9855	1987	2.1	4.0	0.0	1.8	1.6	0.1	9.6
10220	1988	2.0	4.0	0.0	1.8	1.6	0.1	9.5
10585	1989	2.0	4.0	0.0	1.8	1.6	0.1	9.5
10950	1990	2.0	4.0	0.0	1.8	1.5	0.1	9.4
11315	1991	2.0	4.0	0.0	1.8	1.5	0.1	9.4
11680	1992	2.0	3.9	0.0	1.8	1.5	0.1	9.4
12045	1993	2.0	3.9	0.0	1.7	1.5	0.1	9.3
12410	1994	2.0	3.9	0.0	1.7	1.5	0.1	9.2
12775	1995	2.0	3.9	0.0	1.7	1.5	0.1	9.2
13140	1996	1.9	3.8	0.0	1.7	1.5	0.1	9.0
13505	1997	1.9	3.7	0.0	1.7	1.5	0.1	8.9
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S4). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	1.9	3.6	0.0	1.7	1.4	0.1	8.7
14235	1999	1.9	3.6	0.0	1.6	1.4	0.1	8.6
14600	2000	1.8	3.5	0.0	1.6	1.4	0.1	8.4
14965	2001	1.8	3.5	0.0	1.6	1.4	0.1	8.4
15330	2002	1.8	3.4	0.0	1.6	1.3	0.1	8.2
15695	2003	1.8	3.3	0.0	1.5	1.3	0.1	8.1
16060	2004	1.7	3.2	0.0	1.5	1.3	0.1	7.9
16425	2005	1.7	3.2	0.0	1.5	1.3	0.1	7.8
16790	2006	1.7	3.1	0.0	1.5	1.2	0.1	7.6
17155	2007	1.7	3.0	0.0	1.4	1.2	0.1	7.5
17520	2008	1.6	3.0	0.0	1.4	1.2	0.1	7.3
17885	2009	1.6	2.9	0.0	1.4	1.2	0.1	7.2
18250	2010	1.6	2.8	0.0	1.3	1.1	0.1	7.0
18615	2011	1.6	2.8	0.0	1.3	1.1	0.1	6.8
18980	2012	1.5	2.7	0.0	1.3	1.1	0.1	6.7
19345	2013	1.5	2.6	0.0	1.3	1.1	0.1	6.6
19710	2014	1.5	2.6	0.0	1.2	1.1	0.1	6.4
20075	2015	1.4	2.4	0.0	1.2	1.0	0.0	6.1
20440	2016	1.4	2.4	0.0	1.2	1.0	0.0	5.9
20805	2017	1.3	2.2	0.0	1.1	0.9	0.0	5.6
21170	2018	1.3	2.2	0.0	1.1	0.9	0.0	5.4
21535	2019	1.2	2.0	0.0	1.0	0.8	0.0	5.0
21900	2020	1.1	2.0	0.0	1.0	0.8	0.0	4.9
22265	2021	1.1	1.8	0.0	0.9	0.8	0.0	4.6
22630	2022	1.1	1.8	0.0	0.9	0.8	0.0	4.6
22995	2023	1.0	1.7	0.0	0.9	0.7	0.0	4.2
23360	2024	1.0	1.6	0.0	0.8	0.7	0.0	4.1
23725	2025	0.9	1.6	0.0	0.8	0.7	0.0	4.0
24090	2026	0.9	1.6	0.0	0.8	0.7	0.0	4.0
24455	2027	0.9	1.5	0.0	0.7	0.6	0.0	3.7
24820	2028	0.8	1.5	0.0	0.7	0.6	0.0	3.6
25185	2029	0.8	1.3	0.0	0.7	0.5	0.0	3.3
25550	2030	0.7	1.3	0.0	0.6	0.5	0.0	3.2
25915	2031	0.7	1.2	0.0	0.6	0.5	0.0	3.0
26280	2032	0.6	1.2	0.0	0.6	0.5	0.0	3.0
26645	2033	0.6	1.3	0.0	0.5	0.5	0.0	3.0
27010	2034	0.6	1.3	0.0	0.5	0.5	0.0	3.0
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

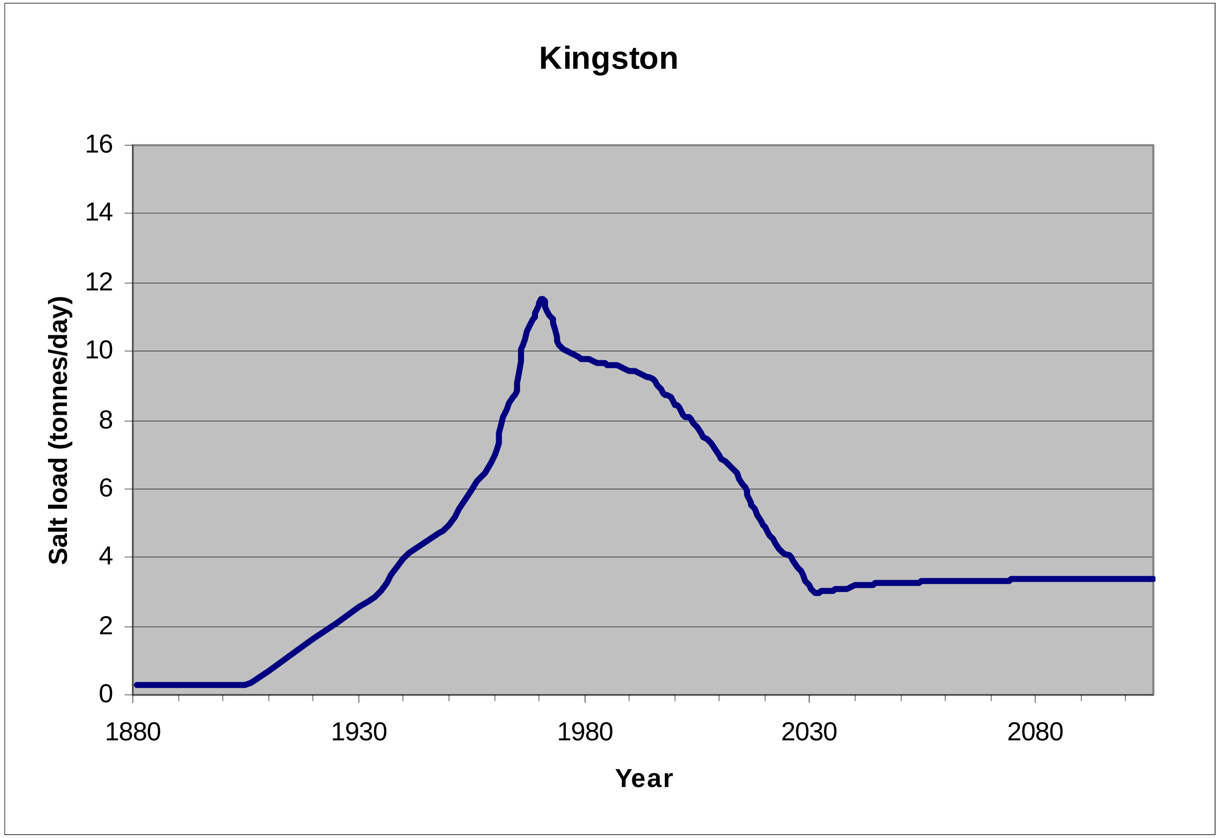
B-5(S4). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.6	1.3	0.0	0.5	0.6	0.0	3.0
27740	2036	0.6	1.3	0.0	0.5	0.6	0.0	3.1
28105	2037	0.6	1.3	0.0	0.6	0.6	0.0	3.1
28470	2038	0.6	1.3	0.0	0.6	0.6	0.0	3.1
28835	2039	0.6	1.4	0.0	0.6	0.6	0.0	3.1
29200	2040	0.6	1.4	0.0	0.6	0.6	0.0	3.2
29565	2041	0.6	1.4	0.0	0.6	0.6	0.0	3.2
29930	2042	0.6	1.4	0.0	0.6	0.6	0.0	3.2
30295	2043	0.6	1.4	0.0	0.6	0.6	0.0	3.2
30660	2044	0.7	1.4	0.0	0.6	0.6	0.0	3.2
31025	2045	0.7	1.4	0.0	0.6	0.6	0.0	3.2
31390	2046	0.7	1.4	0.0	0.6	0.6	0.0	3.2
31755	2047	0.7	1.4	0.0	0.6	0.6	0.0	3.2
32120	2048	0.7	1.4	0.0	0.6	0.6	0.0	3.3
32485	2049	0.7	1.4	0.0	0.6	0.6	0.0	3.3
32850	2050	0.7	1.4	0.0	0.6	0.6	0.0	3.3
33215	2051	0.7	1.4	0.0	0.6	0.6	0.0	3.3
33580	2052	0.7	1.4	0.0	0.6	0.6	0.0	3.3
33945	2053	0.7	1.4	0.0	0.6	0.6	0.0	3.3
34310	2054	0.7	1.4	0.0	0.6	0.6	0.0	3.3
34675	2055	0.7	1.4	0.0	0.6	0.6	0.0	3.3
35040	2056	0.7	1.4	0.0	0.6	0.6	0.0	3.3
35405	2057	0.7	1.4	0.0	0.6	0.6	0.0	3.3
35770	2058	0.7	1.4	0.0	0.6	0.6	0.0	3.3
36135	2059	0.7	1.4	0.0	0.6	0.6	0.0	3.3
36500	2060	0.7	1.4	0.0	0.6	0.6	0.1	3.3
36865	2061	0.7	1.4	0.0	0.6	0.6	0.1	3.3
37230	2062	0.7	1.4	0.0	0.6	0.6	0.1	3.3
37595	2063	0.7	1.4	0.0	0.6	0.6	0.1	3.3
37960	2064	0.7	1.4	0.0	0.6	0.6	0.1	3.3
38325	2065	0.7	1.4	0.0	0.6	0.6	0.1	3.3
38690	2066	0.7	1.4	0.0	0.6	0.6	0.1	3.3
39055	2067	0.7	1.4	0.0	0.6	0.6	0.1	3.3
39420	2068	0.7	1.4	0.0	0.6	0.6	0.1	3.3
39785	2069	0.7	1.4	0.0	0.6	0.6	0.1	3.3
40150	2070	0.7	1.4	0.0	0.6	0.6	0.1	3.3
40515	2071	0.7	1.4	0.0	0.6	0.6	0.1	3.3
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

B-5(S4). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 4)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	**2072**	0.7	1.4	0.0	0.6	0.6	0.1	**3.3**
41245	**2073**	0.7	1.4	0.0	0.6	0.6	0.1	**3.3**
41610	**2074**	0.7	1.4	0.0	0.6	0.6	0.1	**3.3**
41975	**2075**	0.7	1.4	0.0	0.6	0.6	0.1	**3.3**
42340	**2076**	0.7	1.4	0.0	0.6	0.6	0.1	**3.3**
42705	**2077**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
43070	**2078**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
43435	**2079**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
43800	**2080**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
44165	**2081**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
44530	**2082**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
44895	**2083**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
45260	**2084**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
45625	**2085**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
45990	**2086**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
46355	**2087**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
46720	**2088**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
47085	**2089**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
47450	**2090**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
47815	**2091**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
48180	**2092**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
48545	**2093**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
48910	**2094**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
49275	**2095**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
49640	**2096**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
50005	**2097**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
50370	**2098**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
50735	**2099**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
51100	**2100**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
51465	**2101**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
51830	**2102**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
52195	**2103**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
52560	**2104**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
52925	**2105**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
53290	**2106**	0.7	1.4	0.0	0.6	0.6	0.1	**3.4**
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

B-5(S4). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 4)



B-5(S4). Graph of modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 4)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
365	1961	343	317	4	69	63	5	800	9
730	1962	365	337	4	73	67	5	851	10
1095	1963	379	343	4	77	68	5	875	10
1460	1964	395	358	5	80	70	6	914	11
1825	1965	405	363	5	82	71	6	931	11
2190	1966	425	428	5	87	82	6	1035	12
2555	1967	445	442	6	93	84	7	1077	12
2920	1968	468	460	6	98	87	7	1126	13
3285	1969	481	465	6	101	88	7	1148	13
3650	1970	497	481	7	104	91	8	1187	14
4015	1971	506	485	7	107	91	8	1204	14
4380	1972	491	458	6	105	87	7	1154	13
4745	1973	483	456	6	103	87	7	1141	13
5110	1974	458	425	5	100	82	6	1076	12
5475	1975	445	421	5	96	81	6	1054	12
5840	1976	436	417	5	94	80	6	1038	12
6205	1977	432	416	5	93	80	6	1032	12
6570	1978	428	414	5	93	80	6	1025	12
6935	1979	426	414	5	92	80	6	1023	12
7300	1980	423	411	5	92	79	6	1016	12
7665	1981	422	410	5	92	79	6	1014	12
8030	1982	419	407	5	91	79	6	1007	12
8395	1983	418	407	5	91	79	6	1005	12
8760	1984	415	404	5	90	78	6	999	12
9125	1985	414	404	5	90	78	6	997	12
9490	1986	412	402	5	90	78	6	992	11
9855	1987	411	403	5	90	78	6	992	11
10220	1988	408	400	5	89	78	6	986	11
10585	1989	407	400	5	89	78	6	984	11
10950	1990	405	397	4	89	77	6	977	11
11315	1991	403	396	4	88	77	6	975	11
11680	1992	401	393	4	88	76	6	968	11
12045	1993	399	392	4	87	76	6	965	11
12410	1994	396	387	4	87	76	6	955	11
12775	1995	393	385	4	86	75	6	950	11
13140	1996	389	375	4	85	73	5	932	11
13505	1997	385	373	4	84	73	5	925	11
13870	1998	380	363	4	83	71	5	906	10

B-5(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
14235	1999	376	360	4	82	71	5	**897**	***10***
14600	2000	370	349	4	80	69	5	**877**	***10***
14965	2001	366	347	4	79	69	5	**868**	***10***
15330	2002	360	336	4	78	67	5	**849**	***10***
15695	2003	356	334	4	77	66	5	**840**	***10***
16060	2004	350	324	3	75	65	4	**821**	***10***
16425	2005	346	321	3	74	64	4	**813**	***9***
16790	2006	340	311	3	73	62	4	**794**	***9***
17155	2007	334	305	3	72	61	4	**778**	***9***
17520	2008	329	297	3	70	60	4	**763**	***9***
17885	2009	323	291	3	69	59	4	**747**	***9***
18250	2010	318	283	3	67	57	4	**731**	***8***
18615	2011	311	276	3	66	56	3	**715**	***8***
18980	2012	306	271	3	65	55	3	**703**	***8***
19345	2013	301	265	3	63	54	3	**688**	***8***
19710	2014	296	259	3	62	53	3	**676**	***8***
20075	2015	283	242	2	60	50	2	**639**	***7***
20440	2016	275	237	2	58	49	2	**623**	***7***
20805	2017	260	220	2	55	45	2	**584**	***7***
21170	2018	251	215	2	53	45	2	**567**	***7***
21535	2019	236	199	1	50	41	1	**529**	***6***
21900	2020	227	195	1	48	41	1	**513**	***6***
22265	2021	217	185	1	46	38	1	**488**	***6***
22630	2022	211	182	1	44	38	1	**478**	***6***
22995	2023	198	167	1	43	35	1	**444**	***5***
23360	2024	191	164	1	41	34	1	**432**	***5***
23725	2025	187	163	1	39	34	1	**424**	***5***
24090	2026	184	162	1	39	34	1	**420**	***5***
24455	2027	173	148	1	37	31	0	**390**	***5***
24820	2028	167	145	1	36	30	0	**379**	***4***
25185	2029	154	130	0	34	27	0	**346**	***4***
25550	2030	147	127	0	32	27	0	**333**	***4***
25915	2031	134	121	0	30	25	0	**311**	***4***
26280	2032	127	123	0	28	26	0	**305**	***4***
26645	2033	124	128	1	27	27	0	**308**	***4***
27010	2034	123	130	1	27	27	1	**309**	***4***

B-5(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
27375	2035	122	132	1	27	28	1	**311**	***4***
27740	2036	123	133	1	27	28	1	**312**	***4***
28105	2037	124	134	1	28	28	1	**315**	***4***
28470	2038	125	135	1	28	28	1	**318**	***4***
28835	2039	127	137	1	28	29	1	**323**	***4***
29200	2040	129	137	1	29	29	1	**327**	***4***
29565	2041	130	138	1	29	29	1	**329**	***4***
29930	2042	131	139	1	29	29	1	**330**	***4***
30295	2043	131	139	1	30	29	1	**331**	***4***
30660	2044	131	139	1	30	29	1	**332**	***4***
31025	2045	132	140	1	30	30	1	**333**	***4***
31390	2046	132	140	1	30	30	2	**334**	***4***
31755	2047	132	140	1	30	30	2	**334**	***4***
32120	2048	132	140	1	30	30	2	**335**	***4***
32485	2049	132	140	1	30	30	2	**335**	***4***
32850	2050	132	141	1	30	30	2	**336**	***4***
33215	2051	132	141	1	30	30	2	**336**	***4***
33580	2052	132	141	2	30	30	2	**337**	***4***
33945	2053	132	141	2	30	30	2	**337**	***4***
34310	2054	132	141	2	30	30	2	**338**	***4***
34675	2055	133	141	2	30	30	2	**338**	***4***
35040	2056	133	142	2	30	30	2	**338**	***4***
35405	2057	133	142	2	30	30	3	**339**	***4***
35770	2058	133	142	2	30	30	3	**339**	***4***
36135	2059	133	142	2	30	30	3	**340**	***4***
36500	2060	133	142	2	30	30	3	**340**	***4***
36865	2061	133	142	2	30	30	3	**340**	***4***
37230	2062	133	142	2	30	30	3	**341**	***4***
37595	2063	133	143	2	30	30	3	**341**	***4***
37960	2064	133	143	2	30	31	3	**341**	***4***
38325	2065	133	143	2	30	31	3	**341**	***4***
38690	2066	133	143	2	30	31	3	**342**	***4***
39055	2067	133	143	2	30	31	3	**342**	***4***
39420	2068	133	143	2	30	31	3	**342**	***4***
39785	2069	133	143	2	30	31	3	**342**	***4***
40150	2070	133	143	2	30	31	3	**342**	***4***

B-5(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 5)

Time (day)	Time (year)	Layer 1 Flux (m^3/day)			Layer 3 Flux (m^3/day)			Total (m^3/day)	Total (L/s)
		Z1-Z19	Z1-Z20	Z1-Z21	Z3-Z19	Z3-Z20	Z3-Z21		
40515	2071	133	143	2	30	31	3	343	4
40880	2072	133	143	2	30	31	3	343	4
41245	2073	133	143	2	30	31	3	343	4
41610	2074	133	144	2	30	31	3	343	4
41975	2075	133	144	2	30	31	3	343	4
42340	2076	133	144	2	30	31	3	344	4
42705	2077	133	144	2	30	31	3	344	4
43070	2078	133	144	2	30	31	3	344	4
43435	2079	133	144	2	30	31	3	344	4
43800	2080	133	144	2	30	31	3	344	4
44165	2081	133	144	2	30	31	3	344	4
44530	2082	133	144	2	30	31	3	344	4
44895	2083	134	144	2	30	31	3	345	4
45260	2084	134	144	2	30	31	3	345	4
45625	2085	134	144	2	30	31	3	345	4
45990	2086	134	144	2	30	31	3	345	4
46355	2087	134	144	2	30	31	3	345	4
46720	2088	134	144	2	30	31	3	345	4
47085	2089	134	145	2	30	31	3	345	4
47450	2090	134	145	2	30	31	3	345	4
47815	2091	134	145	2	30	31	3	345	4
48180	2092	134	145	2	30	31	4	346	4
48545	2093	134	145	2	30	31	4	346	4
48910	2094	134	145	2	30	31	4	346	4
49275	2095	134	145	2	30	31	4	346	4
49640	2096	134	145	2	30	31	4	346	4
50005	2097	134	145	2	30	31	4	346	4
50370	2098	134	145	2	30	31	4	346	4
50735	2099	134	145	2	30	31	4	346	4
51100	2100	134	145	2	30	31	4	346	4
51465	2101	134	145	2	30	31	4	346	4
51830	2102	134	145	2	30	31	4	347	4
52195	2103	134	145	2	30	31	4	347	4
52560	2104	134	145	2	30	31	4	347	4
52925	2105	134	145	2	30	31	4	347	4
53290	2106	134	145	2	30	31	4	347	4

B-5(S5). Modelled groundwater flux entering the River Murray from flow budget zones in the Kingston Area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
365	1961	1.7	3.2	0.0	1.4	1.3	0.1	**7.6**
730	1962	1.8	3.4	0.0	1.5	1.3	0.1	**8.1**
1095	1963	1.9	3.4	0.0	1.5	1.4	0.1	**8.3**
1460	1964	2.0	3.6	0.0	1.6	1.4	0.1	**8.7**
1825	1965	2.0	3.6	0.0	1.6	1.4	0.1	**8.9**
2190	1966	2.1	4.3	0.0	1.7	1.6	0.1	**9.9**
2555	1967	2.2	4.4	0.0	1.9	1.7	0.1	**10.4**
2920	1968	2.3	4.6	0.0	2.0	1.7	0.1	**10.8**
3285	1969	2.4	4.6	0.0	2.0	1.8	0.1	**11.0**
3650	1970	2.5	4.8	0.0	2.1	1.8	0.2	**11.4**
4015	1971	2.5	4.9	0.0	2.1	1.8	0.2	**11.5**
4380	1972	2.5	4.6	0.0	2.1	1.7	0.1	**11.1**
4745	1973	2.4	4.6	0.0	2.1	1.7	0.1	**10.9**
5110	1974	2.3	4.2	0.0	2.0	1.6	0.1	**10.3**
5475	1975	2.2	4.2	0.0	1.9	1.6	0.1	**10.1**
5840	1976	2.2	4.2	0.0	1.9	1.6	0.1	**10.0**
6205	1977	2.2	4.2	0.0	1.9	1.6	0.1	**9.9**
6570	1978	2.1	4.1	0.0	1.9	1.6	0.1	**9.9**
6935	1979	2.1	4.1	0.0	1.8	1.6	0.1	**9.9**
7300	1980	2.1	4.1	0.0	1.8	1.6	0.1	**9.8**
7665	1981	2.1	4.1	0.0	1.8	1.6	0.1	**9.8**
8030	1982	2.1	4.1	0.0	1.8	1.6	0.1	**9.7**
8395	1983	2.1	4.1	0.0	1.8	1.6	0.1	**9.7**
8760	1984	2.1	4.0	0.0	1.8	1.6	0.1	**9.6**
9125	1985	2.1	4.0	0.0	1.8	1.6	0.1	**9.6**
9490	1986	2.1	4.0	0.0	1.8	1.6	0.1	**9.6**
9855	1987	2.1	4.0	0.0	1.8	1.6	0.1	**9.6**
10220	1988	2.0	4.0	0.0	1.8	1.6	0.1	**9.5**
10585	1989	2.0	4.0	0.0	1.8	1.6	0.1	**9.5**
10950	1990	2.0	4.0	0.0	1.8	1.5	0.1	**9.4**
11315	1991	2.0	4.0	0.0	1.8	1.5	0.1	**9.4**
11680	1992	2.0	3.9	0.0	1.8	1.5	0.1	**9.4**
12045	1993	2.0	3.9	0.0	1.7	1.5	0.1	**9.3**
12410	1994	2.0	3.9	0.0	1.7	1.5	0.1	**9.2**
12775	1995	2.0	3.9	0.0	1.7	1.5	0.1	**9.2**
13140	1996	1.9	3.8	0.0	1.7	1.5	0.1	**9.0**
13505	1997	1.9	3.7	0.0	1.7	1.5	0.1	**8.9**
Salinity (mg/L)		*5,000*	*10,000*	*5,000*	*20,000*	*20,000*	*20,000*	

B-5(S5). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
13870	1998	1.9	3.6	0.0	1.7	1.4	0.1	**8.7**
14235	1999	1.9	3.6	0.0	1.6	1.4	0.1	**8.6**
14600	2000	1.8	3.5	0.0	1.6	1.4	0.1	**8.4**
14965	2001	1.8	3.5	0.0	1.6	1.4	0.1	**8.4**
15330	2002	1.8	3.4	0.0	1.6	1.3	0.1	**8.2**
15695	2003	1.8	3.3	0.0	1.5	1.3	0.1	**8.1**
16060	2004	1.7	3.2	0.0	1.5	1.3	0.1	**7.9**
16425	2005	1.7	3.2	0.0	1.5	1.3	0.1	**7.8**
16790	2006	1.7	3.1	0.0	1.5	1.2	0.1	**7.6**
17155	2007	1.7	3.0	0.0	1.4	1.2	0.1	**7.5**
17520	2008	1.6	3.0	0.0	1.4	1.2	0.1	**7.3**
17885	2009	1.6	2.9	0.0	1.4	1.2	0.1	**7.2**
18250	2010	1.6	2.8	0.0	1.3	1.1	0.1	**7.0**
18615	2011	1.6	2.8	0.0	1.3	1.1	0.1	**6.8**
18980	2012	1.5	2.7	0.0	1.3	1.1	0.1	**6.7**
19345	2013	1.5	2.6	0.0	1.3	1.1	0.1	**6.6**
19710	2014	1.5	2.6	0.0	1.2	1.1	0.1	**6.4**
20075	2015	1.4	2.4	0.0	1.2	1.0	0.0	**6.1**
20440	2016	1.4	2.4	0.0	1.2	1.0	0.0	**5.9**
20805	2017	1.3	2.2	0.0	1.1	0.9	0.0	**5.6**
21170	2018	1.3	2.2	0.0	1.1	0.9	0.0	**5.4**
21535	2019	1.2	2.0	0.0	1.0	0.8	0.0	**5.0**
21900	2020	1.1	2.0	0.0	1.0	0.8	0.0	**4.9**
22265	2021	1.1	1.8	0.0	0.9	0.8	0.0	**4.6**
22630	2022	1.1	1.8	0.0	0.9	0.8	0.0	**4.6**
22995	2023	1.0	1.7	0.0	0.9	0.7	0.0	**4.2**
23360	2024	1.0	1.6	0.0	0.8	0.7	0.0	**4.1**
23725	2025	0.9	1.6	0.0	0.8	0.7	0.0	**4.0**
24090	2026	0.9	1.6	0.0	0.8	0.7	0.0	**4.0**
24455	2027	0.9	1.5	0.0	0.7	0.6	0.0	**3.7**
24820	2028	0.8	1.5	0.0	0.7	0.6	0.0	**3.6**
25185	2029	0.8	1.3	0.0	0.7	0.5	0.0	**3.3**
25550	2030	0.7	1.3	0.0	0.6	0.5	0.0	**3.2**
25915	2031	0.7	1.2	0.0	0.6	0.5	0.0	**3.0**
26280	2032	0.6	1.2	0.0	0.6	0.5	0.0	**3.0**
26645	2033	0.6	1.3	0.0	0.5	0.5	0.0	**3.0**
27010	2034	0.6	1.3	0.0	0.5	0.5	0.0	**3.0**
Salinity (mg/L)		***5,000***	***10,000***	***5,000***	***20,000***	***20,000***	***20,000***	

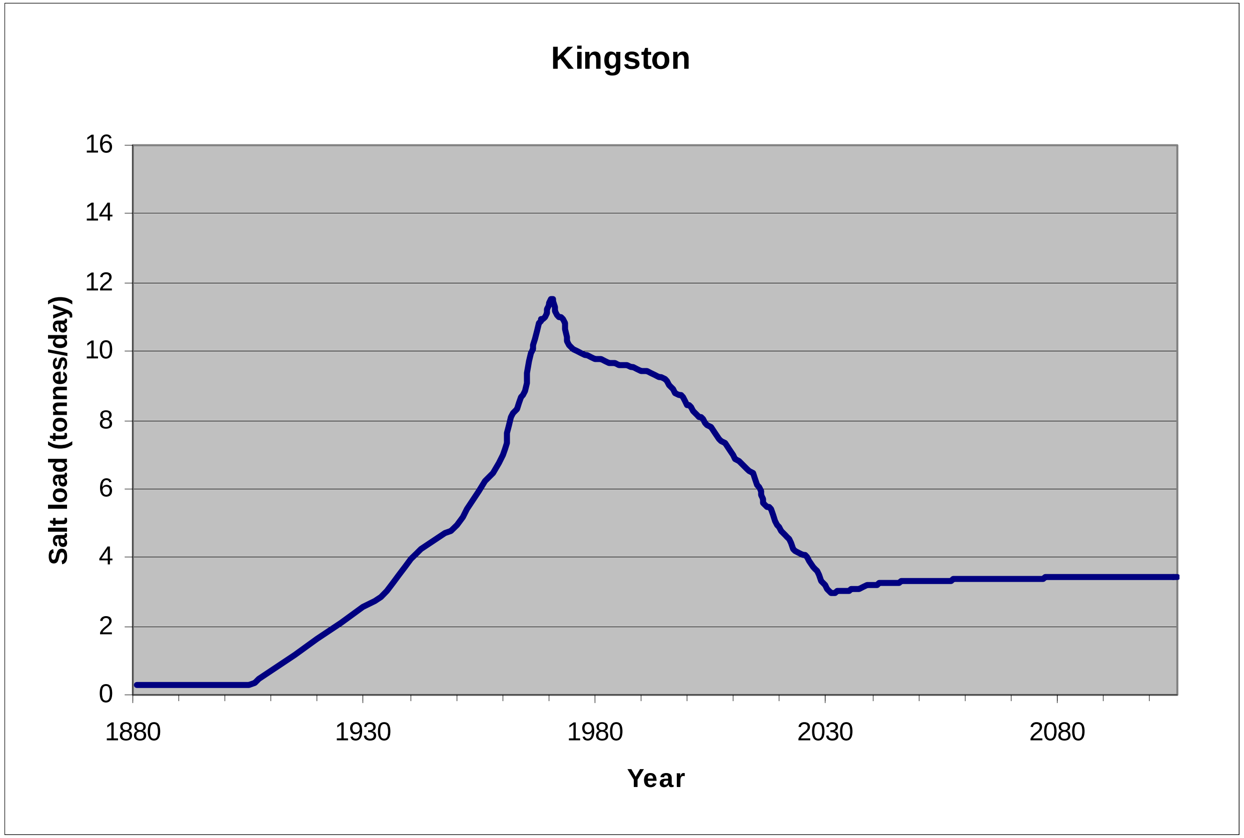
B-5(S5). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
27375	2035	0.6	1.3	0.0	0.5	0.6	0.0	3.0
27740	2036	0.6	1.3	0.0	0.5	0.6	0.0	3.1
28105	2037	0.6	1.3	0.0	0.6	0.6	0.0	3.1
28470	2038	0.6	1.3	0.0	0.6	0.6	0.0	3.1
28835	2039	0.6	1.4	0.0	0.6	0.6	0.0	3.2
29200	2040	0.6	1.4	0.0	0.6	0.6	0.0	3.2
29565	2041	0.7	1.4	0.0	0.6	0.6	0.0	3.2
29930	2042	0.7	1.4	0.0	0.6	0.6	0.0	3.2
30295	2043	0.7	1.4	0.0	0.6	0.6	0.0	3.3
30660	2044	0.7	1.4	0.0	0.6	0.6	0.0	3.3
31025	2045	0.7	1.4	0.0	0.6	0.6	0.0	3.3
31390	2046	0.7	1.4	0.0	0.6	0.6	0.0	3.3
31755	2047	0.7	1.4	0.0	0.6	0.6	0.0	3.3
32120	2048	0.7	1.4	0.0	0.6	0.6	0.0	3.3
32485	2049	0.7	1.4	0.0	0.6	0.6	0.0	3.3
32850	2050	0.7	1.4	0.0	0.6	0.6	0.0	3.3
33215	2051	0.7	1.4	0.0	0.6	0.6	0.0	3.3
33580	2052	0.7	1.4	0.0	0.6	0.6	0.0	3.3
33945	2053	0.7	1.4	0.0	0.6	0.6	0.0	3.3
34310	2054	0.7	1.4	0.0	0.6	0.6	0.0	3.3
34675	2055	0.7	1.4	0.0	0.6	0.6	0.0	3.3
35040	2056	0.7	1.4	0.0	0.6	0.6	0.0	3.3
35405	2057	0.7	1.4	0.0	0.6	0.6	0.1	3.3
35770	2058	0.7	1.4	0.0	0.6	0.6	0.1	3.3
36135	2059	0.7	1.4	0.0	0.6	0.6	0.1	3.4
36500	2060	0.7	1.4	0.0	0.6	0.6	0.1	3.4
36865	2061	0.7	1.4	0.0	0.6	0.6	0.1	3.4
37230	2062	0.7	1.4	0.0	0.6	0.6	0.1	3.4
37595	2063	0.7	1.4	0.0	0.6	0.6	0.1	3.4
37960	2064	0.7	1.4	0.0	0.6	0.6	0.1	3.4
38325	2065	0.7	1.4	0.0	0.6	0.6	0.1	3.4
38690	2066	0.7	1.4	0.0	0.6	0.6	0.1	3.4
39055	2067	0.7	1.4	0.0	0.6	0.6	0.1	3.4
39420	2068	0.7	1.4	0.0	0.6	0.6	0.1	3.4
39785	2069	0.7	1.4	0.0	0.6	0.6	0.1	3.4
40150	2070	0.7	1.4	0.0	0.6	0.6	0.1	3.4
40515	2071	0.7	1.4	0.0	0.6	0.6	0.1	3.4
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S5). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 5)

Time (day)	Time (year)	Layer 1 (tonnes/day)			Layer 3 (tonnes/day)			Kingston Total
		Z1-Z16	Z1-Z17	Z1-Z18	Z3-Z16	Z3-Z17	Z3-Z18	
40880	2072	0.7	1.4	0.0	0.6	0.6	0.1	3.4
41245	2073	0.7	1.4	0.0	0.6	0.6	0.1	3.4
41610	2074	0.7	1.4	0.0	0.6	0.6	0.1	3.4
41975	2075	0.7	1.4	0.0	0.6	0.6	0.1	3.4
42340	2076	0.7	1.4	0.0	0.6	0.6	0.1	3.4
42705	2077	0.7	1.4	0.0	0.6	0.6	0.1	3.4
43070	2078	0.7	1.4	0.0	0.6	0.6	0.1	3.4
43435	2079	0.7	1.4	0.0	0.6	0.6	0.1	3.4
43800	2080	0.7	1.4	0.0	0.6	0.6	0.1	3.4
44165	2081	0.7	1.4	0.0	0.6	0.6	0.1	3.4
44530	2082	0.7	1.4	0.0	0.6	0.6	0.1	3.4
44895	2083	0.7	1.4	0.0	0.6	0.6	0.1	3.4
45260	2084	0.7	1.4	0.0	0.6	0.6	0.1	3.4
45625	2085	0.7	1.4	0.0	0.6	0.6	0.1	3.4
45990	2086	0.7	1.4	0.0	0.6	0.6	0.1	3.4
46355	2087	0.7	1.4	0.0	0.6	0.6	0.1	3.4
46720	2088	0.7	1.4	0.0	0.6	0.6	0.1	3.4
47085	2089	0.7	1.4	0.0	0.6	0.6	0.1	3.4
47450	2090	0.7	1.4	0.0	0.6	0.6	0.1	3.4
47815	2091	0.7	1.4	0.0	0.6	0.6	0.1	3.4
48180	2092	0.7	1.4	0.0	0.6	0.6	0.1	3.4
48545	2093	0.7	1.4	0.0	0.6	0.6	0.1	3.4
48910	2094	0.7	1.4	0.0	0.6	0.6	0.1	3.4
49275	2095	0.7	1.4	0.0	0.6	0.6	0.1	3.4
49640	2096	0.7	1.4	0.0	0.6	0.6	0.1	3.4
50005	2097	0.7	1.4	0.0	0.6	0.6	0.1	3.4
50370	2098	0.7	1.4	0.0	0.6	0.6	0.1	3.4
50735	2099	0.7	1.4	0.0	0.6	0.6	0.1	3.4
51100	2100	0.7	1.5	0.0	0.6	0.6	0.1	3.4
51465	2101	0.7	1.5	0.0	0.6	0.6	0.1	3.4
51830	2102	0.7	1.5	0.0	0.6	0.6	0.1	3.4
52195	2103	0.7	1.5	0.0	0.6	0.6	0.1	3.4
52560	2104	0.7	1.5	0.0	0.6	0.6	0.1	3.4
52925	2105	0.7	1.5	0.0	0.6	0.6	0.1	3.4
53290	2106	0.7	1.5	0.0	0.6	0.6	0.1	3.4
Salinity (mg/L)		5,000	10,000	5,000	20,000	20,000	20,000	

B-5(S5). Modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 5)

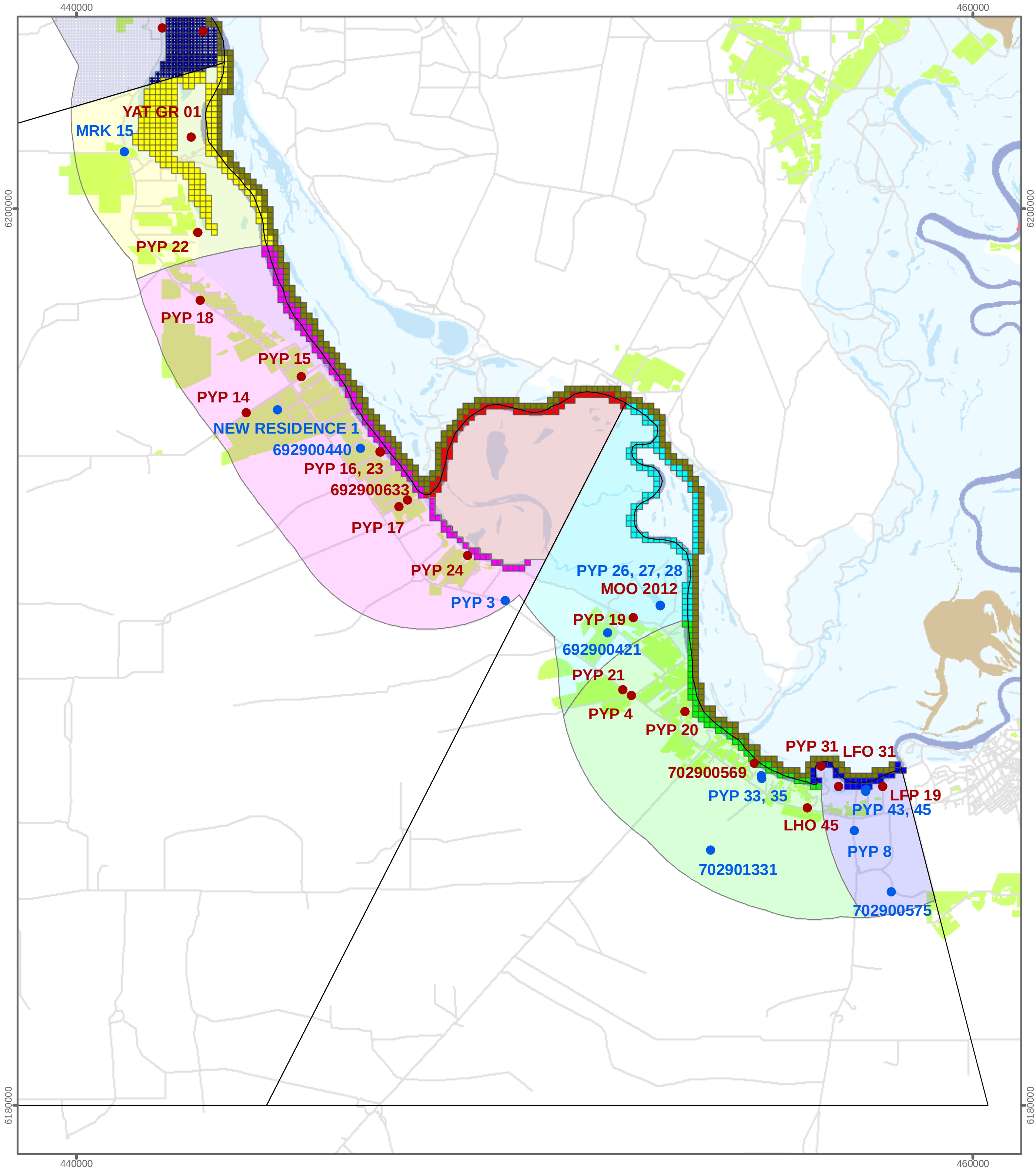


B-5(S5). Graph of modelled salt load (tonnes/day) entering the River Murray in the Kingston Area (Scenario 5)

C. PYAP TO KINGSTON SALINITY ANALYSIS

- Salinity data and maps of associated zones
- Statistical data derived from flow budget zones

C-1 AND C2. MAPS OF ASSOCIATED WITH MODEL FLOW BUDGET ZONES



- Locks
- Roads
- Wetlands
- Evaporation basins
- Irrigated areas (2001)
- River Murray Floodplain (1956 flood extent)

Groundwater salinity data points (by well name) and associated Zones

- Loxton Sands or Monoman Formation
- Murray Group

Zone: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22

0 0.5 1 1.5 2 Kilometres

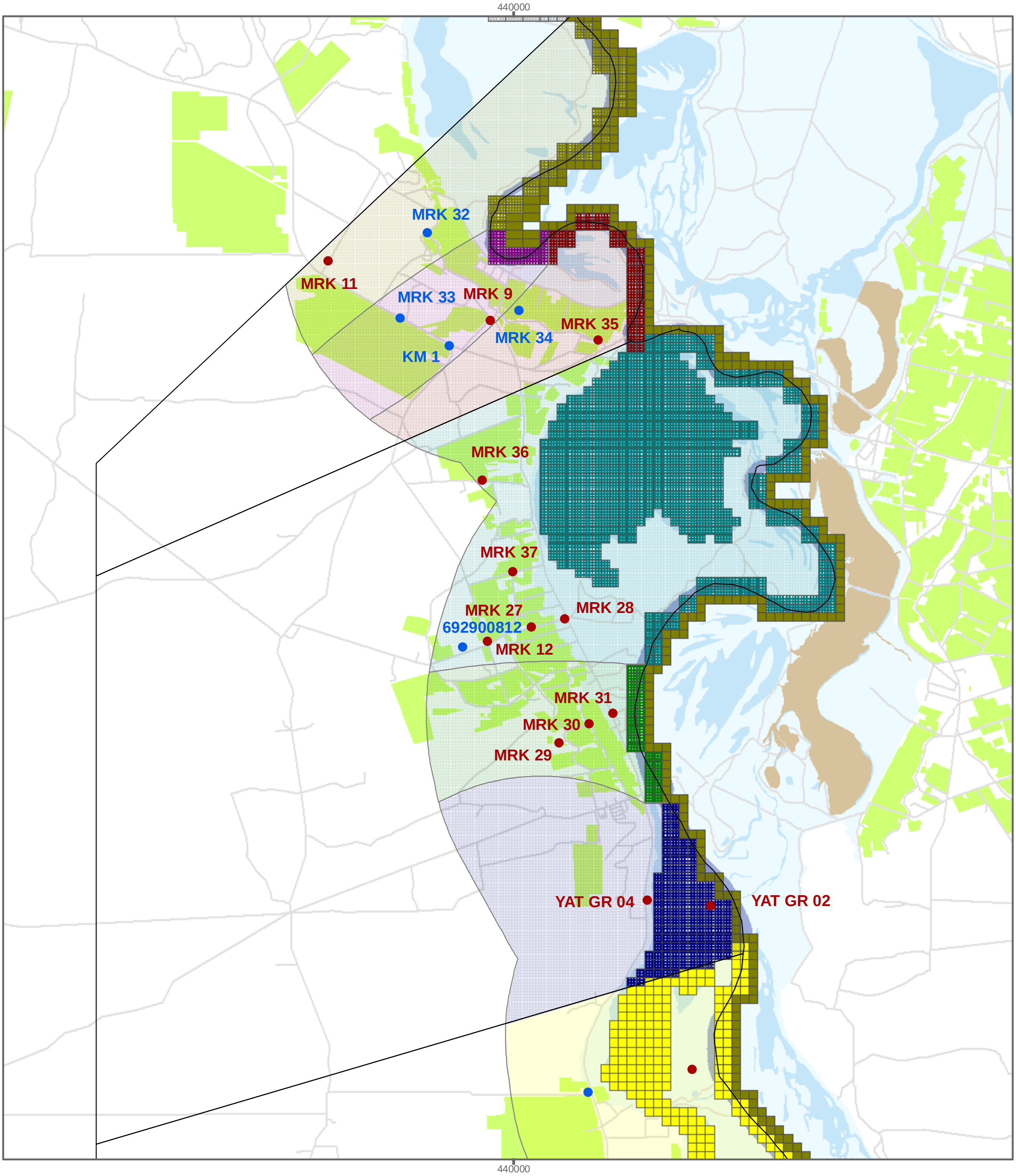
PRODUCED BY:	River Murray SIS Group, DWLBC
MAP PROJECTION:	MGA Zone 54
MAP DATUM:	Geocentric Datum of Australia 1994
DATE:	May 2007

GDA

Government of South Australia
Department of Water, Land and Biodiversity Conservation

Figure C-1

Groundwater Salinity Data Points and Zones - Pyap and New Residence Areas



- Locks
- Roads
- Wetlands
- Evaporation basins
- Irrigated areas (2001)
- River Murray Floodplain (1956 flood extent)

Groundwater salinity data points (by well name) and associated Zones

- Loxton Sands or Monoman Formation
- Murray Group

Zone 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22

0 0.5 1 1.5 2 Kilometres

PRODUCED BY:	River Murray SIS Group, DWLBC
MAP PROJECTION:	MGA Zone 54
MAP DATUM:	Geocentric Datum of Australia 1994
DATE:	May 2007

GDA

Figure

C-2

Government of South Australia
Department of Water, Land and Biodiversity Conservation

Groundwater Salinity Data Points and Zones - Moorook and Kingston Areas

C3. SALINITY DATA AND BOREHOLE DETAILS

Drillhole Number	Unit Number	Obs Number	Name	Aquifer	Date Drilled	Max Depth (m)	Easting	Northing	Purpose	TDS (mg/L)	EC	RSWL (m AHD)	Anomalous	Include in Analysis	Comment
103091	692900056		RIVER MURRAY	Unknown		0.00	439508.09	6213467.14		1136	2056	0.00	No	No	Surface water readings with no information
103116	692900081		YATCO LAGOON	Unknown		0.00	442183.92	6205261.25		725	1316	0.00	No	No	No info. Lagoonal, not representative of region
103120	692900085		NEW RESIDENCE 1B	Murray Group (Undifferentiated)	1966	106.68	444486.05	6195515.27	Drainage	17431	28622	11.28	No	Yes	
103126	702901331			Murray Group (Undifferentiated)		48.77	454148.91	6185690	Stock	4457	7888	0.00	No	Yes	
103136	692900101		SEEPAGE POINT	Loxton - Assumed		0.00	448164.05	6192821.21		1955	3518	0.00	No	No	Taken from Cliff Seepage. Unrepresentative
103137	692900102		SEEPAGE POINT	Unknown		2.74	447699.02	6193615.13		759	1378	0.00	No	No	Taken from Cliff Seepage. Unrepresentative
103138	692900103		YATES LAGOON	Unknown		0.00	440511.10	6208846.04		1354	2447	0.00	No	No	No info. Lagoonal, not representative of region
103139	692900104	MRK 12	7K	Loxton Parilla Sands	1968	18.29	439622.00	6207758.00	Observation	830	1505	15.86	Yes	Yes	Not regionally representative. Irrigation water?
103145	692900110	MRK 11	6K	Loxton Parilla Sands	1968	33.53	437327.00	6213232.00	Observation	15000	24973	12.45	No	Yes	Flow direction would preclude using this data
103146	692900111		LAGOON	Unknown		0.00	440071.10	6211058.27		60	109	0.00	No	No	No info. Lagoonal, not representative of region
103149	692900114	MRK 9	4K	Loxton Parilla Sands	1968	25.91	439662.00	6212375.00	Observation	5145	9063	16.68	No	Yes	
103397	692900362	MRK 15	M 24A	Murray Group Limestone Confined	1980	48.00	441068.00	6201271.00	Observation	10760	18300	10.91	No	Yes	
103401	692900366	PYP 3	M32	Murray Group Limestone	1980	60.00	449571.00	6191253.00	Observation	14377	23976	12.38	No	Yes	
103404	692900369	PYP 4	M40	Loxton Parilla Sands	1980	54.00	452379	6189139	Observation	11300	19149	0.00	No	Yes	
103456	692900421			Murray Group (Undifferentiated)	1983	54.86	451850.99	6190542.16	Drainage	1800	3242	9.14	Yes	Yes	Drainage well. Large discrepancy with regional
103475	692900440			Murray Group - Assumed		42.00	446336.94	6194656.30	Drainage	3338	5952	12.00	No	Yes	Multiple salinity readings
103668	692900633			Loxton - Assumed	1988	38.00	447389.91	6193499.17	Drainage	2019	3630	7.55	No	Yes	
127385	702900568		KATARAPKA CREEK	Monoman - Assumed		0.00	454621.99	6188109.19		470	855	0.00	Yes	No	Lack of Information to support salinity value.
127386	702900569			Monoman - Assumed		3.05	455126.97	6187632.16		4165	7385	0.00	No	Yes	Multiple salinity readings - Full Lab Analysis
127387	702900570		SEEPAGE NO 17	Loxton - Assumed		0.00	455380.00	6187449.19		4165	7385	0.00	No	No	Taken from Cliff Seepage. Salinity exacerbated
127392	702900575			Murray Group (Undifferentiated)		60.96	458180.99	6184756.17	Stock	3529	6284	13.59	No	Yes	
127438	702900621	PYP 8	M35	Murray Group Limestone Confined	1980	72.00	457356.01	6186129.12	Observation	3663	6516	15.15	No	Yes	
135880	692900766	MRK 27		Loxton Parilla Sands	1993	16.50	440255.00	6207965.00	Observation	2795	5000	16.04	No	Yes	
135881	692900767	MRK 28		Monoman Formation	1993	9.00	440732.05	6208078.31	Observation	3943	7000	10.74	No	Yes	
135882	692900768	MRK 29		Loxton Parilla Sands	1993	30.00	440646.97	6206298.31	Observation	1384	2500	18.17	No	Yes	
135883	692900769	MRK 30		Loxton Parilla Sands	1993	16.00	441082.00	6206570.00	Observation	1105	2000	13.67	No	Yes	
135884	692900770	MRK 31		Monoman Formation	1993	16.00	441423.00	6206719.00	Observation	2227	4000	11.13	No	Yes	
135886	692900772	PYP 14		Loxton Parilla Sands	1993	33.00	443789.00	6195451.00	Observation	25308	40000	13.28	No	Yes	
135887	692900773	PYP 15		Loxton Parilla Sands	1993	24.00	445017.00	6196248.00	Observation	5698	10000	12.70	No	Yes	
135888	692900774	PYP 16		Loxton Parilla Sands	1993	16.00	446772.03	6194578.07	Observation	1664	3000	13.43	No	Yes	
135889	692900775	PYP 17		Loxton Parilla Sands	1993	36.00	447201.00	6193357.00	Observation	938	1700	12.01	Yes	Yes	EW&S Measured during drilling
135890	692900776	PYP 18		Loxton Parilla Sands	1993	14.00	442760.00	6197961.00	Observation	25308	40000	11.67	No	Yes	
165988	692900812			Murray Group Assumed	1996	32.00	439262.01	6207678.21	Irrigation	4164	7380	0.00	No	Yes	
171090	692900813	MRK 32	K 1	Murray Group Limestone	36063	36	438756.02	6213635.16	Monitoring	5403	9500	11.18	No	Yes	
171091	692900814	MRK 33	K 2	Murray Group Limestone	1998	34.00	438364.04	6212406.14	Monitoring	3080	5500	12.39	No	Yes	
171092	692900815	MRK 34	K 3	Murray Group Limestone Confined	1998	36.00	440074.02	6212515.16	Monitoring	2795	5000	12.42	No	Yes	
171093	692900816	MRK 35	K 4	Loxton Parilla Sands	1998	36.00	441210.99	6212089.23	Monitoring	661	1200	10.76	No	Yes	Becoming fresher due to flushing
171094	692900817	MRK 36	M 1	Loxton Parilla Sands	1998	31.00	439542.96	6210074.16	Monitoring	1440	2600	15.26	No	Yes	
171095	692900818	MRK 37	M 2	Loxton Parilla Sands	1998	10.00	439986.96	6208757.20	Monitoring	2227	4000	15.59	No	Yes	
171096	692900819	PYP 22	NR 1	Loxton Parilla Sands	1998	9.00	442711.96	6199471.12	Monitoring	854	1550	11.22	No	Yes	Shallow DTW and freshening of irrigation water
171097	692900820	PYP 23	NR 2	Loxton Parilla Sands	1998	6.00	446785.03	6194571.16	Monitoring	1278	2310	13.01	No	Yes	
171098	692900821	PYP 24	NR 3	Loxton Parilla Sands	1998	18.00	448735.03	6192266.15	Monitoring	2171	3900	9.46	No	Yes	
171099	692900822	PYP 19	P 1	Monoman Formation	1998	9.00	452421	6190872	Monitoring	2510	4500	10.43	No	Yes	
171100	692900823	PYP 20	P 2	Loxton Parilla Sands	1998	30.00	453584.04	6188785.15	Monitoring	4233	7500	11.46	No	Yes	
171101	692900824	PYP 21	P 3	Loxton Parilla Sands	1998	42.00	452195.96	6189270.13	Monitoring	1832	3300	12.30	Yes	Yes	Issue with salinity units. Variation is too large
190307	692900936		KM 1	Murray Group Limestone Confined	2002	168.10	439074.00	6212011.00	Exploration	15848	26200	10.83	No	Yes	Deeper Murray Group Unit, possibly not indicative
191483	702901412	PYP 31	LFO 7A	Monoman Formation	2002	9.00	456618.4	6187566.2	Monitoring	7794	13500	9.90	No	Yes	
196347	702901485	PYP 33	MAN 8P	Murray Group (Undifferentiated)	2002	96.00	455291	6187290	Investigation	3246	5790	14.39	No	Yes	
196349	702901487	PYP 35	MAN 11 O	Murray Group (Undifferentiated)	2002	96.00	455286	6187352	Investigation	3052	5450	13.93	No	Yes	
196585	692900854	PYP 26	LFO 9P	Murray Group (Undifferentiated)	2002	19.00	453030	6191148	Investigation	8592	14800	9.85	No	Yes	
196587	692900855	PYP 27	LFO 9GF	Murray Group (Undifferentiated)	2002	48.00	453030	6191146	Investigation	9084	15590	12.07	No	Yes	
196588	692900856	PYP 28	LFO9 UMF	Murray Group (Undifferentiated)	2002	72.00	453029	6191147	Investigation	10489	17870	12.76	No	Yes	
196666	702901531	PYP 43	LHO 40 GF	Murray Group (Undifferentiated)	2002	45.00	457625	6187045	Investigation	3770	6700	13.40	No	Yes	
196668	702901533	PYP 45	LHP 1GF	Murray Group (Undifferentiated)	2002	48.00	457616	6187002	Investigation	3712	6600	15.13	No	Yes	
197384	692900880		MOO 1311	Coonambidgal	2002	3.00	440960.00	6208075.00	Observation	32954	50400	0.00	No	Maybe	Artificially high due to ET. Monoman may be less
197385	692900881		MOO 1312	Coonambidgal	2003	2.50	441402.00	6209193.00	Observation	52640	75200	0.00	No	Maybe	Artificially high due to ET. Monoman may be less
197386	692900882		MOO 1313	Coonambidgal	2002	1.50	441123.00	6201340.00	Observation	39550	56500	0.00	No	Maybe	Artificially high due to ET. Monoman may be less
197395	692900891		MOO 2012	Monoman - Assumed	2003	2.50	453024	6191144	Observation	1664	3000	0.00	No	Yes	
197417	692900899		OVE 1310	Coonambidgal	2002	2.50	440187.00	6213200.00	Observation	1658	2990	0.00	No	No	Not representative of Lateral Flow unit
199545	702901849		LHO 45	Loxton Parilla Sands	2004	33.00	456305.5	6186636.1	Investigation	2454	4400	19.82	No	Yes	
199777	702901853		LFP 19	Monoman Formation	2003	10.00	457993.2	6187111.8	Investigation	14923	24800	0.00	No	Yes	
199805	702901881		LFO 31	Monoman Formation	2004	11.00	457003.8	6187112.2	Investigation	13241	22200	0.00	No	Yes	
208162	692900942		YAT GR 01	Monoman Formation		4.00	442561.00	6201596.00	Monitoring	21254	34200	9.62	No	Yes	
208163	692900943		YAT GR 02	Monoman Formation		5.00	442829.00	6203954.00	Monitoring	28368	44200	9.47	No	Yes	
208165	692900945		YAT GR 04	Monoman Formation		2.00	441919.00	6204036.00	Monitoring	12257	20660	10.04	No	Yes	

Appendix C-3 : Salinity review data for Pyap to Kingston region

C4. STATISTICAL DATA DERIVED FROM FLOW BUDGET ZONES (LOXTON SANDS AQUIFER)

Zone	Name	Easting	Northing	Drilled	EC	TDS
10	PYP 31	456618.40	6187566.20	2002	13500	7794
10	LFP 19	457993.20	6187111.80	2003	24800	14923
10	LFO 31	457003.80	6187112.20	2004	22200	13241
		Without including anomalous values:			Mean	11986
					Median	13241
		Including values flagged as anomalous:			Mean	11986
					Median	13241

Zone	Name	Easting	Northing	Drilled	EC	TDS
11	PYP 4	452379.00	6189139.00	1980	19149	11300
11	702900569	455126.97	6187632.16	1968	7385	4165
11	PYP 20	453584.04	6188785.15	1998	7500	4233
11	PYP 21	452195.96	6189270.13	1998	3300	1832
11	LHO 45	456305.50	6186636.10	2004	4400	2454
		Without including anomalous values:			Mean	5538
					Median	4199
		Including values flagged as anomalous:			Mean	4797
					Median	4165

Zone	Name	Easting	Northing	Drilled	EC	TDS
12	PYP 19	452421.00	6190872.00	1998	4500	2510
12	MOO 2012	453024.00	6191144.00	2003	3000	1664
		Without including anomalous values:			Mean	2087
					Median	2087
		Including values flagged as anomalous:			Mean	2087
					Median	2087

Zone	Name	Easting	Northing	Drilled	EC	TDS
14	692900633	447389.91	6193499.17	1988	3630	2019
14	PYP 14	443789.00	6195451.00	1993	40000	25308
14	PYP 15	445017.00	6196248.00	1993	10000	5698
14	PYP 16	446772.03	6194578.07	1993	3000	1664
14	PYP 17	447201.00	6193357.00	1993	1700	938
14	PYP 18	442760.00	6197961.00	1993	40000	25308
14	PYP 23	446785.03	6194571.16	1998	2310	1278
14	PYP 24	448735.03	6192266.15	1998	3900	2171
		Without including anomalous values:			Mean	9064
					Median	2171
		Including values flagged as anomalous:			Mean	8048
					Median	2095

Zone	Name	Easting	Northing	Drilled	EC	TDS
15	PYP 22	442711.96	6199471.12	1998	1550	854
15	YAT GR 01	442561.00	6201596.00	2005	34200	21254
		Without including anomalous values:			Mean	11054
					Median	11054
		Including values flagged as anomalous:			Mean	11054
					Median	11054

Zone	Name	Easting	Northing	Drilled	EC	TDS
16	YAT GR 02	442829.00	6203954.00	2005	44200	28368
16	YAT GR 04	441919.00	6204036.00	2005	20660	12257
		Without including anomalous values:			Mean	20313
					Median	20313
		Including values flagged as anomalous:			Mean	20313
					Median	20313

Zone	Name	Easting	Northing	Drilled	EC	TDS
17	MRK 29	440646.97	6206298.31	1993	2500	1384
17	MRK 30	441082.00	6206570.00	1993	2000	1105
17	MRK 31	441423.00	6206719.00	1993	4000	2227
		Without including anomalous values:			Mean	1572
					Median	1384
		Including values flagged as anomalous:			Mean	1572
					Median	1384

Zone	Name	Easting	Northing	Drilled	EC	TDS
18	MRK 12	439622.00	6207758.00	1968	1505	830
18	MRK 27	440255.00	6207965.00	1993	5000	2795
18	MRK 28	440732.05	6208078.31	1993	7000	3943
18	MRK 36	439542.96	6210074.16	1998	2600	1440
18	MRK 37	439986.96	6208757.20	1998	4000	2227
		Without including anomalous values:			Mean	2601
					Median	2511
		Including values flagged as anomalous:			Mean	2247
					Median	2227

Zone	Name	Easting	Northing	Drilled	EC	TDS
19	MRK 35	441210.99	6212089.23	1998	1200	661
		Without including anomalous values:			Mean	661
					Median	661
		Including values flagged as anomalous:			Mean	661
					Median	661

Zone	Name	Easting	Northing	Drilled	EC	TDS
20	MRK 9	439662.00	6212375.00	1968	9063	5145
		Without including anomalous values:			Mean	5145
					Median	5145
		Including values flagged as anomalous:			Mean	5145
					Median	5145

Zone	Name	Easting	Northing	Drilled	EC	TDS
21	MRK 11	437327.00	6213232.00	1968	24973	15000
		Without including anomalous values:			Mean	15000
					Median	15000
		Including values flagged as anomalous:			Mean	15000
					Median	15000

C5. STATISTICAL DATA DERIVED FROM FLOW BUDGET ZONES (MURRAY GROUP LIMESTONE AQUIFER)

Zone	Name	Easting	Northing	Drilled	EC	TDS
10	702900575	458180.99	6184756.17	1946	6284	3529
10	PYP 8	457356.01	6186129.12	1980	6516	3663
10	PYP 43	457625.00	6187045.00	2002	6700	3770
10	PYP 45	457616.00	6187002.00	2002	6600	3712
		Without including anomalous values:			Mean	3669
					Median	3688
		Including values flagged as anomalous:			Mean	3669
					Median	3688

Zone	Name	Easting	Northing	Drilled	EC	TDS
11	702901331	454148.91	6185690.00	1965	7888	4457
11	PYP 33	455291.00	6187290.00	2002	5790	3246
11	PYP 35	455286.00	6187352.00	2002	5450	3052
		Without including anomalous values:			Mean	3585
					Median	3246
		Including values flagged as anomalous:			Mean	3585
					Median	3246

Zone	Name	Easting	Northing	Drilled	EC	TDS
12	692900421	451850.99	6190542.16	1983	3242	1800
12	PYP 26	453030.00	6191148.00	2002	14800	8592
12	PYP 27	453030.00	6191146.00	2002	15590	9084
12	PYP 28	453029.00	6191147.00	2002	17870	10489
		Without including anomalous values:			Mean	9388
					Median	9084
		Including values flagged as anomalous:			Mean	7491
					Median	8838

Zone	Name	Easting	Northing	Drilled	EC	TDS
14	NEW RES.1B	444486.05	6195515.27	1966	28622	17431
14	PYP 3	449571.00	6191253.00	1980	23976	14377
14	692900440	446336.94	6194656.30	1985	5952	3338
		Without including anomalous values:			Mean	11715
					Median	14377
		Including values flagged as anomalous:			Mean	11715
					Median	14377

Zone	Name	Easting	Northing	Drilled	EC	TDS
15	MRK 15	441068.00	6201271.00	1980	18300	10760
		Without including anomalous values:			Mean	10760
					Median	10760
		Including values flagged as anomalous:			Mean	10760
					Median	10760

Zone	Name	Easting	Northing	Drilled	EC	TDS
18	692900812	439262.01	6207678.21	1996	7380	4164

Without including anomalous values:	Mean	4164
	Median	4164
Including values flagged as anomalous:	Mean	4164
	Median	4164

Zone	Name	Easting	Northing	Drilled	EC	TDS
19	MRK 34	440074.02	6212515.16	1998	5000	2795

Without including anomalous values:	Mean	2795
	Median	2795
Including values flagged as anomalous:	Mean	2795
	Median	2795

Zone	Name	Easting	Northing	Drilled	EC	TDS
20	MRK 33	438364.04	6212406.14	1998	5500	3080
20	KM 1	439074.00	6212011.00	2002	26200	15848

Without including anomalous values:	Mean	9464
	Median	9464
Including values flagged as anomalous:	Mean	9464
	Median	9464

Zone	Name	Easting	Northing	Drilled	EC	TDS
21	MRK 32	438756.02	6213635.16	1998	9500	5403

Without including anomalous values:	Mean	5403
	Median	5403
Including values flagged as anomalous:	Mean	5403
	Median	5403

C-6. LOXTON SANDS GROUNDWATER SALINITY DISTRIBUTION (30 SAMPLES)

TDS (mg/L)	Cumulative Percent
28368	100.00%
25308	93.10%
25308	93.10%
21254	89.60%
15000	86.20%
14923	82.70%
13241	79.30%
12257	75.80%
11300	72.40%
7794	68.90%
5698	65.50%
5145	62.00%
4233	58.60%
4165	55.10%
3943	51.70%
2795	48.20%
2510	44.80%
2454	41.30%
2227	34.40%
2227	34.40%
2171	31.00%
2019	27.50%
1664	20.60%
1664	20.60%
1440	17.20%
1384	13.70%
1278	10.30%
1105	6.80%
854	3.40%
661	.00%

C-7. MURRAY GROUP LIMESTONE GROUNDWATER SALINITY DISTRIBUTION (19 SAMPLES)

TDS (mg/L)	Cumulative Percent
17431	100.00%
15848	94.40%
14377	88.80%
10760	83.30%
10489	77.70%
9084	72.20%
8592	66.60%
5403	61.10%
4457	55.50%
4164	50.00%
3770	44.40%
3712	38.80%
3663	33.30%
3529	27.70%
3338	22.20%
3246	16.60%
3080	11.10%
3052	5.50%
2795	.00%

C-8. WHOLE POPULATION GROUNDWATER SALINITY DISTRIBUTION (49 SAMPLES)

TDS (mg/L)	Cumulative Percent.
28368	100.00%
25308	95.80%
25308	95.80%
21254	93.70%
17431	91.60%
15848	89.50%
15000	87.50%
14923	85.40%
14377	83.30%
13241	81.20%
12257	79.10%
11300	77.00%
10760	75.00%
10489	72.90%
9084	70.80%
8592	68.70%
7794	66.60%
5698	64.50%
5403	62.50%
5145	60.40%
4457	58.30%
4233	56.20%
4165	54.10%
4164	52.00%
3943	50.00%
3770	47.90%
3712	45.80%
3663	43.70%
3529	41.60%
3338	39.50%
3246	37.50%
3080	35.40%
3052	33.30%
2795	29.10%
2795	29.10%
2510	27.00%
2454	25.00%
2227	20.80%
2227	20.80%
2171	18.70%
2019	16.60%
1664	12.50%
1664	12.50%
1440	10.40%
1384	8.30%
1278	6.20%
1105	4.10%
854	2.00%
661	.00%