

Appendix H – Groundwater Modelling Report

MDW Environmental Services
Groundwater Modelling
Lot 20 Adelaide Street
Landfill Remediation Project, Hazelmere

CDM
Smith

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Landfill Remediation Project, Hazelmere

14 April 2015

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Executive Summary

A three-dimensional numerical model of the region around Lot 20 Adelaide Street, Hazelmere has been developed to support an application of a licence to extract groundwater.

The following modifications to previous groundwater modelling by NTEC Environmental Technology (NTEC) are addressed in this updated report by CDM Smith:

- Abstraction is represented in the groundwater model with a single pumping bore located in the south-west corner of the site within the Superficial aquifer;
 - Previously, the simulated pumping rate was 300 megalitres per year (ML/y) for a period of 3 years;
 - In this update report, the simulated pumping rate is 230 ML/y, and for a period of 5 years; and
- The previous groundwater modelling did not include groundwater recharge, in order to be conservative, which introduced the potential to over-estimate the impacts of the proposed pumping; the updated modelling includes groundwater recharge to the Superficial aquifer from rainfall infiltration.

The updated modelling predictions indicate that the proposed abstraction of 230 ML/y for 5 years will induce up to 0.9 m of drawdown outside of the site. Drawdown at the locations of nearby existing licensed groundwater users are predicted to be up to 0.6 m. Based on the Water Register (2015) map, ten groundwater licenses are predicted to have potential drawdown impacts of 0.2 m or more.

The aquifer is predicted to recover relatively quickly after pumping ceases, with a residual drawdown of less than 0.25 m two years after pumping ceases. There is no predicted impact remaining ten years after pumping ceases.

The results of the updated modelling are dependent upon the assumed location of the pumping bore, and the predicted drawdown at the above locations could be altered by modifying the location of this modelled bore. The updated modelling does not take account of seasonal variation.

Section 1 Introduction

This report describes groundwater modelling performed by CDM Smith for MDW Environmental Services (MDWES) who are working on behalf of Wasterock Pty Ltd. Modelling of groundwater flow near Lot 20 Adelaide Street in Hazelmere has been performed as part of a hydrogeological investigation to support an application for a 5C Licence to Extract Groundwater. The objective of this work is to provide an estimate of the impact of the proposed abstraction on nearby pre-existing groundwater users and environmental values.

1.1 Site Details

The site is an industrial lot on Adelaide Street in Hazelmere, Western Australia, located approximately 6 km east of the Swan River and approximately 1 km west of the Darling Fault. The site is located in the Shire of Swan South groundwater subarea (The Water Register, 2015) and adjacent to the Shire of Kalamunda groundwater subarea. Detailed groundwater water quality investigations have been performed at the site by MDWES (MDW Environmental Services, 2012). The site is listed on the DEC Contaminated Sites Database (SLIP, 2015). Figure 1-1 shows a location maps for the site.

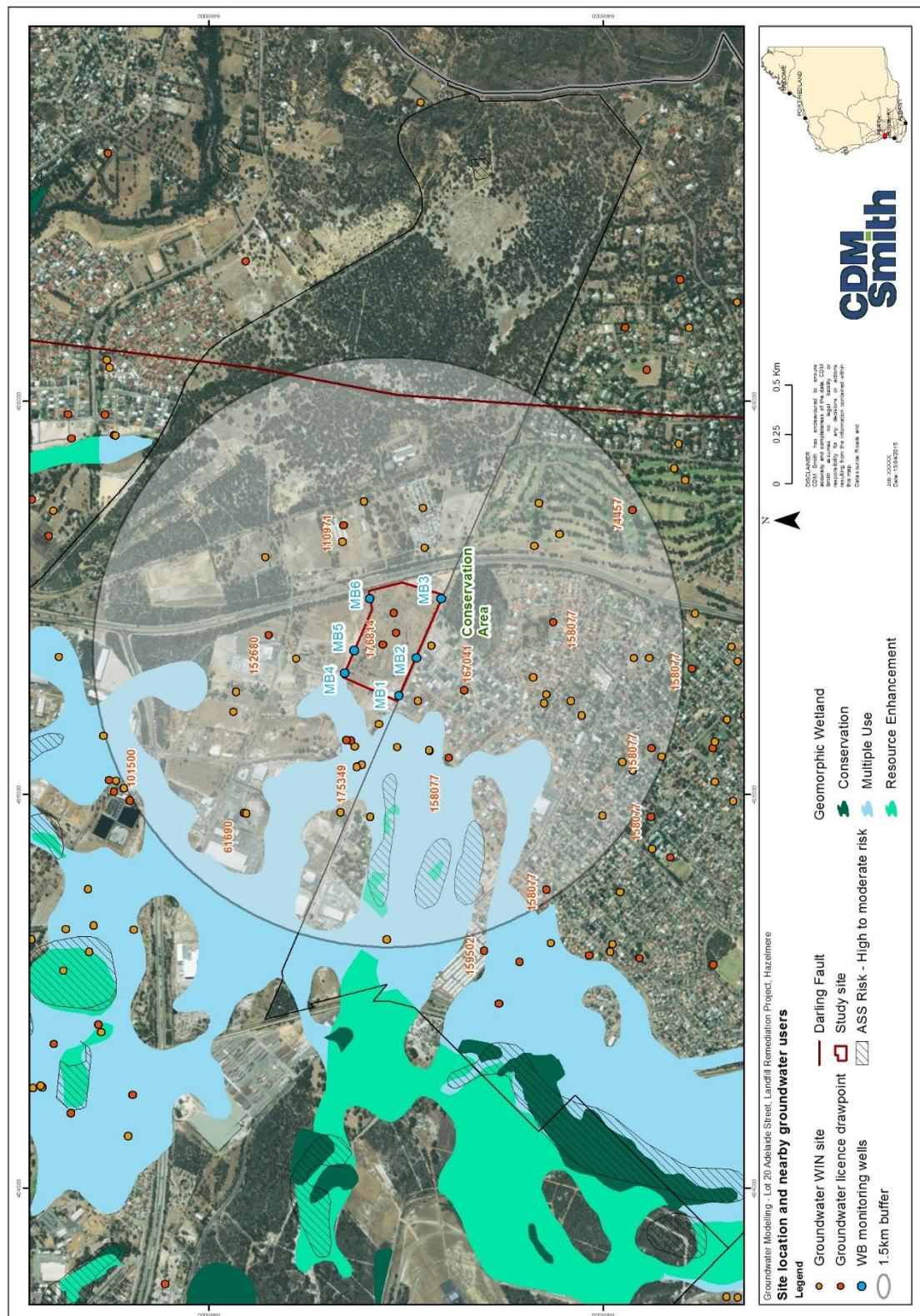


Figure 1-1 Site location and nearby groundwater users

Section 2 Background Information

2.1 Geology and Soil

The site's surficial geology is Bassendean Sand (Perth Groundwater Atlas, 2015), with low-lying areas to the west near the Perth Airport having swamp and lacustrine deposits at the surface. Colluvium lies to the east, at the edge of the Darling Fault, and Precambrian basement rock exists to the east of the fault. Further north and west, the surface geology is Guildford Clay.

The Acid Sulphate Soil (ASS) Risk map of the Swan Coastal Plain shows that the site is located within an area of moderate to low risk for ASS. An area of high to moderate risk is located 500 m west of the site in association with a resource enhancement wetland (see Section 2.4). Figure 1-1 shows the distribution of high to moderate ASS risk near the site.

2.2 Hydrogeology

At the site and nearby, the uppermost aquifer is the unconfined Superficial aquifer (Geographic Data Atlas, 2015), with the Leederville and Yarragadee North aquifers underlying the Superficial aquifer. Ground elevation at the site is approximately 30 to 35 m Australian Height Datum (mAHD) (Perth Groundwater Atlas, 2015), decreasing gently to the west-northwest and increasing rapidly to the east of the Darling Fault. The base of the Superficial aquifer was mapped at an elevation of approximately 5 mAHD beneath the site (Perth Groundwater Atlas, 2015) and was shown to slope upward in an easterly direction towards the Darling Fault, and downward in a westerly direction. The base of the Superficial aquifer is around -15 to -20 mAHD along the Swan River. At the site, the Superficial aquifer has a thickness of between 10 and 25 m (Davidson & Wu, 2006).

The water table elevation within the Superficial aquifer generally follows the topography but may intersect the land surface (Davidson & Wu, 2006) as evidenced by marshy conditions at the Perth Airport to the west of the site. The Perth Groundwater Atlas suggests that the water table elevation in the Superficial aquifer at the site is approximately 15 mAHD (May 2003 groundwater contours). Six surveyed monitoring bores located at the site (MDW Environmental Services, 2012) indicate water table elevation during 2012-2013 between 18.6 and 23.8 mAHD (Mathew Bulmer; personal communication). The hydraulic gradient in the Superficial aquifer at the site is approximately 0.01 (i.e., 1 m change in water table elevation over a distance of 100 m), with groundwater flow towards the northwest (MDW Environmental Services, 2012).

Regional studies (Davidson & Wu, 2006) suggested that the rate of groundwater flow through the Superficial aquifer varied from less than 50 m/yr to more than 1000 m/yr, with the lower value more likely in the site area.

The nearest WIN (Water Information system) site with historical groundwater monitoring data is 61610508, located approximately 2.5 km northwest of the site. Historical groundwater levels (water table elevation) are presented on Figure 2-1. Seasonal fluctuation at this location is around 4 m on average over the years 2000 to 2014, and the water table has declined around 10 m since 1970.

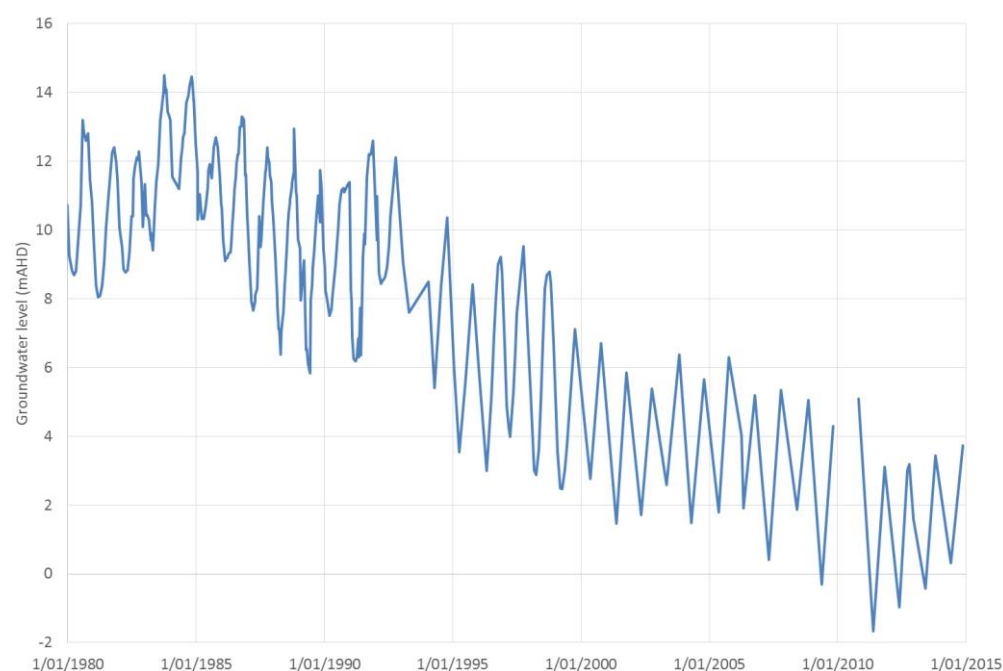


Figure 2-1 Historical groundwater levels at WIN site 61610508

The Superficial aquifer is mainly recharged by rainfall infiltration, with minor upward recharge from the underlying aquifer in some areas. Upward leakage to the Superficial aquifer is considered negligible, or non-existent, near the Site (Davidson & Wu, 2006). Groundwater recharge to the Superficial aquifer, as a percentage of annual rainfall, is estimated to be between 5% and 10% in the project area (Davidson & Wu, 2006). More generally, groundwater recharge to the Bassendean Sand is expected to be around 25% of average annual rainfall (192 mm/y) (Xu et al., 2008).

Recharge rates have also been estimated in different studies of the Perth Basin and were summarised by Department of Water (2010). Some of those recharge estimates are given in Table 2-1.

Table 2-1 Recharge estimates to the Superficial aquifer (after Department of Water 2010, Table 1)

Study	Rainfall recharge estimate
Bestow 1917	7.3% of the mean annual rainfall over the Gnangara area
Allen 1976a	8.5% of the rainfall in the northern area, 5.5% in the southern area
Davidson 1984a 1987	14% of rainfall in the southern area, 13% in the northern Perth Area
Thorpe 1989	21% of rainfall near the crest of the Gnangara Groundwater Mound
Davidson 1995	11% of rainfall over the Gnangara Groundwater Mound, 15% of the annual rainfall beneath the relatively high limestone area
Salama et al 2002	12-25% (110-202 mm/y) for Bassendean Sand under pine
Davidson and Yu 2007	Between 10 and 40% of the annual rainfall to the Superficial aquifer within the groundwater mounds, average of about 20%
Yeserterner 2009	28% of the rainfall over the Gnangara Groundwater Mound

The range of recharge values estimated from the different studies is relatively large, varying from 5% up to 28% of mean annual rainfall, and the values vary spatially across the Perth Basin.

Rainfall statistics at Perth Airport, located 2 km from the site, indicate that the mean annual rainfall is 769.5 mm (BOM, 2015). Table 2-2 shows mean monthly rainfall amounts at Perth Airport.

Table 2-2 Mean rainfall (mm) at Perth Airport for years 1944 to 2015 (BOM, 2015)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
9.4	14.4	16.2	40.6	99.8	159.1	156.5	117.8	73.6	44	26.6	11.1	769.5

2.3 Nearby Groundwater Users

A search was performed on The Water Register (The Water Register, 2015) for existing groundwater abstraction licenses within a 5 km radius of the site. The detailed list of groundwater licensees are shown in Appendix B. There are 12 groundwater licenses granted within a 1.5 km radius of the site. Five licenses (61690, 101500, 110971, 152680 and 175349) are north of Adelaide Street, while nine locations (74457, six under 158077, 159502 and 167041) are located south of Adelaide Street. Figure 1-1 shows the licence locations. All of these licenses are for abstraction from the Superficial aquifer, except for 101500 and 110971 which are drawing from the deeper Leederville aquifer.

2.4 Geomorphic Wetland

The site is located directly to the east of a geomorphic wetland categorised as “Multiple Use”. A few “Resource Enhancement” wetlands are also situated in the vicinity of the site, with the closest one located 500 m to the east (see Figure 1-1).

A 10.3 ha conservation area (Bush Forever site 122, Government of Western Australia, 2000) is located adjacent to the property, south of Adelaide Street. While this site has not been identified as a groundwater dependent ecosystem, it is suggested to be a Flora Conservation Area for plant communities representative of the eastern Swan Coastal Plain.

Section 3 Groundwater Model

A simplified numerical model of the groundwater regime was developed to estimate drawdown caused by the proposed groundwater abstraction at the site.

Conceptually, the model consists of the Superficial aquifer in the region around the site. The bottom of the model is derived from contours of the base of the Superficial aquifer at 5-m intervals developed for PRAMS (Perth Regional Aquifer Modelling System) (Davidson & Wu, 2006). The unconfined aquifer is assumed to be homogeneous with respect to its hydrogeological properties. No connection to the underlying aquifers is simulated. The model is bounded to the east by the Darling Fault and to the west by the Swan River. The southern and northern boundaries follow groundwater flow lines.

The modelling was performed with FEFLOW (Diersch, 2005), a finite element groundwater modelling package. The model grid covers 11.6 km by 10.3 km horizontally and has three layers, with a total of 28,908 mesh elements and 19,860 mesh nodes. The triangular mesh has finer resolution around the site to provide a more accurate solution in that area. Figure 3-1 shows the layout of the model.

The model uses horizontal and vertical hydraulic conductivity and specific yield values from PRAMS (Davidson and Yu, 2006). The values used and the data sources are noted below in Table 3-1.

Average groundwater level contours for years 2000 to 2012 (CDM Smith, 2014) are used for the model conceptualisation and to calibrate the groundwater recharge.

A constant head boundary of 1 mAHD is specified along the Swan River. Constant head boundaries varying between 1 and 11 mAHD are also specified on the western boundary, south of the Swan River. All other boundaries are no flow (see Figure 3-1).

Based on matching of simulated hydraulic head to the observed average groundwater level contours within the modelled region and the observed groundwater level measurements at the site, the recharge rate is estimated to be 16% of average annual rainfall at Perth Airport (123.1 mm/yr). This value of recharge estimated from the model calibration is consistent with the range of estimates from previous studies (see Section 2.2).

Groundwater abstraction is represented with a single pumping bore located in the south-west corner of the site. The bore is screened at the bottom of the model, representing pumping from near the base of the Superficial aquifer. The simulated pumping rate is 630 m³/d. Pumping was assumed to continue for five years, and the model was run for a further 10 years (15 years in total) to simulate the recovery of groundwater level.

Table 3-1 Groundwater model hydrogeological properties; all values are derived from PRAMS (Cymod Systems Pty Ltd 2009)

Parameter	Units	Value	Source
Hydraulic conductivity, horizontal	m/d	20.0	Average for Bassendean Sands, also Figure B1 near the Site.
Hydraulic conductivity, vertical	m/d	0.75	Figure B16 for Bassendean Sands near the site.
Specific yield	-	0.20	Figure B27 for Bassendean Sands near the Site.

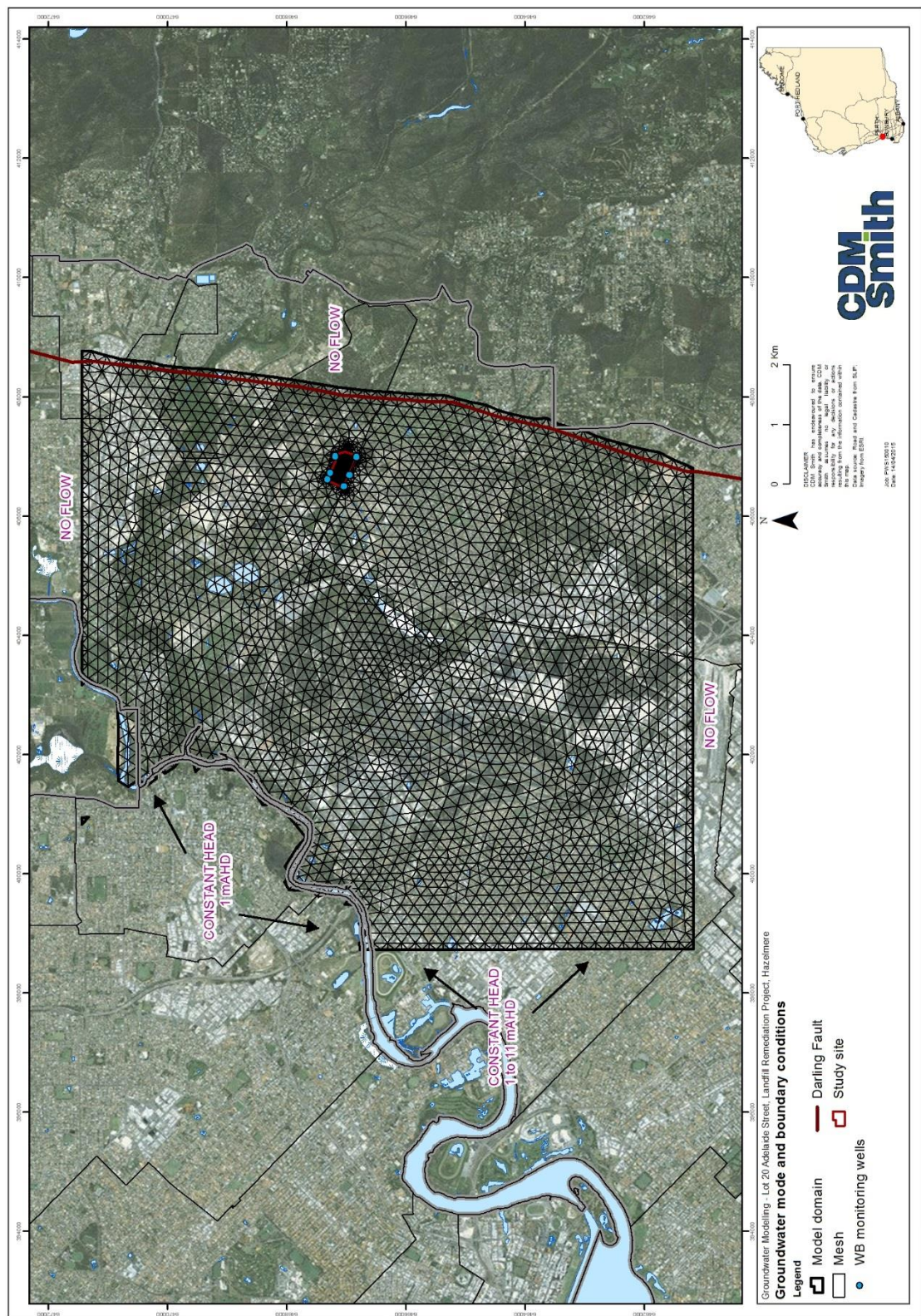


Figure 3-1 Groundwater model

Section 4 Modelling Results

Modelled drawdown after 5 years of pumping at 630 m³/d is shown at the water table in Figure 4-1. Based on this prediction, the monitoring bore closest to the pumping site, MB1, would experience a maximum drawdown of approximately 1.2 m after 5 years of pumping. The predicted drawdown contour of 0.2 m after 5 years pumping extends approximately 1.5 km from the modelled pumping bore.

Based on the Water Register (2015) map, ten groundwater licensees are predicted to have potential drawdown impacts of up to 0.2 m. Excluding the groundwater licence at the site (176814), three licensees are predicted to have impacts of more than 0.5 m, and six licensees are predicted to have impacts up to 0.4 m. Appendix C summarised the potential impacts to licensees that are predicted by the modelling.

Additional results maps are shown for the recovery of the aquifer after pumping ceases. Figure 4-2 shows the drawdown at 1, 2, 5 and 10 years after pumping ends. The modelling predicts that the aquifer will recover relatively quickly after the cessation of pumping. The aquifer is therefore not significantly impacted in the long term by the proposed five years of abstraction. The predicted residual drawdown is everywhere less than 0.32 m at 1 year after the end of pumping, and less than 0.25 m one year later. The water table is predicted to be fully recovered, with no impact remaining, ten years after pumping ceases.

Predicted drawdown at the closest resource enhancement wetland, located 500 m east of the site, is 0.4 m at the end of pumping, and is predicted to be less than 0.2 m 2 years after pumping ceases.

We note that the modelling does not take account of seasonal variation. Available data show that seasonal fluctuation at the water table can be up to several metres in the region of the site.



Figure 4-1 Groundwater drawdown after 5 years of abstraction



Figure 4-2 Drawdown recovery 1, 2, 5 and 10 years after pumping ceases

Section 5 Conclusions

A three-dimensional numerical model of the region around Lot 20 Adelaide Street has been developed for the Superficial aquifer. The model is suitable for determining the incremental effect of the proposed 230 ML/y (630 m³/d) groundwater abstraction, given the assumptions of simplified geometry and boundary conditions.

The modelling results predict that after five years, the proposed abstraction will induce up to 0.9 m maximum drawdown at the water table in the Superficial aquifer outside of the site, and up to 0.6 m drawdown at nearby existing licensed groundwater users or conservation areas. These modelling results are dependent upon the assumed location of the pumping bore, and the predicted drawdown at the above locations could be altered by modifying the location of this modelled bore. Groundwater levels are predicted to recover relatively quickly after pumping ceases. Five years after the cessation of pumping, the modelled drawdown is less than 0.15 m at all locations.

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Appendix A - Disclaimer and Limitations

This report has been prepared by CDM Smith Australia Pty Ltd (CDM Smith) for the sole benefit of MDW Environmental Services for the sole purpose of predicting the impact of groundwater abstraction at Lot 20 Adelaide Street, Hazelmere.

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- (c) filed with any Governmental agency or other person or quoted or referred to in any public document.

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- (b) has not verified the accuracy or reliability of this information (other than as expressly stated in this report);
- (c) has not made any independent investigations or enquiries in respect of those matters of which it has no actual knowledge at the time of giving this report to MDW Environmental Services; and
- (d) makes no warranty or guarantee, expressed or implied, as to the accuracy or reliability of this information.

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If further information becomes available, or additional assumptions need to be made, CDM Smith reserves its right to amend this report.

Appendix B – Groundwater Licensees

Data in this appendix was downloaded on 9 April 2015 from the Department of Water's The Water Register. Groundwater licences within a 5 kilometre radius of the site were extracted. Twelve of those licences are located within 1.5 kilometre of the site and are highlighted below.

Licence Number	Licence Allocation (kL)	Parties	Groundwater Subarea	Aquifer	Licence Address
63807	89390	Bacchion, David	Shire of Kalamunda	Perth - Superficial Swan	Lot 22 Dundas Rd High Wycombe
63807	89390	Bacchion, David	Shire of Kalamunda	Perth - Superficial Swan	Lot 23 Milner Rd High Wycombe
63807	89390	Bacchion, David	Shire of Kalamunda	Perth - Superficial Swan	Lot 551 Dundas Rd High Wycombe
64694	24000	Matthew Gibney Catholic Primary School; The Roman Catholic Archbishop of Perth	Shire of Kalamunda	Perth - Superficial Swan	Lot 2 Munday Rd High Wycombe
64694	24000	Matthew Gibney Catholic Primary School; The Roman Catholic Archbishop of Perth	Shire of Kalamunda	Perth - Superficial Swan	Lot 11956 Worrell Av High Wycombe
74457	196250	Hillview Public Golf Course Pty Ltd	Shire of Kalamunda	Perth - Superficial Swan	Lot 7562 Kalamunda Rd Maida Vale
41225	3000	Salama, Amir	Shire of Kalamunda	Perth - Superficial Swan	Lot 6 Sultana Rd Forrestfield
56782	6250	Smith, S M; Smith, B	Shire of Kalamunda	Perth - Superficial Swan	-
56782	6250	Smith, S M; Smith, B	Shire of Kalamunda	Perth - Superficial Swan	Lot 113 Sultana Road Forrestfield
51642	2250	BGC (Australia) Pty Ltd	Shire of Swan South	Perth - Superficial Swan	Lot 1 Lakes Rd Hazelmere; Lot 76 and Lot 202 Bushmead Rd Hazelmere; Lot 4 Stirling Cr Hazelmere
53269	4800	Swan Bowling & Recreation Club (Inc)	Shire of Swan South	Perth - Superficial Swan	Lot 9 James St Guildford
58650	27000	Swanview Plant Farm Pty Ltd	Shire of Kalamunda	Perth - Superficial Swan	Lot 399 Sorensen Rd High Wycombe
60942	46150	Seventh-Day Adventist Church (Western Australian Conference) Limited	Shire of Kalamunda	Perth - Superficial Swan	Lot 1 Kalamunda Rd Maida Vale
61690	20000	Pioneer Road Services Pty Ltd	Shire of Swan South	Perth - Superficial Swan	Lot 1 Kalamunda Rd South Guildford - Site Lease Talbot Road
111079	5550	Shire of Mundaring	Shire of Mundaring	Perth - Superficial Swan	Lot 13293 Moir Place Midvale
111079	5550	Shire of Mundaring	Shire of Mundaring	Perth - Superficial Swan	Lot 206 Helena Valley Rd Helena Valley
152215	23120	Fagnani, Antonio (Tony)	Shire of Kalamunda	Perth - Superficial Swan	-
152215	23120	Fagnani, Antonio (Tony)	Shire of Kalamunda	Perth - Superficial Swan	Lot 1 Milner Road High Wycombe
152244	25725	Guildford Grammar School Inc	Shire of Swan South	Perth - Superficial Swan	Lot 73 Great Eastern Hwy Guildford - Guildford Grammar School
152244	25725	Guildford Grammar School Inc	Shire of Swan South	Perth - Superficial Swan	Lot 56 Terrace Rd Guildford - Guildford Grammar School
152244	25725	Guildford Grammar School Inc	Shire of Swan South	Perth - Superficial Swan	Lot 191 Great Eastern Hwy Guildford - Guildford Grammar School
152244	25725	Guildford Grammar School Inc	Shire of Swan South	Perth - Superficial Swan	Lot 1, Lot 3, Lot 56 and Lot 5220 Terrace Rd Guildford; Lot 154 Woodbridge; Terrace Rd Guildford; Lot 76 Guildford, Lot 73, Lot 191 and Lot 192 Great Eastern Hwy Guildford; Lot 75 Guildford
152244	25725	Guildford Grammar School Inc	Shire of Swan South	Perth - Superficial Swan	Lot 57 and Lot 2 Terrace Rd Guildford; Lot 550 Guildford; Lot 193, Lot 198 and Lot 184 Great Eastern Hwy Guildford; Lot 77, Lot 100 and Lot 155 Woodbridge; Lot 185 and Lot 187 Great Eastern Hwy Woodbridge
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-

152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 227 Plover Road High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 226 Plover Road High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 220 Brumby Court High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 225 Plover Road High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 221 Brumby Court High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 224 Teutonia Court High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 223 Teutonia Court High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 222 Teutonia Court High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 415 Plover Road High Wycombe
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	-
152515	9000	Furfaro, Michelino; Furaro, Annunziata	Shire of Kalamunda	Perth - Superficial Swan	Lot 749 Maida Vale Road High Wycombe
152680	27750	Di Giuseppe, Antonio Giuseppe	Shire of Swan South	Perth - Superficial Swan	Lot 147 Talbot Rd Hazelmere
152817	4400	Lush, Leonard James	Shire of Kalamunda	Perth - Superficial Swan	Lot 26 Brewer Rd Maida Vale
152906	80000	BGC (Australia) Pty Ltd	Shire of Swan South	Perth - Superficial Swan	Lot 80 Bushmead Rd Hazelmere
153123	11450	Ozanne, Robert William; Ozanne, Jill	Shire of Kalamunda	Perth - Superficial Swan	-
153123	11450	Ozanne, Robert William; Ozanne, Jill	Shire of Kalamunda	Perth - Superficial Swan	Lot 1 Ridge Hill Road Maida Vale
153231	7250	Porges, Bruce	Shire of Kalamunda	Perth - Superficial Swan	Lot 105 on Diagram 90357
153231	7250	Porges, Bruce	Shire of Kalamunda	Perth - Superficial Swan	Lot 105 Oxford Court Maida Vale
153641	13950	Wilcox, Sidney Alexander; Wilcox, Lynley Jane	Shire of Swan South	Perth - Superficial Swan	Lot 15 Stirling Crescent, Hazelmere
154091	4250	Halse, Olwen Denise	Shire of Kalamunda	Perth - Superficial Swan	-
154091	4250	Halse, Olwen Denise	Shire of Kalamunda	Perth - Superficial Swan	Lot 106 Sadler Drive Gooseberry Hill
154669	3500	Patterson, Norman John	Shire of Kalamunda	Perth - Superficial Swan	-
154669	3500	Patterson, Norman John	Shire of Kalamunda	Perth - Superficial Swan	Lot 4 Brand Road High Wycombe
154688	4000	Racing and Wagering Western Australia	Shire of Swan South	Perth - Superficial Swan	Lot 2 Kalamunda Rd Perth Airport
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 10852 King Rd Beechboro - Beechboro Primary School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 10279 Rosher Rd Lockridge - Lockridge Primary School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 1555 Avignon Wy Beechboro - West Beechboro Primary School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 8571 Barlow Ct Lockridge - Lockridge Pre-Primary
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 14317 Benara Rd Kiara - Lockridge Senior High School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 3716 Archer St Woodbridge, Lot 14189 Archer St Woodbridge

					- Woodbridge Primary School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 7526 Crosbie Rd Woodbridge, Lot 521 Third Av Woodbridge - Governor Stirling Senior High School, Lot 520 Woodbridge - Woodbridge House
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 521 Third Av Woodbridge, Lot 7526 Crosbie Rd Woodbridge - Governor Stirling Senior High School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 9872 Maguire Av Beechboro - East Beechboro Primary School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 244 Johnson St Guildford - Guildford Primary School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 500 Clayton St Koongamia - Clayton View Primary School
155295	198225	Department of Education	Shire of Swan South	Perth - Superficial Swan	Lot 3716 Archer St Woodbridge - Woodbridge Primary School
108239	4280	Bynon, William John	Shire of Swan South	Perth - Superficial Swan	Lot 2 Arum Lily Pl Hazelmere
108850	1500	Powell, Baden Jones	Shire of Kalamunda	Perth - Superficial Swan	Lot 148 Almondree Lane Maida Vale
101500	66000	Derby Industries Pty Ltd	Perth South Confined	Perth - Leederville.	Lot 115 Lakes Road Hazelmere
101500	66000	Derby Industries Pty Ltd	Perth South Confined	Perth - Leederville.	Lot 114 Lakes Rd Hazelmere
101500	66000	Derby Industries Pty Ltd	Perth South Confined	Perth - Leederville.	Lot 114 Lakes Rd Hazelmere, Lot 115 Lakes Rd Hazelmere
103034	28500	Di Giuseppe, Antonio Giuseppe	Shire of Swan South	Perth - Superficial Swan	Lot 25 Stirling Cr Hazelmere
103896	8500	Austral Bricks (WA) Pty Ltd	Shire of Swan South	Perth - Superficial Swan	Lot 1 Military Rd Midland
151552	15750	Westrac Pty Ltd	Shire of Swan South	Perth - Mirrabooka	Lot 900 Great Eastern Hwy South Guildford
110971	29250	The Trustee For C & S Bucolo Family Trust	Perth South Confined	Perth - Leederville.	Lot 15 Midland Rd Hazelmere
152091	3500	Netherway, Trevor Noel	Shire of Kalamunda	Perth - Superficial Swan	Lot 89 on Plan 13420
152091	3500	Netherway, Trevor Noel	Shire of Kalamunda	Perth - Superficial Swan	Lot 89 on Stewart Road High Wycombe
98956	15550	Swick, Randal Lloyd	Shire of Swan South	Perth - Superficial Swan	Lot 12 Stirling Cr Hazelmere
99004	45000	Metropolitan Redevelopment Authority	Perth South Confined	Perth - Leederville.	Lot 9014 Midland, Lot 9011 Yelverton Dr Midland
99004	45000	Metropolitan Redevelopment Authority	Perth South Confined	Perth - Leederville.	Lot 9502, Lot 9011, Lot 15299 and Lot 15300 Yelverton Dr Midland; Lot 9016 Wallsend Rd Woodbridge, Lot 601 Woodbridge, Lot 9020 Clayton St Midland, Lot 8004 Hebe Lane Woodbridge
99004	45000	Metropolitan Redevelopment Authority	Perth South Confined	Perth - Leederville.	8014 Yelverton Dr Woodbridge, Lot 707, Lot 741 Yelverton Dr Midland, Lot 9026, Lot 804 Foundry Rd Midland, Lot 601, Lot 801 Helena St Midland, Lot 803 Foundry Rd Midland, Lot 9019 Yelverton Dr Woodbridge
99004	45000	Metropolitan Redevelopment Authority	Perth South Confined	Perth - Leederville.	8014 Yelverton Dr Woodbridge - Coal Dam Park
99004	45000	Metropolitan Redevelopment Authority	Perth South Confined	Perth - Leederville.	Road Verges - Yelverton Drive, Hebe Lane, Griffin Lane, Cardiff Lane, Stockton Lane, Centaur Circle, Wyvern Lane, Wallsend Road, Muja Lane, Furnace Road, Turn Table Walk, Plating Shop, Terrace,

					Watertank Way, Foundry Road, Woodmill Lane and Helena Street
159033	17550	Metropolitan Redevelopment Authority	Perth South Confined	Perth - Leederville.	Lot 119 Clayton St Midland
159033	17550	Metropolitan Redevelopment Authority	Perth South Confined	Perth - Leederville.	Lot 657 Clayton St Midland
159033	17550	Metropolitan Redevelopment Authority	Perth South Confined	Perth - Leederville.	Lot 9014 On Plan 48737
164988	8700	Rando, Stephen	Shire of Swan South	Perth - Superficial Swan	Lot 816 Stirling Crescent, Hazelmere
167016	7280	Peters, Jennifer Ann	Shire of Kalamunda	Perth - Superficial Swan	Lot 92 Milner Rd High Wycombe
167041	3750	Shire of Kalamunda	Shire of Kalamunda	Perth - Superficial Swan	Lot 28 Nottingham Grn High Wycombe
167337	11250	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 231 Helena Valley Rd Helena Valley
167337	11250	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 8000 Helena Valley Rd Helena Valley
167337	11250	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 12367 Helena Valley Rd Helena Valley
167785	3000	Andric, Ruzica	Shire of Kalamunda	Perth - Superficial Swan	Lot 220 Nardine Cl Forrestfield
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Crown Reserve 25959
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Lot 12500 Newburn Road High Wycombe - High Wycombe Primary School
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Crown Reserve 28258
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Lot 8041 Sussex Road Forrestfield - Forrestfield Primary School
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Crown Reserve 32845
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Lot 9109 Berkshire Road Forrestfield - Darling Range Sports College
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Lot 8558 Kalamunda Rd Maida Vale - Maida Vale Primary School
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Lot 3385 Welshpool Rd Wattle Grove - Formerly Wattle Grove Primary School
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Lot 9873 Solandra Wy Forrestfield - Woodlupine Primary School
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Lot 10295 Dawson Av Forrestfield, Lot 9101 Bougainvillea Av Forrestfield - Dawson Park Primary School
155429	162750	Department of Education	Shire of Kalamunda	Perth - Superficial Swan	Lot 9004 St John Rd Wattle Grove, Lot 368 St John Rd Wattle Grove - Wattle Grove Primary School
159397	12408	Mitchell, Maxwell John	Shire of Kalamunda	Perth - Superficial Swan	Lot 22 Bruce Rd Maida Vale
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 3508 Rangeview Ct, Maddington - Yule Brook College
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Crown Reserve 32273
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lots 2714 and 2537 Pitchford Avenue Maddington - East Maddington Primary School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Crown Reserve 31311
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 4397 Gibbs Street East Cannington - Gibbs Street Primary School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 3367 Latham Rd Ferndale - Kinlock Primary School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 2343 Purley Cr Lynwood - Bannister Creek Primary School

155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 3637 Leach Hwy Bull Creek - Rossmoyne Senior High School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 574 Cockman Crss Stratton - Middle Swan Primary School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 4774 Sevenoaks St Cannington - Sevenoaks Senior College
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 4464 Wharf St Cannington - Cannington Community College
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 2573 Corfield St Gosnells - Wirrabirra Primary School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 4763 Southern River Rd Gosnells - Southern River College
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 5042 Monota Av Shelley - Shelley Primary School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 3098 Bishop Cl Seville Grove - Cecil Andrews High School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 2373 May St Gosnells, Lot 1629 May Street Gosnells - Gosnells Primary School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 500 Fisher St Belmont - Belmont City College
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 301 Midvale Pl Midvale - Midvale Primary School
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 388, Lot 389, Lot 50 and Lot 391 Dellar Rd Maddington, Lot 3508 Maddington, Lot 390 Dellar Rd Maddington - Yule Brook College
155448	376875	Department of Education	Perth South Confined	Perth - Leederville.	Lot 1629 May St Gosnells - Gosnells Primary School
159502	49900	Hillview Lifestyle Village Pty Ltd	Shire of Kalamunda	Perth - Superficial Swan	Lot 5 Kalamunda Road High Wycombe
161669	35250	Domain Project Development PTY LTD; Guilford Grammer School Foundation Inc.	Shire of Swan South	Perth - Superficial Swan	Lot 9003 South Guildford
158077	911975	Shire of Kalamunda	Shire of Kalamunda	Perth - Superficial Swan	-
155694	7625	Noske, Jeffrey John	Shire of Kalamunda	Perth - Superficial Swan	Lot 3 Brand Rd High Wycombe
155696	2500	De Haan, David; De Haan, Chrystine	Shire of Kalamunda	Perth - Superficial Swan	Lot 5 Sultana Rd Forrestfield
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 49 Muros Pl Midvale
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 85 Stanhope Gdns Midvale
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 51 Horsley St Swan View - Collier Park
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 12052 Gladstone Av Swan View - Swan View High School
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 9632 Morrison Rd Swan View - Swan View Primary School, Lot 6238 Morrison Rd Swan View - Swan View Primary School
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 9803 Blackadder Rd Swan View - Swan View Park
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 147, Lot 148, Lot 145, Lot 144, Lot 143, Lot 142 and Lot 141 Salisbury Rd Swan View; Lot 162, Lot 161, Lot 160, Lot 159, Lot 158, Lot 157, Lot 156, Lot 155, Lot 154 and Lot 153 Beresford Gdns Swan View; Lot 152 Amherst Rd Swan View, Lot 151, Lot 150, Lot 149 and Lot 146 Salisbury Rd Swan View
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 299 Salisbury Rd Midvale - Salisbury Park

158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 9643 Gladstone Av Swan View - Markham Pk & Ryan WyCrown, Lot 10508 Amherst Rd Swan View - Markham Pk & Ryan Wy
158261	100500	Shire of Mundaring	Perth South Confined	Perth - Leederville.	Lot 11788 Abingdon Rd Swan View - Christowe Park, Lot 9670 Abingdon Rd Swan View - Christowe Park, Lot 9669 Abingdon Rd Swan View - Christowe Park, Lot 9285 Abingdon Rd Swan View - Christowe Park
162380	2325	Shire of Mundaring	Shire of Mundaring	Perth - Superficial Swan	Lot 207 Helena Valley Rd Helena Valley
156446	19000	Brighton, Anthony	Shire of Swan South	Perth - Superficial Swan	Lot 7 Hazelmere
156453	10300	Shire of Kalamunda	Perth South Confined	Perth - Leederville.	Lot 2001 Forrestfield
156453	10300	Shire of Kalamunda	Perth South Confined	Perth - Leederville.	Lot 2002 Forrestfield
156453	10300	Shire of Kalamunda	Perth South Confined	Perth - Leederville.	Lot 2003 High Wycombe
156453	10300	Shire of Kalamunda	Perth South Confined	Perth - Leederville.	Lot 2001 Forrestfield, Lot 2003 High Wycombe, Lot 2002 Forrestfield
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 73 Great Eastern Hwy Guildford - Guildford Grammar School
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 56 Terrace Rd Guildford - Guildford Grammar School
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 191 Great Eastern Hwy Guildford - Guildford Grammar School
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 24 Terrace Rd Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 1, Lot 3, Lot 56 and Lot 76 Terrace Rd Guildford, Lot 154 Woodbridge, Lot 73, Lot 191 and Lot 192 Great Eastern Hwy Guildford, Lot 75 Guildford, Lot 5220 Terrace Rd Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 57 Terrace Rd Guildford, Lot 550 Guildford, Lot 193, Lot 184 and Lot 198 Great Eastern Hwy Guildford, Lot 77 Woodbridge, Lot 100 Woodbridge, Lot 185 and Lot 187 Great Eastern Hwy Woodbridge, Lot 155 Woodbridge, Lot 2 Terrace Rd Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 155 Woodbridge
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 77 Woodbridge
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 187 Great Eastern Hwy Woodbridge
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 100 Woodbridge
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 185 Great Eastern Hwy Woodbridge
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 198 Great Eastern Hwy Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 550 Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 193 Great Eastern Hwy Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 192 Great Eastern Hwy Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 5220 Terrace Rd Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 57 Terrace Rd Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 1 Terrace Rd Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 2 Terrace Rd Guildford
156772	111875	Guildford Grammar School Inc	Perth South Confined	Perth - Leederville.	Lot 3 Terrace Rd Guildford

157266	15000	Main Roads Western Australia	Shire of Mundaring	Perth - Superficial Swan	Road Reserve - Cnr Great Eastern & Roe Hwys, Midvale
179536	99900	AECOM Australia Pty Ltd & BG&E Pty Ltd & Georgiou Group Pty Ltd & GHD Pty Ltd & Leighton Contractors Pty Limited	Shire of Kalamunda	Perth - Superficial Swan	Road Reserves - Roe Highway & Berkshire Road intersection - Area 8
179729	7488	City of Swan	Perth South Confined	Perth - Leederville.	Eddie Barron Drive Middle Swan
179729	7488	City of Swan	Perth South Confined	Perth - Leederville.	Lloyd St Midland
176450	2000	Hussein, Emine ; Egglestone, Kevin Ray	Shire of Swan South	Perth - Superficial Swan	Lot 508 Nirimba Close South Guildford
176573	33500	Taliska Securities Pty Ltd	Shire of Mundaring	Perth - Superficial Swan	Lot 800 Katharine St Bellevue
176814	300000	Wasterock Pty Ltd	Shire of Swan South	Perth - Superficial Swan	Lot 20 Adelaide St Hazelmere
176948	307100	AECOM Australia Pty Ltd & BG&E Pty Ltd & Georgiou Group Pty Ltd & GHD Pty Ltd & Leighton Contractors Pty Limited	Shire of Kalamunda	Perth - Superficial Swan	Area 6 - Road Reserve, Tonkin Hwy & Roe Hwy, Forrestfield
177647	382000	AECOM Australia Pty Ltd & BG&E Pty Ltd & Georgiou Group Pty Ltd & GHD Pty Ltd & Leighton Contractors Pty Limited	City of Belmont	Perth - Superficial Swan	Lot 6 Belmont
177647	382000	AECOM Australia Pty Ltd & BG&E Pty Ltd & Georgiou Group Pty Ltd & GHD Pty Ltd & Leighton Contractors Pty Limited	City of Belmont	Perth - Superficial Swan	Lot 1 Anderson Pl Perth Airport
177669	3750	Di Dio, Anna; Di Dio, Ross	Shire of Kalamunda	Perth - Superficial Swan	Lot 11 on Plan 13574
177669	3750	Di Dio, Anna; Di Dio, Ross	Shire of Kalamunda	Perth - Superficial Swan	Lot 11 Sultana Road Forrestfield
177797	250	Aston, David; Aston, Sandra	Perth South Confined	Perth - Leederville.	Lot 5 on Plan 19995
177797	250	Aston, David; Aston, Sandra	Perth South Confined	Perth - Leederville.	Lot 5 River Bank Bvd South Guildford
178485	5225	Salter, Jennifer	Shire of Mundaring	Perth - Superficial Swan	Lot 1 Helena Valley Rd Helena Valley
179013	4000	Bennett, Stephen	Shire of Kalamunda	Perth - Superficial Swan	Lot 8 on Diagram 16758
179013	4000	Bennett, Stephen	Shire of Kalamunda	Perth - Superficial Swan	Lot 8 Bruce Road Forrestfield
167932	1200	Littlefield Development Pty Ltd	Shire of Kalamunda	Perth - Superficial Swan	Lot 4 on Diagram 2634
167932	1200	Littlefield Development Pty Ltd	Shire of Kalamunda	Perth - Superficial Swan	Lot 4 Littlefield Road High Wycombe
172101	160500	Noahs Rosehill Waters Pty Ltd	Shire of Swan South	Perth - Superficial Swan	Lot 9000 West Pde South Guildford, Lot 57 West Pde South Guildford
172101	160500	Noahs Rosehill Waters Pty Ltd	Shire of Swan South	Perth - Superficial Swan	Lot 200 West Pde South Guildford, Lot 9000 West Pde South Guildford, Lot 57 West Pde South Guildford
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 70 Bishop Rd Middle Swan - Jack Mann Oval
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 8156 Minchin Cr Middle Swan - Velgrove Park
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 10174 Gray Dr Midvale - Ron Jose Oval
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 234 Helena St Guildford - Kings Meadow Polo Ground
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 5, Lot 56, Lot 53, Lot 52, Lot 54 and Lot 55 Great Northern Hwy Middle Swan, Lot 50 and Lot 51 Viveash Rd Middle Swan,
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 98 Harper St Woodbridge - Ray Marshall Park, Lot 183 Crosbie Rd Woodbridge - Ray Marshall Park, Lot 404 Crosbie Rd Woodbridge - Ray Marshall Park
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 216 The Avenue Midland - Midland Oval
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 191 Meadow St Guildford - Stirling Square And Meadow Street Median

168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 13420 Patterson Dr Middle Swan - Swan Park North
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 9803 Morrison Rd Swan View - Swanview Oval
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 144 Helena St Guildford - Spring Park
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 13421 Eddie Barron Dr Middle Swan - Velodrome
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 13517 Eveline Rd Middle Swan - Jack Williamson Oval
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 9808 The Quarry Swan View - The Quarry
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 10174 and Lot 18 Gray Dr Midvale - Ron Jose Oval And Gray Drive
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 191 Meadow St Guildford - Stirling Square
168139	280775	City of Swan	Perth South Confined	Perth - Leederville.	Lot 98 Harper St Woodbridge - Ray Marshall Park
168263	163425	City of Swan	Shire of Swan South	Perth - Superficial Swan	-
168473	900	O'Reilly, Peter Hamilton	Shire of Kalamunda	Perth - Superficial Swan	Lot 32 Hawtin Rd Maida Vale
170681	30000	Helena Valley Residential Resort Pty Ltd	Shire of Mundaring	Perth - Superficial Swan	Lot 237 Helena Valley Rd Helena Valley
170758	3375	Mulligan Nominees Pty Ltd	Shire of Kalamunda	Perth - Superficial Swan	Lot 500 Abernethy Rd High Wycombe
168841	15875	Metropolitan Cemeteries Board	Shire of Swan South	Perth - Superficial Swan	Lot 501 and Lot 502 South Guildford
175349	57600	Swanview Plant Farm Pty Ltd	Shire of Swan South	Perth - Superficial Swan	Lot 2 Adelaide St Hazelmere
173475	15340	Whitehouse Nominees Pty Ltd	Shire of Mundaring	Perth - Superficial Swan	Lot 203 Helena Valley Rd Helena Valley
171656	13500	Hemsley, Jeffrey	Shire of Mundaring	Perth - Superficial Swan	Lot 1 Helena Valley Rd Helena Valley
169609	2850	Tiong, Mohamad	Shire of Mundaring	Combined - Fractured Rock West - Fractured Rock	Lot 19 Samson Pl Helena Valley

Appendix C – Potential Impacts to Groundwater licensees

Potential drawdown impacts to groundwater licences within the predicted 0.2 m cone of depression at the water table, after 5 years of pumping are listed below.

Licence Number	Licence Allocation (kL)	Parties	Aquifer	Maximum drawdown at the water table, after 5 years of pumping (m)
74457	196250	Hillview Public Golf Course Pty Ltd	Perth - Superficial Swan	0.2
61690	20000	Pioneer Road Services Pty Ltd	Perth - Superficial Swan	0.3
101500	66000	Derby Industries Pty Ltd	Perth - Leederville.	0.2
152680	27750	Di Giuseppe, Antonio Giuseppe	Perth - Superficial Swan	0.4
159502	49900	Hillview Lifestyle Village Pty Ltd	Perth - Superficial Swan	0.2
110971	29250	The Trustee For C & S Bucolo Family Trust	Perth - Leederville.	0.4
167041	3750	Shire of Kalamunda	Perth - Superficial Swan	0.6
158077	911975	Shire of Kalamunda	Perth - Superficial Swan	Multiple locations Between 0.2 and 0.6
176814	300000	Wasterock Pty Ltd	Perth - Superficial Swan	1.4
175349	57600	Swanview Plant Farm Pty Ltd	Perth - Superficial Swan	0.6