



Legend

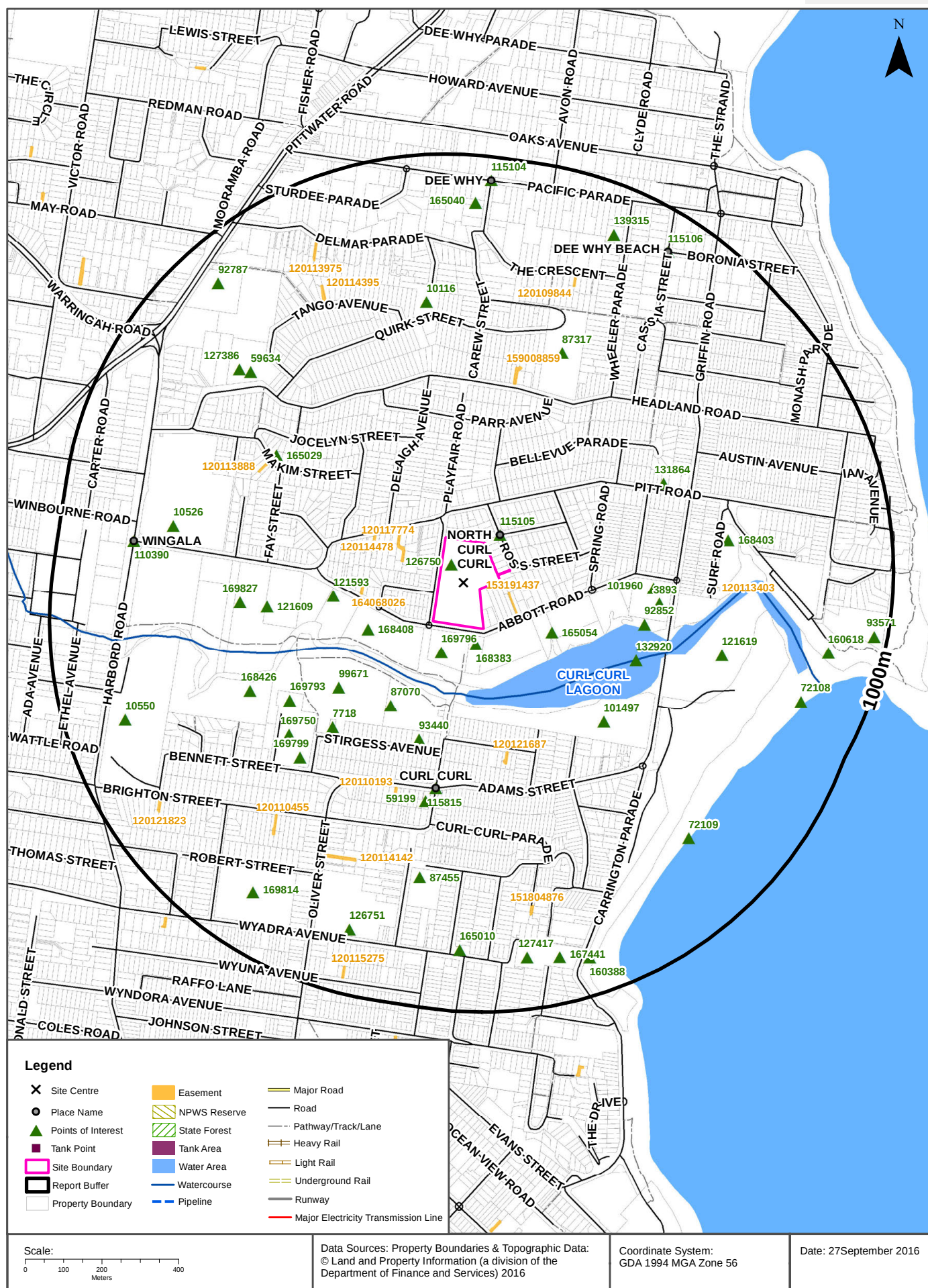
Site Boundary

Buffer 150m

Scale: 0 25 50 100 Meters	Data Sources: Historical Aerials: © Land and Property Information (a division of the Department of Finance and Services)	Coordinate System: GDA 1994 MGA Zone 56	Date: 27September 2016
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Topographic Features

Playfair Road, North Curl Curl, NSW 2099



Topographic Features

Playfair Road, North Curl Curl, NSW 2099

Points of Interest

What Points of Interest exist within the report buffer?

Map Id	Feature Type	Label	Distance	Direction
126750	Primary School	CURL CURL NORTH PUBLIC SCHOOL	0m	Onsite
168383	Community Facility	CURL CURL YOUTH AND COMMUNITY CENTRE	42m	South
115105	Suburb	NORTH CURL CURL	44m	North East
169796	Sports Court	NETBALL COURTS	76m	South
168408	Sports Field	JOHN FISHER PARK	170m	South West
165054	Sports Field	ABBOTT ROAD GROUND	179m	South East
87070	Park	WELDON PARK	245m	South West
121593	Community Facility	SCOUT HALL	267m	West
99671	Sports Field	OVAL	300m	South West
93440	Park	STIRGESS AVENUE RESERVE	310m	South
92852	Park	ALAN NEWTON RESERVE	377m	East
101960	Sports Field	BOWLING GREEN	377m	East
7718	Community Facility	SCOUT HALL	380m	South West
101497	Sports Field	ADAM STREET GROUND	396m	South East
3893	Club	DEE WHY RSL BOWLING CLUB	399m	East
132920	Natural Waterbody	CURL CURL LAGOON	404m	South East
169793	Sports Court	TENNIS COURTS	426m	South West
115815	Suburb	CURL CURL	429m	South
121609	Sports Field	RUEB HUDSON OVAL	434m	West
131864	Post Office	NORTH CURL CURL POST OFFICE	460m	North East
59199	Place Of Worship	CHURCH OF CHRIST	467m	South
169750	Club	HARBORD BOWLING AND RECREATION CLUB	477m	South West
165029	Park	MAKIM RESERVE	490m	North West
169799	Sports Field	BOWLING GREENS	495m	South West
169827	Sports Field	DENZIL JOYCE OVAL	505m	West
168426	Sports Field	FRANK GRAY OVAL	510m	South West
87317	Park	WINGALA RESERVE	535m	North East
168403	Park	SURF RESERVE	574m	East
121619	Park	FLORA AND RICHIE ROBERTS RESERVE	595m	East
10116	General Hospital	DELMAR PRIVATE HOSPITAL	616m	North
87455	Park	Park	665m	South
59634	Place Of Worship	ANGLICAN CHURCH	666m	North West
127386	Combined Primary-High School	ST LUKE'S GRAMMAR SCHOOL	693m	North West

Map Id	Feature Type	Label	Distance	Direction
10526	High School	NORTHERN BEACHES SECONDARY COLLEGE MANLY CAMPUS	706m	West
72109	Beach	CURL CURL BEACH	764m	South East
110390	Locality	WINGALA	802m	West
126751	Primary School	HARBORD PUBLIC SCHOOL	832m	South
72108	Beach	NORTH CURL CURL BEACH	832m	East
165010	Park	COOKSEY RESERVE	839m	South
10550	High School	NORTHERN BEACHES COLLEGE FRESHWATER SENIOR CAMPUS	842m	West
169814	Park	HARBORD PARK	849m	South West
160618	Community Facility	NORTH CURL CURL SLSC	857m	East
127417	Special School	STEWART HOUSE SCHOOL	865m	South
139315	Retirement Village	THE WHIDDON GROUP DEE WHY	873m	North East
165040	Park	THE CRESCENT RESERVE	877m	North
167441	Medical Centre	CURL CURL COMMUNITY HEALTH CENTRE	879m	South
92787	Park	STONY RANGE BOTANIC GARDEN	889m	North West
115106	Suburb	DEE WHY BEACH	897m	North East
160388	Community Facility	SOUTH CURL CURL SLSC	901m	South
115104	Suburb	DEE WHY	939m	North
93571	Park	Park	965m	East

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Topographic Features

Playfair Road, North Curl Curl, NSW 2099

Tanks (Areas)

What are the Tank Areas located within the report buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Capture Method	Feature Currency	Distance	Direction
N/A	No records in buffer						

Tanks (Points)

What are the Tank Points located within the report buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Capture Method	Feature Currency	Distance	Direction
N/A	No records in buffer						

Tanks Data Source: © Land and Property Information (2015)

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Major Easements

What Major Easements exist within the report buffer?

Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
153191437	Primary	Right of way	0.7m and Var.	38m	East
120114478	Primary	Undefined		101m	North West
120117774	Primary	Undefined		181m	North West
164068026	Primary	Right of way	variable	193m	West
120121687	Primary	Undefined		326m	South
159008859	Primary	Right of way		423m	North
120110193	Primary	Undefined		444m	South
120113888	Primary	Undefined		500m	North West
120113403	Primary	Undefined		533m	South
120110455	Primary	Undefined		648m	South West
120114142	Primary	Undefined		652m	South West
120114395	Primary	Undefined		691m	North West
120109844	Primary	Undefined		709m	North
151804876	Primary	Right of way	4.57m & Var.	733m	South
120113975	Primary	Undefined		799m	North West

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120121823	Primary	Undefined		848m	South West
120115275	Primary	Undefined		929m	South

Easements Data Source: © Land and Property Information (2015)

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State Forest

What State Forest exist within the report buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

State Forest Data Source: © Land and Property Information (2015)

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National Parks and Wildlife Service Reserves

What NPWS Reserves exist within the report buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

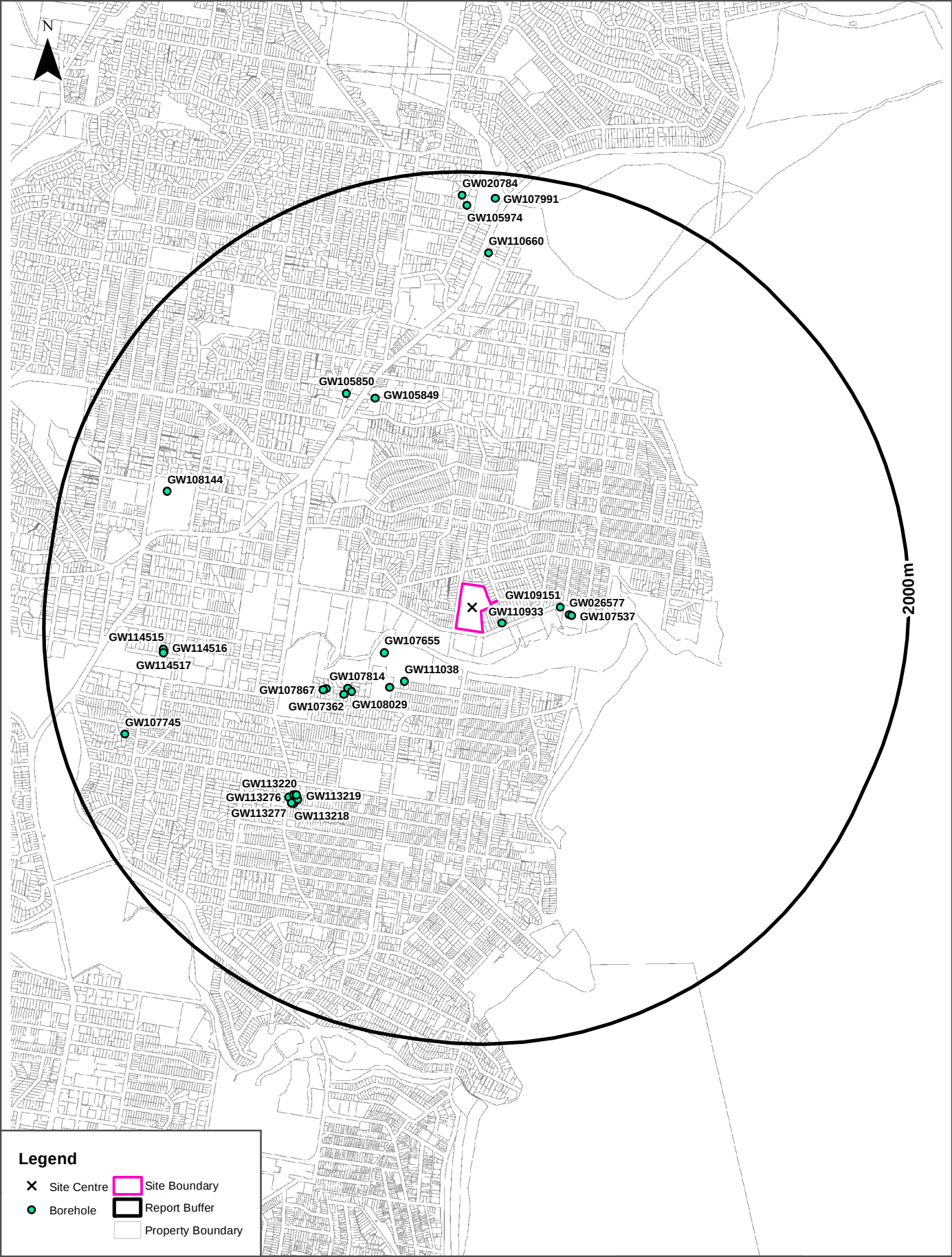
NPWS Data Source: © Land and Property Information (2015)

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Elevation Contours (m AHD)

Playfair Road, North Curl Curl, NSW 2099





Legend

X Site Centre

● Borehole

Site Boundary

Report Buffer

Property Boundary

Scale: 0 200 400 800 Meters	Data Sources: Property Boundaries & Topographic Data: © Land and Property Information (a division of the Department of Finance and Services) 2016	Coordinate System: GDA 1994 MGA Zone 56	Date: 27September 2016
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Hydrogeology & Groundwater

Playfair Road, North Curl Curl, NSW 2099

Hydrogeology

Description of aquifers on-site:

Description
Porous, extensive aquifers of low to moderate productivity

Description of aquifers within the report buffer:

Description
Porous, extensive aquifers of low to moderate productivity

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)

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Groundwater Boreholes

Boreholes within 2km of the site:

GW No.	Licence No	Work Type	Owner Type	Purpose	Contractor	Complete Date	Final Depth	Drilled Depth	Salinity	SWL	Yield	Elev	Dist	Dir
GW110933	10BL603657, 10WA107701	Spear	Private	Domestic		21/06/2010	4.00	4.00		1.90	0.900		96m	South East
GW109151	10BL600432, 10BL602807, 10WA107779	Bore	Private	Recreation	Intertec Drilling Services	05/08/2008	120.00	120.00	610	10.00	2.100		311m	East
GW026577	10BL019626	Spear	Private	Irrigation		01/12/1965	2.70						358m	East
GW111038	10BL601567, 10BL604702, 10WA117323	Bore	Private	Recreation	Ultra Drilling	11/08/2010	90.00	90.00	350	2.00	1.000		359m	South West
GW107655	10BL164287, 10BL165857, 10WA107749	Bore		Recreation	Ultra Drilling	14/01/2005	78.00	78.00	220	3.00	3.000		366m	South West
GW107537	10BL165295, 10BL165540, 10WA107755	Bore		Recreation	Water Works	10/04/2005	4.34	4.34	550	1.10	1.470		371m	East
GW072222	10BL156434, 10BL165087, 10BL600068, 10WA117889	Bore	Private	Recreation		30/11/1994	10.00	12.00	7001-10000 ppm	1.00	1.000		430m	South West
GW108029	10BL164674, 10WA108912	Spear	Private	Domestic	B & B Drilling Inc	19/04/2006	6.00	6.00		2.00	0.500		591m	South West
GW107814	10BL165812	Spear	Private	Domestic	B & B Drilling Inc	05/12/2005	4.00	4.00					600m	South West
GW107362	10BL165162, 10WA108956	Spear	Private	Domestic	B & B Drilling Inc	10/08/2005	5.00	5.00	Good	3.00	0.500		631m	South West
GW107782	10BL165941, 10WA109036	Spear	Private	Domestic	Britt's Water Solutions	19/01/2006	3.00	4.00	509	1.20	0.500		693m	South West
GW107867	10BL600108, 10WA109050	Spear	Private	Domestic	Britt's Water Solutions	06/03/2006	4.00	5.00		2.10	1.000		709m	South West
GW105849	10BL160121	Bore		Monitoring	Engineering Explorations Pty Ltd	01/01/2001	15.00			1.47			992m	North West
GW105850	10BL160121	Bore		Monitoring	Engineering Explorations Pty Ltd	01/05/2001	15.00			1.47			1081m	North West
GW113220	10BL161977	Bore	Private	Monitoring		13/11/2013	4.50	4.50					1120m	South West
GW113275	10BL161976	Bore	Private	Monitoring	Engineering Explorations Pty Ltd	01/04/2003	7.00	7.00					1128m	South West

GW No.	Licence No	Work Type	Owner Type	Purpose	Contractor	Complete Date	Final Depth	Drilled Depth	Salinity	SWL	Yield	Elev	Dist	Dir
GW113219	10BL161977	Bore	Private	Monitoring		03/04/2003	3.00	3.00					1132m	South West
GW113276	10BL161976	Bore	Private	Monitoring	Engineering Explorations Pty Ltd	01/04/2003	6.00	6.00					1153m	South West
GW113218	10BL161977	Bore	Private	Monitoring		13/11/2013	5.00	5.00					1157m	South West
GW113277	10BL161976	Bore	Private	Monitoring	Engineering Explorations Pty Ltd	02/04/2013	6.00	6.00					1164m	South West
GW114516	10BL605404	Bore	Private	Monitoring	SOIL CHECK	17/04/2013	4.00	4.50					1422m	West
GW114515	10BL605404	Bore	Private	Monitoring	Soilcheck	17/04/2013	4.00	4.50					1423m	West
GW114517	10BL605404	Bore	Private	Monitoring	Soilcheck	17/04/2013	3.50	4.00					1424m	West
GW108144	10BL164675, 10BL601916, 10WA109503	Bore		Recreation	Ultra Drilling	20/01/2005	150.00	150.00	200	15.00	1.000		1500m	West
GW110660	10BL603243	Well	Private	Monitoring		19/08/2009	7.50	7.50					1609m	North
GW107745	10BL165912, 10WA109034	Spear	Private	Domestic	Britt's Water Solutions	13/10/2005	15.00	15.00	270	9.00	0.800		1685m	West
GW105974	10BL162780, 10WA107511	Bore	Private	Domestic	Water Works	17/03/2004	3.00	3.00		1.70	0.200		1836m	North
GW107991	10BL600215, 10BL601489, 10WA107763	Bore		Recreation	Intertec Drilling Services	28/11/2006		31.90	130	1.00	0.900		1875m	North
GW020784	10BL012069	Bore open thru rock	Private	Waste disposal		01/11/1961	81.90	82.00	Good				1885m	North

Borehole Data Source : NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corporation for all bores prefixed with GW. All other bores © Commonwealth of Australia (Bureau of Meteorology) 2015. Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Hydrogeology & Groundwater

Playfair Road, North Curl Curl, NSW 2099

Driller's Logs

Drill log data relevant to the boreholes within 2km of the site:

Groundwater No	Drillers Log	Distance	Direction
GW110933	0.00m-0.20m TOSOIL 0.20m-0.50m SANDS MIXED 0.50m-1.40m SAND GREY AND CLAY 1.40m-1.90m SAND DARK WITH CLAY 1.90m-2.50m CLAY 2.50m-3.00m SAND AND CLAY 3.00m-4.00m SAND AND QUARTZ	96m	South East
GW109151	0.00m-2.50m SAND, YELLOW 2.50m-27.20m SAND/CLAY 27.20m-32.80m SANDSTONE WEATHERED 32.80m-34.90m SANDSTONE GREY 34.90m-35.50m CLAY 35.50m-44.70m SANDSTONE GREY 44.70m-44.90m SANDSTONE FRACTURED 44.90m-56.80m SANDSTONE GREY 56.80m-57.10m SANDSTONE FRACTURED 57.10m-58.90m SANDSTONE DARK GREY 58.90m-62.00m SANDSTONE GREY 62.00m-65.00m SILTSTONE GREY 65.00m-91.90m SANDSTONE GREY 91.90m-98.50m SILTSTONE GREY 98.50m-101.50m SILTSTONE RED 101.50m-115.00m SANDSTONE GREY 115.00m-120.00m SILTSTONE RED	311m	East
GW111038	0.00m-5.00m FIIL / RUBBISH 5.00m-30.00m SAND , GRAVEL 30.00m-80.00m SANDSTONE 80.00m-81.00m SHALE 81.00m-90.00m SANDSTONE	359m	South West
GW107655	0.00m-26.00m SAND 26.00m-33.00m SAND/CLAY 33.00m-43.00m SAND/CLAY/QUARTZ 43.00m-71.00m SANDSTONE 71.00m-78.00m SHALE	366m	South West
GW107537	0.00m-2.00m CLAY FILL 2.00m-4.34m SAND	371m	East
GW072222	0.00m-1.00m SAND 1.00m-19.00m SANDY CLAY 19.00m-27.50m SANDSTONE L/BROWN 27.50m-27.70m SANDSTONE SOFT 27.70m-46.50m SANDSTONE GREY 46.50m-48.00m SANDSTONE DARK GREY 48.00m-64.30m SANDSTONE GREY 64.30m-64.70m SANDSTONE FINE QUARTZ 64.70m-83.00m SANDSTONE GREY 83.00m-83.50m SANDSTONE FINE QUARTZ 83.50m-96.30m SANDSTONE GREY 96.30m-96.40m SANDSTONE FRACTURED 96.40m-120.00m SANDSTONE DARK GREY	430m	South West
GW108029	0.00m-0.30m topsoil 0.30m-2.50m sand, grey 2.50m-4.20m sand, grey silty 4.20m-6.00m sand, grey	591m	South West
GW107814	0.00m-0.50m topsoil 0.50m-2.00m sand, white 2.00m-3.50m sand, yellow silty 3.50m-4.00m clay, grey	600m	South West
GW107362	0.00m-0.30m topsoil 0.30m-3.50m sand, white 3.50m-5.00m sand, yellow silty	631m	South West
GW107782	0.00m-3.00m sand 3.00m-4.00m clay	693m	South West

Groundwater No	Drillers Log	Distance	Direction
GW107867	0.00m-4.00m sand 4.00m-5.00m clay	709m	South West
GW114516	0.00m-0.21m CONCRETE 0.21m-0.70m FILL SILTY SAND FINE TO MED. GRAINED 0.70m-1.00m SILTY SAND ORANGE BROWN MOIST 1.00m-1.50m SAND.FINE TO MED.GRAINED,MOIST TO WET 1.50m-2.00m SILTY SAND FINE TO MED.GRAINED 2.00m-4.30m SAND LIGHT GREY MOIST TO WET 4.30m-4.50m SANDY CLAY MED.PLASTICITY,DARK GREY	1422m	West
GW114515	0.00m-0.23m CONCRETE 0.23m-0.50m FILL.SILTY SAND,FINE TO MED.GRAINED 0.50m-1.50m SAND FINE TO MED.GRAINED,YELLOW BROWN AND GREY 1.50m-4.50m SAND FINE TO MED.GRAINED,LIGHT GREY,SILT	1423m	West
GW114517	0.00m-0.18m CONCRETE 0.18m-0.70m SILTY SAND,FINE TO MED.GRAINED,LIGHT BROWN 0.70m-1.00m SILTY SAND,ORANGE BROWN 1.00m-2.20m SILTY SAND LIGHT GREY,RED BROWN 2.20m-3.00m SANDY CLAY MED.PLASTICITY GREY MOT. 3.00m-4.00m SAND FINE TIO MED.GRAINED,LIGHT GREY	1424m	West
GW108144	0.00m-4.00m SAND 4.00m-15.00m RED CLAY BANDS 15.00m-21.00m SANDSTONE YELLOW 21.00m-25.00m SHALE 25.00m-68.00m SANDSTONE/SHALE 68.00m-75.00m SHALE 75.00m-86.00m SANDSTONE/SHALE 86.00m-91.00m SHALE 91.00m-131.00m SANDSTONE/SHALE 131.00m-143.00m SHALE 143.00m-146.00m SANDSTONE/SHALE 146.00m-150.00m SHALE	1500m	West
GW110660	0.00m-0.15m CONCRETE 0.15m-0.90m CLAY YELLOW BLACK SANDY 0.90m-6.00m CLAY RED SANDY 6.00m-7.50m CLAY SANDY SATURATED RED	1609m	North
GW107745	0.00m-15.00m sand	1685m	West
GW105974	0.00m-1.00m sandy, land 1.00m-2.00m clay, sand 2.00m-2.50m sand 2.50m-3.00m clay, sand	1836m	North
GW107991	0.00m-3.00m SANDY CLAY 3.00m-5.00m PEAT 5.00m-7.00m MARINE CLAY 7.00m-9.00m SANDY PEAT 9.00m-17.50m CLAY WITH SAND BANDS 17.50m-26.50m CLAY BROWN 26.50m-27.00m SANDSTONE BANDS 27.00m-31.80m CLAY/SMALL SANDSTONE BANDS 31.80m-31.90m IRONSTONE	1875m	North
GW020784	0.00m-0.91m Topsoil Wet 0.91m-8.22m Clay Sandy 8.22m-15.24m Sand 15.24m-20.72m Clay Sandy 20.72m-25.60m Sand 25.60m-27.73m Clay Sandy 27.73m-32.00m Sandstone Soft 32.00m-44.80m Sandstone Water Supply 44.80m-60.04m Shale Grey Sandy 60.04m-60.96m Sandstone Hard 60.96m-76.20m Shale Grey Sandy 76.20m-79.24m Sandstone Pebbles/pebbly Water Supply 79.24m-81.99m Shale Grey Sandy	1885m	North

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp
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